

Final Report
PhD Program External Review
School of Nursing
University of Maryland

September 24 - 25, 2008

Merle Mishel, PhD, RN, FAAN
University of North Carolina at Chapel Hill

Richard W. Redman, PhD, RN
University of Michigan

A review of the PhD Program in the School of Nursing was conducted on September 24-25, 2008 at the invitation of the Graduate School, University of Maryland, Baltimore. Several materials were reviewed including: School of Nursing self-study, Doctoral Student Handbook, and the Graduate School Handbook. Interviews were conducted with key administrators in the Graduate School (Dean and Assistant Dean), School of Nursing (Dean, Associate and Assistant Deans, Center of Excellence Directors), and faculty governance committees (PhD Admissions and Progression, PhD Curriculum Subcommittee, and the Research Council). In addition, two group sessions were held with doctoral students: those in active coursework and those at dissertation stage.

The review was conducted from the perspective of how the PhD Program at the University of Maryland compares with top PhD programs in nursing in the U.S. In addition, the program was compared to the American Association of Colleges of Nursing's Indicators of Quality in Research-Focused Doctoral Programs in Nursing. This summary report contains the key findings from the review. Based on the site visit and review of data, several recommendations are offered.

Areas of Strength

Program Director and Support Staff. Excellent leadership and staff support in the program. Students and faculty are highly complimentary of both Dr. Sue Thomas, Assistant Dean for the PhD Program, and Janice, the PhD Program staff assistant. They are to be commended for their ongoing commitment and support of the students. Both practice an open door policy and are readily available and willing to help students.

Progress since last PhD Program Review in 2002. Excellent progress has been made toward addressing the issues/concerns cited in the PhD Program Review conducted in 2002. These actions include: ongoing development of Centers of Excellence, matching of doctoral students and advisor/mentors at time of admission, increased financial support to the program, and the hiring of approximately 21 new research-focused faculty.

School and Campus-level Support. The School and campus environment is very supportive toward helping students be successful in the program. Several factors were identified including: ready access by students to advisors and mentors; strong support for statistical consultation; the Writing Center on campus; Centers of Excellence and Research Center support in the School of Nursing. In addition, several teaching initiatives directed toward helping students, such as the dissertation seminars, seem to be quite successful.

Building of Research Infrastructure. The development by the Dean of Nursing, Dr. Janet Allen, of the research incentive faculty program has provided an infusion of research productive faculty as well as release time for faculty after they are on board to provide time for establishment of their program of research. This is commendable. In addition, the new Associate Dean for Research, Dr. Barbara Smith, has built a solid infrastructure to support the research enterprise. As a result, there has been an overall increased focus on research in the School of Nursing. The numbers of submitted RO1 proposals have increased since 2004 and proposal activity has occurred across other types of R submissions to NIH and

NIOSH. This is essential as the PhD program and the research enterprise are intimately connected. It appears that the School of Nursing is moving towards the degree of proposal submissions found in higher ranked schools of nursing

Indicators of this improved research infrastructure are:

- Excellent success in recruiting mid and senior research faculty
- Appointment of new Associate Dean for Research, Dr. Barbara Smith; appointment of an Assistant Dean for Research in August 2008; availability of a research specialist, two research administrators, a research supervisor, a business service specialist administrative assistant, a nurse coordinator, a Graduate Research Assistant to support the research enterprise.
- Increase in budget from \$270,999 in 2003 to \$788,343 in 08 Assistant Dean position filled in August 2008;
- Launching of the Research Intensive Faculty Program (RIF) in 2004 with excellent progress to date: twelve faculty are participating. This has resulted in an increased submission rate for extramural funding and success is evident.
- The emphasis on Centers of Excellence with the Center on Excellence in Work and Health research implemented. Two more centers are developing (Palliative Care Research and Disorders of Neuroregulatory Function) and one additional center is proposed (Cardiovascular Health and Aging). The ongoing development of the Centers provides several opportunities for the ongoing building of the research areas which will lead to continued extramural funding. It also provides the ability to match all incoming doctoral students with faculty and center-related research.
- The School of Nursing NIH ranking in research funding has improved from 58th to 31st in 2007.
- Development of an ongoing research seminar series that includes presentations from research faculty and information on research strategies for faculty and doctoral students.
- Table of research activity from 2004 through 2007..

Overall indicators of PhD Program Quality. Several characteristics of the PhD Program meet or exceed the AACN Indicators of Quality in Research-Focused Doctoral Programs in Nursing. These include:

- Curriculum core courses fit well with the AACN Quality Indicators.
- Highly qualified students
- Excellent progression and time to degree statistics
- High level of student satisfaction with the program
- Responsiveness to student concerns

doctoral students. This is a challenge is all schools of nursing and requires the development of a clear succession plan, given the demographics of most faculties today.

There is some imbalance in student/advisor ratios and this, too, requires monitoring. The advising list shows that a large number of students are with two advisers (10 and 8) while some faculty have 5 students, and a number have only one or two advisees. Students and faculty would benefit from closer attention to a broader distribution of students. This also has implications for mentoring of junior students into working with doctoral students.

Finally, the issue of matching students and mentors requires that careful consideration be given to the potential admission of students who have a potential research topic that may not fit into the focus of a center. Consideration needs to be given whether such students should be admitted into the program. They do not have the same advantages as those students who are actively linked to a center.

Faculty composition.

Faculty and school of nursing leadership would benefit from a periodic discussion around “growing own faculty.” While it is necessary to hire one’s own graduates to some degree in the current market, the implications of doing so need to be discussed periodically. The loss of different perspectives and experiences, intellectual diversity, and building an environment that welcomes change may be associated with a faculty comprised increasingly of its own graduates. Some of the doctoral students are currently employed as faculty members. This is not the usual procedure at other schools. While schools increasingly are doing more of this, it requires deliberation and assurance that this is still the result of a national search for the top candidates in the field.

Work Environment. A long term goal for the School will be in develop better workspace for doctoral students. This could include cubicles or shared offices so that they can work there and leave work-related materials in that location.

Response to the
Final Report
PhD Program External Review
School of Nursing
University of Maryland

Sue Ann Thomas, PhD, RN, FAAN
Assistant Dean PhD Program
Patricia Morton, PhD, RN, FAAN
Associate Dean of Academic Affairs

A review of the PhD Program in the School of Nursing was conducted on September 24-25, 2008 at the invitation of the Graduate School, University of Maryland, Baltimore. Several materials were reviewed including: School of Nursing self-study, Doctoral Student Handbook, and the Graduate School Handbook. Interviews were conducted with key administrators in the Graduate School (Dean and Assistant Dean), School of Nursing (Dean, Associate and Assistant Deans, Center of Excellence Directors), and faculty governance committees (PhD Admissions and Progression, PhD Curriculum Subcommittee, and the Research Council). In addition, two group sessions were held with doctoral students: those in active coursework and those at dissertation stage.

The review was conducted from the perspective of how the PhD Program at the University of Maryland compares with top PhD programs in nursing in the U.S. In addition, the program was compared to the American Association of Colleges of Nursing's Indicators of Quality in Research-Focused Doctoral Programs in Nursing. This summary report contains the key findings from the review. Based on the site visit and review of data, several recommendations are offered.

Areas of Strength

Program Director and Support Staff. Excellent leadership and staff support in the program. Dr. Sue Ann Thomas Assistant Dean for the PhD Program, and Janice, the PhD Program staff assistant demonstrate their commitment to the program and strong support of the students.

Progress since last PhD Program Review in 2002. Excellent progress has been made toward addressing the issues/concerns cited in the PhD Program Review including: ongoing development of Centers of Excellence, matching of doctoral students and advisor/mentors at time of admission, increased financial support to the program, and the hiring of approximately 21 new research-focused faculty

School and Campus-level Support. The School and campus environment is very supportive toward helping students be successful in the program. Several factors were identified including: ready access by students to advisors and mentors; strong support for statistical consultation; the Writing Center on campus; Centers of Excellence and Research Center support in the School of Nursing.

Building of Research Infrastructure. The development by the Dean of Nursing, Dr. Janet Allen, of the research incentive faculty program has provided an infusion of research productive faculty and an innovative program to support junior faculty research programs. The new Associate Dean for Research, Dr. Barbara Smith, has built a solid infrastructure to support the research enterprise. The numbers of submitted ROI proposals have increased since 2004 and proposal activity has occurred across other types of R submissions to NIH and NIOSH. The School of Nursing is moving towards the degree of proposal submissions found in higher ranked schools of nursing

Overall indicators of PhD Program Quality. Several characteristics of the PhD Program meet or exceed the AACN Indicators of Quality in Research-Focused Doctoral Programs in Nursing. These include:

- o Curriculum core courses fit well with the AACN Quality Indicators.
- o Highly qualified students

- Excellent progression and time to degree statistics
- High level of student satisfaction with the program
- Responsiveness to student concerns
- Flexibility in program structure to the benefit of students
- Good financial support including: the PLUS awards from the Graduate School, the GAAVN Fellowships and the numerous RA and TA positions.
- Excellent opportunities are available to students through the required research rotations and research practica. These are outstanding opportunities for students as they develop their research abilities and knowledge.
- Excellent list of student /faculty publications or student alone publications from 2006-2008.
- Good processes in place for monitoring student achievement.

Areas for Improvement and/or Discussion Among Leadership and Faculty

Curriculum Structure. The current curriculum in the PhD Program focuses primarily on research methods and measurement issues. Even the elective course offerings focus on methods and measurement issues. It is recommended that the curriculum structure and focus be re-examined. One major issue is the lack of advanced knowledge development in substantive domains of nursing science. These could be based on the foci of the developing Centers of Excellence and reflective of concentrations or themes evidenced by faculty programs of research. Approximately 6 - 9 credits of the elective credits could be allocated to advanced knowledge development in substantive domains of nursing science.

In addition to the allocation of a portion of these credits (as defined above) to substantive areas of nursing science, a portion of these could be linked more closely to the developing research focus of students and taken outside of the School of Nursing. This would enable students to complete interdisciplinary courses that would inform their research areas and help link students efficiently with faculty and students in disciplines related to the doctoral students' research areas. It is in keeping with the emphasis on interdisciplinary approaches to the conduct of research and will facilitate the development of students for conducting research in interdisciplinary teams.

Another area in the curriculum that merits examination is the role of the preliminary examination as a requirement. Many schools nationally have dropped this type of requirement and have focused on other methods to assess progression. The requirement is extraordinarily stressful to the students and detracts from energy that might be focused on other scholarly activities. Progress can be assessed in a variety of ways including grades and required assignments in first year course work.

Action Plan: The PhD curriculum committee supports the development of more elective courses focusing on substantive domains of nursing science. Each center of excellence is in the process of developing core courses to support the research efforts of the center. The centers of excellence recognize the urgent need to offer such courses.



UNIVERSITY OF MARYLAND

SCHOOL OF NURSING

**PhD PROGRAM REVIEW
SELF STUDY REPORT
MAY 2008**

VOLUME I

Submitted to the UMB Graduate School

III. The School of Nursing (SON)

Introduction

Section III, The School of Nursing, includes an overview of the current enrollment in all programs, the Office of Professional Development, Mission of the School, Administrative Infrastructure, Office of Research, General Clinical Research Centers (GCRC), Office of Information Technology (OIT) and Office of Education and Learning Technologies (OELT) and the Living History Museum.

The 2002 external review suggested developing a plan to increase leadership in the research enterprise. In 2002, the research staff consisted of the Research Dean, a statistician and secretary. Today, under the leadership of the Associate Dean of Research, Dr. Barbara Smith, the budget has increased from \$270,999 in 2003 to \$788,343 in 2008. The staff now includes an Assistant Dean, newly appointed in August 2008, Dr. Deborah Sherman, a research specialist, two research administrators, a research supervisor, a business service specialist, an administrative assistant, a nurse coordinator and a graduate research assistant. Our NIH ranking in research funding has improved from 58th in 2005 to 31st in 2007. The newly initiated Research Intensive Faculty Program (RIF) allows new researchers to focus on their research. Since 2002, twenty-one research focused faculty were hired. These changes in the Office of Research are described on pages 6-9.

School of Nursing (SON)

Founded in 1889, the University of Maryland School of Nursing is one of the most respected and highly acclaimed schools of nursing in the nation and in the world. The school enrolls more than 1,600 students in its renowned baccalaureate, master's, and doctoral programs and approximately 1,500 participants attend professional development programs annually. The

School of Nursing has pioneered a variety of innovative educational programs, including the first nursing informatics program in the world, and the newly established Doctor of Nursing Practice (DNP). The school emphasizes the integration of education, research, and practice and serves regional, national and international audiences.

The University of Maryland School of Nursing currently is ranked 7th in the nation in the 2007 edition of *U.S. News and World Report Guide to America's Best Graduate Schools*. The SON's Baccalaureate and Master's programs are currently accredited by the National League for Nursing Accrediting Commission (NLNAC). The next site visit will be conducted by the Commission on Collegiate Nursing Education (CCNE) in 2009.

Three of the School's master's specialty programs rank in the top 10. The Family Nurse Practitioner program is ranked fifth, and both the Adult Nurse Practitioner and the Health Services, Leadership and Management programs are ranked sixth.

In Fall 2007, 639 students were enrolled in the Bachelor of Science (BSN) and 860 in the Master of Science (MS) programs. An additional 111 students were enrolled in the SON's doctoral programs (DNP and PhD). Enrollment in the PhD program during the Spring 2008 semester was 68.

A major provider of continuing education for nurses, the school's Office of Professional Development program is accredited by the American Nurses Credentialing Center, Commission on Accreditation and serves state, national and international nursing professionals. The Office of Professional Development focuses on innovative professional development programs, conferences, lectures and workshops for nurses and nursing faculty. It is widely recognized for its national and international education programs, including the Annual Summer Institute in Nursing Informatics (SINI) and the Nursing Based on Evidence Conferences (EBP). Table III.1

lists the growing attendance at SINI and EBP conferences and the attendance at the five major clinically focused lecture series.

Table III.1: Selected Professional Development Programs

MAJOR CONFERENCES	
	Attendance
SINI 2004	481
SINI 2005	573
SINI 2006	431
SINI 2007	616
EBP 2005	256
EBP 2006	306
EBP 2007	215
EBP 2008	322
LECTURE SERIES 2007-2008	
Maternal Child Health 2008	117
Edmonds Lecture	140
Franklin Lecture	169
Black History Month	47
Ann Cain Lecture	72

Mission of the School of Nursing

As the State of Maryland’s premiere public institution, the School of Nursing shapes the profession of nursing and the health care environment by developing preeminent leaders in education, research and practice. As a catalyst for creativity and collaboration, the school engages diverse groups of professionals, organizations and communities in addressing local, national and global health priorities. Together, faculty, staff and students create a rich and vibrant working and learning environment where knowledge is created and shared. A passion

for discovery permeates the educational process and advances the use of evidence as the basis for nursing practice. The School of Nursing is recognized for its scientific knowledge, critical thinking, inter-professional teamwork and profound commitment to the health of individuals and communities. The values emphasized in all SON endeavors are integrity, accountability, professionalism, teamwork, respect and diversity. The principals integrated throughout the school are leadership, partnership and innovation.

SON Administrative Infrastructure

The administrative infrastructure of the SON is led by the Dean, Dr. Janet Allan, who is advised by the Board of Visitors.

There are:

- Five administrative units: Academic Affairs, Administrative Services, Office of Research, Organizational Partnership and Clinical Enterprise, Office of Student Affairs. The PhD program is a part of Academic Affairs and is not departmentally based.
- Two academic departments: Organizational Systems and Adult Health Nursing and Family and Community Health Nursing.
- Also reporting to the Dean are: Development and Alumni Relations, Communications and Internal Affairs and International Activities

The organizational chart for the SON is appended at the end of this section.

Facilities

In 1998, the School opened its \$38 million state-of-the-art facility adjacent to and bridged with the existing SON building. The SON has 154,000 square feet of teaching, research and laboratory space. This facility is recognized as a model for the integration of research, teaching and practice. Incorporating the most advanced classroom and laboratory design and

sophisticated distance-learning technologies, the building sets a new standard for nursing education and offers the latest in research, instructional, and patient-care facilities, including:

Research Space:

- Applied clinical and bench research space
- Behavioral laboratory space with capacity for observation and recording

Instructional Space:

- Classroom and conference space, all of which are equipped with the most up to date teaching technology
- Advanced distance learning classrooms
- More than 100 student workstations in four computer labs, and a computerized teaching theatre that accommodates 50 students
- A 470 seat auditorium
- 24 state-of-the-art clinical simulation laboratories
- Clinical education and evaluation lab that utilizes standardized patients for student learning

Patient Care Facilities:

- The Pediatric Ambulatory Care Center provides an innovative interdisciplinary training model for pediatric residents and pediatric nurse practitioners and includes health service delivery to pediatric patients and their families.
- The SON's Governors Wellmobile program operates four mobile units staffed with family nurse practitioners, faculty, registered nurses, bi-lingual outreach workers and professional drivers. The mobile clinics unique capacity is to travel to various sites each day and expands the availability of services to a wider segment of Maryland's population.

School of Nursing Research Resources

Consistent with the mission of the University of Maryland as a research institution, the School of Nursing is dedicated to creating a research-intensive environment that will advance the science of nursing through research and scholarship of the highest quality. Specifically, as delineated in the School's Strategic Plan, Initiative 2: Advance research through integration and collaboration. The four goals of this initiative are: to infuse research throughout the education and practice missions; to build sustainable programs of research, including collaborative participatory networks, with other disciplines, organizations and communities; to enhance Centers of Excellence; and to increase number of faculty involved in research.

Office of Research, School of Nursing

The School of Nursing's Office of Research provides an effective infrastructure that supports and facilitates research and creates synergy between researchers and research efforts. The Office provides financial, statistical and technical advice and support in the pre-award phase of grant submission to the initial and ongoing research of faculty and graduate students. This includes providing a mock review for extramural grants prior to submission. In the post-award phase the Office provides fiscal oversight (post-award management) of sponsored research proposals, assistance with IRB applications and other regulatory documents, help in purchasing grant funded supplies and equipment, identification of new sources of funding and assistance with disseminating research findings. Through outreach, networking and administrative support, the Office serves as a repository of information and a place for learning about, facilitating and enabling sponsored research. Today, under the leadership of the Associate Dean of Research, Dr. Barbara Smith, the budget has increased from \$270,999 in 2003 to \$788,343 in 2008. The staff now includes an Assistant Dean, newly appointed in August 2008, Dr. Deborah Sherman, a research specialist, two research administrators, a research supervisor, a business service

specialist, an administrative assistant, a nurse coordinator and a graduate research assistant. It is designed to strengthen and promote the work of SON researchers, while expanding collaborations between investigators on local, national and international levels. Expertise in experimental design, outcomes measurement, biostatistics, grants and contracts, and regulatory management is available to faculty through the Office of Research. The office supports a robust research seminar series which provides Continuing Education Credits and is open to faculty, students, staff, and UMMC nurses. Appendix A lists research seminars and presenters from 2004 to 2008.

Four Centers of Excellence were established beginning in 2006 and are focused on research conducted by three or more faculty including: the Center for Work and Health Research, the Developing Center of Excellence in Disorders of Neuroregulatory Function, Developing Center for Palliative Care Research, and the Proposed Center of Excellence in Cardiovascular Health and Aging. Appendix B includes definitions of Centers of Excellence, Developing Centers of Excellence and Proposed Centers of Excellence.

University of Maryland has improved in its NIH funding rank. In 2005, we were ranked 58th and we now rank 31st. The tables below show NIH rankings for selected SONs and where UMB SON is ranked.

2005 NIH Ranking for Selected SONs

SON	Rank	# of Grants	\$ amount
UCSF	#1	25	\$11,944,210
U Texas, Austin	#10	13	\$4,121,208
U Wisconsin, Madison	#20	6	\$2,056,330
Thomas Jefferson	#30	3	\$1,244,858
U Maryland	#58	2	\$459,162

2006 NIH Ranking for Selected SONs

SON	Rank	# of Grants	\$ amount
UCSF	#1	36	\$13,459,007
U Texas, Austin	#10	13	\$3,722,211
CWRU	#20	5	\$2,088,052
U Maryland	#30	6	\$1,267,298

2007 NIH Ranking for Selected SONs

SON	Rank	# of Grants	\$ amount
UCSF	#1	25	\$11,944,210
Columbia	#10	12	\$3,387,242
U Missouri	#20	5	\$2,109,499
U Virginia	#30	8	\$1,341,981
U Maryland	#31	6	\$1,316,638

The rise in ranking between 2005 and 2007 may be related to factors such as:

1. The SON has funneled substantial resources into the Office of Research which provides services to faculty and graduate students submitting proposals for extramural research funding.
2. The Research Intensive Faculty (RIF) program protects the time of promising new investigators, which allows them to develop and seek funding for their program of research. This program has resulted in substantial new funding including an R01 by Dr. Dorsey, a K12 and R21 by Dr. Geiger-Brown, and an R01 by Dr. Oswald. In 2002, the external review committee sited the limited number of extramurally funded investigators as a weakness in our PhD program. The newly instituted the RIF program helps “grow our own”. Table III.2 provides information about the number of proposals submitted verses grants awarded from 2005-2007. Currently 10 to 13 % of our faculty are active researchers with substantial extramural funding. The total of extramurally funded studies is 12 with 6 funded by NIH

Table III.2: 2005-2007 Proposals submitted and grants awarded

	FY05	FY06	FY07
External Research Proposals Submitted	54	69	62
External Research Grants Awarded	20	23	30
External Research Grants Yield	20	23	30
NIH Proposals Submitted	18	23	18
NIH Grants Awarded	4	4	6
NIH Grants Yield	4	4	6

Designated Research

The Office of Research and the School of Nursing’s administrators work together to encourage young faculty to conduct research by administering state monies to fund pilot studies, The Designated Research Initiative Fund (DRIF) provides opportunities for strengthening scholarly and research endeavors of the faculty. For the past two years \$10,000 in DRIF awards have been allocated to the Center of Excellence and the two developing center. On an annual basis, proposals are solicited from faculty and funds awarded on a competitive basis after peer review.

Grant Submission Support

Since the 2002 review, the following major improvements were initiated to enhance the Office of Research. The substantial increases in personnel and budget provide evidence of the SON’s support of the Office of Research.

Office of Research	FY 2003	FY 2008
Personnel	\$270,992	\$788,343
Operating Budget	\$ 10,000	\$ 20,000
Total	\$280,992	\$808,343
Listing of Office of Research Positions:		
		Associate Dean
	Assistant Dean	Assistant Dean
	Statistician	Research Specialist
	Administrative Assistant	Professor/Statistician
	Graduate Research Assistant	Research Administrator (2)
		Administrative Assistant II
		Research Supervisor

		Business Service Specialist
		Secretary
		Nurse Coordinator
		Graduate Research Assistant

Clinical Research Review Committee (CRRC)

The focus of the Clinical Research Review Committee is to review proposals prior to submission to the UMB IRB. The IRB has mandated that all Schools or Departments have this pre-IRB review mechanism in place.

The SON CRRC conducts electronic reviews every 2nd and 4th Wednesday of the month. The following individuals are currently serving on the CRRC: B. Bausell, J. Geiger-Brown, M. Johantgen, K. Kverno, J. Lipscomb, D. Scrandis, K. Seidel, K. Von Reuden, B. Resnick, E. Friedmann, S. McLeskey, A. Trinkoff, E. Duckham, K. McPhaul, I. Connerney, R. Newhouse and M. Michael. Proposals and supporting materials are due in the Office of Research on the Friday prior to the next meeting. No exceptions are made to this policy since the reviewers need adequate time to review the proposals. The number of proposals from students was 38 submitted in 2005, 23 in 2006, 27 in 2007 and 15 in 2008. The faculty submitted 37 protocols in 2005, 23 in 2006, 25 in 2007 and 14 in 2008. The timely review by the CRRC allows students to improve their proposal before submission to the university IRB.

Research Council (RC)

The focus of the Research Council is to advise the Associate Dean for Research in his/her efforts to develop and enhance the research culture at the School of Nursing. Membership is comprised of those individuals who actively engage in research. No formal criteria for attending is established. The Research Council meets monthly and addresses the concerns of the research faculty. Recent agenda topics included: the additional hiring of a biostatistician and established research faculty; planning participation in SNRS and CANS; NIH research rankings of the

school and ways to improve our ranking; changes in national and university research policies and how they impact faculty; timelines for submission of grants and the implementation of the research initiatives of the strategic plan. This group is very productive and the open nature allows for increased collaboration and communication among the research faculty.

Office Space and Cubicles

Seventeen offices for principal investigators and their research staff, 18 cubicles with secure desk top computers and storage for graduate research assistants are maintained by the Office of Research.

Clinical Examination Room

The Clinical Examination room maintained by the Office of Research is a 210 square foot room for the conduct of physical examinations, blood drawing and other measurements requiring privacy for the research participant. SON researchers and their collaborators can schedule the use of this room which contains an examination table, blood drawing chair, desk, chair, wall mounted blood pressure equipment, scale and other equipment necessary for the conduct of a physical examination.

Exercise Physiology Lab

The School of Nursing has a 1,015 square foot, state-of- the-art exercise physiology laboratory for the purpose of conducting exercise training studies in varied populations. It includes a 48 sq. ft. handicapped accessible ceramic dual shower stall shower room equipped with benches and hand held shower spray hoses, a 48 sq.ft. handicap accessible ceramic toilet room equipped with a toilet and sink, a large reception counter with storage cabinets, 6 full size lockers, a 7' x 28' long mirror wall, two large circulating fans, a telephone and computer at the receptionists' desk, an Automated External Defibrillator (AED) cabinet at the entrance door, fully carpeted, central air conditioning, a sprinkler system that is tied directly into the building

fire alarm system, and a fire alarm strobe light. The ceiling is constructed with acoustic panels and has ceiling mounted fluorescent lights.

For aerobic exercise (increasing cardiopulmonary endurance), the laboratory is equipped with two Treadmill Precor C956i Commercial, 1 Elliptical EFX546i Precor Commercial, 6 Schwinn Evolution-SR Spin Bikes, and one NuStep TRS 4000 Seated Stepper. For resistive exercise/weight lifting (increasing strength and lean mass), the laboratory is equipped with a Paramount FIT-5000 ART with A.R.T. Chest Station, a +Leg/Toe Press Station, and 4 “coreball” Medicine Balls (8, 10, 12, 16lb). The laboratory is also equipped with 12 Polar E600 Heart Rate Monitors.

WET LABS

Laboratory:

Approximately 3500 square feet of space is available in the SON research laboratories on the 7th floor. These laboratories are equipped with refrigerator/freezer units, waterbaths, heat blocks, balances, centrifuges, incubators, pH meter, and chemical fume and tissue culture hoods. There is equipment available for gel electrophoresis and western blot analysis, immunohistochemistry, and PCR. Liquid nitrogen, -80°C freezer, ice, and a deionized water supply are readily available in the department. A separate room for behavioral testing and a small animal surgical suite are also available.

Animal:

The University of Maryland Baltimore has an accredited animal care facility overseen by full-time veterinary care. Facilities for housing laboratory animals (mice) are available directly across the street in the School of Medicine Bressler Research Building.

Computer:

There are seven Windows and three Macintosh-based computer systems available in the 7th floor research area. Each computer system is equipped with Microsoft Word, Excel, and PowerPoint, SPSS v12 for data analysis and graph generation, STATA v8 for statistical analysis, NQuery for power analysis, Adobe Creative Suite, which includes Photoshop and Illustrator for image analysis and IP Lab.

Office Space:

There are six faculty offices and 6 cubicles available. The offices are equipped with Windows-based networked computer systems with access to an HP Color LaserJet and an HP LaserJet printer.

Other:

A darkroom with an X-ray film developer, autoclave, walk in cold room, glass and plastic ware dishwasher, floor standing Sorvall and plate reader are also available on the 7th floor.

Major Equipment:

The laboratories are equipped with the following:

1. Pump for animal perfusion
2. Richard-Allan Scientific HM 560 cryostar cryostat for sectioning
3. Gas anesthesia
4. Olympus BX40 with DP70 12.5-megapixel digital camera
5. Bio-Rad Radiance 2100 Confocal system (ex: 488; 514; 630) on an Olympus IX-70
6. Ion-Optix 2 PMT fluorometry system on an Olympus IX-50 (Filters for INDO, Fura II, Fluo based dyes) and Sutter DG-4 wavelength switcher
7. Axoclamp 2B, Digidata, Sutter pipetter puller; robotic micromanipulators (2)

The wet lab area is one of the most extensive spaces available in any SON.

General Clinical Research Centers

The following two facilities employ a variety of faculty and staff and are a natural extension of the SON's support and research mission.

University of Maryland General Clinical Research Center (GCRC)

The GCRC is located across the street from the School of Nursing in the University of Maryland Medical Center, South Hospital Building, occupying the C & D Wings on the tenth floor. GCRC services support clinical research activities, including nursing, dietary, laboratory, genomics core laboratory, data management, biostatistical and administrative support. The GCRC is available to all University of Maryland clinical investigators who have a need to conduct clinical research of scientific merit. Federally funded research has top priority, but peer-reviewed studies funded by other government agencies and foundations are also welcome. The GCRC has 11 JCAHO-approved inpatient beds and 4 outpatient exam rooms, as well as an outpatient care area with 5 comfortable recliners with privacy curtains, 5 phlebotomy chairs, and nursing station with computer workstations. The GCRC nursing staff has the necessary education, certification and skills to provide quality research participant care. Use of the facility ensures patient safety and welfare for specimen collection, appropriate and timely processing of specimens and availability of a cardiologist to read ECG reports.

The GCRCs DEXA is a Hologic QDR 4500 Elite (Hologic, Bedford, Massachusetts) running Hologic QDR for Windows XP v 12.01. Patients undergo total body or regional scans while lying supine on a padded table in light clothing with metal objects removed. For whole body scans the counter moves above the participant's body from head to foot and counts photon attenuation rates from the x-ray source within the table. The scan provides estimates of bone mineral content and density, soft-tissue attenuation ratios, and fat and lean tissue mass. The Hologic QDR uses a QC spine phantom and continuous self calibration. Daily phantom scans

are compared to measures taken at time of installation and a calibration factor (CF) is listed on an individual scan report.

Dr. Lyn Oswald will be using the GCRC in her newly awarded RO-1, Imaging Research on Impulsivity, Stress and Drug Abuse. Dr. Barbara Smith uses the GCRC in her exercise study for DEXA scans. Dr. Jeanne Geiger-Brown is working on regulator binder compliance in consultation with Kathleen Palmer. Kristen Bussell is involved on two projects at the GCRC with Dr. Gloria Reeves. The studies involve the metabolic effects of antipsychotic medications in children 8 to 12 years old. The GCRC is assisting with the metabolic data.

Johns Hopkins Bayview General Clinical Research Center (GCRC) Core Laboratory

The primary function of the Johns Hopkins Bay View Medical Center GCRC Core Laboratory is to provide technical support for sophisticated clinical research assays. The laboratory is a regional resource that supports clinical protocols at the JHBMC GCRC, the Johns Hopkins Hospital GCRC, the University of Maryland's GCRC and the Gerontology Research Center of the National Institute on Aging. Within this context, the Core Laboratory supports GCRC approved protocols by providing facilities, technical experience and training for non-routine blood and urine biochemical analyses. The Core Laboratory is staffed by a Director and three full-time technicians who have extensive experience in the theory and practice of clinical laboratory assays, and in prioritizing access to laboratory resources.

The Core Laboratory technicians perform approximately 90 different immunoassays for the determination of proteins, peptides, hormones, and other biochemical markers. Over 40,000 samples are analyzed yearly. Since 1993, the lab has employed a bar coding system for sample labeling and tracking. The Core Laboratory provides standardized sample handling that minimizes freeze/thaw cycles, low investigator cost and high quality control. Quality control is

maintained by including in each assay run kit manufacturer's controls as well as low, medium and high value in-house controls. In addition, ED 80, 50 and 20 values as well as each standard curve is compared with historical values and "grave yard" curves. Control values are used to maintain a database of co-efficients of variance for inter- and intra-assay variability. The Laboratory is GLP and CLIA compliant. The laboratory participates in the AccuTest, Inc. (Westford, MA) Digital PT proficiency testing program for FDA-approved immunoassay kit or machine measurements and utilizes a consortium of national NCRR funded GCRC Core Laboratories for internal sample swapping and proficiency testing of immunoassay kits used for clinical research.

Other SON – Technical Supports

Office of Information Technology (OIT) and Education and Learning Technologies (OELT)

The Office of Information Technology (OIT) and the Office of Education and Learning Technologies (OELT) at the University of Maryland School of Nursing are dedicated to improving the quality of teaching, learning, research and community service through technology. Both OIT and OELT offer a variety of services through Computer Network and Support Services, distance education classrooms, student computer laboratories, video production facilities and the Computer Teaching Theater. The OIT and OELT support the School of Nursing faculty and students in the following key areas: desktop computer support, remote computer access, audio-visual support, video production, distance education; on-line learning, faculty development in teaching with technology, and computer laboratory support.

Computer Network and Support Services

The School of Nursing has a well-established state-of-the-art network that provides a wide range of data services and is tightly integrated with the UMB campus network. The primary architecture of the LAN in the SON is a redundant multimedia fiber optic based Gigabit

collapsed backbone using Cisco Catalyst 4500 switches running Supervisor IV Modules. The network provides switched 100Mb Ethernet to every workstation and server. Gigabit Ethernet is available as needed. Remote access to the SON network is accomplished over the Internet via dedicated Cisco VPN concentrator. Faculty and staff can also authenticate into the UMB network over the Internet via the campus VPN for remote access to campus applications. Firewalls protect the School of Nursing network from Internet hackers.

The primary network authentication is through Windows 2003 Active Directory. Disk space is provided for storage of personal and group data. Email and collaboration services are provided by Microsoft Exchange 2003. SON services are also integrated with campus directories in order to foster wider collaboration. The network supports over 500 Pentium IV workstations running Windows XP Professional, MS Office 2003 and Outlook 2003 as a standard platform. The SON network also supports over 75 printers ranging from workgroup Hewlett Packard LaserJet's to digital black and white/color copiers/fax/printers and large format printers. Other software supported includes SPSS, SAS, FrontPage, MS Project and over 75 other research and computer based training applications. Extensive support for all SON computing resources is available from the School's Computer Network and Support staff.

IT Customer Service and Distance Learning

The IT Customer Service Center provides services to faculty, students and staff. Experienced staff and student assistants aid faculty in media applications in the classroom and presentations for conferences. The IT Customer Service Center is the central location for student questions on how to access video, audio and other multi-media materials required by instructors. The IT Customer Service Center provides audio-visual technical support, audio-visual equipment maintenance, and teleconference operation and management.

Computer Labs

The School of Nursing has more than 105 student computer workstations in four computer laboratories and a computerized classroom that accommodates 25 students, known as the Teaching Theater. The computer labs provide students access to class materials and a workstation to complete course work. Each of the four computer laboratories is equipped with 20-24 Pentium IV computers with 15” or 17” monitors running Windows 2000. All of these public access computers are running Windows 2000 and are equipped with Microsoft Office software, SPSS, Internet Explorer, and other internet-based tools and computer-aided instruction. Each computer’s desktop profile and configuration is controlled dynamically via Windows 2003 Active Directory.

The Teaching Theater

The Teaching Theater is a technology and media-rich classroom that incorporates the best of technology applications in a face-to-face classroom. It provides faculty with an environment in which technology can be used to improve the lecture process, changing it from its traditional unidirectional information flow to a more collaborative venture. The focus is not on the technology but rather on its use as a tool for accomplishing effective learning.

Classrooms and Conference Rooms

Almost all of the classrooms, conference rooms and labs at the School of Nursing have some type of audio-visual equipment installed. The IT Customer Service Center maintains and operates equipment in the 470-seat auditorium. Equipment not installed in classrooms can be signed out from the IT Customer Service Center by faculty and staff. If equipment or technical assistance is needed, the IT Customer Service Center is open and staffed during all scheduled classes. Additional audiovisual equipment for seminars and conference rooms are available upon request.

MultiMedia Viewing

Depending on the media resources the faculty requires, students can access and view them in a variety of ways. All multimedia viewing is available in the computer labs. In the computer labs, students can access video, audio, instructor's notes and presentations from the School of Nursing network servers. Using the web/internet, students can have access to limited media at home or elsewhere. VHS players and monitors are available in the computer labs to view videos that are not available on the computer.

Distance Learning

Distance Learning requires using the latest technology for delivering a course or content. Our teleconferencing and webcasting capabilities allow the School of Nursing to present and view conferences and presentations across the state and around the world.

Interactive Video Network (IVN)/ Teleconference/ Webcasting

IVN is basically teleconferencing in a classroom environment. Rooms W202 and W208 are classrooms designed to compress, send and receive audio and video signals. This capability provides two-way interactive video broadcasting via IP, ISDN or over Internet 2 to various locations throughout the state of Maryland and around the world.

This technology enables faculty to conduct transmissions of entire courses simultaneously to multiple sites. Courses have been sent to sites at UMBC, Frostburg State University, Easton Memorial Hospital, Chesapeake College, College of Southern Maryland, UM at Shady Grove, as well as to individual students who reside out-of-state. Each site has audio-visual capabilities that are accessible to faculty and students. Teleconferences have been connected to various sites in the United States.

Webcasting is a one-way communication capability that allows presenters to “televise” their presentation to a mass audience on the Internet. The viewers watch and listen to programs like a show on television. Viewers access a web page connecting them to the video server located on the UMB campus. Webcasts can be viewed live or on-demand via a maintained archive.

Web-Based Instruction

Web-based instruction uses the power of the Internet to provide course materials (lectures, notes, visual and audio resources) with the capabilities of two-way communication (chat and email) between instructor and students. Web-based courses are now available from the School of Nursing. Through the use of Blackboard software. This system provides a uniform and ergonomic platform for students and instructors to access, maintain and complete course work. The School of Nursing has full time of Instructional Designers dedicated to support Web-based courses.

The OELT offers a number of services to support on-line and distributed learning for faculty, students and researchers including Web servers and a Blackboard courseware server. Blackboard provides an array of tools to enhance the on-line learning experience. A subset of these tools facilitates communication and collaboration and includes a conferencing system, group presentation areas, a synchronous chat system and electronic mail.

D. L. Spunt Clinical Simulation Labs

The Clinical Simulation Labs (CSL) provide contemporary clinical simulation settings in which undergraduate and graduate nursing students may learn, enhance their skills, or conduct research. This is accomplished through the integration of simulation, clinical scenarios and resources that facilitate clinical decision making in nursing practice into the curriculum. Computerized order entry and documentation has been added to the curriculum and is presently

being piloted with the clinical nurse leader students in both the health assessment and fundamentals of nursing practice courses. Non-clinical advanced practice (i.e. informatics, education) students use the labs to understand how to integrate their specialty into the practice/education of nurses. The CSL offer opportunities for research related to education and clinical practice. In 2007, Dr. Margaret McNeill used a dedicated simulation room to test the effect of two stressors of flight, altitude-induced hypoxia and aircraft noise, to examine the contributions of fatigue and clinical experience, on cognitive and physiological performance of Critical Care Air Transport Teams (CCATT) providers as her dissertation research.

The labs are equipped with state-of-the-art mannequins and clinical simulators. The 24 labs in Baltimore include:

- 4 Basic clinical labs (6 beds each)
- 1 Clinical lab with obstetrical focus
- 2 Adult critical care units (6 beds each)
- 1 Pediatric care unit
- 1 Neonate intensive care unit
- 9 Basic and advanced nurse practitioner health assessment labs
- 1 Diagnostic laboratory for nurse practitioners
- 2 Community/home health labs (1 bedroom apartments)
- 1 Simulated hospital room with virtual reality
- 1 Operating room suite
- 1 Individual practice lab (2 beds)

Speciality equipment includes:

- 2 SimMan Mannequins
- 1 NOELLE Birthing mother

- 1 Sim Baby
- 1 Vita Sim Child
- 3 Vita Sim Adults
- 1 virtual IV catheter simulator

Simulation Technology

SimMan™ is a highly sophisticated, life-sized computer-driven human mannequin that allows students to master and be tested on difficult and/or complicated procedures and responses to critical patient-care scenarios. SimMan™ talks, breathes, has audible heart, lung, and bowel sounds, simulates pulses and cardiac rhythms, and can be injected and intubated. SimMan™ not only allows students to practice complicated skills in a risk-free environment, but enables faculty to effectively test students' psychomotor and critical thinking skills in a safe, standardized manner. Further, when integrated with standardized patient scenarios, SimMan™ provided an additional level of comprehensive testing in one location.

Purchased in 2004, the Noelle birthing mother is a highly sophisticated, life-sized computer-driven human mannequin that simulates the pertinent vital signs of a woman in labor and delivery without the risk of harming an actual woman in childbirth. While Noelle can spend hours in labor and produce a breach baby, it also can begin to give birth instantly, thus keeping student nurses highly alert. The robot can be programmed for cervix dilation and can even breathe and emit realistic pulse rates, urine and extensive bleeding. Ultimately, the computerized mannequin delivers a plastic doll. The baby mannequin is wired to flash vital signs when hooked up to monitors and can change face color from a "healthy pink glow to the deadly blue of oxygen deficiency." The birthing process takes approximately 8-12 minutes total time.

Purchased in 2005, SimBaby™ represents a six-month-old infant, and is designed to prepare

trainees for the challenges of pediatric airway management and other emergency medical and critical care scenarios specific to infants. The SimBaby's™ vital signs, including HR, RR, BP and oxygen saturation, are displayed on a realistic appearing monitor screen. The baby allows invasive procedures such as intraosseous needle insertion, as well as needle and tube thoracostomy placement for pneumothorax. The baby makes natural vocalizations, including grunting, coughing and crying. SimBaby™ can assist with additional complex skills such as intubation, intravenous insertion, nasogastric and oral gastric tube insertion and differential diagnosis for various different health assessment parameters.

Our full time director of the Clinical Simulation Lab is Regina Twigg, MS, RN. We have recently hired a full time simulation engineer to maintain the simulation equipment and assist with simulation experiences. Doctoral and master's level graduate nursing students work as teaching assistants to provide a high level of resource expertise within the labs.

Clinical Education and Evaluation Laboratory (CEEL)

The Clinical Education and Evaluation Lab is a state-of-the-art facility dedicated to the evaluation, assessment and teaching of clinical skills and critical thinking. It is co-directed by Dr. Louise Jenkins, Professor, School of Nursing and Dr. David Mallott, Associate Dean, School of Medicine, and managed by School of Nursing professionals, Kathy Schaivone and coordinated by Nancy Budd. The mission of the lab is to provide an innovative setting for students to enhance clinical skills or participate in a formative or summative evaluation process. The continuous performance improvement and the creative use of technology are the cornerstones of the lab. The lab is a joint venture of the University of Maryland Schools of Nursing and Medicine. Students and health care professionals can practice and enhance clinical and interpersonal skills in a safe environment.

Services provided by the CEEL are:

- administration of clinical skills assessment, communication skills evaluation, and clinical teaching programs for medicine, nursing, pharmacy, allied health and other health-related professions
- Clinical case writing and development of evaluation strategies and training of standardized patients
- Consultation for case development and implementation of Clinical Skills Assessment Program

Standardized Patients

Standardized Patients (SP) are professional actors who portray an actual patient. They are able to simulate the same symptoms and in some cases, the same physical findings as those found in a real patient. Standardized patients are carefully trained to provide feedback to students. The feedback which the standardized patient provides is unique since in many cases, it may be the only source of information which the student would receive from a patient regarding communication or clinical skills. Using these individuals allows a learner-centered rather than a patient-centered educational experience. Patient care in a clinical setting is not compromised. Clinical errors can be allowed to progress in order to teach the trainee the implications of and how to correct the errors. Encounters facilitate learner transition to care of real patients. The CEEL currently employs 109 active standardized patients.

Learners are given the opportunity to view their videotaped sessions. The performance of a student can be evaluated on a first-hand basis by the student, the standardized patient and faculty. Standardized patient encounters allow faculty to adjust the curriculum based on the result of the student encounters. These encounters can be utilized by faculty for professional development and research.

SON Living History Museum

The University of Maryland School of Nursing's Living History Museum is designed as a unique learning environment for the presentation and interpretation of the School of Nursing's history, from its founding in 1889 until the present. The latest museum techniques and materials are employed to make the exhibition attractive, engaging and accurate in its portrayal and documentation of people and events. Through hundreds of original nursing artifacts, historical photographs, letters and documents, as well as audio and video presentations, the Museum traces the evolution of the School's mission in nursing education, research and practice from its early years as a hospital training program to its emergence as a premier professional school.

IV. Mission of UMB and SON Missions and PhD Program

Introduction

Section IV describes the missions of UMB, SON and the PhD program. The Centers of Excellence; Work and Health Research Center, the two developing centers, Palliative Care Research and Disorders of Neuroregulatory Function and one proposed center, Cardiovascular Health and Aging are described on Pages 2-15. The centers are critical to the SON's commitment to increase leadership in the research enterprise. The centers also have allowed us to recruit students whose research interest matches the centers.

Mission

The mission of the School of Nursing (SON) is consistent with the mission of University of Maryland Baltimore (UMB). A comparison of particularly salient examples of this consistency is presented in Table IV.1. The PhD program in nursing, with its strong research orientation, emphasis on excellence in instruction, and preparation of graduates for leadership in the profession and in health care, is consistent with the UMB and SON mission. The PhD program is an integral part of the Graduate School which is instrumental in promoting the research mission of the campus. The purpose and learning objectives of the PhD program reflect the research focus of the UMB mission as well as the SON mission of advancing the science of nursing through research.

UMB Mission	SON Mission
1. Provide outstanding and innovative education in health care, biomedical science, social services and the law	1. Develop preeminent leaders in nursing education, research and practice
2. Attract and admit diverse students of exceptional character and accomplishment	2. Engage a diverse group of professionals, organization and communities in addressing local, national and global health priorities
3. Carry out internationally recognized research to cure disease and to improve the health, social functioning and treatment of people	3. A passion for discovery permeates the educational process and advances the use of evidence as the basis for nursing practice
4. Translate discoveries into public benefit and to ensure that the knowledge we generate provides maximum benefit to society	4. Covered in Mission Statement 1, 2 & 3

Since the 2002 report, one center of excellence, two developing centers and one proposed center have been established. Appendix B details the criteria for the Centers of Excellence at the SON.

Centers at SON

Center of Excellence: Work and Health Research Center (WHRC)

The University of Maryland School of Nursing’s Center of Excellence the “Work and Health Research Center” (WHRC) was established in 2005 to provide a forum for multidisciplinary faculty and students conducting research focused on the health of working populations. Researchers at the School of Nursing’s first Center of Excellence, the Work and Health Research Center, are examining the impact of the work environment on the health and well being of nurses and other care providers. The Center’s overarching research **mission** is “organization of work” and its impact on health, with a focus on health and service sector workers. The broad **goal** of the WHRC is health through research, education, advocacy, and practice directed at the prevention of occupational causes of illnesses and injuries. A critical component of the Center’s research is the focus on understudied and underserved workers and communities and partnerships with organizations and individuals who represent these workers. Current research projects include those examining: workplace violence, stress, needle stick injury,

musculoskeletal diseases, depression, and health and social services work environments. The Center is deeply committed to developing an understanding of how to improve the work environment

These goals are achieved through five **objectives**:

1. Identify hazards in the organization of human service work
2. Examine the nature of healthy work organization
3. Engage in participatory interventions to transform the organization of work
4. Raise public awareness of the hazards
5. Advocate for protective policies

Researchers at the Center have received nine million dollars in federal research funding to study the impact of a variety of work environment exposures on care providers in a number of diverse settings including acute care and psychiatric hospitals, social service workplaces, and community and home care settings. During the past year the Center has been engaged in field research in Maryland, California, Idaho, New York, Illinois, Wisconsin, and Washington State -- collecting data from nurses, home care assistants, social workers, and alcohol and drug treatment workers. Center researchers are particularly interested in how changes in the health care work environment are affecting the health and well being of nurses.

The Center is Co-Directed by Jane Lipscomb, Ph.D., RN, FAAN and Kate McPhaul, RN, MPH, Ph.D. Drs. Lipscomb and McPhaul have received ongoing National Institute for Occupational Safety and Health (NIOSH) funding for the past 10 years to study strategies to prevent violence in the mental health and social service workplace. Core Center faculty researchers include: Alison Trinkoff, Sc.D., RN, FAAN, Professor and the Principle Investigator of the Nurses' Worklife and Health Study, who together with other center researchers, has

performed ground breaking research on the impact of long working hours, shift schedules, staffing levels and physical and psychological work factors on the health of nurses. Center researcher Jeanne Geiger-Brown, PhD, RN, Associate Professor, has received NIH funding to study nurses work schedule and fatigue. Dr. Jeanne Geiger Brown was recently funded as a K-12 Multidisciplinary Clinical Research Scholar by the University of Maryland School of Medicine under the NIH Roadmap program to develop researchers that cross disciplinary boundaries. Dr. Geiger-Brown's research intersects occupational epidemiology, sleep medicine, and cognitive psychology. She is the first nurse to receive this award from the School of Medicine. Carla Storr, ScD, MPH, has recently joined the Center as a senior research faculty, and she along with Jeffrey Johnson, PhD, research focuses on the psychosocial aspects of nurses' work environment. Dr. Johnson is an international expert in the area of worker health disparities and global health.

Center researchers are actively involved in developing new research tools to measure the unique risks that emerge in the home care environment as part of a 1.7 million dollar study funded by the National Institute of Occupational Safety and Health to examine the risk of needle sticks and blood borne pathogen exposures among nurses and other workers who provide care in the home. Karen Kaufman, PhD, RN, an Associate Professor at the School of Nursing, contributes expertise in the analysis and interpretation of qualitative data to overall Center research. The Center has employed more than twenty doctoral students as research assistants since its inception. In addition, doctoral students work with Center faculty for research rotations and dissertation research. Several PhD students are currently conducting their dissertation research as part of funded Center research projects. All PhD students who receive mentorship from Center faculty participate in an ongoing Center research seminar (2 credits) which exposes

them to Center related projects and the culture of working in a large research team and provides peer and faculty review of their beginning and ongoing dissertation research

Developing Center of Excellence: Palliative Care Research (PCR)

This Center was established at the University of Maryland Baltimore (UMB) School of Nursing (SON) to address the critical need for research in palliative care (National Institutes of Health, 2004). Palliative and end-of-life care research is a high priority in the strategic plan for the National Institute of Nursing Research, which is designated as the lead NIH Institute for this topic. Considered both a philosophy and an organized structured care delivery system, palliative care aims to prevent or relieve suffering and achieve the highest quality of life possible, regardless of type or stage of disease, or the need for other treatments (National Consensus Project [NCP], 2005). Palliative Care is integral to all health care settings, relevant across the lifespan, and essential to continuity of care. Faculty strengths in palliative care and a plethora of campus-wide palliative care activities prompted the proposal of this Center to Dean Allan by Dr. Deborah McGuire (now Center Director), which was approved as a Developing Center in Fall 2006.

The **mission** of the Developing Center of Excellence in Palliative Care Research (PCR) is to *advance the science of palliative care across the lifespan* in various populations, disease trajectories and settings. Palliative care is a highly interdisciplinary specialty, requiring expertise from nursing, medicine, social work, law, pharmacy, chaplaincy, psychology/counseling, nutrition, rehabilitation and other members of numerous disciplines. The **overarching goal** of the Center is to *improve palliative care through interdisciplinary collaborative research* guided by a conceptual framework that addresses structure and processes of care and the physical, psychosocial, spiritual, cultural, ethical and legal aspects of care (NCP, 2005). The **broad aims** of the Center are to support Center investigators' programs of research, develop future nurse and

other researchers and produce investigators who are well-versed in clinical research methodologies appropriate to palliative care.

These aims are achieved through six **objectives**:

1. Build research capacity by providing an infrastructure that centralizes resources and provides support for Center faculty to develop and expand their programs of research in palliative care
2. Facilitate collaboration in the formation of interdisciplinary research teams among investigators in the School of Nursing and across the campus
3. Promote the education and training of nurses and others at the undergraduate, graduate, and post-doctoral levels to conduct palliative care research
4. Produce investigators who can participate fully as leaders or members of interdisciplinary research teams
5. Develop a portfolio of clinical research that addresses delivery of palliative care at the levels of patient, caregiver and setting
6. Collaborate with stakeholders to develop and implement evidence-based social and public policy

The Center Director is Dr. Deborah B. McGuire, PhD, RN, FAAN. Nurse members are from the Departments of Organizational Systems and Adult Health (OSAH) and Family and Community Health (FCH), as well as from other areas of the UMB campus. Non-nurse members represent a spectrum of other Schools on the UMB Campus. All current members are listed alphabetically below with title, affiliation and sources of external grants for which they are Principal or Co-Principal Investigators. Five PhD students are members of the Center, and two newly admitted DNP students will also be members of the Center.

Christine Engstrom, PhD, RN, CRNP; Adjunct Assistant Professor OSAH; hot flashes in prostate cancer patients (primary appointment, Baltimore Veterans Hospital) (Tri-Service)

Karen Kaiser, PhD, RN, AOCN, CHPN; Adjunct Associate Professor OSAH; pain management (primary appointment, University of Maryland Medical Center) (Lance Armstrong Foundation)

Karen Kauffman, PhD, RN; Associate Professor and Chair, FCH; Alzheimer's disease and family caregiving

Timothy Keay, MD, Associate Professor, School of Medicine; palliative care in the elderly and in patients with cancer (R25, NIH/NCI)

Deborah McGuire, PhD, RN, FAAN; Professor; pain and symptom assessment and management (R01, NIH/NINR; R01, NIH/NCI)

Mary Lynn McPherson, PharmD; Professor, School of Pharmacy; pharmacologic management in palliative care and hospice

Karen Soeken, PhD; Professor Emeriti, OSAH; Study design, statistics, and measurement (note: collaborates on R01 and other studies listed)

Debra Wiegand, PhD, RN, MBE, FAAN; Assistant Professor, OSAH; families' experiences following withdrawal of life-sustaining therapy in critical care (American Nurses Foundation, Sigma Theta Tau/Hospice and Palliative Nurses Association)

Additional Faculty: One new faculty member, Deborah Sherman, PhD, ANP-BC, PCM-BC, FAAN is joining the center in Fall 2008. Additional faculty in the University of Maryland Baltimore system have been invited to join the Center.

PhD Students: Of the five current students, two are supported with national doctoral scholarships from the American Cancer Society and one of these also has a Graduate Assistantship in Areas of National Need (GAANN) fellowship. Several students are highly productive in the professional literature and active in professional organizations.

Resources of the Center include: 1) a designated (shared) conference room/office in the Office of Research; 2) DRIF funding for pilot work and other Center expenses; 3) substantive research expertise in specific topics; 4) access to networks of experts and groups that make or influence policy in palliative care; 5) 6-7 SON faculty who are certified to teach end-of-life content by the AACN End-of-life Nursing Education Consortium (ELNEC); 6) ongoing consultative or advisory relationships with clinical palliative care and pain services; and 7)

participation of Center members on the Governor's Advisory Committee for Quality Care at the End of Life, the Maryland Pain Initiative, and the Maryland State Cancer Plan.

Activities of the Center and its members, including PhD students, include regular meetings, leadership of collaborative interdisciplinary research, participation in SON research seminars, teaching SON courses at all program levels, participation in independent/guided study for master's and doctoral students and participation in a campus, regional and national palliative care related organizations. Dissemination of research and methodological advances is a high priority, occurring at selected nursing and interdisciplinary organizations (e.g., Council for the Advancement of Nursing Science, National Alzheimer's Association, National Hospice and Palliative Care Organization, Multinational Association for Supportive Care in Cancer/International Society of Oral Oncology, Oncology Nursing Society, Geriatric Society of America, American Pain Society, National Teaching Institute [Critical Care], Southern Nursing Research Society, American Society of Pain Management Nurses, American Academy of Hospice and Palliative Medicine and Hospice and Palliative Nursing Association). Several grant applications (research and career development) are currently under review at NIH and other agencies; several other grants are in preparation for fall submissions.

Developing Center of Excellence: Disorders of Neuroregulatory Function (DNF)

The Center of Excellence was developed to explore the physiologic mechanisms underlying disorders of neuroregulatory function (DNF) and the clinical correlates of those mechanisms. DNF has two co-directors; **Susan G. Dorsey, RN, PhD and Chris W. Ward PhD**. Areas of expertise encompassed by the Center investigators encompass a broad range of basic science methods, that include molecular and cellular biology, biochemistry, microscopy and imaging techniques, as well as clinical science methods that include human physiological measures, observational and experimental study designs. This expertise, coupled with the Center

investigators' programs of research, has the potential to significantly advance knowledge and understanding of both basic mechanisms underlying and clinical phenomena related to disease states that stem from disorders of neuroregulatory function across the lifespan.

The **mission** of the DNF Center of Excellence is to advance the science of the mechanisms, diagnosis and management of clinical disease states that result from disorders of neuroregulatory function. The Center achieves this mission through supporting Center investigators' programs of research; developing future nurse and other researchers at the baccalaureate, graduate and post-doctoral level; and producing investigators who are well-versed in the conduct of basic science and translational research and can participate fully as members of interdisciplinary research teams.

The overarching **goal** of the Center is to advance the science of disorders of neuroregulatory function from an interdisciplinary perspective that integrates basic science and clinical investigation methodologies, thereby becoming the leading translational research Center of Excellence across Schools of Nursing in the US.

The **broad aims** of the center are to:

1. Build research capacity by providing the infrastructure needed to centralize resources and facilities to expand the capabilities of the Center's basic and clinical science programs of research
2. Support the research of the Center members, as well as, facilitate the research programs of other faculty and students
3. Facilitate collaborations and the formation of interdisciplinary research teams among investigators in the SON and across the campus

4. Promote the education and training of nurses and others at the undergraduate, graduate and post-doctoral levels to conduct research or to participate fully participating members of interdisciplinary research teams
5. Elucidate the underlying physiological, psychological, psychosocial and behavioral mechanisms that contribute to disorders of neuroregulatory function
6. Test interventions to reduce negative symptomatology, enhance functional status and improve health outcomes in clinical populations with disorders of neuroregulatory function across the lifespan

Resource and Activities include:

1. Journal Club

The Journal Club meets monthly and discusses current literature relevant to the Center's Mission.

2. Seminar Series

The DNF center sponsors investigator seminars in support of the Center research mission. For example, the DNF center sponsored Dr. Jeff Mogil to give a lecture on April 7, 2006 at the UMB SON and hosted a reception after the lecture. Dr. Mogil from McGill University is an internationally renowned pain researcher who recently published his results in the journal, Science. He is a collaborator/consultant in Dr. Susan Dorsey's research. Center members and student mentees present at the brown-bag series of seminars that are ongoing in the SON.

3. Pilot funding for related research

In 2007, the DNF Center provided \$5,000 in pilot funding to a junior Center faculty

member, Dr. Cynthia Renn, to conduct preliminary studies in support of an R03 application. The application was submitted, but not funded. A subsequent revised application with new data has been submitted to the American Nurses Foundation and we are awaiting a score.

4. Research Cores

- a. Physiological and Biobehavioral Methods – Designed to enhance DNF research by providing services and resources related to scientific inquiry.
- b. Administrative – Designed to provide services and resources related to data management, data analysis and administrative needs of the Center.
- c. Development and Dissemination – Designed to facilitate the dissemination of Center investigators’ research findings to the scientific, clinical and lay communities.

5. Conferences

- a. The DNF center provides funding for un-funded junior investigators and graduate students to attend relevant scientific conferences.
- b. The DNF Center sponsors one conference per year to include 1 or more outside speakers.

As a School of Nursing Center of Excellence, core membership is comprised of UMB SON faculty whose research interests are encompassed by the mission of the Center. Center membership is however open to any UMB faculty whose research trajectory aligns with the mission of the Center. Faculty external to the UMB system are invited to join the DNF in a scientific/administrative/advisory capacity or as research collaborators with Center members.

Co-Directors provide the leadership and mentorship to maintain the research trajectory of the Center. This includes the formation of ad-hoc committees of full Center members to address particular areas of center interest (i.e., pilot grant reviews and funding decisions, organizing conferences, seminar series and membership).

Full membership is afforded to Center faculty who have a substantive research program and who contribute to the ongoing mission of the DNF through Center service related activities. Associate membership is afforded to those individuals who are nascent in their research careers and/or are unable to dedicate significant time to DNF related activities.

Although students are not accepted to formal membership, students are involved in Center activities as mentees of Center scientists. As such, the students attend seminars, some meetings and other Center activities. There are currently 3 full-time PhD students training with DNF center members. One student started in Fall 07 and one in Fall 08. The DNF center has had one postdoctoral fellow for one year.

Current Center members:

Susan G. Dorsey, PhD, RN, Assistant Professor and Co-Director, nociceptive processing, translational studies in animal models and humans, neurotrophin signaling

Christopher W. Ward, PhD, Associate Professor and Co-Director, calcium signaling in cardiac and skeletal muscle, muscular dystrophy

Cynthia Renn, PhD, RN Assistant Professor, chronic pain mechanisms in animal models

Sandra McLeskey, PhD, RN Professor, cancer pain, neurotrophin signaling in cancer

Deborah McGuire, PhD, RN Professor, pain and symptom management

Barbara Smith, PhD, RN, Professor, exercise in HIV/AIDS patients, antiretroviral-induced chronic pain

Barker Bausell, PhD, Professor, quantitative methodology and statistics

Lyn Murphy, PhD, RN Assistant Professor, econometrics, statistics, measurement

Karen Kaiser, PhD, RN, Adjunct Assistant Professor, pain and symptom management

Sharon Gordon, DDS, PhD, Dental School, Associate Professor, chemotherapy-induced chronic pain and mucositis

Proposed Center of Excellence: Cardiovascular Health and Aging (CECHA)

A Center of Excellence in Cardiovascular Health and Aging was proposed in 2007 by **co-directors Sue Thomas, PhD, RN, FAAN (Cardiovascular) and Barbara Resnick, PhD, CRNP, FAAN, FAANP (Aging)**. They gathered together a group of faculty and students who were interested in developing a center to write a mission statement and proposal. These documents were submitted to the dean, and after several iterations, the Center was granted proposed center status in 2008.

The **mission** of the Center is to advance the science with regard to promoting cardiovascular health and optimizing the health management of older adults. With the aging of the population and the increasing prevalence of cardiovascular disease these two fields are inextricably and reciprocally linked. The Center achieves this mission through supporting Center investigators' programs of research, developing future nurses and other researchers at the baccalaureate, graduate and post-doctoral levels to engage in research and to utilize research findings in practice; and producing investigators who can participate fully as members of interdisciplinary research teams. Center members' overarching **goal** is to apply the bio-psycho-social and social-ecological models to promote health and optimize the health management of older adults. Research is conducted at the individual, family, community and systems levels. While centered in nursing, the work expands to include multiple disciplines integrating medicine, epidemiology, sociology, social work, psychology, physical therapy and pharmacy. As individuals age, cardiovascular health promotion encompasses restorative activities and restorative activities promote cardiovascular health.

The five **objectives** of the center are:

1. Establish an ongoing network of clinical, long term care and community sites that are interested and willing to collaborate in clinical research on aging and cardiovascular health
2. Build research capacity by establishing and centralizing resources for grant development (e.g. background information, commonly used measurement tools, theoretical information, and treatment fidelity descriptions), and clinical information regarding evidence based health promotion and disease management in cardiovascular health and aging
3. Support pilot research among Center faculty and mentees that will develop into funded research projects
4. Conduct research to address important issues in cardiovascular health and aging and disseminate the research findings at national and international meetings and through publications and presentations
5. Facilitate research, educational and service collaboration among UMB SON faculty, other researchers and graduate and undergraduate students participating in research relevant to the center's mission

Members of the Center, and areas of research interest include:

Vanessa Fahie, PhD, RN , Assistant Professor, minority health education

Erika Friedmann, PhD ,RN, Professor, research methods/cardiovascular health

Elizabeth Galik, PhD, CRNP, Instructor, dementia

Deborah Jones, PhD, RN, Assistant Professor, cardiovascular disease/health disparities

Karen Kauffman, PhD, RN, Associate Professor

Kathleen Michael, PhD,RN, Assistant Professor

Patricia Morton, PhD,RN, Professor, evidence based practice in cardiovascular health

Eun-Shim Nahm, PhD,RN, Associate Professor, technology based health promotion/disease management in older adults

Sandra Picot, PhD,RN, Associate Professor, caregiving for older adults/minority health

Barbara Resnick, PhD,RN, Professor, restorative care in aging

Ann Scheve, MS, RN, Instructor, geriatric education

Marianne Shaughnessy, PhD, RN, Assistant Professor, stroke

Barbara Smith, PhD, RN, Professor, HIV/AIDS and exercise

Sue Thomas, PhD, RN, Professor, cardiovascular health.

Associate members include faculty from other schools or programs within the University of Maryland and from a number of institutions across the US. Ten PhD students are also conducting research with faculty members in the Center.

Center members continue to conduct their research, with additional collaborative efforts through the Center. Activities initiated since the development of the Center include a merging of theoretical work between the two cores (Aging and Cardiovascular Health) into a new bio-psycho-social-ecological model for health. A manuscript describing this process and the model has been drafted and will be submitted for publication. In addition, members within the Center submitted and had accepted a symposium for CANS focused on implementation of theoretically based interventions in aging. In addition center members are working with the Co-Investigators Drs. Resnick and Shaughnessy in the implementation of a behavior change intervention, PRAISED, focused on stroke prevention in community based senior housing. Three grants have been submitted in aging focused work on restorative care, and as noted ongoing funded work continues. Graduate students are actively involved in all these activities.

Student Match with Mentor or Centers of Excellence

Applicants to the PhD program indicate their interest in one of the research emphasis areas. As they go through the admission process, which includes an interview with two SON Graduate Faculty members, their research focus is defined and clarified. Upon admission, each student is assigned to an advisor with a related research focus. By the end of the first year of study, the student is expected to select a Research Advisor who will become the Chair of their Dissertation Research Committee. On occasion, students change their research focus, and appropriate adjustments in their advisor are discussed and made to the mutual benefit of those involved. This process, as well as the growing research enterprise of the SON, assures that current and future PhD students will have the requisite mentorship by active researchers to facilitate individual goals of students as well as program goals for graduates. Table IV.1 reviews the past 6 years of students admitted to the PhD program and shows the programs increasing capacity to match students with centers and mentors.

The development of centers of excellence has allowed the SON to recruit students whose interests match the centers. Since 2006 the number of students working in a Center of excellence has increased from 4% to 73%. We have a 100% mentor/center match in the 2008 class.

Table IV.1 – Students Matching with Mentors or Centers of Excellence

Total Students Entered	Year Entered	Mentor Match	Center Match	No Match
9	2003	33%	11%	56%
12	2004	67%	8%	25%
10	2005*	30%	20%	50%
21	2006**	48%	4%	48%
18	2007***	39%	28%	33%
11	2008	27%	73%	

* WHRC initiated
 ** Palliative Care Center and DNF Center initiated
 *** CECHA initiated

Relationship to AACN Quality Indicators

As seen in the preceding sections of this self-study, the School of Nursing's PhD Program compares well to the AACN Quality Indicators (2001) in that UMB as the parent institution has research as an explicit component of its mission as does the SON. The purpose of the PhD program is to prepare scholars and researchers who will advance nursing science and provide innovative leadership to the profession. This clear purpose is consistent with these missions as well as with the Strategic Plan of the SON. Both UMB and the SON have exceptional resources to support the respective and complimentary missions of the campus, school and the PhD program. The focused research emphasis in the Centers of Excellence of the SON are consistent with SON Strategic Plan and further facilitates student research activities in those areas.

Given that research is an explicit component of the UMB mission as well as the SON, there is ample evidence that the resources for supporting research, interdisciplinary collaboration and education are extensive. Adequate and state-of-the art space promotes an exceptional environment for learning with adequate technological support. PhD students at the SON have the opportunity to learn in an unparalleled setting within the SON as well as access to exceptional UMB and SON resources for research. The research expanded infrastructure of the SON facilitates student research activities. Interdisciplinary education is accepted and encouraged across the campus as well as within the SON. The laboratory space at the SON is available to PhD students. Currently, three PhD students are working in the laboratories. Space at the SON has been greatly enhanced since the last Graduate School Program Review in 2002. The increased space for research facilitates not only faculty research, but also that of students.

Library and database resources as well as computer resources are exceptional and fully support faculty and student scholarship on campus as well as from remote sites. It is readily

apparent that UMB and the SON have unparalleled resources to support PhD study that are highly consistent with the AACN Quality Indicators (2001).

Reference:

American Association of Colleges of Nursing. (November, 2001). *Indicators of Quality in Research-Focused Doctoral Programs in Nursing*, Washington, D.C.

V. The PhD Program

Introduction

Section V contains detailed description of the current PhD program. The 2002 external review noted the program was strong and productive. New avenues to increase communication have been initiated since 2002. Faculty forums are held twice a year, an Admissions and Progressions Advisory Group has been established and PhD student town meetings with Dean Janet Allan occur twice a year. These changes have been well received by students and faculty.

PhD Program History

The PhD program at the UMB SON was initiated in 1979 as the sixteenth doctoral nursing program in the United States. Since its inception, the program has developed an excellent reputation in Maryland, the Southern Region, the United States, as well as internationally, as one of the finest and most rigorous doctoral programs in existence. Outstanding students come to the program from across the United States and abroad to take advantage of: 1) a School of Nursing that is consistently and continuously ranked among the top ten in the country by *US News and World Report*; 2) a location in the Baltimore-Washington corridor that has ready access to such nationally prominent resources as the National Institutes of Health, National Institute of Nursing Research, National Library of Medicine and the Agency for Healthcare Research and Quality; 3) ability to access the unparalleled resources of a large and diverse state-wide University System (USM) including varied opportunities for interdisciplinary study and access to the expertise of other disciplines, many of whom are accessible for serving as dissertation committee members; 4) a research-intensive academic health science center campus (UMB) with \$410.9 million in grants and contracts for FY2007 compared to \$255 million in 2001; 5) a curriculum which has been favorably evaluated in ongoing internal and periodic Graduate School sponsored external reviews in the process of continuous quality improvement which has allowed the program to

build upon its strengths; 6) targeted SON research centers of excellence with depth of scope within which students may develop their expertise; 7) a diverse and talented student body; and 8) a nationally and internationally known faculty, 15 of whom are Fellows in the American Academy of Nursing.

Consistent with all doctoral programs on the UMB campus, the PhD program in nursing was established and continues to operate under the aegis of the Graduate School. Thus, its faculty, students, curriculum, and courses are subject to the same policies and are expected to meet the same academic rigor and high standards as other PhD programs at UMB. The relationship with the Graduate School further facilitates access to a particularly rich and diverse array of faculty, course and research-enhancing resources which facilitate interdisciplinary interaction and networking by faculty and students, ability to facilitate nursing doctoral students' involvement with other graduate programs in the basic and applied sciences and humanities as well as resources to support student and faculty research. Further, being a part of the University System of Maryland encourages and facilitates inter-campus activities such as enrollment in off-campus and interdisciplinary courses and faculty participation on dissertation committees.

There are 232 graduates in the 29 year history of the program. Graduates are scholars and researchers in diverse roles in academic, government, clinical, and private sector settings, often in leadership positions. They are productive in their scholarship and make significant contributions to the profession and to society as will be seen in Section IX, pages 23-32.

PhD Program Overview

The University of Maryland's PhD program is designed to meet the educational needs of students who are committed to playing a significant role in the continuing discovery, amplification, and refinement of nursing knowledge. Its purpose is to prepare scholars and

researchers who will advance the theoretical and empirical basis for nursing practice and will provide visionary leadership to the profession.

The doctoral program is based on the belief that nursing has a distinct body of knowledge which can and must be extended, verified and revised using the methods of scholarly inquiry. Nursing knowledge, while distinct, is not isolated or exclusive. It involves the selection, integration and expansion of knowledge from nursing and other disciplines and the application of this knowledge to the understanding of health and illness and to the analysis and improvement of nursing practice.

Nursing knowledge is derived from and guides nursing practice, which encompasses direct service to clients/patients as well as actions carried out in clinical and educational settings to facilitate and support direct nursing care. Nursing practice involves evaluation and judgment about client attributes and behaviors which may indicate a need for nursing, judgment regarding appropriate methods of nursing assistance, actions undertaken to help people attain an optimal level of health and evaluation of the efficacy of nursing action. Another sphere of nursing practice includes the education, supervision and organization of those providing direct services; the procurement and allocation of resources; and the formulation and implementation of policy affecting nursing and health care. Nursing knowledge of practice must be extended and tested in order to effect improvement in nursing care.

The ability to advance nursing knowledge must be grounded in study of persons as holistic beings, nursing action, the environments in which nursing is practiced and the principles and methods of scientific inquiry. This grounding is provided in a core of required courses which address the theoretical and empirical basis for nursing and the techniques of theory building and research. Throughout the required core courses, an integrative focus is maintained whereby

theoretical and methodological approaches of the biophysical and behavioral-social sciences are selected and applied from the perspective of nursing.

Within the core courses, opportunity is provided for students to build upon their educational and experiential backgrounds through a variety of individually selected learning experiences. Specialty courses, some of which are taken in related disciplines, provide additional flexibility to plan a course of study supportive to individual research interests and career goals.

The program design allows students to focus on study of the theoretical and empirical basis for a variety of nursing actions. Depth of knowledge in the specialty area is developed through required course work and related research experiences, selection of specialty and elective courses, independent study and the dissertation research.

Nurses desiring preparation at the PhD level as scholars and researchers may enter the doctoral nursing program at the University of Maryland at one of two points in their careers: either 1) after completing the baccalaureate degree with a major in nursing (post-baccalaureate entry option), or 2) after completing the master's degree with sub-specialty preparation and a major in nursing or public health.

Students may also elect to pursue the MBA/PhD option that is offered in conjunction with the Robert G. Merrick School for Business, University of Baltimore or Robert H. Smith College of Business, University of Maryland, College Park. The Smith College of Business offers its whole program at the UMB campus in the SON building.

The purpose of the PhD program in nursing is to prepare scholars and researchers who will advance nursing science, thereby making the practice of nursing more effective, and who will provide innovative leadership to the profession.

The program prepares graduates who are able to:

1. Construct, test and evaluate conceptual models and theories in nursing and related disciplines that reflect synthesis, reorganization, and expansion of knowledge
2. Evaluate and apply appropriate research designs, measures, and statistics to the study of nursing and health phenomena
3. Conceptualize practice phenomena from the perspective of frameworks and theory from nursing and related disciplines
4. Design, conduct and communicate research relevant to nursing practice
5. Facilitate the incorporation of new knowledge into practice
6. Initiate, facilitate, and participate in collaborative endeavors related to the theoretical, conceptual and practical aspects of health care with clients, nurses and scholars from related disciplines

The curriculum includes a required core of courses (34 credits), which include theory, research, statistics, and measurement courses. Throughout these courses, an integrative focus is maintained whereby theoretical and methodological approaches of the biophysical, behavioral, social and health sciences are selected and applied from the perspective of nursing. Within the core courses, students have the opportunity to build upon their educational and experiential backgrounds through a variety of individually selected learning experiences. In addition, students must take a minimum of 15 credits of specialty elective courses; their selection is specifically tailored to individual research interests and career goals. Students may take elective courses within the SON, other Schools on the UMB campus, other universities within the University System of Maryland (USM), or other universities as appropriate to their area of research. The remaining 12 credits are dissertation research that is an independent original research project of significance to the discipline of nursing.

Landmarks in student progression through the doctoral program include a preliminary examination taken at the completion of the first year of full-time study, a comprehensive examination taken when all required courses and a substantial portion of specialty elective courses have been completed, the defense of the dissertation proposal, and the defense of the completed dissertation. Full and part-time study are possible, however, at some point during doctoral study, students must enroll for full-time study for two consecutive for two consecutive semesters. Average time to completion ranges from 7.14 in 1998 to 3.7 in 2003. The average time to completion in years 1998-2003 was 5.4 years. These data indicate that students are completing the program in fewer years. The specifics of the completion times are discussed in Table 7 in Section IX on page 35.

As part of the regular discussion and evaluation of the PhD Program, two yearly faculty forums are held. These meetings are co-chaired by the Assistant Dean of the PhD Program and the Chair of the PhD Curriculum Subcommittee. Topics discussed in the forum are advisement, courses, preliminary and comprehensive examinations, dissertations and other program related issues such as teaching, research and culture. This group recently approved three major changes: 1) approving the dissertation manuscript option (Spring 2007); 2) dropping the article critique from the comprehensive exams (Fall 2007); and 3) decreasing the amount of time to complete the program to seven years (Spring 2008).

Program Administration

Structure and Governance

The PhD program is administered by the Assistant Dean, Dr. Sue A. Thomas, who was appointed in 2003. Dr. Thomas is responsible for the quality of the program. Her administrative appointment is designated at 50% effort. The PhD program is staffed by a full-time program coordinator.

Each program in the Graduate School has a program director or assistant Dean, who serves as a liaison between the Graduate School and the SON for communication and implementation of policies. As Assistant Dean, Dr. Thomas reports to Dr. Patricia Morton, Associate Dean for Academic Affairs, who is responsible for the oversight of all academic programs at the SON. Dr. Morton has served on the Graduate Council and is very knowledgeable in regards to policies and procedures. Dr. Thomas and Dr. Morton interact frequently with the Dean of the Graduate School and Graduate School staff about aspects of program administration. They also participate in regular meetings of the Program Directors for all PhD programs on the campus.

As Assistant Dean, Dr. Thomas is responsible for providing leadership for the program, for setting direction and standards in light of current trends, and for operation and coordination of the program. Other duties include: 1) recommending faculty teaching assignments to department chairs for PhD courses based on current needs and faculty expertise; 2) making and implementing administrative decisions about the program and use of program resources; 3) working closely with the PhD Curriculum Subcommittee as a designated member; 4) recommending students to receive scholarships, assistantships, and Graduate PLUS Awards; 5) implementing program and Graduate School policies as they relate to admission, curriculum and student progression; 6) recruiting of applicants to the program; 7) maintaining ongoing collaboration with the leadership of the Doctoral Student Organization; 8) collaborating with representatives of the Doctoral Student Organization in planning and facilitating the annual incoming student orientation held each fall; 9) planning meetings, forums, and advisement sessions with Graduate Faculty as indicated; and 10) identifying and obtaining needed resources for student and program initiatives.

The faculty governance structure of the SON provides for PhD Program representation on two standing committees: Curriculum and Student Affairs. The Curriculum Committee has a PhD

Curriculum Subcommittee comprised of the Assistant Dean of the PhD Program, four elected faculty representatives from each of the two SON academic departments as well as a student representative elected by the Doctoral Student Organization. The newly organized Admissions and Progression Advisory Group is comprised of the Assistant Dean of the PhD program, four representatives from the two academic departments and student representative. Similarly, the membership of the Student Affairs Committee includes the Assistant Dean of the PhD Program, an elected representative from each of the two SON academic departments, and a student representative elected by the Doctoral Student Organization. By-laws further elaborating the structure and function of these committees will be available for review during the site visit.

The PhD Curriculum Subcommittee meetings are open meetings and SON Graduate Faculty members and PhD students are welcome to attend. PhD Admissions and Progression Advisory Group meets once a month and reviews applications for admission to the PhD program and discusses progression issues for current PhD students. In addition, a Graduate Faculty Forums are held twice a year to discuss issues concerning the advisement. These meetings are co-chaired by the Assistant Dean of the PhD Program and the Chair of the PhD Program Subcommittee who is currently Dr. Deborah McGuire.

Special ad hoc committees are formed as needed to implement and evaluate various aspects of the PhD Program. An example of this is the Preliminary Examination Committee which is composed of faculty teaching required core theory and research methods courses. This committee is appointed each year by the Assistant Dean of the PhD Program to prepare and evaluate the Preliminary Examinations taken by PhD students completing their first year of full-time study.

The primary venue for PhD student participation in governance is the Doctoral Student Organization which was established in 1996. The Doctoral Student Organization (DSO) at the

University of Maryland Baltimore School of Nursing (UMSON) is an organization whose mission is to support and enhance the learning, knowledge and professional development of fellow doctoral students in both the PhD and Doctor of Nursing Practice (DNP) programs. This organization is committed to making a difference in healthcare by promoting evidence-based practice, scholarship and professional collaboration both within the UMSON and in the community.

The DSO has instituted several support programs and partnership-building opportunities for students. Our student mentor program pairs experienced doctoral students with incoming students to provide support and guidance for these students during the first months of their program. They have developed a Blackboard Community website that contains various documents and resources for students including Survival Tips for Incoming Students, Preliminary Examination and Capstone review resources, a chat room open to all doctoral students, and links to helpful websites both on campus (e-learning resources, graduate school course schedule, writing clinics and library courses) and off-campus (statistics and theory resources).

The Doctoral Student Organization has forged a partnership between the two doctoral programs, with representatives of each serving on the DSO Executive Committee. They sponsor social mixers and business meetings open to students of both doctoral programs and faculty twice a year, to encourage dialogue between PhD and DNP students and between students and faculty. SON PhD students are invited to a Town Meeting with Dean Allan held once a semester. Thus, there are multiple opportunities for students to be actively involved in the governance activities within the SON. A student from each doctoral program sits on their respective Curriculum Committee in order to represent student curriculum concerns to the faculty as well as to bring news of curriculum changes to the student body. The DSO is

currently working toward establishing a link with the DSO at Johns Hopkins University to broaden their professional community ties, and participates in the Admissions and Progressions Advisory Group through providing student insights to the committee regarding various aspects of the program journey.

PhD students also have a voice on the UMB campus via the Graduate Student Association (GSA) made up of students from all graduate programs and facilitated by the Graduate School. A portion of student fees supports the GSA which serves as a forum for socialization across programs held throughout the year including the annual Graduate Student Research Conference

Operating Budget for PhD Program

The SON allocates \$1,000,000 in salary support annually for faculty teaching in the doctoral program. Since the last review in 2002, nearly \$2,000,000 has been spent to develop and equip research laboratories for faculty researchers and \$1,000,000 has been allocated for the recruitment and support of faculty researchers through the provision of research assistants and other research staff, and pilot or seed funds to attract and retain highly qualified faculty.

In addition, the PhD program is allotted an operating budget each year. This budget includes the cost of mailings, communication, annual revision and production of the PhD Student Handbook. PhD students who have abstracts accepted for presentation at research conferences may submit a request for development of presentation media (posters, slides, etc.) from the Office of Research.

Hardware and software used in the Doctoral Student Computer Lab are supported by the SON. Recruitment activities, including receptions for prospective students, are supported by the Office of Student Affairs. Evaluation activities are supported through the Office of Academic Affairs and ongoing activities conducted by a PhD prepared evaluator, Dr. Barker Bausell.

Across SON programs, the average SON expenditure per FTE student is \$35,000. This amount has increased substantially over time rising from \$31,700 in fiscal year 2003. Clearly, the expenditure for PhD students is even higher.

Learning Environment

Within this state-of-the-art physical environment, PhD students have an exceptional learning environment. This enviable environment attracts a number of campus activities to the SON. Examples of such events include the annual Graduate Student Research Conference sponsored by the Graduate Student Association and numerous programs offered by the Office of Professional Development. As PhD students develop their presentation and teaching skills, they work with cutting edge educational technology readily available to them in classroom and seminar areas. This opportunity offers valuable experience for subsequent roles, particularly in the area of teaching.

Space for PhD Program

PhD students have their own Doctoral Lounge located in Room 462. It is accessible via numerical code to all PhD students during times when the SON building is open. This room offers a meeting area for committees of the Doctoral Student Organization (DSO), small study groups, and informal meetings between students. Individual student mailboxes are in this room along with a heavily used bulletin board for sharing of information about upcoming meetings, calls for abstracts, opportunities for scholarship and research funding, as well as employment opportunities. Since our last report, we have added a computer lab in Room 440 with 15 computers accessible to all doctoral students. The size of these areas is adequate since students are in the SON at various times, depending on their class schedules and many students use their own laptops since the building has wireless internet access.

The Office of Graduate Studies is housed on the 5th floor of the SON building and consists of office space for the Assistant Dean and the Administrative Assistant. Other space to support the PhD program is available throughout the SON.

Relationship to AACN Quality Indicators (2001)

The AACN Quality Indicators serve as an important resource for the PhD Program. This document is used as a reference for program planning as well as considering progress in the ongoing development of the program. The administration of the PhD Program is conducted in a systematic manner according to Graduate School Policy and consistent with SON structure and governance. The operating budget is adequate to support the program. A collegial atmosphere exists for accomplishing the business of the program with collaborative engagement of SON administration, Graduate Faculty and students. Consistent with the AACN Quality Indicators, the administration of the PhD Program assures smooth operation and is supported with adequate and appropriate structure, human resources and space that allow for active student involvement and participation in governance and delivery of the program.

Reference:

American Association of Colleges of Nursing. (November, 2001). *Indicators of Quality in Research-Focused Doctoral Programs in Nursing*, Washington, D.C.

Research Seminars

APPENDIX A – RESEARCH SEMINAR LOG 2004-2008

Year: 2004

Date	Presenter	Title
January 26, 2004	Marion Broome, PhD, RN, FAAN	Building Research Infrastructure in a School of Nursing: Key to Successful Research Careers
February 13, 2004	Cara Krulewitch, CNM, PhD	Maternal Mortality Surveillance: The Road to New Approaches to Health Issues in Childbearing Women
February 27, 2004	Keith Plowden, PhD, RN	Creating Communities of Caring Through Collaboration
March 12, 2004	Kate McPhaul, PhD, RN, MPH	Building a Program of Occupational Health Research: Internal and External Partnerships
April 2, 2004	Jane Barnsteiner, PhD, FAAN	IOM Patient Safety “To Err is Human”
April 9, 2004	Sandra Picot, PhD, RN, FAAN	Formal vs. Informal Service Use Among Black and White Caregivers: Service Provider Implications
April 16, 2004	Eun-Shim Nahm, PhD, MS, RN	Web Surveys: Development, Advantages and Methodological Issues
April 30, 2004	Marianne Shaughnessy, PhD, RN, CRNP	Reducing Cardiovascular Risk in a Faith Community
May 12, 2004	Elizabeth Reifsnider, PhD, APRN, BC, WHNP	Factors Associated with Obesity Among Low Income Children in San Antonio
May 28, 2004	Brian Gugerty, DNSc, RN	Administration of the CISQ in a Long Term Care Setting
June 18, 2004	Kathleen Charters, PhD, MSSM, BSN, BS Thomasine Guberski, PhD, RN, CRNP	HIPAA & Clinical Research
June 22, 2004	Michael Weaver, PhD, RN, FAAN	Occupational Health & Cardiovascular Risks

Revised 04/22/08

Research Seminars

September 15, 2004	Kathleen Buckwalter, PhD, RN, FAAN	Capacity Building in Gerontological Nursing Research
October 5, 2004	Pamela Rowsey, PhD, RN	Febrile Response to Environmental Toxins: A Unique Pathophysiological State
October 13, 2004	Karla Damus, PhD, MSPH, RN	The Rising Preterm Birth Rate: Time for a Paradigm Shift
October 29, 2004	Susan Dorsey, PhD, RN	Molecular Mechanisms of Neuronal Death in Animal Models: Implications for Alzheimer's Disease
November 5, 2004	Fatima Ramos-Marcus, PhD, RN, CS, FAAN	Observational Data in Quantitative Studies
November 19, 2004	Eun-Shim Nahm, PhD, MS, RN Barbara Covington, PhD, RN	Development of Theory-Based Online Health Learning Modules for Older Adults: Lessons Learned
December 3, 2004	Chris Ward, PhD	Altered Calcium Signaling in the "Universe" of Pathophysiology: Insights from the "Local Neighborhood"

Research Seminars

Year: 2005

Date	Presenter	Title
January 10, 2005	Barbara Smith, PhD, RN, FACSM, FAAN	Seeking Funding from the American Nurses Foundation (ANF)
January 24, 2005	Barbara Habermann, PhD, RN	Research with Persons and Families with Parkinson's Disease to Enhance Quality of Life
January 28, 2005	Joe Giffels, MAS	Responsible Conduct of Research
February 16, 2005	Donna L. Algase, PhD, RN, FAAN, FGSA	A Vision Realized
February 25, 2005	Cynthia Renn, PhD, RN	Physiologic Approaches to Understanding Chronic Pain
March 7, 2005	Thomasine Guberski, PhD, RN, CRNP	Nurses and the AIDS Epidemic in Uganda
March 28, 2005	Brian Hockenberry Danielle Brown	You Want To Do What With Your Grant Money? Post Award Grant Management and the Financial Accounting System (FAS)
April 11, 2005	Dawn Mueller, PhD, RN	Neonatal Brain Injury and Potential Interventions: Hypothermia and Stem Cell Therapy
April 19, 2005	Veronica Feeg, PhD, RN, FAAN	A Year at the IOM: The Research Roads that Brought Me to Here
April 22, 2005	Lorraine Tulman, DNSc, RN, FAAN	Women's Health: How Are We Really Defining Health?
May 16, 2005	Meridean Maas, PhD, RN	Iowa's Hartford Center of Geriatric Nursing Excellence
May 17, 2005	Melissa Faulkner, DSN, RN	Cardiovascular Risks in Adolescents with Type 1 or Type 2 Diabetes

Research Seminars

June 10, 2005	Barker Bausell, PhD	Statistical Power: What It Means. How To Improve It
June 24, 2005	Jane Kapustin, RN, MS, CCRN, CRNP	Gestational Diabetes and the Future Maternal Risks of Type-2 Diabetes
July 11, 2005	Susanna Nemes, PhD	Future Vision for the PAHO/WHO Center
September 16, 2005	Victor Peguero, MA Myrna Petersen, BA	Who Funded Your Research? Alternate Funding Sources Other Than NIH
September 19, 2005	Kathleen Palmer, RN, CCRC	Protocol Writing: It's in the Detail
September 23, 2005	Deborah E. Jones, BS, BSN, MSN, RN	Moderating Effects Between Socioeconomic Status, Perceived Susceptibility and Seriousness, and Knowledge of Heart Disease and Its Risk Factors in African-American Women
September 27, 2005	Joachim Voss, PhD, RN	Identification of Biomarkers for Fatigue in HIV: A Bench to Bedside Approach
September 30, 2005	Sandy Summers, RN, MSN, MPH	Sinners or Saints? The Media's Depiction of Nurses and How We Can Fix It
October 7, 2005	Sherrie Lessans, MSN, RN (Doctoral Student)	When Left-Handed Mice Hurt in a Right-Handed World: Cerebral Lateralization and Its Relevance in Chronic Pain
October 19, 2005	Jane Armer, PhD, RN	Breast Cancer Lymphedema: The First 24 Months After Diagnosis
October 21, 2005	Janean Holden, PhD, RN	Hypothalamic Modulation of Nociceptive and Neuropathic Pain
October 28, 2005	Louise Jenkins, PhD, RN	A National Survey: Doctoral Student Attitudes on Choosing a Faculty/Teaching Role
November 11, 2005	Gail Lemaire, PhD, RN, CS-P	Depression and Well-Being: Women's Responses to Androgen Excess
November 18, 2005	Beth Collins Sharp, PhD, RN	AHRQ: Opportunities for Nurse Researchers and Resources for Nurse Clinicians/Educators
November 29, 2005	Mindy Tinkle, PhD, RN Ray Dionne, DDS, PhD	Intramural Research Opportunities at the NINR
December 2, 2005	Kathleen Palmer, RN, CCRC	Essential Documentation for Your Research Protocol
December 9, 2005	Fatima Ramos-Marcuse, PhD, RN, ANPC	Stability and Change of Depression in Adolescent Mothers
December 12, 2005	Ki Moore, RN, DNS, FAAN	Childhood Leukemia: Contributions and Consequences of CNS Treatment

Research Seminars

Year: 2006

Date	Presenter	Title
January 13, 2006	Brian Hockenberry Victor Peguero	Electronic Submissions: The New Frontier
January 20, 2006	Clare Hastings, PhD, RN, FAAN	The Nursing Research Agenda at the NIH Clinical Center
February 10, 2006	Kathleen Palmer, RN, CCRC	Recruiting Participants for Research and the Informed Consent Process
March 15, 2006	Nancy Glass, PhD, MPH, RN	Joining Forces, Joining Voices: A Participatory Research Approach to Reducing Health Disparities in Survivors of Intimate Violence
March 17, 2006	Marisue Cody, PhD, RN	Challenging the Paradigm of IRB Review of Multicenter Research
March 20, 2006	Cara Krulewitch, PhD, CNM	The Epidemiology of Intimate Partner Homicide-Suicide in Maryland 1994-2002
April 17, 2006	Mary MacFadden RN, BSN	Quality Management in Research
April 21, 2006	Deborah McGuire, PhD, RN, FAAN	Responding to a Summary Statement to Maximize Chances for a Successful Funding Opportunity
April 28, 2006	Eun-Shim Nahm, PhD, MS, RN	Responding to a Summary Statement to Maximize Chances for a Successful Funding Opportunity: Part II
May 9, 2006	Elizabeth Beattie, PhD, RN, FGSA, Research Compliance Associate, University of Michigan	Building and Teaching a Gero-Psychiatric Curriculum: Challenges and Choices
June 5, 2006	Lyn Murphy, PhD, RN	Determinants of Behavior Among Women Choosing to Engage in Street-Level Prostitution
June 9, 2006	Jane Kapustin, MS, RN, CRNP	Gestational Diabetes: Healthcare Provider Adherence to Clinical Practice Guidelines

Research Seminars

July 17, 2006	Linda Phillips, PhD, RN	Vulnerability Among Frail Elders Through a Nursing Lens
September 15, 2006	Debra Wiegand, PhD, RN	Moral Distress and Critical Care Nurses
September 22, 2006	Joe Burrage, PhD, RN	Behavioral Aspects of Health Screening, Care and Prevention: A Research Trajectory Based on Pilot Studies of People with HIV
October 9, 2006	Jane Lipscomb, PhD, RN, FAAN	Workplace Violence Prevention: Center Research and Action in Three States
October 27, 2006	Alison Trinkoff, ScD, RN, FAAN	Occupational Health of Nurses
November 10, 2006	Jeanne Geiger-Brown, PhD, RN	Nurses Working 12-hour Shifts: Sleep Opportunity, Fatigue and Neurocognition
November 13, 2006	Cara Krulewitch, PhD, CNM	Intimate Partner Homicide and Intimate Partner Homicide-Suicide in Maryland Among Women of Childbearing Age
December 1, 2006	Fatima Ramos-Marcuse, PhD, ANPC	Temperament, Caregiving and Socioemotional Adjustment of Irritable Infants
December 8, 2006	Duck-Hee Kang, PhD, RN, FAAN	Psychoneuroimmunology: Developing a Program of Behavioral Research
December 15, 2006	Karen Clark, PhD, RN	Early Events in the Emergency Department for Admitted ICU Patients on Outcomes of Hospital Mortality and Length of Stay
December 18, 2006	Erika Friedmann, PhD	Changes in Depression, Anxiety and Social Support in Heart Failure Outpatients with Implantable Cardioverter Defibrillators

Research Seminars 2007

Date	Presenter	Title
March 5, 2007	Debra Scrandis, PhD, CRNP, BC	Social Support Usage Among Inner City Women with Postpartum Depressive Symptoms
March 12, 2007	Rick Barth, PhD Dean & Professor	Intimate Partner Violence and Pathways into Child Welfare and Domestic Violence Services: Findings from the National Survey on Child and

Research Seminars

	School of Social Work	Adolescent Well-Being
March 30, 2007	Sandra Picot, PhD, RN, FAAN Associate Professor, OSAH	Blood Pressure and African American Women (BPAAW): A Proposed Study
April 13, 2007	Jane Armer, PhD, RN Professor, Sinclair School of Nursing, University of Missouri-Columbia	Post-Breast Cancer Lymphedema – 24 Months After Diagnosis: Review of Anthropometric and Self-Report Symptom Measures and Findings
April 17, 2007	John Lowe, PhD, RN Associate Professor Florida Atlantic University	Conducting Culturally Appropriate Research Among Native American Indians
April 23, 2007	Deborah McGuire, PhD, RN, FAAN Suzanne Feetham, PhD, RN, FAAN	Health Policy and Science Policy: Positioning Programs of Research and Scholarship for Team Science
May 21, 2007	Susanna Nemes, PhD	Title: "Funding My Future: What I need to know to develop a pre-doctoral training application"
June 1, 2007 CANCELLED	Charlene Quinn Assistant Professor, Epidemiology, School of Medicine	Building a Research Trajectory
June 4, 2007 CANCELLED	Patricia Morton, PhD, RN, CRNP, FAAN	Tips on Publishing your Research
June 15, 2007	June Lunney, PhD, RN	Functional Decline at the End of Life
June 18, 2007	Suzanne Feetham, PhD, FAAN Dawn Mueller-Burke, PhD, CRNP, RNC Jeanne Geiger-Brown, PhD, RN	Title: Mapping; Demonstrating Outcomes and Directions of Research and Scholarship; Overview and School of Nursing Faculty Experiences
September 21, 2007	Suzanne Feetham Jeanne Geiger Brown Dawn Mueller Burke	Mapping; Demonstrating Outcomes and Directions of Research and Scholarship; Overview and School of Nursing Faculty Experiences
October 12, 2007	Robin Newhouse	Measuring Attributes of Rural Hospital Nursing: Survey Development and Testing
October 26, 2007	Elizabeth Galik	Testing and Feasibility and Impact of a Restorative Care Intervention on Nursing Assistants and Nursing Home Residents with Moderate to Severe Cognitive Impairment
October 31, 2007	Carla Storr	Trauma and PTSD

Research Seminars

November 16, 2007	Willem J Kop	Chronic and acute psychological risk factors for coronary artery disease
November 30, 2007	Lillian Nail	Symptom Clusters During Breast Cancer Treatment: Questions, Controversies and a Few Answers

Research Seminars 2008

Date	Presenter	Title
January 18, 2008 (Fri.) (Room 730)	Dr. Smith and Dr. Guberski	"Providing Health Care in Resource Poor Countries"
February 4, 2008 (Mon.) (Room 730)	Dr. Barbara Sattler, RN, DrPH, FAAN-FCH dept.	Nurses' exposures to potentially toxic chemicals in their workplaces
February 15, 2008 (Fri.) (Room 730)	Debra Berlanstein, MLS Health Sciences & Human Service Library, University of Maryland, Baltimore	Introduction to the Lexis-Nexis Database'
March 3, 2008 (Mon.) (Room 730)	Jane A. Lipscomb	Action research in the home care work environment"
March 14, 2008 (Fri.) (Room W208)	Nancy Ridenour	Policy Fellowship and Nursing
March 28, 2008 (Fri.) (Room 730)	Jennifer T. Loud MSN, CRNP Nurse Specialist, Research Clinical Genetics Branch Division of Cancer Epidemiology and Genetics National Cancer Institute National Institutes of Health	
April 18, 2008 (Fri.) (Room 730)	Kate McPhaul	Pandemic Flu: Implications for the Low Wage Home Care Workforce
April 29, 2008 (Tues.) (Room 150)	Jean Roayaei, Biostats candidate	Microarray Gene Expression Analysis of two cancer cell lines, DU145 & RC.01 Using R-Bioconductor

Research Seminars

April 30, 2008 (Wed) Room 730	Debra Wiegand Sandra Giangrande Kathy Michael	
May 1, 2008 (Thurs) Room 730	Yulan Liang, Biostats candidate	Statistical Methods in Human Genomic Research for Common Diseases
May 5, 2008 (Mon.) (Room 730)	Barbara Sattler	National Nurses Survey
May 19, 2008 (Mon.) (Room 730)	Christine Wasunna PhD, Special Assistant to the Secretary of Kenyan Medical Research Institute, Ethics Committee, Nairobi Kenya	International Research Ethics: A Kenyan Perspective
May 9, 2008 (Fri) (Room 730)	Kevin Frick School of Public Health at Johns Hopkins	
May 30, 2008 (Fri.) (Room 730)	Sandra McLeskey	Factors associated with student success in Pathopharmacology
May 19, 2008 (Mon) Room 730	Christine Wasunna Nairobi Kenya	International Research Ethics: A Kenyan Perspective
June 13, 2008 (Fri.) (Room 730)	Susan Dorsey, Chris Ward, and Lyn Murphy	Creating Poster Presentations
June 16, 2008 (Mon.) (Room 730)	Jeanne Geiger-Brown	

APPENDIX B

Definitions of Centers of Excellence, Developing Centers of Excellence, and Proposed Centers of Excellence

CENTER OF EXCELLENCE (COE):

Definition of a COE is:

- a. Two or more faculty with current collaborative research funding (R equivalent) and a substantial track record of funding in an area of excellence that supports the work of the Center.
- b. Evidence of collaborative scholarship between/among faculty members in an area of excellence that supports the work of the Center in the form of juried/refereed presentations, peer reviewed publications and/or grant applications.
- c. Has the faculty members and infrastructure to support/mentor pre- and post-doctoral fellows in an area of excellence that supports the work of the Center.

Application for COE:

An application for becoming a designated COE can be made by a group of SON faculty members who believe they meet **all** criteria to become a COE. This application should provide evidence of how the group meets the criteria for a COE and how the group plans to carry out the mission of its research Center. This application will be reviewed by current COE and DCOE directors and the Associate dean for Research. Based on the reviews, the current COE and DCOE directors and the Associate dean for Research will provide a written recommendation to the Dean of the SON.

DEVELOPING CENTER OF EXCELLENCE (DCOE):

Definition of a DCOE is:

A group of faculty members that have made substantive progress **in most if not all** of the criteria for a COE. That is,

- a. Two or more faculty with current collaborative research funding (R equivalent) and a substantial track record of funding in an area of excellence that supports the work of the Center.

- b. Evidence of collaborative scholarship between/among faculty members in an area of excellence that supports the work of the Center in the form of juried/refereed presentations, peer reviewed publications and/or grant applications.
- c. Has the faculty members and infrastructure to support/mentor pre- and post-doctoral fellows in an area of excellence that supports the work of the Center.

Application for DCOE:

An application for becoming a designated DCOE can be made by a group of SON faculty members who believe they meet **most if not all** of the criteria to become a DCOE. This application should provide evidence of how the group meets the criteria for a DCOE and how the group plans to carry out the mission of its research Center. This application for DCOE will be reviewed by current COE and DCOE directors and the Associate dean for Research. Based on the reviews, the current COE and DCOE directors and the Associate dean for Research will provide a written recommendation to the Dean of the SON.

PROPOSED CENTER OF EXCELLENCE (PCOE):

Definition of a PCOE is:

Two or more faculty who wish to conduct collaborative research in an area of excellence that may support their work and could eventually support the work of a Center. At minimum, faculty members should have a track record of extramural research funding (R equivalent) and be able to articulate how they intend to make progress towards the criteria for a (D)COE.

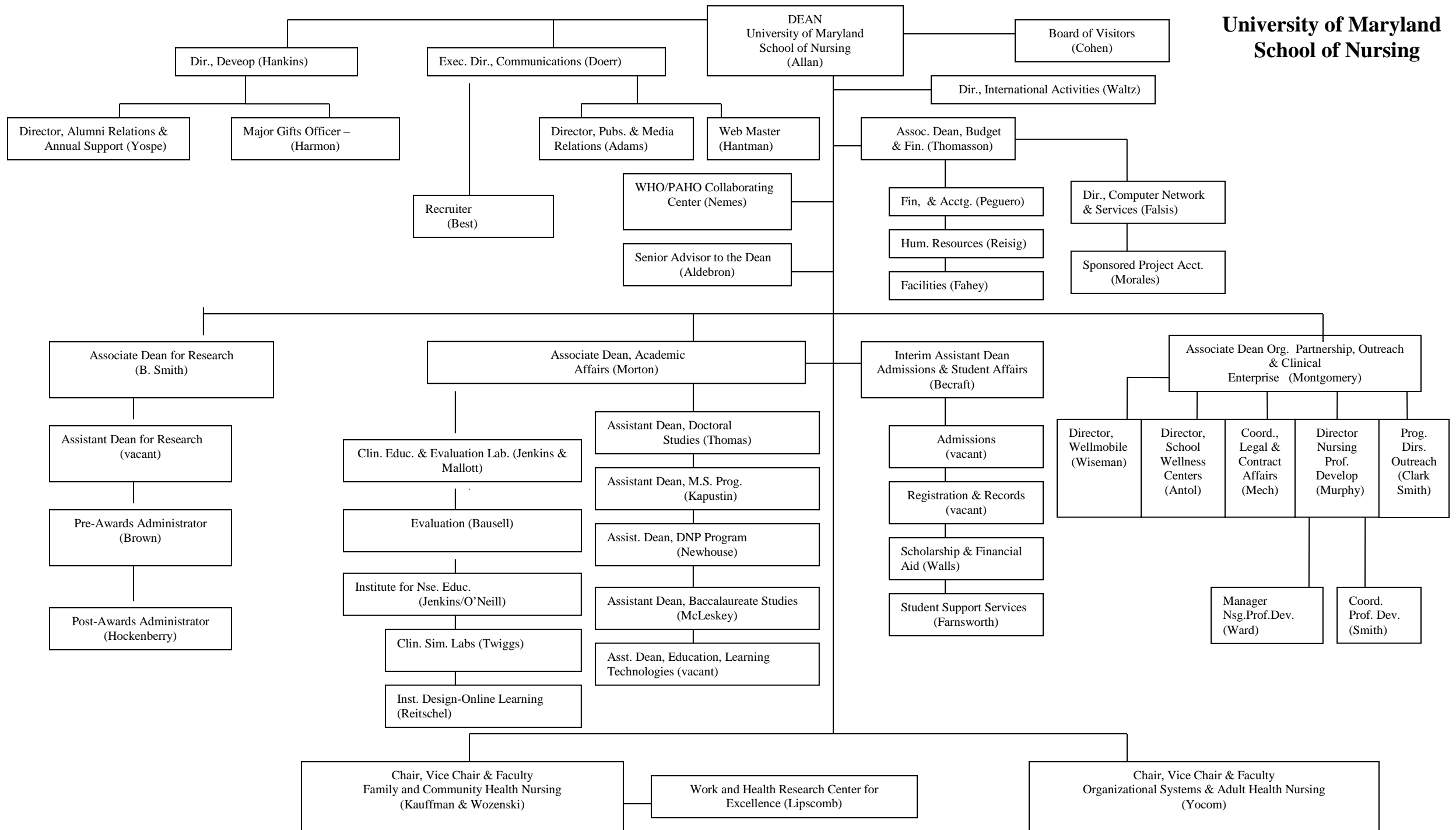
Application for PCOE:

A letter of intent to be designated a PCOE can be made by a group of SON faculty members who believe that over the next two years they will meet **most if not all** the criteria for being designated either a DCOE or COE. This letter should identify the overall mission of the proposed (D)COE and discuss how the group plans to meet the criteria for a DCOE/COE over the next two years. This letter will be reviewed by current COE and DCOE directors and the Associate dean for Research. Based on the reviews, the current COE and DCOE directors and the Associate dean for Research will provide a written recommendation to the Dean of the SON. At the end of the two year period a successful application for being designated a (D)COE must be made or the PCOE lose their designation.

COE, DCOE, PCOE EVALUATION:

All COEs, DCOEs and PCOEs must prepare an annual report of accomplishments (pilot funded awarded, seminars provided, center member publications/presentations, and grants submitted and awarded), over all progress toward their mission, and circulate to the Center Directors, Associate Dean for Research, appropriate department chair(s) and the Dean for review and comment.

University of Maryland School of Nursing



VII. STUDENTS

Introduction

Section VII, students describes the current PhD students. In the 2002 external review, the diversity of the student body, student satisfaction with the program and student understanding of relevant problems in nursing science were noted as strengths. The reviewers also suggested a higher cut off for the GRE scores. At the time of the last review the average verbal score was 473 and average quantitative score was 521 in years 1997-2001. Currently, the average verbal score is 500 and average quantitative score is 544 for years 2003-2008. Details of the current GRE scores are on page 5.

Other major improvements included in this section are the increase in financial support for students, increasing number of full-time students, the newly appointed PhD Admissions and Progression Advisory Group and the dissertation manuscript option. The accomplishments of the students conclude this section. This section also documents the quality of the students and the progress since the 2002 review.

Number of Students

As of Spring 2008, there were 68 students enrolled in the PhD Program. Of these students, 28 (41%) are in their first year of course work and 16 of the first year students are preparing for the Preliminary Examination; 14 (21%) are post-Preliminary Examination and pre-Admission to Candidacy (approximately second to third year of study), and the remaining 26 (38%) have passed their Comprehensive Examination and been admitted to candidacy. The size of the PhD program is the result of deliberate and close monitoring of faculty resources, student progression, and number of graduations are factors.

Profile of Students

The average age of current PhD students is 45 years. Of these 68 students, 6 (8.8 %) are male with the remainder female. The majority of students 49 (72.1%) are Caucasian, there are 9 (13.2%) who are African-American and 7 (10.3%) who are Asian and 3 (4.4%) who are other minorities. Currently five (7.3 %) are international students. The diversity of the student body is comparable to the last program review in 2002. The only decrease is in the percentage of international students (2002, 13% vs. 2007, 7.3%). Throughout the SON, attention is given to enhancing diversity in recruitment of students, faculty and staff. The SON has been very successful in achieving a diverse student body. In Fall 2007, of a total student body of 1,606 students, the total minority figure was 41.7%.

To be classified as a full-time student, the student must be registered for 48 units of course work, which is equivalent to 9 credits. At the time of the 2002 program review, 38 (52.7%) of the students were full time. Currently, 42 students are in course work, of these 30 (71%) are full time and 12 (29%) are part time; the remaining 26 students are in dissertation phase. In the Fall 2008 incoming class, 9 of the 11 (81%) students are full time. The increased percentage is particularly good news given the faculty shortage and reflects student commitment to devoting a significant portion of their time to the program. An additional factor that could be contributing to the increasing percentage of full-time students is that financial assistance and scholarships are available for full-time students than was available in the past. As will be seen later in this section, the SON has had a significant increase in the scholarship funding for PhD students. This funding has been helpful in the recruitment of students as well as encouragement of full-time study.

Qualifications of Applicants

Consistent with the AACN 2001 *Indicators of Quality in Research Focused Doctoral Programs in Nursing*, students are selected from a pool of highly qualified and motivated applicants who represent diverse populations. Table VII.1 documents the history of applicants over the past 5 years and portrays the number of applications, acceptances, matriculations average GRE scores, and GPAs since 2003. The number of completed applications (though an approximate number), were 18 in 2002 and in the past 4 years have increased to an average of 25 per year. Table VII.1 lists number of applications received, number of students admitted, mean GREs, mean GPA's and number graduated in the years 2003-2008. The mean GREs have increased slightly over the past 5 years. The students are no longer reviewed on a rolling admission basis. The deadline for applications is once a year in early February and applicants are reviewed as a cohort.

Since the 2002 report, the PhD Admissions and Progressions Advisory Group was instituted. This stable group provides increased consistency in the review of applicants. The membership consists of four faculty members from each of the two departments. When complete, applications are reviewed by the Assistant Dean of the PhD Program and the Chair of the PhD Admissions and Progressions Advisory Group. They then identify two SON faculty (one member of the Advisor Group and one faculty member with similar research interests) to interview the applicant. Ideally, this interview is conducted in person. If not possible, and particularly in the case of international students, the interview is done by telephone. Purposes of this interview are to clarify questions that may arise from the application as well as to assess the suitability of the applicant for doctoral study within the SON program. The faculty members interviewing the applicant consider the information and make a recommendation to the Assistant Dean of the PhD Program and the Admissions and Progressions Advisory Group who discuss and evaluate all the

applicants. Applicants are considered with regard to their academic potential as well as the extent to which their goals and objectives are congruent with faculty research expertise and scholarship as well as institutional resources. These decisions are sometimes difficult. Every effort is made to accommodate qualified applicants particularly since the PhD Program is the only one in a publicly supported university in the state. At the same time, there is increasing emphasis on the fit of the applicant with faculty research expertise and scholarship. The final recommendation to admit or deny admission is sent to the graduate school by the Assistant Dean of the PhD Program.

In the past five years, with a more targeted research emphasis, an observable increase in the match between student and mentor or center has occurred. We currently have a 100% match in the 2008 class. It is expected that matching of student to mentors will increase as the SON continues to expand the growth of its targeted research enterprise (Centers of Excellence, Developing Centers of Excellence and Proposed Centers of Excellence). See Table IV.1 in chapter IV page 16 for a five year summary of student mentor/center match.

Table VII.1: Year Admitted to Program, GRE Scores, GPA, Number of Graduates from Year Entered and Average Years to Graduation

Year	Number of Completed Applications	Number Accepted	Number of Applications not Accepted	Number Matriculated	Mean Total GRE (Matriculated)			Mean GPA (Matriculated)	Number of Graduates	Mean Number Years from Matriculation to Completion of Program
					V	Q	A/AW			
2003	16	12	4	10	509	485	4.5/578	3.62	3	3.7
2004	18	13	5	11	463	576	3.8/790	3.79	3	3.3
2005	24	16	8	12	547	540	4.5	3.82	*	*
2006	26	23	3	15	496	516	4.2/510	3.82	*	*
2007	27	22	5	16	485	604	4.0/595	3.79	*	*
2008*	23	17	6	pending						

* Time in program not sufficient for calculating graduation

Student Financial Support

Financial support for doctoral students in nursing has unique challenges. Given that nurses in doctoral programs are licensed professionals, they can make considerably more money working as nurses than as Graduate Assistants. Since many of these nurses return to school a number of years after obtaining baccalaureate and/or master's degrees, they are often in high-level positions in health care. They typically have responsibilities that cannot be supported by scholarship or traineeship dollars traditionally available to doctoral students. This reality can make full-time study difficult. The SON has addressed the unique challenges from several perspectives.

PLUS Awards

A major source for funding PhD students is the PLUS Award Program sponsored by the Graduate School. Each year the Assistant Dean of the PhD Program is asked to nominate students to receive this award which consists of a \$2,000 honorarium and tuition remission for up to 10 credits for each fall and spring semester. The nominations are based on academic achievement (i.e., nominees are ranked by GPA and GRE scores). The nominations are not restricted to full-time students. This factor has been particularly helpful for SON PhD students in that each year, at least some of the awardees have been able to engage in full-time study that had previously not been possible for them. Award recipients for the coming year were announced in April 2008 and 12 students will be receiving these awards for the 2008-2009 academic year. The 2007-2008 rate of graduate tuition is \$418/credit, 10 credits of tuition for two semesters for in-state students amounts to \$8,360. Tuition, in addition to the \$2000 honorarium, amounts to an approximate PLUS Award value of \$10,360. Currently 13 PhD students have Graduate PLUS Awards for the 2007-2008 year which reflects \$134,680 student support from the Graduate School.

The number of PLUS Awards per program in the UMB Graduate School is based on a formula in which the number of currently enrolled students is a factor; thus the number of these awards varies by year. In 2002, the SON received 7 Merit (PLUS) Awards compared to our current 13 PLUS awards.

Graduate Teaching (GTA) and Research Assistantships (GRA)

An additional source of financial support for students is Graduate Assistantships. Each full time GRA or GTA receives \$19,000 in stipend and full tuition reimbursement. The GRA or GTA must work 20 hours/week for the SON faculty. As of Spring 2008, 12 SON PhD students hold appointments as Graduate Assistants. Four of these are funded from the Graduate School and the remaining 8 are funded by faculty grants and contracts or departmental funds.

Graduate Assistance in Areas of National Need (GAANN)

The GAANN program was specifically created to provide fellowships through academic departments of institutions of higher education. This program serves students who are pursuing a program leading to a graduate degree in an area of national need. The SON was awarded \$889,525 in 2006 for tuition and stipends for three years. In 2006-2007 there were 7 fellows and in 2007-2008 the GAANN funds supported 10 fellows. All students in the GAANN fellowship program are full time.

Clearly, funding has improved since the 2002 report. Significant strides have been made in improving the availability of funds for PhD students in recent years, but concerted efforts must continue to assure and extend this progress. The major source in increased funds is the GAANN fellowships and funded projects of faculty which contribute to the research enterprise of the SON. The increased level of support for SON PhD students is helpful in student recruitment and has increased the number of full time PhD students.

Student Success in Obtaining Financial Support

Throughout the history of the PhD Program at the SON, success in competing for and obtaining financial support has been evident. There are several sources for this support.

A small number of students are supported by the United States military to pursue their PhD. In 2007-2008 four students are fully supported in this way. Two students are active duty Naval officers and two are active duty Air Force officers. Two students have received scholarships from the American Cancer Society (ACS). Mary Ellen Haisfield-Wolfe received a one year student scholarship for \$15,000 and Myra Woolery received a 2 year student scholarship for \$30,000. Margaret Bevans and Nancy Ames received predoctoral awards from NIH Clinical Center to fund their studies. From 2003-2007 three students, Elizabeth Galik, Ingrid Pretzor-Aboff and Pia Inguito were funded through the John A. Hartford Academic Geriatric Nursing Capacity Scholarship. Susan Newbold, whose emphasis area was informatics, received a \$5,000 predoctoral scholarship from the Health Information and Management Systems Society.

These examples demonstrate that students are successful in obtaining financial support for their education and research. While submission of an application for an NRSA proposal is not required in the program, it is strongly encouraged. The difficulty in submission of NRSA proposal currently, is the match of funded mentors to eligible students. As the intensiveness of the environment for research continues to grow at the SON, and students are increasingly involved in faculty research activities, it is expected that submission of applications for external funding will become the norm for nursing PhD students.

Dissertation Manuscript Option

In recent years concerns have been raised about the use of the traditional chapter-based dissertation format. Many believe that the traditional dissertation format does not foster the critical writing skills needed to be successful in getting research published nor does it translate

well into manuscripts for publication with strict page restrictions. Therefore, the University of Maryland SON Doctoral Curriculum Subcommittee examined the issues involved in using a Dissertation Manuscript Option and approved a pilot of this option to fulfill dissertation requirements beginning in Spring 2007. The pilot period should last 3-4 years (or enough time that at least 3 students use the alternative format). The selection of this option can only be done in consultation with the research advisor and with their strong support. One student, Mary Chaffee has completed her dissertation using the manuscript format and the dissertation will be available at the time of the external review. Depending on the experience and evaluation of the pilot, the option may be modified before becoming a permanent alternative to, but not replacement of, the traditional format.

1. Manuscript option procedures

In consultation with their research advisors, students determine that they want to use this option. This decision should occur early in the program so students can begin to target their coursework and publications. If the student elects to use the manuscript option, they can switch to the traditional but cannot switch back to the manuscript option. While the traditional dissertation generally consists of a format of several chapters (e.g., introduction, review of literature, methods, results, and discussion), the alternative dissertation will consist of:

- an introductory chapter, including literature review, summary of methods, and overview of manuscripts
- a minimum of three manuscripts
- a concluding chapter that synthesizes the overall body of work and translation of research findings into practice
- appendices appropriate to provide detail of the study methods and accompanying data tables necessary to fully understand the data.

To meet UMB Graduate School requirements, the dissertation manuscript option must meet the same formatting guidelines as a traditional dissertation (e.g., abstract, table of contents, list of tables and figures, etc.) and reprints or articles must be reformatted to conform to Graduate School dissertation format requirements. For example, there may be an introductory chapter introducing the problems studied and providing an overview of the manuscripts. Chapter 2-4 may be the manuscripts, while chapter 5 may reflect a discussion and implications of the overall body of work.

Manuscripts must be first authored by the student, with at least 2 of the manuscripts must present original data-based findings emanating from the dissertation research. Data-based findings can reflect psychometric analyses as well as analyses addressing research questions. The manuscripts cannot reflect analyses done prior to beginning the PhD program. Journals will be selected in consultation with the research advisor and dissertation committee and must be peer reviewed. Prior to the submission of each manuscript, the advisor must approve the manuscript. After the advisor's review, each manuscript must be approved by the majority of the thesis/dissertation committee. By the time of the dissertation defense, all manuscripts should be deemed as "publication quality" by the dissertation committee with at least one manuscript having been "accepted for publication" and at least one other manuscript "in review" by a peer reviewed journal appropriate for the manuscript content. The publications should represent research or scholarship comparable in scope and contribution to the portion of the standard dissertation that it replaces.

The alternative format dissertation should be integrated throughout the students' course work. For example, a critical review of research on a topic conducted in one course may provide the basis for a manuscript that serves as the review of literature chapter. A pilot study conducted in the quantitative or qualitative methods courses may be expanded to form one study and

manuscript for the dissertation. A psychometric pilot study for the measurement course may be extended to form yet another study and manuscript. Thus, students may begin to submit manuscripts for publication during course work, and those same manuscripts may form parts of the dissertation.

2. Roles and responsibilities of students and committee

The research advisor works closely with the student throughout the course of study to guide the development of manuscripts for journals. The advisor assumes the primary role in helping the student learn and negotiate the process of authorship. The entire committee can work with the student regarding the “art” of publishing their research, such as the process of selecting an audience and journal for a specific body of work; the role of coauthors; and the submission, review, and publication process. The majority of the committee members must approve manuscripts before submission. The role of the dissertation chair and committee members in research publications will follow standard criteria for contributions of authors, namely that authorship is based on substantive contribution of an individual to the conceptualization, conduction and reporting of the research findings. Co-authorship should be discussed and established early in the manuscript preparation process.

Regardless of the format of the dissertation, where doctoral research efforts are a part of a larger collaborative project, it is crucial that an individual student’s contribution be precisely delineated. Whether the collaboration is between faculty and student or among students, PhD candidates are expected to be able to demonstrate the uniqueness of their own contributions and to define what part of the larger work represents their own ideas and individual efforts. Publications resulting from the student’s research must clearly describe the unique contributions of the student and coauthors.

Student Achievements

In the past three years, students currently enrolled in the program have been sole or co-authors of approximately 50 publications (23 book chapters and 27 articles) and 37 presentations at local, regional, national and international meetings and received multiple awards. See Table VII.2: Selected Recent PhD Student Accomplishments.

Relationship to AACN Quality Indicators 2001

Consistent with the AACN Quality Indicators for students: 1) Students are selected from a pool of highly qualified and motivated applicants who are representative of diverse populations and cultures; 2) Increasingly, their research interests fit with the SON Centers of Excellence; 3) There is a base of financial support and students are increasingly successful in obtaining funding for their training and research when they apply; 4) There is a trend toward more full-time students as greater financial support for students has become available; 5) PhD students are establishing a pattern of productive scholarship, collaborating with researchers in nursing and other disciplines in scientific endeavors resulting in presentation and publication of scholarly work; and 6) Beginning this pattern during doctoral study lays the foundation for these activities to continue after graduation.

Reference:

American Association of Colleges of Nursing. (November, 2001). *Indicators of Quality in Research-Focused Doctoral Programs in Nursing*, Washington, D.C.

Table VII.2: Selected Recent PhD Student Accomplishments

Publications

Hunt, E., **Breckenridge-Sproat, S.**, Kitzmiller, R. (2006). Hardware and Software Selection. In: Hannah, KJ., Ball, MJ., Edwards, M J. eds. *Introduction to Nursing Informatics, 3rd Edition*, Springer Verlag.

Hunt, E., **Breckenridge-Sproat, S.**, Kitzmiller, R. (2006). Implementation concerns. In: Hannah, KJ., Ball, MJ., Edwards, MJ. eds *Introduction to Nursing Informatics, 3rd Edition*, Springer Verlag.

Hunt, E., **Breckenridge-Sproat, S.**, Kitzmiller, R.(2004). *The Nursing Informatics Implementation guide*, Springer-Verlag.

Breckenridge-Sproat, S., Hunt, E. (2003). *Website Development and Design*, National Nursing Staff Development Organization (NNSDO) Monographs.

Mason, D.J., Leavitt, J.K., and **Chaffee, M.W.** (Eds.). (2007). *Policy and Politics in Nursing and Health Care* (5th ed.). St Louis: Elsevier.

Mason, D.J. Leavitt, J.K., & **Chaffee, M.W.** (2007). Policy and politics: A framework for action. In D.J. Mason, J.K. Leavitt & M.W. Chaffee (Eds.), *Policy and Politics in Nursing and Health Care* (5th ed.). St Louis: Elsevier.

Chaffee, M.W. (2007). Communication skills for political success. In D.J. Mason, J.K. Leavitt & M.W. Chaffee (Eds.), *Policy and Politics in Nursing and Health Care* (5th ed.). St Louis: Elsevier.

Malone, P., & **Chaffee, M.W.** (2007). Interest groups: Powerful political catalysts in health care. In D.J. Mason, J.K. Leavitt & M.W. Chaffee (Eds.), *Policy and Politics in Nursing and Health Care* (5th ed.). St Louis: Elsevier.

Kerfoot, K., & **Chaffee, M.W.** (2007). Ten keys to unlocking policy change in the workplace. In D.J. Mason, J.K. Leavitt & M.W. Chaffee (Eds.), *Policy and Politics in Nursing and Health Care* (5th ed.). St Louis: Elsevier.

Wyrsh, S.J., **Chaffee, M.W.**, and Dickson, B. (2007). Political appointments. In D.J. Mason, J.K. Leavitt & M.W. Chaffee (Eds.), *Policy and Politics in Nursing and Health Care* (5th ed.). St Louis: Elsevier.

Malone, T.A, & **Chaffee, M.W.** (2007). Political activity: Different rules for government-employed nurses. In D.J. Mason, J.K. Leavitt & M.W. Chaffee (Eds.), *Policy and Politics in Nursing and Health Care* (5th ed.). St Louis: Elsevier

Chaffee, M.W. (2006). Making the decision to report to work in a disaster. *American Journal of Nursing*, 106(9), 54-57.

Chaffee, M.W., & Zangaro, G.A. (2006). The U.S. Navy Nurse Corps in 2006: A portrait of opportunity and service. *Navy Medicine*, September/October,

Chaffee, M.W., Lavin, R., & Slepiski, L. (2006). Nursing practice in homeland security. In P.S. Cowen and S. Moorhead, *Current Issues in Nursing* (7th ed.). Elsevier.

Chaffee, M.W. & Oster, N.S. (2006). The role of hospitals in disaster. In Ciottone, G.R. (Ed.). *Disaster Medicine*. St. Louis: Elsevier.

Chen, Y.-M., Chen, S.-H., Tsai, C.-Y., & Lo, L.-Y. (2007). Role stress and job satisfaction for nurse specialists, *Journal of Advanced Nursing*, 59(5), 497-509. (SCI)

Couture DJ, Maye, JP, O'Brien D, Beldia Smith (2006) A. Therapeutic Modalities for the Prophylactic Management of Postoperative Nausea and Vomiting. *Journal of Perioperative Nursing*. Dec;21(6): 398-403.

Edmonds, M. & McGuire, D. (2007). Treatment adherence in head and neck cancer patients undergoing radiation therapy: challenges for nurses. *Journal of Radiology Nursing*, (26) 3. 87-92.

Edmonds, M.F., & McGuire, D. (2007). Patients' perceptions of the importance of treatment adherence in head and neck cancer patients. *Oncology Nursing Forum*, (34) 253.

Larew, C., Lessans, S., & **Foster, D.**, Spunt, D., Covington, B. (2006) Issues in preparedness for biological terrorism: a perspective for critical care nursing. *AACN Clinical Issues*. 13(3). 452-469.

Haisfield-Wolfe, M.E., McGuire, D.B., Soeken, K., Geiger-Brown, J., & DeForge, B. (2008). Prevalence rates of depression in studies of head and neck cancer patients across the treatment trajectory: How do they inform practice? *Oncology Nursing Forum* (35) 512.

Jain, A., **Haisfield-Wolfe, M. E.**, Lange, J., Ahuja, N., Khouri, N., Tsangaris, T., Zhang, Z., Balch, C., Jacobs, L. K. (2007). The role of ultrasound-guided fine-needle aspiration of axillary nodes in the staging of breast cancer. *Annals of Surgical Oncology*. November 6.

Haisfield-Wolfe, M.E. (2006). Support groups. In Lerner, S.P., Schoenberg, M., Sternberg (Eds.), *Textbook of Bladder Cancer*. London: Taylor & Francis-Inforna, 755-758.

Thomas, S.A., Friedmann, E., Kao, C.W., **Inguito, P.**, Metcalf, M., Kelley, F.J., Gottlieb, S.S. (2006). Quality of Life and psychological status of patients with implantable cardioverter defibrillators. *American Journal of Critical Care*, 15(4), 389-398.

Smith, B.A., **Lee, H-J.** Lee, J.H., Choi, M., Jones, D.E., Bausell, R.B., Broome, M.E. (2008). Quality of reporting Randomized Controlled Trials (RCTs) in the nursing literature: Application of the Consolidated Standards of Reporting Trials (CONSORT), *Nursing Outlook*, 56, 31-37

Sue A. Thomas, Deborah Chapa, RN, PhD, CRNP, Erika Friedmann, PhD, **Cheryl Durden**, RN, MS, **Alyson Ross**, RN, MS, **Mei Ching Y. Wong**, RN, MS, **Hyeon-Joo Lee**, (2008). Depression in Patients with Heart Failure: Prevalence, pathophysiological mechanisms, and treatment, *Critical Care Nurse*, 28, 2.

McNeill, M. Cardiomyopathy, Infectious, Inflammatory, & Traumatic Cardiac Disorders, in Wood, Motzer, Jensen, Altman & Whitne (eds.) *Medical Surgical Nursing: A Pathophysiological Approach*. Philadelphia, Philadelphia. Lippincott-Raven, in press.

Geiger-Brown, J., **Rogers, V.**, Trinkoff, A., & Selby, V. Work schedules and stress among health professionals. In Halbesleben, J.R.B. (Ed.). *Handbook of Stress and Burnout in Health Care*. (in review)

Resnick, B., **Rogers, V.E.**, Galik, B., & Gruber-Baldini, (2007). A.L. Measuring Restorative Care Provided by Nursing Assistants: Reliability and Validity of the Restorative Care Behavior Checklist. *Nursing Research*, 56(6): 387-98.

Rogers, V.E. (2007). Care of the child with an ostomy. In N. T. Browne, L. M. Flanigan, C. A. McComiskey, & P. Pieper (Eds.). *Nursing Care of the Pediatric Surgical Patient*, 2nd ed (pp. 105-130). Boston: Jones & Bartlett Publishing.

Rogers, V.E. (2007). Wound management in neonates, children, and adolescents. In N. T. Browne, L. M. Flanigan, C. A. McComiskey, & P. Pieper (Eds.). *Nursing Care of the Pediatric Surgical Patient*, 2nd ed (pp. 105-130). Boston: Jones & Bartlett Publishing.

Ceballos, C., **Commentary by Rogers, V.E.** (2005). Management of Infants with Ulcerated Hemangiomas. *Journal of Wound, Ostomy and Continence Nursing*:32(1);58-63.

Borkowski, S., **Commentary by Rogers, V.E.** (2004). Similar Gastrostomy Peristomal Skin Irritations in 3 Pediatric Patients. *Journal of Wound, Ostomy and Continence Nursing*:31(4);201-6.

Friedmann, E., Thomas, S.A., Cook, L.A., **Tsai, C-C.**, Picot, S.J. (2007). A Friendly Dog as a Potential Moderator of Cardiovascular Response to Speech in Older Hypertensives. *Anthrozoos*, 20(1) 51-63.

Sabol, V.K., & Carlson, K.K. (2007). Diarrhea: Applying research to bedside practice. *AACN Advanced Critical Care*, 18(1), 32-44.

Steele, A.G., & **Sabol, V.K.** (2007). Anatomy and Physiology of the Gastrointestinal System. In: Morton, P. & Fontaine, D. (Eds.) *Critical Care Nursing: A Holistic Approach* (9th ed.) Philadelphia, PA: Lippincott, Williams and Wilkins.

Sabol, V.K., & Steele, A.G. (2007). Patient Management: Gastrointestinal System. In: Morton, P. & Fontaine, D. (Eds.) *Critical Care Nursing: A Holistic Approach* (9th ed.) Philadelphia, PA: Lippincott, Williams and Wilkins.

Steele, A.G. & **Sabol, V.K.** (2007). Common Gastrointestinal Disorders. In: Morton, P. & Fontaine, D. (Eds.) *Critical Care Nursing: A Holistic Approach* (9th ed.) Philadelphia, PA: Lippincott, Williams and Wilkins.

Saylor, J. (2005). Risk Factor Clusters for Metabolic Syndrome in Coronary Heart Disease: State of the Science. *Dimensions of Critical Care Nursing*: DCCN, 24(2), 64-69.

Nahm, E. S., Vaydia, V., Ho, D. **Scharf, B.**, & Seagull, J. (2007). Outcomes assessment of clinical information system implementation: A practical guide. *Nursing Outlook*, 55, 282-288.

Steinberg, JS., Joshi, S., **Schron, EB.**, Powell, J., Hallstrom, A., McBurnie, M. et al. (2008). Psychosocial status predicts mortality in patients with life-threatening ventricular arrhythmias. *Heart Rhythm*, In Press.

Jenkins, LS, Powell, J, **Schron, EB**, McBurnie, MA, Bosworth-Farrell, S, Moore, R, Exner, DV, for the AVID Investigators. (2007). Partner quality of life in the Antiarrhythmics Versus Implantable Defibrillator Trial. *J Cardiovasc Nurs*, 22(6):472-9.

Friedman, LM and **Schron, EB**. (2007). Intervention trials in individuals. In Detels, R, McEwen, J, Beaglehole, R, Tanaka, H, (Eds.), *Oxford Textbook of Public Health* (5th ed) New York: Oxford University Press.

Healey, JS, Hallstrom, AP, Kuck, KH, Nair, G, **Schron, EB**, Roberts, RS, Morillo, CA, Connolly, SJ. (2007). Role of the implantable defibrillator among elderly patients with a history of life-threatening ventricular arrhythmia. *Eur Heart J*, 14, 1746-9.

Healey, JS, Toff, WD, Lamas, GA, Andersen, HR, Thorpe, KE, Ellenbogen, KA, Lee, KL, Skene, AM, **Schron, EB**, Skehan, JD, Goldman, L, Roberts, RS, Camm, AJ, Yusuf, S, Connolly, SJ. (2006). Cardiovascular outcomes with atrial-based pacing compared with ventricular pacing: meta-analysis of randomized trials, using individual patient data. *Circulation*, Jul 4;114(1):11-7. *Epub 2006 Jun 26*.

Fleischmann, KE, Orav, EJ, Lamas, GA, Mangione, CM, **Schron, EB**, Lee, KL, Goldman, L. (2006). Pacemaker implantation and quality of life in the Mode Selection Trial (MOST). *Heart Rhythm June*, 3(6):653-9.

Kellen, JC, **Schron, EB**, Milne, J, Chandler, ML, Berg, CM, Ritchie, DA, Paterson, D, Sweeney, PA, Nelson, JD, Mickel, M, and the AFFIRM Investigators and Coordinators. (2006). Perceived Effects on Patients' Health of Participation in the Atrial Fibrillation Follow-up Investigation of Rhythm Management (AFFIRM) Study. *J Cardiovasc Nurs*, Sep-Oct;21(5):388-96.

Lewis, EF, Hellkamp, AS, Pfeiffer, MA, Greenspon, AJ, Machado, C, Singh, S, **Schron, EB**, Lee, KL, Lamas, GA. (2006). The association of the heart failure score with mortality and heart failure hospitalizations in elderly patients: Insights from the Mode Selection Trial (MOST). *Am Heart J*, March, 151(3):699-705.

Seckman, C., Romano, C. and Rosenfeld, S. (2004). Standard Web-Based Clinical Radiology Images and Reports at the Point of Care. In 17th IEEE Symposium on Computer-Based Medical Systems Proceeding Los Alamitos, California: *IEEE Computer Society*, pp. 67-71.

Woltz, P.C. (in press). Good Clinical Practice. In Klimaszewski, A., et al. (Eds.), *Manual for Clinical Trials Nursing, 2nd Edition*. Pittsburgh, PA: Oncology Nursing Society.

Woltz, P.C., Castro, K. and Parks, B.J. (2006). Care of Patients Undergoing Extracorporeal Photopheresis to Treat Chronic Graft Versus Host Disease. *Clinical Journal of Oncology Nursing*, 10(6), 795-802.

Woolery, M., Bisanz, A., Lyons, J.F., Gaido, L., Yenulevich, M., Fulton, S., & McMillan, S.G. (2008). Putting evidence into practice: Evidence-based interventions for the prevention and management of constipation in patients with cancer. *Clinical Journal of Oncology Nursing*, (12), 317-337.

Carroll, E. & **Woolery, M.** (2007). Making Changes: Meeting Knowledge and Competency Needs of Pediatric Nurses. *Oncology Nursing*, 34 (2), 573.

Presentations

Barker, D. P. “Human trafficking: A silent public health issue.” Poster presentation, APHA conference, Washington, DC., November 2007.

Barker, D. P. Safer Needle Device Evaluation and Selection. Presentation and Interactive Exercise for the “Protecting Your Home Care Workers Against Sharps Injuries: Best Practices for Blood Borne Pathogen (BBP) Safety” presented by the University of Maryland School of Nursing Work and Health Research Center, June 28, 2007.

Brotemarkle, R. “Partnering for Patients: HIV Case Management and the Behavioral Health Dept.” Poster presentation, Case Management Society of America, Dallas, Texas, June 2006

Brotemarkle, R. “Navigating the Course of HIV Disease” CMSA Presentation, Baltimore, May 2006

Chaffee, M. “In a Catastrophic Disaster Will Military Health Care Personnel Be Willing to Report to Work?”, 2007 U.S. Department of Defense Northern Command (NORTHCOM) Surgeon’s Conference, Colorado Springs, CO., January 24, 2007.

Chaffee, M. “Will Health Care Workers Be Willing to Report to Work in Disaster? National Emergency Management Summit, New Orleans, LA, March 6, 2007.

Chen, Y.-M. “The effect of effort-reward imbalance on job satisfaction among hospital nurses: A multilevel modeling.” Paper presented at the 11th annual East Asian Forum of Nursing Scholars (EAFONS) conference, Howard Plaza Hotel Kaohsiung, Kaohsiung, Taiwan, February 28-29, 2008.

Chen, Y.-M. “A structural regression model of role stress and job satisfaction in Taiwan’s nurse specialists.” Paper presented at the 21st annual Southern Nursing Research Society (SNRS) conference, Galveston, TX., February 22-24, 2007.

Chen, Y.-M. “The correlates of role stress and job satisfaction of nurse specialists in Taiwan.” Paper presented at the National Congress on the State of the Science in Nursing Research, Washington, DC., October 12-14, 2006.

DeGrezia, M., “A Study of Leflunomide to Target Immune Activation in HIV (ALETHIA): Results of a Pilot Study.” Poster presented at the 15th Annual Conference on Retroviruses and Opportunistic Infections” Boston, MA., February 3-6,2008.

Edmonds, M. “Patients’ Perceptions of the importance of treatment adherence in head and neck cancer”._Poster presentation. Oncology Nursing Society 9th National Conference on Cancer Nursing Research. Hollywood, CA., February 2007.

Edmonds,M. “Data Collection Techniques and Analysis of Existing Data”. University of Maryland School of Nursing. Fall, 2005.

Edmonds, M. “Oral Complication of Cancer Therapies: Oral Mucositis”. University of Pennsylvania School of Nursing, Spring 2006.

Flannery, K. “New York State Workplace Violence Prevention Program” APHA, November 2007

Foster, D. “Trends in Acute & Critical Nursing Practice” University of Maryland Medical Center, Baltimore, MD, May 1, 2007.

Haisfield-Wolfe, M.E., McGuire, D.B., Soeken, K., Geiger-Brown, J. & DeForge, B., “Prevalence rates of depression in studies of head and neck cancer patients across the treatment trajectory: How do they inform practice?” Poster presentation at Oncology Nursing Society Annual Congress, Philadelphia, PA, May 2008.

Resnick, B., Nahm, E., **Inguito, P.,** Qi, B., Hicks, G. & Mangione, K. “The Baltimore Hip Studies Projects: Prevention of Fracture Through Intervention.” Gerontological Society of America’s 60th Annual Scientific Meeting in San Francisco, CA, November 17, 2007.

Inguito, P. & Resnick, B. “Description of Factors Related to Long-Term Adherence to Regular Exercise in Older Women Post Hip Fracture.” John Hartford Foundation Building Academic Geriatric Nursing Capacity (BAGNC) Program Leadership Conference, 2006.

Lu, C.-Y. “The use of end-of-life care in newly admitted older nursing home residents.” Paper presented at the 11th annual East Asian Forum of Nursing Scholars (EAFONS) conference, Howard Plaza Hotel Kaohsiung, Kaohsiung, Taiwan, February 28-29, 2008.

Lovering, R., **Michaelson, L.,** Ward, C. “Structural and Functional Evaluation of Branched Myofibers in Young and Old Mdx Mice” Interdisciplinary Training Program in Muscle Biology and The Training Program in Integrative Membrane Biology Fourteenth Annual Mini-Retreat, Baltimore, MD, 2008.

Michaelson, L., Ward, C., “Dantrolene Sodium Limits The Novel Ca²⁺ Entry Mechanism, Excitation-Coupled Calcium Entry (ECCE), A Possible Contributing Cause of Malignant Hyperthermia Crisis”, Interdisciplinary Training Program in Muscle Biology and The Training Program in Integrative Membrane Biology Fourteenth Annual Mini-Retreat, Baltimore, MD, 2008.

Ogbolu, Y. “Neonatal Mortality: The Nigerian Experience”, 1st Annual Nursing Global Health Conference, Invited Speaker, Baltimore, MD., February 8, 2008.

Ogbolu, Y. “Neonatal Mortality: A Critical Global Health Problem.” Neonatal Network, November/December 2007.

Ogbolu, Y. “Why African American Students Should Consider Nursing as a Career?” Graduation Keynote Speaker, Edmonson-Westside Skill Center, Baltimore, MD., May 6, 2007.

Ogbolu, Y. “Update for Neonatal Nurses on Genetic Malformations”, Maryland Neonatal Nursing Consortium, Baltimore, MD., April 24, 2007.

Petri, L. “Application of Selected American Pain Society 2005 Quality Indicators for Acute and Cancer Pain.” 27th Annual Scientific Meeting of the American Pain Society, Washington, DC., May 2007.

Rogers, V. “Stoma Stumpers: Ostomies That Give Nurses Nightmares”, at Decisions and Incisions--Caring for the Child with Surgical Needs, Children's National Medical Center, McLean, VA., October 8, 2005.

Kaverno, K., Ramos-Marcuse, F., **Rogers, V.** “Caring and Sharing: Preventative Research for Preschool Families when Parents Face Depression with a Focus on Biofeedback” (Abstract). Presented at the International Society of Psychiatric-Mental Health Nurses 9th Annual Conference: Transformative Practices in Psychiatric-Mental Health Nursing, Montreal, Quebec, Canada., April 27, 2007.

Tommasello, A., Welsh, C., Geiger-Brown, J., Weber, E., Lu, Z., **Rogers, V.**, Fornilli, K., “Student Drinking in Professional Schools: Results of a Survey.” Presented at AMERSA, November 2, 2006.

Scharf, B., McPhaul, K. PhD, RN; Kanner, J., Nichols, L., Geiger-Brown, J., Brady, B., and Jane Lipscomb,. “Can Sharps Safety in Home Care Practice Improve? Bringing Home Care Nurses and Their Agencies Together for Blood Borne Pathogen Safety”. Poster presentation at the University of Maryland Evidenced Based Practice Conference, Baltimore, MD, 2006.

Scharf, B., McPhaul, K. PhD, RN; Kanner, J., Nichols, L., Geiger-Brown, J., Brady, B., Barker, D.B., and Jane Lipscomb, L. 2007. "Improving safety in blood exposure in home care." Presented at the American Public Health Association Annual Meeting, Washington, D.C., 2007.

Seckman, C., Romano, C. & Chen, J. Evaluation of the Usability of a Visual Display for Interdisciplinary Problem Documentation Among Clinicians. National Institutes of Health Summer Student Internship Program at the Clinical Research Center, Bethesda, MD., August 3, 2006.

Seckman, C., Romano, C., Defensor, R., & Benham-Hutchins, M. Design Efficiencies and Satisfaction of Computerized Physician Order Entry: A Comparison of Two Order Entry Methods. 16th Annual Summer Institute in Nursing Informatics, University of Maryland School of Nursing, 22, Baltimore, MD., July 19-22, 2006.

Chen, J., Lupo, M., **Seckman, C.**, Cotter, A., & Kain, Z. Clinical Outcomes Associated with Combined Music and Art Therapy in Patient Care Settings. 10th Annual Atlantic Health System Research Day, Morristown, New Jersey, June 9, 2006.

Tsai, C.-C. "The effect of animal assisted therapy on children's stress during hospitalization." Poster presented at the 11th annual East Asian Forum of Nursing Scholars (EAFONS) conference, Howard Plaza Hotel Kaohsiung, Kaohsiung, Taiwan, February 28-29, 2008.

Friedmann, E., Thomas, S., Cook, L., **Tsai, C.-C.**, & Picot, S.J. A Friendly Dog as Potential Moderator of Cardiovascular Response to Speech in Older Hypertensives. The International Society for Anthrozoology (ISAZ) Annual Scientific Meeting, October 2006, Barcelona, Spain.

Fall-Dickson, J.M., Ramsay, E., Sportes, C., Castro, K., **Woltz, P.**, "Oral Pain Experience and TNF-alpha Salivary and Plasma Expression in Hematopoietic Stem Cell Transplantation Oncology Patients: A Pilot Study. 26th Annual Scientific Meeting of the American Pain Society, May 2-5, 2007, Washington, DC.

Fall-Dickson, J.M., Ramsay, E., Picco, C., Sportes, C. Castro, K., **Woltz, P.** "Stomatitis-Related Oropharyngeal Pain Experience and TNF Alpha Expression in Peripheral Blood Stem Cell Transplantation Patients: A Pilot Study. The National State of the Science Congress in Nursing Research, October 12-14, 2006, Washington, DC.

Woolery, M. "Emerging Nursing Practices in Pediatric Constipation" Emerging Nursing Practices in Oncology: What's in it for Me? June 14, 2007, Bethesda, MD.

Carroll, E. & **Woolery, M.** "Making Changes: Meeting Knowledge and Competency Needs of Pediatric Nurses" Oncology Nursing Society Conference, May, 2006, Las Vegas, Nevada

Woolery, M. “A Meta-analysis of Body Temperature Measurements: A Comparison of Non-invasive Temporal Thermometry to Core Thermometry Measures” National Institute of Nursing Research Conference, June 16, 2006, Bethesda, MD.

Funded Projects and Awards

Akintade, B. Graduate PLUS Award 2006-2007

Barker, D. Graduate Assistance in Areas of National Need (GAANN) Fellowship 2006-2008

Brady, B. Graduate PLUS Award 2006-2007

Brotemarkle, R. Graduate PLUS Award for 2006-2008

Chaffee, M. Graduate PLUS Award for 2006-2008

Chen, Y.-M. Co-Investigator – “Modeling and Optimization of Tumor Growth and Drug Scheduling for Cancer Chemotherapy”NSC95-2221-E037-004 . Funded by National Science Council, Taiwan

Chen, Y.-M. Graduate PLUS Award for 2005-2006

Choi, J. Graduate PLUS Award 2007-2008

DaMore, R. Graduate Assistance in Areas of National Need (GAANN) Fellowship 2007- 2008

DeGrazia, M. Yearly NIH/NIAID service achievement awards, 2002-2006

DeGrazia, M. Graduate Assistance in Areas of National Need (GAANN) Fellowship 2007- 2008

Dustin, Irene Graduate PLUS Award 2007-2008

Edmonds, M. Graduate PLUS Award 2006-2007

Fang, Yueh-Yen Graduate PLUS Award 2006-2007

Flannery, K. Cook/Snyder Scholarship to attend APHA's annual conference 2007

Flannery, K. Graduate Assistance in Areas of National Need (GAANN) Fellowship 2007- 2008

Foster, D. Graduate PLUS Award 2006-2007

Gilden, R. Graduate PLUS Award for 2006-2008

Goertz, S. Graduate Assistance in Areas of National Need (GAANN) Fellowship 2006- 2007

Haisfield-Wolfe, M.E. Graduate Assistance in Areas of National Need (GAANN) Fellowship 2006- 2008

Haisfield-Wolfe, M.E. Doctoral Scholarship, American Cancer Scholarship 2006-2008

Haisfield-Wolfe, M.E. Doctoral Scholarship, Sigma Theta Tau International Honor Society of Nursing

Hsieh, Suh-Ing Associate PI – “Developing blending learning experience-Promoting students' metacognition.” Funded National Science Council of the Executive Yuan of the Republic of China (NSC 96-2520-S-227-001-MY3) NT \$1,760,000 (August 1, 2007-July 31, 2010)

Hsieh, Suh-Ing Associate PI – “The application of self-regulated learning in baccalaureate nursing students using qualitative and quantitative research. Funded National Science Council of the Executive Yuan of the Republic of China (NSC 96-2520-S-227-001-MY3) NT \$575,000 (August 1, 2007-July 31, 2008)

Hsieh, Suh-Ing Co-PI – “Postcolonial analysis of medical technology use and nursing praxis: the example of cancer chemotherapy. Applying National Science Council of the Executive Yuan of the Republic of China (August 1, 2006-July 31, 2008)

Inguito, P. 2004-2006 John A. Hartford Foundation. Building Academic Geriatric Nursing Capacity Predoctoral Scholarship

Inguito, P. Graduate PLUS Award 2004- 2006

Jackson, M. Graduate Assistance in Areas of National Need (GAANN) Fellowship 2006-2008

Jung, D.-Y. Graduate PLUS Award 2006

Lee, H.-J. Graduate Assistance in Areas of National Need (GAANN) Fellowship 2006-2008

Michaelson, L. Graduate Assistance in Areas of National Need (GAANN) Fellowship 2006-2008

Ogbolu, Y. Graduate Assistance in Areas of National Need (GAANN) Fellowship 2007-2008

Petri, L. Sigma Theta Tau, Pi Chapter Scholarship Award 2008

Ross, A. Graduate PLUS Award 2006-2008

Scharf, B. Graduate PLUS Award 2006-2008

Schron, E. Selected as Fellow, Society for Clinical Trials (FSCT), for significant contributions to the advancement of the science and practice of clinical trials. 2007

Seckman, C. Graduate PLUS Award 2006-2008

Stevenson, J. Graduate Assistance in Areas of National Need (GAANN) Fellowship 2007-2008

Tasi, C.-C. Graduate PLUS Award 2006-2007

Watt, M. Graduate PLUS Award 2008

Woolery, M. Clinical Center Director's Award, National Institutes of Health Oncology Education Team, December 2005 - 2006.

Woolery, M. American Cancer Society Doctoral Scholarship in Cancer Nursing, August 2006.

IX. OUTCOME INDICATORS

Introduction

Section IX, Outcome Indicators, includes a detailed description of the PhD program assessment results, lists of all Dissertation titles, current roles and achievements of graduates and average time to graduation. Since our 2002 report, the productivity of our 232 graduates has remained outstanding. The average years to complete the PhD program have decreased from 7.14 years in 1998 to 3.3 years in 2004. The retention of students in the program is consistent and satisfactory.

Outcome Indicators

Multiple processes are in place for addressing the achievement of the desired PhD Program outcomes, both during and following the student's tenure in the program. Progress toward achieving expected outcomes is assessed while the student is in the program by: 1) course faculty via course requirements and examinations; 2) the Preliminary Examination Committee during the preliminary examination process which is designed to be diagnostic of the student's ability to synthesize content across courses and which occurs at the end of the first year of full-time study; 3) the student's Comprehensive Examination Committee members as they validate the student's readiness to progress to dissertation research; 4) faculty member(s) to whom the student is assigned during appointment as a graduate assistant who assess performance in assistantship positions; 5) the student's advisor in consultation with the student as progression in the program is assessed in completion of the End-of-Year Appraisal form; 6) the student's research advisor and dissertation committee members in assessment of performance in carrying out and communicating the dissertation research project. Student accomplishments are listed in an internal listing that is updated yearly. This communication has been well received by students and faculty in that it celebrates student's accomplishments and provides important visibility that

can serve as a potent strategy for role modeling by other students. The publication is also shared with potential applicants to the program at recruitment events and given to incoming students during orientation as examples of the achievements and accomplishments of students in the PhD program.

Assessment of Learning Outcomes Following Graduation

Following graduation, learning outcomes for PhD graduates are assessed as specified in the SON's Plan for Evaluation. A variety of sources of information are drawn upon in these activities. The most frequently used is direct communication from individual graduates in which they share their achievements (e.g. awards, publications, funding of research projects) and also discuss ways in which the PhD program prepared them for their current roles and activities. Informal communication with individual graduates by faculty and administrators provides additional program feedback.

Since the establishment of the Office of Evaluation in the summer of 2005, a Program Assessment Questionnaire (PAQ) has been administered to all graduating students of the University of Maryland School of Nursing twice per academic year: once in December and once in May. The PAQ is designed to solicit recent graduates' opinions regarding all aspects of their nursing education experience while attending the School of Nursing. Its purpose is to provide data useful in both evaluating and improving all components of the educational experience at the UMB School of Nursing.

Between the academic years of 2004-2005 to 2007-2008 a total of 39 forms have been returned by graduating doctoral students. Table 1 represents the number of such evaluations received for each of last four years.

Table IX.1: PhD Program Evaluations

	Frequency	Percent
2004-05	3	7.7
2005-06	18	46.2
2006-07	10	25.6
2007-08	8	20.5
Total	39	100.0

Evaluation Instrument

The PAQ contains a total of 56 rating items assessed via a four-point scale from Completely Satisfactory to Completely Unsatisfactory. (For interpretative purposes this scale has been switched so that higher numbers represent greater satisfaction.) These 56 items are designed to assess five dimensions of program satisfaction:

1. Program Utility and Efficacy.
2. Learning Resources.
3. Time Efficiency and Student Demands.
4. Faculty Student Relationships.
5. Curricular Options and Utility.

In addition, two global rating items were included (overall satisfaction with the program and whether or not respondents would recommend the program to others). The instrument itself was quite reliable with the internal consistency indices for the five scales ranging from 0.86 (Time Efficiency and Student Demands) to 0.94 (Curricular Options and Utility) .

The evaluation means potentially range from a low of 1 (completely unsatisfactory) to 4 (completely satisfactory). In the past four years the students rated the most satisfaction with the Program Utility/Efficacy and the Faculty Student Relationships subscales. The Program Utility/Efficacy scale contained items such as the extent to which the program provided role

models in scholarly conduct and its enhancement of student commitment to professional nursing; the Faculty Student Relationships scale asked students to rate such things as faculty competence and their concern for students' educational needs.

Table IX.2: 2004-2008 Ph.D. Program Assessment Results (PAQ Subscales)

		N	Mean	S.D.
Utility & Efficacy	2004-05	3	3.9487	.04441
	2005-06	18	3.5272	.42434
	2006-07	10	3.5218	.44916
	2007-08	8	3.6378	.50055
	Total	39	3.5809	.43387
Curricular Options	2004-05	3	3.6845	.29033
	2005-06	18	3.2874	.66999
	2006-07	10	3.1583	.63792
	2007-08	8	3.2634	.90687
	Total	39	3.2799	.68559
Efficiency and Demands	2004-05	3	3.8111	.20092
	2005-06	18	3.4431	.54080
	2006-07	9	3.2672	.47317
	2007-08	8	3.3185	.59788
	Total	38	3.4043	.52241
Faculty-Student Rel.	2004-05	3	4.0000	.00000
	2005-06	18	3.5130	.62131
	2006-07	9	3.4148	.61262
	2007-08	8	3.4833	.61593
	Total	38	3.5219	.59327
Learning Resources	2004-05	3	3.9444	.09623
	2005-06	18	3.3589	.40745
	2006-07	9	3.3129	.23624
	2007-08	8	3.2854	.41377
	Total	38	3.3788	.38771

The global ratings were also quite high, with both students' overall satisfaction and their willingness to recommend the program to others approaching the completely satisfied level (i.e. 3.62 and 3.63 respectively).

Table IX.3: 2004-2008 Year Ph.D. Program Assessment Results (Global Items)

		N	Mean	S.D.
Overall Satisfaction	2004-05	3	4.00	.000
	2005-06	17	3.59	.507
	2006-07	9	3.56	.527
	2007-08	8	3.63	.744
	Total	37	3.62	.545
Would you recommend the program?	2004-05	3	4.00	.000
	2005-06	18	3.56	.616
	2006-07	9	3.56	.527
	2007-08	8	3.75	.463
	Total	38	3.63	.541

Follow-up surveys after graduation and alumni office relationships with the graduates has been inconsistent in the past. Follow-up of our alumni will be achieved through a closer collaboration with the Alumni Office. Special activities, such as our upcoming 30th reunion of the PhD program provide an excellent opportunity to assess and recognize the accomplishments of graduates in relation to the objectives of the program. These events are held at five year intervals. The most recent of these reunions was held in 2004 to commemorate the 25th anniversary of the PhD program. In addition, PhD alumni are invited to and participate in SON Alumni Association events that include an annual reunion held in the fall.

Program Graduate List with Dissertation Titles

The first degree awarded by the Graduate School to a student completing the SON's PhD program was in 1984. In the 24 years, a total of 232 degrees have been awarded. A chronological listing of the names of these graduates and their dissertation titles is found in Table IX.4. These dissertations represent a diverse array of areas of inquiry consistent with student interests and the expertise and research of faculty with whom they worked as research

advisors and dissertation committee members. A sample of dissertations from the past three years will be available for review at the time of the site visit.

Achievements of Graduates

Current roles and place of employment are known for approximately 200 of the graduates. The majority are employed in a variety of roles in academia. One hundred and forty-seven alumni are employed by schools of nursing. Two are Dean Emeritus and two others are current Deans. One is a retired director of a School of Nursing and two of our graduates are current directors of programs of nursing and one is vice-director. Nine other graduates are Associate Deans of nursing. Drs. Robin Newhouse, Donna McArthur and Christine Printz are directors of DNP programs. Our graduates are working throughout the United States and abroad. They are faculty in schools in Thailand, Taiwan, Korea, Japan, Africa, Jordan and Israel. Sixteen of our alumni are in administrative positions. Dr. Kenneth Rempher is vice president of professional nursing practice at Sinai Hospital and Dr. Deborah Dang is Director of nursing practice, education and research at Johns Hopkins Hospital.

Thirteen have positions in the Federal government. Examples of alumni in these positions include Drs. Margaret Bevans and Susan Forest-Marden are Clinical Nurse Scientists at the NIH Clinical Center. Another of our graduates is Dr. Claire Hasting, Chief of Nursing at the NIH Clinical Center. Dr. Carol Ramano is the Chief of the US Public Health Service.

Seven of our graduates are on active duty in the military. Dr. Laura Brosh is the Director of the Office of Research Protections at Fort Detrick and Dr. Maggie Richards is Director of Research at Bethesda Naval Hospital.

Three of our graduates are nurse practitioners, one is working in health policy and another just completed her post doctoral fellowship at the Center for Disease Control in Atlanta, Dr. Mona Choi. Our graduates are contributing to the profession of nursing in many different

occupations and settings. Eight alumni are employed as consultants. Only two have listed that they have retired. It is evident that our graduates are making major contributions to the profession of nursing, to research, to patient care, and to society. Evidence abounds from multiple sources that graduates of the PhD program are achieving the desired learning outcomes at high levels.

Table IX.5: Current Roles of PhD Program Alumni, lists the 226 living alumni (6 are deceased).

.

Table IX.4: Chronological Listing of Graduates and Dissertation Titles

Number	Defense Date	First Name	Last Name	Dissertation Title
1.	1984	Audrey	Gift	Physiological and Psychological Factors Related to Dyspnea in Subjects with Chronic Obstructive Pulmonary Disease
2.	1/4/84	Hurdis	Griffith	Case Study of the Implementation of Legislation Providing Direct Third Party Reimbursement for Services of Nurse Practitioners in Maryland
3.	8/31/84	Linda	Davis	Health Care Technology, Organizational Control Structures and Nurse Practitioner Task Activities
4.	4/8/85	Karen	Dennis	A Multi-Methodological Approach to the Measurement of Client Control
5.	4/23/85	Jane	Sherman	Development of a Tool to Measure Helpful Coping Behaviors in Women Whose Husbands are Acutely Critically Ill
6.	4/26/85	Carolyn	Freed*	An Evaluation of Psychophysiological Status and Cardio-Vascular Response of Cardiac Patients to Verbalization and Exercise Stress Testing
7.	8/1/85	Louise	Jenkins	Self-Efficacy in Recovery from Myocardial Infarction
8.	8/5/85	Priscilla	McKay	Examining the Nature and Extent of Professional Staff Nurse Participation in Patient Care Decision Making
9.	12/1/85	Cynthia	Raines	Inter-organizational Relationships Between Nursing Education and Nursing Service Organizations
10.	12/1/85	Mary Ellen	Wewers	Factor Associated with Relapse Among Ex-Smokers
11.	4/21/86	Georgia	Stevens	Selected Aspects of the Humorous Interaction Among Elderly Participants and Staff Caregivers in Community based Health Support Programs of the Adult Day Care Type
12.	8/1/86	Shirley	Jarecki	Relationship between Post Admission Anxiety of the Newly Admitted Nursing Home Resident and Changes in Selected Organized Action Sequences
13.	12/16/86	Barbara	Parker	Perceptions of the Dyadic Relationship and Wife Abuse
14.	4/15/87	Patricia	Liehr	Cardiovascular Changes During Dialogue
15.	4/17/87	Anne	Pierce	Event Review in the Coping Process of Parous Women

*Deceased

Table IX.4: Chronological Listing of Graduates and Dissertation Titles

16.	5/87	Joan	Creasia	Factors Associated with Health Outcomes of Patients Hospitalized with Selected Cardiac Conditions
17.	7/20/87	Mary Jo	Namerow*	Long Term Care Classification Systems as Predictors of Resource Consumption
18.	10/9/87	Anna	Alt-White	The Evolution of Collective Bargaining in Three State Nurses Associations
19.	10/9/87	Melinda	Henderson	Nurse Executives: Leadership/Power Motivation and Leadership Effectiveness
20.	11/17/87	June	Lunney	Peripheral Venous Access in Cancer Chemotherapy Patients
21.	12/17/87	Ruby	Wesley	Social Support and Health Outcomes Associated with Children with Sickle Cell Disease
22.	1/27/88	Cecelia	Grindel	The Effects of Chemotherapy on the Nutritional Patterns of Breast Cancer Women During the First Six Months of Treatment
23.	4/20/88	Phyllis	Sharps	The Relationship of Adolescent Postnatal Depressive Symptomatology to Mother and Infant Interactive Behavior and Quality of Stimulation in the Home
24.	4/25/88	Constance	Uphold	Contact, Socially Supportive Behaviors, and Positive Affect between Adult, Working Women and their Mothers and Mothers-in-Law
25.	6/20/88	Joyce	Rasin	The Relationship Between Confusion and Blood Pressure in Black Community Residing Elders
26.	6/30/88	Barbara	Pillar	Technology Assessment: An Evaluation of Electronic Fetal Monitoring (EFM)
27.	12/15/88	Patricia	Troumbley	A Comparison of the Health, Risk and Physical Performance of Overweight and Normal Weight Soldiers
28.	1/31/89	Roseanne	Pruitt	Effectiveness and Cost Efficiency of Interventions in Health Promotion
29.	3/20/89	Patricia	Morton	A Study of the Relationship Between Leadership of Nursing Education Chief Nurse Administrators and Selected Organizational Variables
30.	4/18/89	Renee	Milligan	Maternal Fatigue During the First Three Months of the Postpartum Period
31.	4/21/89	Patricia	Grimm	Hope, Affect, Psychological Status, and the Cancer Experience
32.	4/28/89	Leslie	Wilson	Hospital Inpatient Nursing Costs by Departments: Costing Nursing Within Diagnosis Related Groups
33.	8/29/89	Dolores	Milholland	A Measure of Patient Data Management System Effectiveness Development and Testing

*Deceased

Table IX.4: Chronological Listing of Graduates and Dissertation Titles

34.	9/12/89	Donna	Mahrenholz	Case Study of Selected Critical Decisions Made by a Nurse-Owner, Nurse-Manager of a Home Health Practice
35.	9/26/89	Barbara	Sylvia	Evaluation of the Nurs. Comps: The Twelve Point Postpartal Check Computer Simulation Program as a Measure of Clinical Decision Making
36.	11/30/89	Linda	Pugh	Psychophysiological Correlates of Fatigue during Childbirth
37.	12/15/89	Ruth	Carroll	The Relationship of Individual Distress, Coping, Family Functioning, Cohesiveness, and Spousal Support after Infant Death
38.	2/7/90	Jacqueline	Moore	Exploration of Factors Affecting the Nursing Shortage in Correctional Health Care Delivery System
39.	2/22/90	Jean	Reeder*	Families Coping with Serious Injury
40.	3/21/90	Carol	Phillips	The Effect of Post-Discharge Follow-Up Care on Selected Outcomes of Hospitalized Surgical Patients
41.	4/23/90	Vicki	Gillmore	Workplace Variables and Experienced Occupational Hazards as Predictors of Health of Specialty Nurses
42.	5/1/90	Jacqueline	Mickley	Spiritual Well-Being, Religiousness, and Hope: Some Relationships in a Sample of Women with Breast Cancer
43.	6/19/90	Carol	Reineck	Factors that Contribute to Anticipated Turnover Among Civilian Registered Nurse Employed in U.S. Army Hospitals
44.	6/26/90	Kerry	Petrucci	Studies of Prototype Nurse Expert System: Urological Nursing Information System
45.	6/28/90	Freda	Dekeyser	Psychosocial Factors and Peritoneal Immune Function in CAPD Patients
46.	10/1/90	Donna	Havens	Analysis of the Nature and Extent of Implementation of a Model Proposed to Support Professional Nursing Practice in Acute Care Hospitals
47.	12/14/90	Jeanne	Matthews	Predictors of Hospitalized Patients Access to Post-Discharge Home Health Services
48.	4/22/91	Etta	Banda*	A Study of Family Life Education Experiences Among Chewa Grandmothers, Mothers, and Daughters of Malawi
49.	4/23/91	Clinton	Lambert	The Relationships Among Psychological Hardiness, Faculty Practice Involvement, and Perception of Role Stress of Nurse Educators
50.	4/24/91	Janice	Ulmer	Pain, Coping and Depression Following Burn Injury

*Deceased

Table IX.4: Chronological Listing of Graduates and Dissertation Titles

51.	6/19/91	Margaret	Ulione	The Effect of Coping, Job Flexibility, and Social Support on the Emotional and Physical Health and Mother-Infant Interaction
52.	6/20/91	Linda	Wendt	A Study of Maternal Employment and Family Contexts: Influences on Maternal Health and Mother-Infant Interaction
53.	11/25/91	Shiela	Rodgers	Minority Student Success in Predominantly White Schools of Nursing: Cognitive and Non-Cognitive Factors
54.	11/26/91	Sandra	Picot	The Relationship Between the Rewards, Costs, and Coping Strategies of Black Family Caregivers
55.	12/5/91	Man-Ying	Hsu	Correlates of Nursing Faculty Scholarly Productivity in Colleges and Universities in Taiwan, Republic of China
56.	12/13/91	Nancy	Staggers	Detecting Critical On-Line Information: The Relationship Between Nurse Characteristics, Computer Screen Designs, and Computer Interaction Measures
57.	12/18/91	Yeonghee	Shin	Life Stress, Distress Symptoms, and Social Support Among Korean Immigrants Who Own Small Retail Businesses
58.	12/18/91	Kathleen	Thompson	Perceived Ability for Self Care: A Measurement Study
59.	3/17/92	Linda	Rose	Defining the Situation: Family Members Cope with Mental Illness of a Relative
60.	4/9/92	Nancy	Harnett	Aggression to Psychiatrically Disordered Children and Adolescents
61.	5/4/92	Cara	Krulewitch	The Relationship Between Recurrent Placental Pathology and Recurrent Poor Pregnancy Outcome
62.	11/25/92	Leta	Menton	Measurement of Compassion in a Sample of Nurses
63.	4/19/93	Linda	Haddad	Self-Efficacy in Performing Health Education and Knowledge of Health Teaching-Learning Principles in Jordanian Baccalaureate
64.	4/27/93	Laila	Farhood	War and Non-War Stressors, Family Resources, Coping and Family Resources, Coping and Family Adaptation Among Lebanese Families
65.	4/28/93	Rebecca	Wiseman	Role Model Behaviors in the Clinical Setting
66.	5/4/93	Carol	Romano	Predictors of nurse Adoption of a Computerized Information System as an Innovation

*Deceased

Table IX.4: Chronological Listing of Graduates and Dissertation Titles

67.	6/28/93	Isabel	Zwane	Developing a Curriculum for Professional Nursing Education in Swaziland: Views from Ministry of Health Officials and Nursing Leaders
68.	12/15/93	Sheridan	McCabe	Analysis of Citations Underpinning Frequently Used Psychiatric Mental Health Nursing Interventions
69.	3/25/94	Joyce	Willens	Determinants of Satisfaction with Patient Controlled Analgesia
70.	4/6/94	Julie	Stanik-Hutt	Pain Experiences of Traumatically Injured Individuals in Critical Care Settings
71.	4/11/94	Robin	Remsburg	Mothers' Interpretations of Their Children's Behavior During Mother-Child Interaction
72.	4/12/94	Patty	Hale	Women's Self-Efficacy for Prevention of Sexual Risk Behavior
73.	4/22/94	Vanessa	Fahie	The Relationship Between Perceived Control Over Health, Health Experiences Spiritual Well-Being, and Healthy Lifestyle in Community-Residing African American Elders
74.	8/24/94	Wanda	Chernomas	Recovering from Depressive Illness: Women's Perspectives
75.	8/26/94	Sharon	Dudley-Brown	Correlates of Uncertainty in Inflammatory Bowel Disease
76.	10/27/94	Carol Ann	Rooks*	Cultural Aspects of Moral Actions and Moral Choices in Nursing
77.	12/9/94	Dorothy	Heron	The Effect on Diet on Mood in the Well Elderly
78.	3/31/95	Marcella	Griggs	Home Care Following Hospitalization of Elderly Rural Patients with Chronic Diseases: An Evaluation of Changes in Perceived Health Status on Fluctuations in Utilization and Cost of Formal and Informal Services
79.	3/31/95	Christine	Heine (Mueller)	Validation of Nurse Staffing Time Associated with a Case-Mix Classification System for Long-Term Nursing Facilities
80.	4/6/95	Charmaine	Cummings	Perceived Situations of Ethical Conflict Encountered by Nurse Staff Development Educators
81.	4/13/95	Brenda	Roup	Factors Influencing Universal Precautions Compliance by Critical Care Nurses
82.	5/3/95	Clare	Hastings	Factors Affecting Nurses Turnover: A Multi-Level Predictive Model
83.	5/18/95	Rosemary	Polomano	The Relationship of Pain Characteristics, Type of Cancer and Opioid Consumption to Quality of Life, Psychological Distress, and Pain Outcomes
84.	7/7/95	Laurie	Davis	Evaluation of the Care Rendered by Advanced Practice Nurses and Nurse Managed Clinics Within the Army Health Care System

*Deceased

Table IX.4: Chronological Listing of Graduates and Dissertation Titles

85.	8/28/95	Deborah	Castelucci	The Relationship of Perceived Enactment of Autonomy to Depression and Differences Based on Gender and Cerebral Hemisphere Infarct on Depression and Perceived Enactment of Autonomy Scores Among Post-Stroke Elderly
86.	9/14/95	Diane	Breckeridge	Patients' Choice... Is It? A Qualitative Study of Patients' Perceptions of Why, How and By Whom Dialysis Treatment Modality was Chosen
87.	11/9/95	Adedayo	Ekundayo	Surrogate Decision Making and Request for DNR Orders on Behalf on Incompetent Patients: A Phenomenological Study
88.	11/10/95	Kathleen	Lucke	The Meaning, Process, and Consequences of Nurse Caring as Perceived by Spinal Cord Injured Individuals During Rehabilitation
89.	11/13/95	Vicky	Kent	Determinants of Case Management in Home Health Agencies
90.	11/30/95	Joyce Anne	O'Neil	Naming the Silences: A Hermeneutic Phenomenology of the Dimensions of Parental Decision Making in Pediatric Oncology
91.	12/1/95	Gail	Havens	Factors Related to the Execution/Non-Execution of Advance Directives by Community-Dwelling Adults with Decisional Capacity
92.	1/22/96	Veronica	Clarke-Tasker	Relationship of African Americans' Socioeconomic Status to their Perceptions of Cancer
93.	1/22/96	Adele	Young	Maternal Characteristics and Child Characteristics as Predictors of Child Compliant/Non-Compliant Behavior
94.	3/12/96	Sarah	Shaefer	Adolescent Mothers: Functioning After Bereavement
95.	4/26/96	Gail	Lemaire	The Relationship of Psychosocial, Cognitive and Illness Factors to Perceived Uncertainty Among Women with Endometriosis
96.	6/4/96	Mary	Slate	A comparison of Activities of Primary Care Nurse Practitioner Practice in Legislatively More Restrictive Versus Less Restrictive Regions Using an Author-Constructed Encounter Information System
97.	6/10/96	Ann	Hamric	Relationships Between the Morale Perspectives of Care and Justice, Selected Individual and Contextual Factors, and Nurse Activism in a Sample of Practicing Nurses

*Deceased

Table IX.4: Chronological Listing of Graduates and Dissertation Titles

98.	6/13/96	Patricia	Prin	The Impact of Medline Usage on Nurse' Researches Utilization and Decision-Making Confidence. A Study of Computer Usage Applying the Theory of Reasoned Action
99.	6/20/96	Hueih-Lirng	Shieh	Transformational Versus Transactional Leadership Styles as an Influence on Nursing Faculty Job Satisfaction in Associate and Baccalaureate Degree Programs in Taiwan
100.	8/28/96	Janet	Harris	Predictors of Noscomial Pneumonia in Critically Ill Trauma Patients
101.	9/12/96	Barbara	Resnick	Self Efficacy in Geriatric Rehabilitation
102.	10/25/96	Sharon	Piper	Duration and Intensity of Breast Feeding as Predictors of Child Health Status After Weaning
103.	11/1/96	Mei-Ling	Yeh	Translation and Validation of California Critical Thinking Dispositions Inventory
104.	11/21/96	Wendy	Newcomer	Development of a Measure of the Content and Quality of Prenatal Care Services in a Medicaid Population
105.	11/25/96	Meei-Ling	Gau	The Relationships Between Prenatal Stress, Social Support, Spiritual Well-Being and Maternal-Fetal Attachment for Pregnant Women
106.	12/12/96	Rachel	Smith	The Influence of Perceived Barriers and Self Efficacy on Health Responsibility and Care Seeking Behaviors Among African-American Men
107.	1/8/97	Shiow-Luan	Tsay	Appraisals, Coping, Social Support and Post Traumatic Stress of Trauma Patients One Week Following Accidental Injury
108.	3/19/97	Mei-Ling	Chen	The Perceived Meaning of Cancer Pain: Instrument Development
109.	4/18/97	Dorraine	Watts	Hypothermic Coagulopathy in Trauma: Effect of Varying Levels of Hypothermia on Enzyme Speed, Platelet Function and Fibrinolysis
110.	4/23/97	Kathleen	Freeman	Home Phototherapy: Shedding Light on Commencement, Newborn Variations and Outcomes
111.	4/23/97	Reiko	Makabe	Social Support, Psychological and Physical States Among Japanese Women with Breast Cancer
112.	4/24/97	Kathryn	Lothschuetz Montgomery	Measures of Efficacy for Health Care Professional Teams
113.	4/28/97	Eleanor	Henry	Concern about the Privacy on One's Health Care Information and Non-Disclosure of Health Information

*Deceased

Table IX.4: Chronological Listing of Graduates and Dissertation Titles

114.	4/28/97	Wandee	Suttharangsee	Concepts and Protective Factors Related to Positive Mental Health from Thai Adolescents' Perspectives: An Ethno nursing Study
115.	7/9/97	Christine	Savage	A Model for Identifying Women most at Risk for Having Neonates with Adverse Outcomes Related to Prenatal Alcohol, Tobacco and Other Drug Consumption
116.	7/23/97	Yu-Fang	Li	The Development of Power Estimates and Sample Size Requirements for Seven Multiple Comparisons Procedures
117.	9/17/97	Diane	Krasner	Carrying On Despite the Pain: Living with Painful Venous Ulcers – A Heideggerian Hermeneutic Analysis
118.	9/19/97	Patricia	Adams	Taking Charge of One's Life: A Theoretical Model for Weight Management Success
119.	11/19/97	Amelia	Ranotsi	Initiation of Problem-Based, Community-Based Learning Strategy: A Study of its Process an Ethnographic Study
120.	11/19/97	Mary Ann	Ritchie	The Relationships between Stage of Adolescence, Gender, Self-Esteem and Hopefulness in Adolescents with Cancer
121.	12/4/97	Donna	Behler McArthur	Intergenerational Health Promotion in African-Americans
122.	12/8/97	Joan	Kramer	Patient, Wound, and Treatment Characteristics Associated with Healing in Pressure Ulcers
123.	12/10/97	Linda	Hickman	The Impact of Executive Team Excellence and the Work Environment on Organizational Creativity
124.	1/5/98	Roberta	McHale	The Relationship between Linguistic Communication Skills and Physically Aggressive Behavior in Nursing Home Residents with Possible Dementia of the Alzheimer's Type
125.	4/17/98	Laura	Brosch	Factors Associated with Hospitalization in Kidney Transplant Patients
126.	4/20/98	Anita	Tarzian	Breathing Lessons: An Exploration of Caregivers Experiences with Dying Patients Who Have Air Hunger
127.	4/22/98	Cassy	Pollack	Post Hospitalization Referral to Home Health Care and Subsequent Re-Hospitalization for Medicare Patients
128.	4/24/98	Sharon	Eifried	Learning to Care for Patients Who Are Suffering: The Lived Experience of Students in Nursing

*Deceased

Table IX.4: Chronological Listing of Graduates and Dissertation Titles

129.	4/27/98	Sandra	Malone	Sensation Seeking in Urban African American Male Substance Abusers: Modification of the Sensation Seeking Scale
130.	4/28/98	Ting-Ting	Lee	An Analysis of the Relationship among Patient Profile Variables in Predicting Home Care Resource Utilization and Outcomes
131.	5/6/98	Oma	Riley-Giomariso	Mirroring the Human Circumstances: An Interpretative Phenomenological Study of Student Encounters in Critical Care
132.	5/8/98	Kathleen	Charters	Information System Integration in a Geographically
133.	7/8/98	Marilyn	Halstead	Struggling with Paradoxes: The Spiritual Experience of Women with Cancer
134.	7/8/98	Samson	Omotosho	Becoming Stranger: The Experience of African Students' Transformation in a Baccalaureate School of Nursing
135.	7/13/98	Dorothea	McDowell	Predictors of Declarative and Procedural Knowledge in Nursing Students Using Computer Mediated Instruction
136.	7/21/98	Patricia	Stuhlmuller	The Relationship of Prenatal Care Utilization and Tobacco and Alcohol Use to Perinatal and Neonatal Outcomes: A Secondary Analysis
137.	9/17/98	Barbara	Wise	Discovering the Mysteries of the Lived Experience of Pediatric Liver Transplant Recipients
138.	11/16/98	Janna	Roop	Between This World and the Next: The Lived Experience of Having A Life Threatening Illness
139.	12/8/98	Roberta	Raymond	Predictors of Quality of Life in Schizophrenia Patients
140.	3/10/99	Raymonde	Brown	Anger, Denial, and Cardiovascular Reactivity in Postmenopausal Women
141.	3/21/99	Tamara	Jones	A Descriptive Study of Nursing Interventions for Disruptive Behaviors in Elderly Sub acute Patients
142.	4/22/99	Sophie	Landsburg	The Development of an Instrument to Assess Feelings of Abandonment in Adopted Adolescents
143.	4/22/99	Wen-Lin	Lee	The Relationship Between Primary Appraisal, Coping, and Subjective Well-Being in Chinese Elderly with a Diagnosis of Congestive Heart Failure
144.	3/30/00	Christine	Curran	A Comparison of Computerized Graphical Display Formats for the Titration of Sodium Nitroprusside

*Deceased

Table IX.4: Chronological Listing of Graduates and Dissertation Titles

145.	4/6/00	Elaine	Feeney	Cost and Utilization of Health Services for Substance Dependent Women Before and After the Initiation of Substance Dependence Treatment
146.	4/20/00	Penny	Marschke	Quality of Life of the Radical Retro pubic Prostatectomy Patient and His Wife
147.	4/21/00	Mary	Nelson	A Stage Matched Physical Activity Intervention in Military Primary Care
148.	4/24/00	Joan	Davenport	The Experience of New Nurses Beginning Critical Care Practice: An Interpretive Phenomenological Study
149.	4/24/00	Joanne	Reifsnyder	Enabled Life Closure and the Hospice Presence
150.	4/25/00	Marilyn	Miller	Recognition and Referral of Patients with Depressive Illness in a Primary Care Setting
151.	4/25/00	Ruth	Parker	A Model of the Relationships Between Health Status and Satisfaction with Care Delivery Outcomes and Health Care Need and Use
152.	4/26/00	Tao	Yin	The Relationship Between Mother's Alcohol Use and Child's Well Being
153.	5/5/00	Umaporn	Boonyasopun	Ways of Promoting Healthy Community: A Critical Ethnography of Rural Thai Women
154.	5/17/00	Martha	Kennedy	An Exploratory Analysis of Patient and Institutional Attributes as Predictors of Duration of Mechanical Ventilation
155.	6/30/00	Robin	Newhouse	The Relationship of Organizational Service Integration and Differentiation to the Likelihood of Readmission, Mortality, Length of Stay, and Cost for Patients with the Diagnosis of Congestive Heart Failure
156.	7/11/00	Carol	Bickford	The Computer-Based Patient Record (CPR): An Ethnographic View
157.	10/16/00	Cathaleen	Ley	The Relationships Among Coping Strategies and Depression and Anxiety in Adult Blood and Bone Marrow Transplantation Patients
158.	11/20/00	Patricia	Corey-Lisle	The Impact of the State of Maryland Medicaid Mental Health Carve-Out on Access-to-Care For Patients in a Suburban Health Care System
159.	11/20/00	Hae-Ra	Han	Parental Coping with Childhood Cancer
160.	3/5/01	Susan	Dorsey	Mechanism of Hippocampal Neuron Death in the Trisomy 16 Mouse: Failure of BDNF Survival Signaling
161.	3/29/01	Susan	Joslin	The Influence of Nursing Home Characteristics on the Accuracy of the Long Term Care Minimum Data Set

*Deceased

Table IX.4: Chronological Listing of Graduates and Dissertation Titles

162.	4/17/01	Connie	Ulrich	Practitioners' Perceptions on Ethical Aspects of Managed Care
163.	4/25/01	Mary	DiBartolo	Appraisal, Coping, Health-Related Hardiness and Self-Perceived Health in Spousal Home Caregivers of Individuals with Dementia
164.	4/25/01	Qiuping	Zhou	Missing Value Imputation Methods on Parameter Estimates and Psychometric Properties of Likert Measures
165.	5/2/01	Mary	Jamison*	Failure to Thrive in the Older Adult in the Long-Term Care Setting
166.	5/4/01	Jeanne	Geiger-Brown	Problem Burden Change Over Time in Treatment of Recovering Nurses
167.	6/5/01	Nancy	Glass	Factors that Influence Functional Status in Intentionally Injured Women
168.	6/5/01	Theresa	Collins	Readiness Estimate and Deploy ability Index Revised for Air Force Nurses (READI-R-AFN): Psychometric Evaluation
169.	7/11/01	Amanda	Green	Predictors of Breast Cancer Screening in Women with Chronic Conditions
170.	7/20/01	Dawn	Agnew	Neonatal Hypoxic-Ischemic Encephalopathy: Excitotoxicity, Oxidative Stress, and Hypothermic Neuroprotection
171.	10/15/01	Acharaporn	Sripusanapan	Translation, Validation, and Application of the California Critical Thinking Instruments to Assess Factors Related to Critical Thinking Dispositions and Skill of Baccalaureate Nursing Students in Thailand
172.	12/5/01	Rebecca	Miltner	The Relationship Between Patient and Unit Level Acuity and Intrapartum Nursing Care
173.	12/18/01	Lorrie	Powel	Incontinence, Morbidity, Psychosocial Adjustment to Illness, and Quality of Life After Prostatectomy
174.	2/6/2002	Ann	Morrison	The Effect of Hormone Replacement Therapy Upon the Risk of Developing Alzheimer's Disease in A Cohort of Woman
175.	2/6/02	El-Masri	Maher	Predictors of Nosocomial Infections Among the Critically Ill Adult Trauma Population: A Model Testing Approach
176.	4/3/02	Susan	Foster-Marden	Theoretical Model Testing to Examine the Influence of Technology Dependency on Health-Related Quality of Life Following Implantation of a Cardioverter Defibrillator
177.	9/5/02	Jacqueline	Moss	Evaluation of the Proposed International Standards Organization Reference Terminology Model for Nursing Action

*Deceased

Table IX.4: Chronological Listing of Graduates and Dissertation Titles

178.	3/17/03	Eun Shim	Nahm	A Model of Computer-Medicated Social Support Among Older Adults
179.	4/28/03	Elizabeth	Hill-Westmoreland	Fall Risk in Elderly Nursing Home Residents: A Study of Intrinsic, Extrinsic, and Interactive Factors
180.	7/24/03	Maggie	Richard	Holistic Assessment of Quality of Life in Deployed Naval Personnel
181.	9/5/03	Sun-Mi	Lee	Applying Bayesian Network Approaches to Study Health Outcomes
182.	4/2/04	Caryn	Andrews	Modesty and Religiosity as Predictors of Breast Cancer Screening Among American Jewish Women
183.	4/19/04	Sumalee	Lirtmunlikaport	Predictors of Treatment Completion Among Thai Adolescents with Methamphetamine Use Disorders
184.	4/22/04	Karen	Kaiser	The Relationship of Patient Characteristics and Process of Care Characteristics to Post Operative Pain Outcomes
185.	4/28/04	Nantiya	Chookaew	A Meta-Analysis of Adolescents HIV/AIDS Prevention/Intervention Programs from 1990-2002 in the United States
186.	5/4/04	Maryanne	McDonald	Case Management Guidelines for the Ten Most Common Primary Diagnoses in Home Health Care
187.	11/17/04	Margaret	Terry	Predictors of Hospital Admission for Congestive Heart Failure Patients (CHF) from a Home Health Agency
188.	12/1/04	Mary Pat	Wall	Physiologic, Well-being and Coping Resource Predictors of Functional Performance in People with Chronic Obstructive Pulmonary Disease
189.	12/13/04	Joan	Warren	Organizational Incentives and Rewards as Motivators for Registered Nurses to Obtain a Baccalaureate or Higher Nursing Degree
190.	12/17/04	Kathleen	McPhaul	Workplace Violence in the Home Visiting Workplace: Development of Measures
191.	1/7/05	Marjorie	Gillespie	HIV/AIDS Preventive Behavior in Recent Immigrant Jamaican Women
192.	1/31/05	Kenneth	Rempher	Comparison of Standard Care and Clinical Pathway Effects on Quality and Fiscal Outcomes in Hospitalized Patients Diagnosed with Systolic Dysfunction
193.	2/2/05	Kathy	Gray-Sircusa	Acuity-Based Staffing in Long Term Care: Does it Influence Quality?
194.	3/29/05	George	Zangaro	Antecedents of Job Satisfaction of Nurses: A Meta-Analysis
195.	4/4/05	Linda	Cook	Pets for Elderly Hypertensive Trial

*Deceased

Table IX.4: Chronological Listing of Graduates and Dissertation Titles

196.	4/11/05	Dorna	Hairston	An Exploration of Sense of Belonging and Organizational Commitment as Predictors of New Graduate Nurses' Intent to Leave
197.	5/2/05	Linda	Dunbar	Alternative Methods of Identifying Children with Special Needs Care Needs: Implications for Medicaid Programs
198.	7/7/05	Ju Hee	Lee	Quality of Life of Korean Family Caregivers with Older Stroke Patients
199.	7/14/05	Piyatida	Junlapeeya	Model Testing of Exercise Behavior in Thai Female Registered Nurses in an Urban Hospital
200.	11/30/05	Lisa	Lesneski	Factors that Influence Treatment Delay for Acute Myocardial Infarction Patients
201.	12/2/05	Brenda	Holtzer	The Influence of Care Coordination for Children with Special Health Care Needs
202.	12/9/05	Margaret	Bevans	Hospitalization and Mortality following Allogeneic Hematopoietic Stem Cell Transplantation (HSCT): The Influence of Selected Biological and Psychosocial Variables
203.	12/14/05	Charles	Larew	Perceived Caregiving Demands, Family Resiliency Factors, And Quality of Life Outcomes for Family Caregivers of Traumatic Brain Injury Victims During Acute Hospitalization
204.	1/23/06	Azizeh	Sowan	The Effect of a Computerized Order Entry System (CPOE) on Managing Continuous Infusion Medications at a Pediatric Intensive Care Unit
205.	2/23/06	Beverly	Meadows	A Comparison of Paper-based Data Submission to Remote Data Capture for Minimizing Data Entry Errors in Cancer Clinical Research
206.	3/1/06	Deborah	Chapa	Depression and Autonomic Nervous System Modulation in Patients with Heart Failure
207.	3/27/06	Mona	Choi	Association Between Ozone and Emergency Department Visits: Application of Geostatistics and Geographic Information Systems (GIS)
208.	3/29/06	Chi-Wen	Kao	Quality of Life and Physiological Status as Predictors of Mortality in Patients with Implantable Cardioverter-Defibrillator
209.	3/30/06	Young Ju	Kim	Time to Surgery and Outcomes in Head Trauma Patients
210.	4/4/06	Janice	Hoffman	The Relationship between Critical Thinking, Program Outcomes and NCLEX-RN Performance in Traditional and Accelerated Baccalaureate Nursing Students

*Deceased

Table IX.4: Chronological Listing of Graduates and Dissertation Titles

211.	4/18/06	Zeina	Khoury-Stevens	The Relationship between Critical and Clinical Thinking and Clinical Decision Making in Critical Care Nurses
212.	4/27/06	Yen-Chiao	Lu	Nurses' Acceptance of Handheld Computers
213.	5/2/06	Kathleen	Griffith	Timely Colorectal Cancer Screening in African Americans
214.	5/4/06	Christine	Pintz	Assessment of Diagnostic Reasoning with Standardized Patients: Testing the Reliability and Validity of the Diagnostic Reasoning Assessment
215.	5/4/06	Deorah	Dang	Toward a better Understanding of the Influences on the Association between Nurse Staffing and Preventable Patient Complications
216.	9/18/06	Susan	Newbold	Utility of Search Strategies used by Nurses Seeking Internet-Based Health Information
217.	11/8/06	Duk Yoo	Jung	A Predication Model of Fear of Falling in Older Adults Living in a Continuing-Care Retirement Community
218.	11/29/06	Joann	Nicoteri	Self Reported Factors Influencing Medication Adherence in College Students
219.	12/1/06	Allison	Davis	Home Environment Health Risks of People with Developmental Disabilities
220.	4/04/07	Ingrid	Pretzer-Aboff	Testing the Feasibility and Impact of the Restorative Care –PD Intervention on the Older Adult with Parkinson's Disease and their Caregiver
221.	4/23/07	Elizabeth	Galik	Testing the Feasibility and Impact of a Restorative Care Intervention on Nursing Assistants and Nursing Home Residents with Moderate to Severe Cognitive Impairment
222.	4/24/07	Gary	Lang	The Work Environment of Army Hospital Nurses: Measurement and Construct Validity
223.	4/26/07	Bing Bing	Qi	Self-Efficacy Enhanced Education Program in Preventing Osteoporosis among Chinese Immigrants
224.	6/26/07	Yueh-Yen	Fang	A Meta-Analysis of Relationships between Organizational Culture, Organizational Climate and Nurse Work Outcomes
225.	6/29/07	Chu-Yun	Lu	The Use of Four Care Directives and Hospice Care in Elderly Nursing Home Residents
226.	11/19/07	Margaret	McNeill	Critical Care Performance in a Simulated Military Aircraft Cabin Environment

*Deceased

Table IX.4: Chronological Listing of Graduates and Dissertation Titles

227.	11/19/07	Chia-Chun	Tsai	The Effect of Animal-Assisted Therapy on Children's Stress During Hospitalization
228.	2/14/08	Carol	Spence	Positive Aspects of the Family Caregiving Experience in Hospice
229.	3/25/08	Eleanor	Schron	Biopsychosocial Factors as Predictors of Mortality and Morbidity in Patients with Atrial Fibrillation
230.	4/21/08	Charlotte	Seckman	Clinicians' Perceptions of Usability of an Electronic Medical Record Over Time
231.	4/28/08	Yao Mei	Chen	Nurses' Work Environment and Job Satisfaction
232.	5/2/08	Mary	Chaffee	A Predictive-Correlational Study of Willingness of Personnel in a Military Hospital to Work in Disaster

*Deceased

Table IX.5: Current Roles of PhD Program Alumni

NAME	ROLE	INSTITUTION
Patricia M. Adams	Assistant Professor	University of Delaware College of Health Sciences
Anna Alt-White	Program Dir. Evidence-Based Practice	US Dept of Veterans Affairs, Washington, DC
Caryn Andrews	Nurse Practitioner	Office of Nurs Serv Lifebridge Health, Alvin & Lois Lapidus Cancer Ctr., Northwest Hospital Ctr.
Etta Banda*		
Margaret Bevans	Clinical Nurse Scientist	NIH Clinical Center
Carol Bickford	Senior Policy Fellow	American Nurses Association
Umaporn Boonyasopun	Faculty	Prince of Songkla University, Hat Yai, Thailand
Diane Breckenridge	Associate Research Director	School of Nursing, Abington Memorial Hospital, Willow Grove, PA
Laura Brosch	Director, Office of Research Protections	US Army Medical Research and Material Command, Fort Detrick, MD
Raymonde Brown	Asst. Professor & Professor in Charge of Undergraduate program	Pennsylvania State University School of Nursing
Georgeanne Butler	Director of Nursing & Professor	Howard Community College
Ruth Carroll	Professor Emeritus	Salisbury State University Department of Nursing
Deborah Castellucci	Associate Professor	Millersville University College of Nursing
Mary Chaffee	Nurse Researcher	NNMC Bethesda
Deborah Chapa	Assistant Professor	Florida Gulf Coast University School of Nursing
Kathleen Charters	CNE	First Consulting Group
Yao-Mei Chen	Vice Director College of Nursing	Kaohsiung Medical University Hospital, Taiwan
Mei-Ling Chen	Professor	Chang Guing University SON, Taiwan
Wanda Chernomas	Associate Dean, Undergraduate Program	University of Manitoba, Winnipeg, Canada
Mona Choi	Post doc fellowship	Center for Disease Control, Atlanta, GA
Nantiya Chookaew	Assistant Professor	Mahidol University, Thailand
Veronica Clarke-Tasker	Associate Professor	Howard University Division of Nursing

*Deceased

**Information taken from 2002 Self-Study

Table IX.5: Current Roles of PhD Program Alumni

NAME	ROLE	INSTITUTION
Theresa (Dremsa) Collins **	Nurse Research, Clinical Investigations	59 th Medical Wing, Lackland Air Force Base, San Antonio, TX
Linda Cook	Associate Professor	Prince George's Community College
Patricia Corey-Lisle	Researcher	Eli Lilly & Company
Joan Cresia	Dean and Professor	University of Tennessee College of Nursing
Charmaine Cummings	Acting Dir, National Cancer Institute of Education & Special Initiatives	National Institute of Health
Christine Curran **	Assistant Professor of Nursing; Director, Informatics	Columbia University, New York, NY
Deborah Dang	Director of Nursing Practice	Johns Hopkins Hospital
Joan Davenport	Assistant Professor	University of Maryland School of Nursing
Linda Davis	Professor Gardiner Dis Professorship in Nurs and Sr Fellow in Center for Study of Aging & Human Development	Duke University School of Nursing
Allison Davis	Assistant Professor	University of Maryland School of Nursing
Laurie Davis	CN Midwife	Walter Reed Army Medical Center
Freda DeKeyser	Coordinator of Nursing Research, Hadassah	Hebrew University, Jerusalem, Israel
Karen Dennis	Professor	University of Central Florida College of Nursing
Mary DiBartolo	Associate Professor	Salisbury State University Department of Nursing
Susan Dorsey	Assistant Professor	University of Maryland School of Nursing
Theresa Dremsa	Director of Nursing Research	Wilford Hall Medical Center
Linda Dunbar	Vice President, Care Management	Johns Hopkins Hospital
Sharon Dudley-Brown	Manager, Internship for Spec Adv Prac Nursing	Johns Hopkins University School of Nursing
Adedayo A. Ekundayo	Associate Professor	Coppin State University School of Nursing
Sharon Eifried	Faculty Emeritus	Towson State University Department of Nursing
Vanessa Fahie	Assistant Professor	University of Maryland School of Nursing
Yueh-Yen Fang	Director of Five Year Nursing Program	Fooyin University, Taiwan
Laila Farhood	Professor Psychiatry & Mental Health Nursing	American University of Beirut School of Nursing

*Deceased

**Information taken from 2002 Self-Study

Table IX.5: Current Roles of PhD Program Alumni

NAME	ROLE	INSTITUTION
Elaine Feeney	Associate Professor	York College of Pennsylvania Department of Nursing
Susan Forest-Marden	Clinical Nurse Scientist	National Institute of Health
Carolyn Freed*		
Kathaleen Freeman	Assistant Professor	The College of New Jersey, Ewing, Dept of Nursing
Elizabeth Galik	Assistant Professor	University of Maryland School of Nursing
Meei-Ling Gau	Faculty	Dept. of Nursing National Taipei College of Taipei, Taiwan
Jeanne Geiger-Brown	Associate Professor	University of Maryland School of Nursing
Audrey Gift	Professor Emeritus	Michigan State University College of Nursing
Marjorie Gillespie	Assistant Professor	Florida International University School of Nursing
Vicki Gillmore	Healthcare Administrator	Masonic Village, Elizabethtown, PA
Nancy Glass	Associate Professor	Johns Hopkins University School of Nursing
Kathleen Gray-Sircusa	Assistant Professor	Villanova University College of Nursing
Hurdis Margaret Griffith	Dean Emeritus of Nursing	Rutgers University College of Nursing
Kathleen Griffith	Assistant Professor	University of Maryland School of Nursing
Marcella Griggs	Retired Director of School of Nursing	Radford University School of Nursing
Patricia M. Grimm	Retired	
Cecelia Grindel	Professor	Georgia St. Byrdine F. Lewis SON
Anne Hamric	Associate Professor	University of Virginia School of Nursing
Hae-Ra Han	Assistant Professor	Johns Hopkins University School of Nursing
Nancy Harnett	Clinical Assistant Professor	UNC Greensboro/East Carolina University
Janet Harris	Nurse Researcher	US Army
Clare Hastings	Chief Nurse	NIH Clinical Center
Donna Havens	Professor and Academic Chair	University of NC at Chapel Hill School of Nursing
Gail Havens	Faculty	University of Utah College of Nursing
Christine Heine (Mueller)	Chair and Associate Professor	University of Minnesota School of Nursing
Melinda Henderson	Manager	Healthmark Clinic De Funiak Springs, FL

*Deceased

**Information taken from 2002 Self-Study

Table IX.5: Current Roles of PhD Program Alumni

NAME	ROLE	INSTITUTION
Eleanor Henry	Consultant	University of Maryland Dental School
Dorothy Herron	Faculty	University of NC, Greensboro, School of Nursing
Linda Hickman	Assistant Professor	University of Maryland School of Nursing
Elizabeth Hill-Westmoreland	Assistant Professor	Johns Hopkins University School of Nursing
Janice Hoffman	Assistant Professor	University of Maryland School of Nursing
Brenda Holtzer	Faculty	Thomas Jefferson University School of Nursng
Man-Ying Hsu	Faculty	National Taipei College of Nursing, Taiwan
Mary Jamison*		
Shirley Jarecki	Faculty	Marymount School of Nursing
Louise Jenkins	Professor and Co-Director, Institute for Educators in Nursing Health Professions	University of Maryland School of Nursing
Tamara Jones	Coordinator, Office of Int'l Act	NIH – National Institute on Aging
Susan Joslin	Administrator	Center for Medicare & Medicaid Services
Duk Yoo Jung	Faculty	Ewha University, Korea
Piyatida Junlapeeya	Faculty	Thailand
Karen Kaiser	Clinical Practice Coordinator & Adj Faculty	University of Maryland Medical Center & SON
Chi-Wen Kao	Associate Professor	National Defense Medical Center, SON, Taiwan
Martha Kennedy	Acute Care NP	Johns Hopkins Hospital
Vicky Kent	Clinical Associate Professor	Towson University School of Nursing
Zeina Khouri-Stevens	Director of Nursing	Johns Hopkins Bayview Hospital
Young Ju Kim	Faculty	Yonsei University, Taiwan
Joan Kramer	Infection Control Epidemiologist	Johns Hopkins Hospital
Diane Krasner	Wound and Skin Care Consultant	York, PA
Cara Krulewitch	Epidemiologist	FDA, Center for Devices and Radiological Health
Clinton Lambert	International Nursing Consultant	Lambert & Lambert
Sophie Landsburg	Unknown	
Gary Lang	Nurse Researcher	US Army – Walter Reed

*Deceased

**Information taken from 2002 Self-Study

Table IX.5: Current Roles of PhD Program Alumni

NAME	ROLE	INSTITUTION
Charles Larew	Research Associate Professor	University of Pittsburgh School of Nursing
Ju Hee Lee	Clinical Instructor	Yonsei University, Korea
Sun-Mi Lee	Faculty	Catholic University of Korea College of Nursing
Ting Ting Lee	Assistant Professor	National Taipei College of Nursing, Taiwan
Wen-Lin Lee**	Statistical Analyst	University of MD, School of Medicine
Gail Lemaire	Assoc. Professor and Co-Dir, CNL Program	University of Maryland School of Nursing
Lisa Lesneski	Clinical Instructor	University of Scranton, Pennsylvania
Cathaleen Ley	Nurse Researcher	Anne Arundel Medical Center
Yu-Fang Li	Development Manager Microsoft	Health Serv. Res and Dev. Center of Excellence VA Puget Sound Health Care System, Seattle, WA
Patricia Liehr	Associate Dean for Nursing Research & Scholarship	Florida Atlantic University College of Nursing
Sumalee Lirtmunlikaport	Faculty	Chiang Mai University, Thailand
Kathryn Lothscheutz-Montgomery	Associate Dean of Organizational Partnership & Outreach	University of Maryland School of Nursing
Chu-Yun Lu	Assistant Professor	I-Shou University, Dept. of Nursing
Yen-Chiao Lu	Assistant Professor	Chung Shan Medical University, Taiwan
Kathleen Lucke	Associate Dean for Academic Prog. and Instr.	University of Texas Medical Branch, Galveston, TX
June Lunney	Associate Dean for Research	West Virginia University School of Nursing
Donna Mahrenholz	Independent Research Consultant	Illinois
Reiko Makabe	Professor	School of Nursing Fukushima Medical Univ., Japan
Sandra Malone	Coordinator of the Intensive Substance Abuse Treatment Program	Kansas VA Medical Center
Penny Marshcke	Research Nurse	Johns Hopkins Hospital
El-Masri Maher	Assistant Professor	University of Windsor, Ontario
Jeanne Matthews	Co-Chair Public Health Program Specialist	Arlington City Department of Human Services
Donna Behler McArthur	Professor and Director of DNP Program	Vanderbilt University School of Nursing

*Deceased

** Information taken from 2002 Self-Study

Table IX.5: Current Roles of PhD Program Alumni

NAME	ROLE	INSTITUTION
Sheridan McCabe	Unknown	
Maryanne McDonald	Unknown	
Dorothea McDowell	Associate Professor and Associate Chair	Salisbury State University Department of Nursing
Priscilla McKay	Unknown	
Roberta McHale	Faculty	Misericordia University
Margaret McNeill	Critical Care Masters Clinician	USAF/Andrews Air Force Base
Kathleen McPhaul	Assistant Professor	University of Maryland School of Nursing
Beverly Meadows	Associate Director for Clinical Research	National Cancer Institute
Leta Menton	Unknown	
Jacqueline Mickley	Assistant Professor	Kent State University, Ohio College of Nursing
D. Kathleen (Milholland) Hunter	Consultant	Medical Records Institute
Marilyn Miller	Unknown	
Renee Milligan	Adjunct Associate Professor	Georgetown University School of Nursing
Rebecca Miltner	Director of Womens & Infants Serv (Mgmnt)	Washington Hospital Center
Jacqueline Moore	Consultant, Correctional Health Care	Jacqueline Moore & Associates, Littleton, CO
Ann Morrison	Project Management/Clinical	Johns Hopkins Hospital
Patricia Morton	Associate Dean of Academic Affairs	University of Maryland School of Nursing
Jacqueline Moss	Associate Professor & Asst. Dean for Clinical Simulation & Technology	University of Alabama Birmingham School of Nursing
Dawn Mueller-Burke	Assistant Professor	University of Maryland School of Nursing
Eun-Shim Nahm	Associate Professor	University of Maryland School of Nursing
M. Jo Namerow*		
Mary Nelson	Editor	Assoc. Pediatric Hematology/Oncology Nurses
Susan Newbold	Associate Professor	Vanderbilt University School of Nursing
Wendy Newcomer	Consultant	Bethesda, Maryland
Robin Newhouse	Assistant Dean of the DNP Program	University of Maryland School of Nursing

*Deceased

** Information taken from 2002 Self-Study

Table IX.5: Current Roles of PhD Program Alumni

NAME	ROLE	INSTITUTION
Joann Nicoteri	Professor	University of Scranton, PA School of Nursing
Samson Omotosho	Associate Professor and Associate Chair	Coppin State University School of Nursing
Joyce O'Neil	Unknown	
Barbara Parker	Director of the PhD Program	University of Virginia School of Nursing
Ruth Parker	Retired	
Kerry Petrucci Meyer	Assistant Professor	University of Maryland Baltimore County
Carol Phillips	Associate Provost	Millersville University Department of Nursing
Sandra Picot	Associate Professor	University of Maryland School of Nursing
Ann Pierce	Associate Dean	Adelphia University School of Nursing
Barbara Pillar**	Director of Research	Summit Health, Akron, OH
Christine Pintz	Asst. Professor and Director of DNP Program	The George Washington University
Sharon Piper	Associate Professor	Montgomery County Community College, Nursing
Casey Pollack	Unknown	
Rosemary Polomano	Assistant Professor	University of Pennsylvania School of Nursing
Lorrie Powel	Thelma and Joe Cros Endowed Professor	University of Texas, San Antonio School of Nursing
Ingrid Pretzer-Aboff	Assistant Professor	University of Delaware School of Nursing
Patricia Prin	Unknown	
Roseanne H. Pruitt	Professor & Graduate Coordinator	Clemson University School of Nursing
Linda Pugh	Professor	York College of Pennsylvania School of Nursing
Bing Bing Qi	Clinical Assistant Professor	Villanova University College of Nursing
Cynthia Fay Raines	Dean	University of Alabama in Huntsville
Amelia Ranotso**	Administrator	School of Nursing, University of Alabama, Huntsville, AL
Joyce Rasin	Adjunct Faculty	University of North Carolina at Chapel Hill
Roberta Raymond	Nursing Program Administrator	Community College of Baltimore County
Jean Reeder*		

*Deceased ** Information taken from 2002 Self-Study

Table IX.5: Current Roles of PhD Program Alumni

NAME	ROLE	INSTITUTION
Joanne Reifsnyder	Assistant Professor	Thomas Jefferson University Health Outcomes Div., Philadelphia
Carol A. Reineck	Department Chair of Acute Care Nursing	University of Texas Health Science Center at San Antonio
Kenneth Rempher	Vice President of Professional Nursing Practice	Sinai Hospital
Robin Remsburg	Associate Dean of Research	George Mason University
Barbara Resnick	Professor	University of Maryland School of Nursing
Maggie Richard	Director of Research	Bethesda Naval Hospital
Oma Riley-Giomariso	Professor	York College of PA, Department of Nursing
Mary Ritchie**	Assistant Professor	Villanova University College of Nursing
Shiela Rodgers**	Associate Professor	NC Central University, Durham, Dept. of Nursing
Carol Romano	Chief, US Public Health Service	NIH
Carol Rooks*		
Janna C. Roop	Assistant Professor (Clinical)	Wayne State University
Linda E. Rose	Director, Baccalaureate Program	Johns Hopkins School of Nursing
Brenda Roup	Nursing Consultant in Infection Control	CIC Epidemiology and Disease Control Program, MD Dept. of Health and Mental Hygiene
Christine L. Savage	Assistant Professor	University of Cincinnati, College of Nursing
Eleanor B. Schron	Program Director	NIH/NHLBI
Acharaporn Scripusanapan**	Faculty	Thailand
Charlotte A. Seckman	Consultant	NIH Clinical Center
Sarah “Jodi” Shaefer	Instructor	Johns Hopkins School of Nursing
Phyllis W. Sharps	Professor	Johns Hopkins University
Jane Sherman	Vice Pres of Community and Behavioral Health	Regional Medical Center, Manchester, Iowa
Hueih-Lirng Shieh	Unknown	
Yeonghee Shin	Faculty	Keimyung University College of Nursing, Korea
Mary Slate	Unknown	
Rachel Smith	Assistant Professor	University of Maryland School of Nursing

*Deceased

** Information taken from 2002 Self-Study

Table IX.5: Current Roles of PhD Program Alumni

NAME	ROLE	INSTITUTION
Azizeh Sowan	Assistant Professor	UTHE Hashemite University, Jordan
Carol Spence	Director of Research	National Hospice and Palliative Care Organization
Nancy Staggers	Program Director Informatics	University of Utah at Salt Lake
Julie Stanik-Hutt	Faculty	Johns Hopkins University
Georgia Stevens	After Care Coordinator	Maryland State Mental Hygiene Administration and Baltimore Mental Health Systems
Patricia Stuhlmuller	Nurse Manager	Harris Methodist St, Worth, Texas
Wanda Suttarangsee	Faculty	Thailand
Barbara Sylvia	Associate Professor	Graduate School of Nursing Uniformed Medical Services University of Health Sciences
Anita Tarzian	Ethics and research consultant, Program Dir of the MD Health Care Ethics Comm. Network	University of Maryland, Baltimore, School of Law
Margaret Terry	Administrator	MedStar Health VNA
Kathleen Thompson	Unknown	
Patricia Troumbley Travis	Associate Director of Clinical Trials Contracting	Johns Hopkins School of Medicine, Office of Research Administration
Chia-Chun Tsai	Assistant Professor	Yonsie University, Taiwan
Shiow-Luan Tsay	Dean of Nursing & Professor	National Taipei College of Nursing
Margaret Ulione	Clinical Professor	Barnes College of Nursing at University of Missouri, St. Louis
Janice Ulmer	Administrator	Anne Arundel Community Hospital
Connie Ulrich	Faculty	University of Pennsylvania School of Nursing
Constance Uphold	Research Associate Professor	University of Florida School of Nursing
Mary Patricia Wall	Assistant Professor	University of Louisville School of Nursing
Joan Warren	Director of Prof Practice and Research	Franklin Square Hospital
Dorraine Watts	Assoc. Dean of Faye G. Abdellah Res. Center	UHUHS Grad School
Elaine Linda Wendt	Dean Emerita	University of Wisconsin, Eau Claire College of Nursing & Health Sciences

*Deceased

** Information taken from 2002 Self-Study

Table IX.5: Current Roles of PhD Program Alumni

NAME	ROLE	INSTITUTION
Ruby Wesley	Associate Chief of Nursing Education	VA Hospital, Washington, DC
Mary Ellen Wewers	Professor	Ohio State University College of Nursing
Joyce Willens	Assistant Professor	Villanova University College of Nursing
Leslie Wilson	Associate Adjunct Professor	University of CA San Francisco School of Nursing
Barbara Wise	Pediatric NP	National Institute of Health
Rebecca Wiseman	Assistant Professor	University of Maryland School of Nursing
Mei-Ling Yeh	Associate Professor	Graduate Institute of Integration of Traditional Chinese Medicine with Western Nursing, National Taipei College of Nursing, Taiwan
Tao Yin **	Assistant Professor	Miami University of Ohio College. of Nursing
Adele Young	Assistant Professor	George Mason University School of Nursing
George Zangaro	Assistant Professor	University of Maryland School of Nursing
Qiuping Zhou	Research Clinical Specialist	Fairfax Hospital Women's Service VA
Thembi Isabel Zwane	Lecturer, Faculty of Health Sciences	University of Swaziland, Mbabane, Swaziland

*Deceased

** Information taken from 2002 Self-Study

Matriculation and Time Limits

Time from matriculation in the program to the awarding of the degree cannot exceed nine years and includes time spent on a leave of absence. The graduate school has a policy “not to stop the clock” when the student requests a leave of absence. The graduate school policy allows for five years from enrollment in the PhD program to Admission to Candidacy. For baccalaureate students to PhD students, this time period starts when their first PhD course is taken. A four year period is allowed from Admission to Candidacy to the defense of the dissertation. As of Fall 2008, the time from matriculation to awarding the degree has changed from nine to seven years. The new policy will allow four years to advance to candidacy and three additional years to complete the dissertation. Extensions of these time limits will be made if necessary. Decreasing the time limits encourages students to progress successfully through the program.

The number of years in the program is decreasing. Table IX.6 lists the average number of years spent in the program from 1998 to 2004. The total number of students include all newly admitted and transfer students.

Table IX.6: Year of Entry and Average Years in Program

Year of Entry	Number of Students Entered	Number of Students Graduated	Average Years in Program
1998	10	7	7.14
1999	8	8	5.75
2000	6	4	4.75
2001	10	8	5.25
2002	13	7	4.42
2003	9	3	3.7
2004	12	3	3.3
2005	10	*	*
2006	21	*	*

*numbers too small at this time to calculate

The number of students matriculating directly from BSN-PhD is increasing (Table IX.7). Table IX.6 lists the 116 students who entered in 1998 thru 2007 and year they graduated. Only one student in this group exceeds the 9 year limit. Several have finished the program in 3 years since 2003. This is a dramatic reversal of the culture of students and faculty. Students and their advisors are reminded by the Assistant Dean of the PhD program of time limits and no extensions are granted unless there are severe extenuating circumstances. Even in those cases, close monitoring by the Assistant Dean of the PhD program and the Admissions and Progressions Advisory Group assures students either graduate or leave the program. Since 1998 only 8 (7%) of the students have withdrawn from the program due to lack of progress in their studies and 5 (4%) students left for personal reasons. Since 2003, the message in the PhD program has been one of promoting progress and quickly completing the program.

The May 2002 self-study, page IX.29, Table IX.4, reports a range of mean time to degree of completion of 4.10 to 5.66 for the academic year of entry 1992 to 1997. The table omits individuals who were continuously enrolled, but were not graduated in the Fall 2003. In the Fall of 2003, a progressions review of all students found 20 students who had entered the program in years 1990-1997 who had not graduated. To assess these student's intentions to continue in the program, each of these individuals were contacted by the Assistant Dean. Individual plans of study were developed for each student and 14 (70%) of this group graduated from 2004-2008. Six students (30%) withdrew from the program (See Table IX.8).

Table IX.7: Number of Students Graduated by Year of Admissions

Academic Year of Entry	Number of Post MS Students Entered	Number of Students Entered as BSN-PhD	Total Number of Students Entered	Year of Graduation							Students Currently in Program	Withdrew
				2002	2003	2004	2005	2006	2007	2008		
1998	10		10	1		1	1	3	1		1	2
1999	8		8			4	2	2				
2000	6		6			1	3				1	1
2001	10		10				1	5	1	1		2
2002	13		13					5	1	1	6	
2003	9		9					1	2		3	3
2004	11	1	12						2	1	6	3
2005	10		10							1	8	1
2006	14	7	21						1	1	18	1
2007	10	7	17								17	

**Table IX.8: Students Entering the Program in Years 1990-1997
But Not Graduated by 2003**

Year Entered	Graduated	Withdrew
1990	2005	
1991	2005	
1993		2003
1993	2005	
1993	2004	
1993	2006	
1993		2004
1994	2006	
1994		2004
1994	2005	
1995		2006
1996	2006	
1996		2003
1996	2007	
1996	2008	
1997	2005	
1997	2005	
1997		2004
1997	2005	
1997	2005	

Relationship to AACN Quality Indicators (2001)

There is systematic evaluation of graduate outcomes that is carried out according to the SON Master Plan for Evaluation. The dissertation process that is conducted according to UMB Graduate School policy is carefully followed and has extensive faculty involvement through the experience. Dissertations do represent original contributions to the knowledge of the disciplines and are of high quality. Graduates hold highly responsible positions, many in leadership roles, demonstrating their functioning as researchers and scholars.

Further, all of the elements of the evaluation plan stated in the AACN document are reflected in the SON evaluation plan. A summary of relevant evaluation data will be available at the time of the site visit. There is a high degree of consistency of the PhD Program Outcome Indicators with those identified in the AACN 2001 Quality Indicators.

Reference:

American Association of Colleges of Nursing. (November, 2001). *Indicators of Quality in Research-Focused Doctoral Programs in Nursing*, Washington, D.C.

VI. Faculty

Introduction

Section VI, Faculty, contains details about the graduate faculty and their roles in the PhD program. Specific details of the extramural funding obtained by faculty and students are included. Faculty research and scholarship including interdisciplinary collaboration is described. Faculty roles in advisement and teaching conclude this section. The 2002 review suggested increasing the number of faculty with extramural funded programs of research. Recent progress includes: Lynn Oswald's recently awarded 3 million dollar, 5 year RO1 to study Imaging Research on Impulsivity, Stress and Drug Abuse (this award is not reflected in the 2007-2008 Table 3 because funding does not begin until July, 2008, the new fiscal year); Susan Dorsey's RO1 to study BDNF Signal Strength Modulates NRTI Induced Allodynia in the Mouse; and Deborah McGuire's RO1 to study Pain Assessment in Non-Communicative Palliative Care Patient.

Faculty

In Spring 2008, there are 102 full time and approximately 50 part time faculty members at the SON and 62% are prepared at the doctoral level. Over 500 faculty associates and clinical preceptors oversee student clinical experiences. The faculty represents a wide diversity of academically and experientially well-prepared people, including both nurses and non-nurses, who work together as a team to provide: 1) the highest level of instruction and advisement to students; 2) conduct scholarly activity in research and clinical practice; and 3) provide service to the SON, campus, and the community. The richness of their diverse backgrounds and intellectual perspectives provides a considerable resource for the PhD program.

Though faculty at the SON are housed in two academic departments, the PhD Program is a school-wide program involving the SON faculty who are Graduate Faculty members. This positioning is a great asset as it allows for and facilitates faculty involvement across departments and assists in assuring that the most highly qualified and appropriate faculty are teaching in the program.

Graduate Faculty Membership

Graduate Faculty membership is required for faculty involved with the delivery of the PhD Program (e.g. serving as either an interim or Research Advisor, teaching doctoral level courses). Graduate Faculty members hold the terminal degree for the discipline and appropriate credentials to teach in graduate programs at UMB.

Regular Members of the Graduate Faculty are eligible to chair PhD Dissertation Committees, serve on Graduate Council and Committees, and vote in Graduate School Faculty Assembly. Faculty applying for Regular Membership in the Graduate Faculty submit an application and letters of support from their SON Department Chair and the Assistant Dean of the PhD Program. The application is reviewed by the Graduate Faculty Membership Committee of the Graduate Council which makes a recommendation to the Full Graduate Council. Key factors in this recommendation include experience in working with graduate students and scholarly productivity. The Graduate Faculty Council votes on the application.

Associate Members of the Graduate Faculty may serve as members (and as co-chairs) of PhD Dissertation Committees. Faculty who are applying for Associate Membership in the Graduate Faculty submit an application, as well as letters of support from their SON Department Chair and the Assistant of the PhD Program to the Dean of the Graduate School who acts on the application. That decision is reported to the Graduate Faculty Council.

Since it is the members of the Graduate Faculty who are involved with the delivery of the PhD program, this self-study focuses on them. Of the 102 full-time SON faculty, 62 are members of the Graduate Faculty. There are 27 SON faculty who are Regular Members and 35 SON faculty who are Associate Members of the Graduate Faculty. Thus, SON faculty who are members of the Graduate Faculty provide a critical mass of full-time faculty available to assure graduate students have both formal and informal learning experiences with the most academically and experientially qualified instructors.

Graduate Faculty Profile

A profile of 35 Graduate Faculty currently actively involved in the PhD program is found in Table VI.1 which lists name, Graduate Faculty Status, initial date of appointment, rank tenure status, degrees, institution, major areas of study, areas of expertise, and primary area(s) of involvement with the PhD program. It can be seen that of these 35 Graduate Faculty members currently actively involved in the PhD program, 14 are Full Professors, 10 are Associate Professors, and the remaining 11 are Assistant Professors; 20 of these Graduate Faculty members are tenured. Four of the Graduate Faculty members are male and the rest are female. Two of

Table VI.1: Profile of Graduate Faculty (Spring 2008)

Name & Graduate Faculty Status	Initial Date of Appointment/ Rank	Degrees	Institution	Major Areas of Study	Areas of Expertise	Role
Allan, Janet Regular Member	2002 Professor and Dean T	PhD Cert. MS BS	University of California at Berkeley University of California, San Francisco University of California, San Francisco Skidmore College, Saratoga Springs, NY	Medical Anthropology ANP Pub Hlth Nurs Nursing	Women's Health Qualitative Methods Evidenced-Based Practice	Dean 5 8
Bausell, R. Barker Regular Member	2003 Professor and Statistician T	PhD BS	University of Delaware University of Delaware	Education Measurement, Evaluation and Research Design	Research Design Power Analysis Methodological Research Placebos	5 10
Dorsey, Susan G. Regular Member	2004 Assistant Professor TT	PhD MS BS	University of Maryland, Baltimore University of Maryland, Baltimore West Virginia Wesleyan College, WV	Neuroscience/ Nursing	Neurodegenerative Diseases Neuronal Cell Death Acute and Chronic Pain Neurotrophin Signaling Mouse Genetics	1 2 3 5 7 9
Friedmann, Erika Regular Member	2003 Professor T	PhD BA	University of Pennsylvania, PA University of Pennsylvania, PA	Biology Biology	Bio-Psycho Contributors to Health with Emphasis on Cardiovascular Health Role of Social Interaction in Health and Health Care Health Promotion/Disease Prevention	1 2 3 4 5 7 9
Galik, Elizabeth	2007 Assistant Professor NT	PhD Post-MS MSN BSN	University of Maryland, Baltimore Johns Hopkins Univ. School of Nurs. Villanova University, PA University of Pennsylvania	Nursing Nursing Nursing Nursing	Dementia Restorative Care Physical Activity Physical Function	5 11

T – Tenure
TT – Tenure Track
NT – Non-Tenure

1 = Course Faculty
2 = Advisor
3 = Research Advisor
4 = Preliminary Examination Committee

5 = Comprehensive or Dissertation Committee Member
6 = PhD Curriculum Subcommittee Member
7 = PhD Admissions and Progressions Advisory Board
8 = Administrative Responsibility

9 = Supervision of Graduate Research Assistant
10 = Supervision of Graduate Teaching Assistant
11 = Newly Appointed to Graduate Faculty

Table VI.1: Profile of Graduate Faculty (Spring 2008)

Name & Graduate Faculty Status	Initial Date of Appointment/ Rank	Degrees	Institution	Major Areas of Study	Areas of Expertise	Role
Geiger-Brown, Jeanne Regular Member	2003 Associate Professor and Program Dir. T	PhD MN BSN BA	University of Maryland School of Nursing Columbia University Thomas Jefferson University Temple University	Nursing Science Adult Psychiatric Nursing Psychology	Work Schedules, Sleep, Sleepiness And Cognitive Performance Work Related Illness and Injury, Including mental health Safety/Health Outcomes	1 2 3 5 6 7 9
Haack, Mary Regular Member	2002 Professor T	PhD MS BSN	University of Illinois at Chicago University of Illinois at Chicago Loyola University of Chicago	Nursing Science Psychiatric Nursing Nursing	Health and Mental Health Needs of Court Involved Families On-Line Substance Abuse Prevention and Treatment On-Line Interventions for Patient and Family Self-Management Health Professions Education in Substance Use Disorders	2 3 6 9
Jenkins, Louise Regular Member	2005 Professor and Co-Director, Institute for Nurse Educators NT	Post Doc PhD MS BS	University of CA, San Francisco (Robert Johnson Clinical Nurse Sch) University of Maryland School of Nursing University of Maryland School of Nursing Northern Illinois University, De Kalb	Clinical Research Nursing Nursing Nursing	Quality of Life in Patients with Cardiac Dysrhythmias On-Line Substance Abuse Prevention and Treatment On-Line Interventions for Patient and Family Self-Management Health Professions Education in Substance Use Disorders	1 2 3 5
Johantgen, Meg Regular Member	1998 Associate Professor T	PhD MS BS	Virginia Commonwealth University SUNY at Buffalo Niagara University	Organization and Research Nursing Administration Health Nursing	Health Services Research Methods Measurement Issues in Using Administrative Data Health Care Work Environments and Quality of Care	1 2 3 4 5 6 8

T – Tenure
TT – Tenure Track
NT – Non-Tenure

1 = Course Faculty
2 = Advisor
3 = Research Advisor
4 = Preliminary Examination Committee

5 = Comprehensive or Dissertation Committee Member
6 = PhD Curriculum Subcommittee Member
7 = PhD Admissions and Progressions Advisory Board
8 = Administrative Responsibility

9 = Supervision of Graduate Research Assistant
10 = Supervision of Graduate Teaching Assistant
11 = Newly Appointed to Graduate Faculty

Table VI.1: Profile of Graduate Faculty (Spring 2008)

Name & Graduate Faculty Status	Initial Date of Appointment/ Rank	Degrees	Institution	Major Areas of Study	Areas of Expertise	Role
Johnson, Jeffrey Regular Member	2003 Professor and Assoc. Dir. of the Work and Health Res. Ctr. T	PhD BA	Johns Hopkins School of Hygiene and Public Health, Baltimore University of Minnesota	Human Environmental Studies and Behavioral Science	Psychosocial Job Stress Workplace Violence Social epidemiology of cardiovascular disease Measuring exposure to psychological violence Impact of work organization on Nursing and patient outcomes Organizational justice and psychological violence Social justice and health inequalities	2 3 5 6
Jones, Deborah E. Associate Member	2006 Assistant Professor NT	PhD MSN BSN BS	University of Alabama at Birmingham University of Alabama at Birmingham University of Alabama at Birmingham University of Alabama at Birmingham	Nursing Research Quality Outcomes in Healthcare Systems Natural Science	Cardiovascular disparities African American women perceptions and knowledge of heart disease and its risk factors	1 2 4 5
Kapustin, Jane Regular Member	2000 Associate Professor and Asst. Dean for Master's Studies NT	PhD Cert. Adult NP MS BSN	University of Maryland, Baltimore County University of Maryland, Baltimore University of Maryland, Baltimore Towson University, Baltimore	Public Policy Nursing Adult Nurse Practitioner Nursing	Management of End-of-Life Issues Treatment of Type-2 Diabetes Mellitus and Gestational Diabetes Genetics Evidence-based practice Clinical practice guideline adherence	Asst. Dean Masters Program 5, 11

T – Tenure
TT – Tenure Track
NT – Non-Tenure

1 = Course Faculty
2 = Advisor
3 = Research Advisor
4 = Preliminary Examination Committee

5 = Comprehensive or Dissertation Committee Member
6 = PhD Curriculum Subcommittee Member
7 = PhD Admissions and Progressions Advisory Board
8 = Administration Responsibility

9 = Supervision of Graduate Research Assistant
10 = Supervision of Graduate Teaching Assistant
11 = Newly Appointed to Graduate Faculty

Table VI.1: Profile of Graduate Faculty (Spring 2008)

Name & Graduate Faculty Status	Initial Date of Appointment/ Rank	Degrees	Institution	Major Areas of Study	Areas of Expertise	Role
Kauffman, Karen Regular Member	2007 Associate Professor and Dept. Chair NT	PhD MSN BSN Diploma	University of Pennsylvania University of Pennsylvania Allentown College of St. Francis de Sales, PA Geisinger Hospital School of Nursing, PA	Nursing Gerontology Sociology Advance Practice Gerontological	Alzheimer’s disease and care giving End of Life care for older adults Home health workers Urban ethnography Qualitative methodologies	Dept. Chair 5
Kelleher, Catherine Regular Member	2001 Associate Professor NT	ScD MPH MS BSN	Johns Hopkins University Bloomberg School of Hygiene and Public Health Harvard School of Public Health UCSF School of Nursing Georgetown University	Health Policy and Mgmt. Health Services Administration Psychiatric Nursing	Expanded roles of Home Health Aides and Personal Care Physician/Nurse Practitioner House Call Programs Mindfulness-Based Stress Reduction (MBSR) Interventions in Chronic Illness and Pall/End of Life Care, Health Workforce Job Ret and Hlth Prof Student Retention and Use of Health Services Mindfulness-Based Cognitive Therapy (MBCT) Interventions for Prev of Dep Relapse in the Chron Ill and Their Unpaid Caregivers	2
Kverno, Karan Associate Member	1998 Assistant Professor NT	PhD MA BSN	George Washington University University of Washington University of Colorado	Experimental Psychology Psychosocial Nursing	Geropsychiatry, dementia, and end-of-life	2 5

T – Tenure
TT – Tenure Track
NT – Non-Tenure

1 = Course Faculty
2 = Advisor
3 = Research Advisor
4 = Preliminary Examination Committee

5 = Comprehensive or Dissertation Committee Member
6 = PhD Curriculum Subcommittee Member
7 = PhD Admissions and Progressions Advisory Board
8 = Administrative Responsibility

9 = Supervision of Graduate Research Assistant
10 = Supervision of Graduate Teaching Assistant
11 = Newly Appointed to Graduate Faculty

Table VI.1: Profile of Graduate Faculty (Spring 2008)

Name & Graduate Faculty Status	Initial Date of Appointment/ Rank	Degrees	Institution	Major Areas of Study	Areas of Expertise	Role
Lipscomb, Jane Regular Member	2004 Professor T	PhD MS BSN	University of CA-Berkley Boston University Boston College	Epidemiology Occupational Health Nursing Nursing	Occupational and Environ. Health Occupational Health Epidemiology Work Organization and Health Workplace Violence Blood Borne Pathogen Exposure/Needlesticks Intervention Effectiveness Research Health Care and Social Service Worker Health and Safety Participatory Action Research	1 2 3 5 9 10
McGuire, Deborah Regular Member	2004 Professor T	PhD MS BSN	University of Illinois at Chicago University of Illinois at the Medical Center University of Pennsylvania	Nursing Sciences Clinical Research Methods Med-Surg Nurs Oncology	Assessment and Management of Cancer-Related Symptoms Symptoms, Functional Status and Quality of Life in Women with Advanced Ovarian Cancer Pain Assessment in Palliative Care Patients	1 2 3 4 5 6 7 9
McLeskey, Sandra Regular Member	2000 Professor T	Post Doc PhD BSN BS	Lombardi Cancer Research Center Georgetown University George Mason University Duke University	Cancer Pharmacology Nursing Chemistry	Breast Cancer Student success in nursing school	Asst. Dean Bac.Prog. 1 2 3 5

T – Tenure
TT – Tenure Track
NT – Non-Tenure

1 = Course Faculty
2 = Advisor
3 = Research Advisor
4 = Preliminary Examination Committee

5 = Comprehensive or Dissertation Committee Member
6 = PhD Curriculum Subcommittee Member
7 = PhD Admissions and Progressions Advisory Board
8 = Administrative Responsibility

9 = Supervision of Graduate Research Assistant
10 = Supervision of Graduate Teaching Assistant
11 = Newly Appointed to Graduate Faculty

Table VI.1: Profile of Graduate Faculty (Spring 2008)

Name & Graduate Faculty Status	Initial Date of Appointment/ Rank	Degrees	Institution	Major Areas of Study	Areas of Expertise	Role
McPhaul, Kathleen Associate Member	2005 Assistant Professor NT	PhD MPH BSN	University of Maryland, Baltimore Johns Hopkins School of Hygiene and Public Health University of Virginia	Nursing Science/Occupational Health Public Health	Workplace violence in health care Blood borne pathogen/needlestick exposure in home care Home visiting work environment Efficacy of occupational safety prog. Safety in community mental health Focus group research methods	2 5 7 9
Morton, Patricia Regular Member	2007 Professor and Associate Dean for Academic Affairs NT	Post MS PhD MS BSN BSN	Georgetown University, Washington, DC University of Maryland, Baltimore University of Maryland, Baltimore The Johns Hopkins University School of Health Services, Baltimore Loyola College, Baltimore	Acute Care Nurse Practitioner Nursing Ed/Admin. Leadership Medical-Surgical Nurs. Biology	Cardiovascular Nursing Electrophysiology Nursing Education Nursing education administration	2 3 5 8
Nahm, Eun-Shim Regular Member	2003 Associate Professor T	PhD MS BS	University of Maryland, Baltimore University of Hawaii EWAH Woman's University	Nursing Informatics Gerontology	The Development and testing of web-based inter. To prev, manage and promote the hlth of older adults Comp-Med social support among older adults Web-based res and usability tstg Hosp inform sys eval and implem	1 2 7 9

T – Tenure
TT – Tenure Track
NT – Non-Tenure

1 = Course Faculty
2 = Advisor
3 = Research Advisor
4 = Preliminary Examination Committee

5 = Comprehensive or Dissertation Committee Member
6 = PhD Curriculum Subcommittee Member
7 = PhD Admissions and Progressions Advisory Board
8 = Administrative Responsibility

9 = Supervision of Graduate Research Assistant
10 = Supervision of Graduate Teaching Assistant
11 = Newly Appointed to Graduate Faculty

Table VI.1: Profile of Graduate Faculty (Spring 2008)

Name & Graduate Faculty Status	Initial Date of Appointment/ Rank	Degrees	Institution	Major Areas of Study	Areas of Expertise	Role
Newhouse, Robin Regular Member	2007 Associate Professor and Asst. Dean of the Doctor of Nursing Practice Prog. T	PhD MS MGA BSN AA	University of Maryland, Baltimore University of Maryland, Baltimore University of Maryland University College University of Maryland Baltimore County Anne Arundel Community College	Nursing Administration	Health Service Research Organizational Structures, process and associated outcomes Translation of research to practice Evidenced-based Practice Quality Improvement	5 11
Ozbolt, Judy Regular Member	2006 Professor T	PhD MS BSN	The University of Michigan The University of Michigan Duke University	Educational Psychology Medical Surgical Nursing	Informatics	2
Picot, Sandra Regular Member	1999 Associate Professor T	PhD MS BSN	University of Maryland, Baltimore University of Virginia University of Virginia	Nursing	Informal Caregivers of Older Adults Health Disparities Sampling of Ethnic Minorities Biopsychosocial and Spiritual Responses to Stress	1 2 3 4 5 7

T – Tenure
TT – Tenure Track
NT – Non-Tenure

1 = Course Faculty
2 = Advisor
3 = Research Advisor
4 = Preliminary Examination Committee

5 = Comprehensive or Dissertation Committee Member
6 = PhD Curriculum Subcommittee Member
7 = PhD Admissions and Progressions Advisory Board
8 = Administrative Responsibility

9 = Supervision of Graduate Research Assistant
10 = Supervision of Graduate Teaching Assistant
11 = Newly Appointed to Graduate Faculty

Table VI.1: Profile of Graduate Faculty (Spring 2008)

Name & Graduate Faculty Status	Initial Date of Appointment/ Rank	Degrees	Institution	Major Areas of Study	Areas of Expertise	Role
Renn, Cynthia Associate Member	2004 Assistant Professor NT	PhD MS BS BS	University of Maryland, Baltimore University of Maryland, Baltimore York College of Pennsylvania Indiana University of Pennsylvania	Neuroscience Acute Care NP Nursing Music Ed	Physiology of pain during inflammation in the mouse Physiology of pain during D Drug-induced peripheral neuropathy in the mouse Descending pain modulation TrkB isoform expression in the periaqueductal gray and rostral ventromedial medulla during persistent inflammatory and D Drug-induced neuropathic pain in the mouse	2 5 6
Resnick, Barbara Regular Member	1996 Professor T	PhD MS BSN	University of Maryland, Baltimore University of Pennsylvania University of Connecticut	Clinical Research Gerontology Nursing	Geriatrics Exercise Functional Activity Health Promotion Behavior Change Motivation Measurement and Tool Development and Testing	2 3 5 6 9
Scrandis, Debra A. Associate Member	2002 Assistant Professor NT	PhD MS BS	Barry University, Miami Shores, FL Boston College, MA Fitchburg State College, MA	Nursing Family Nurse Practitioner Community Health Nursing	Perinatal mood disorders Depression Social Support Inflammation markers	1 5 7

T – Tenure
TT – Tenure Track
NT – Non-Tenure

1 = Course Faculty
2 = Advisor
3 = Research Advisor
4 = Preliminary Examination Committee

5 = Comprehensive or Dissertation Committee Member
6 = PhD Curriculum Subcommittee Member
7 = PhD Admissions and Progressions Advisory Board
8 = Administrative Responsibility

9 = Supervision of Graduate Research Assistant
10 = Supervision of Graduate Teaching Assistant
11 = Newly Appointed to Graduate Faculty

Table VI.1: Profile of Graduate Faculty (Spring 2008)

Name & Graduate Faculty Status	Initial Date of Appointment/ Rank	Degrees	Institution	Major Areas of Study	Areas of Expertise	Role
Shaughnessy, Marianne Associate Member	1998 Assistant Professor NT	PhD MSN BSN	University of Pennsylvania University of Pennsylvania University of Pennsylvania	Nursing Nursing Nursing	Geriatric Rehabilitation Stroke Rehabilitation Motivation to Exercise in Older Adults Community-Based Weight Loss Programs	2 3 5
Smith, Barbara A. Regular Member	2003 Associate Dean for Research and Professor T	PhD MSN BSN	The Ohio State University, School of HPER Case Western Reserve University, School of Nursing Case Western Reserve University, School of Nursing	Exercise Physiology Public Health Nursing Nursing	Exercise and Nutrition Intervention for Chronically Ill (especially HIV and Breast Cancer)	2 3 5 8 9
Thomas, Sue A. Regular Member	2003 Assistant Dean of the PhD Program and Professor T	PhD MS BS	University of Maryland, College Park University of Maryland, Baltimore University of Maryland, College Park	Human Dev./Ed Nursing Nursing	Psychosocial and Physiological Predictors of Cardiovascular Health Impact of cardiac devices of psychosocial health Impact of home defibrillators on families' psychosocial health Depression and heart failure patients	1 2 3 4 5 6 7 8 9
Trinkoff, Alison Regular Member	2000 Professor T	ScD MPH BSN	Johns Hopkins University University of North Carolina, Chapel Hill University of Rochester, NY	Psych Epidemiology Public Health Nursing	Healthcare worker health and safety Occupational epidemiology Survey research Staffing and Relationship to Worker Injury and Patient Outcomes Work Schedules in Relation to Patient Safety Nurses Substance Abuse	1 2 3 5 6

T – Tenure
TT – Tenure Track
NT – Non-Tenure

1 = Course Faculty
2 = Advisor
3 = Research Advisor
4 = Preliminary Examination Committee

5 = Comprehensive or Dissertation Committee Member
6 = PhD Curriculum Subcommittee Member
7 = PhD Admissions and Progressions Advisory Board
8 = Administrative Responsibility

9 = Supervision of Graduate Research Assistant
10 = Supervision of Graduate Teaching Assistant
11 = Newly Appointed to Graduate Faculty

Table VI.1: Profile of Graduate Faculty (Spring 2008)

Name & Graduate Faculty Status	Initial Date of Appointment/ Rank	Degrees	Institution	Major Areas of Study	Areas of Expertise	Role
Ward, Christopher Regular Member	2001 Associate Professor T	PhD MS BS	A/MD Reg. College of Veterinary Medicine Virginia Tech, Blacksburg, VA Virginia Tech, Blacksburg, VA	Physiology Exercise Physiology	Investigation the cellular determinants of striated muscle contractility in normal pathophysiological states Current focus is the local modulation of sarcoplasmic reticulum CA ²⁺ release	1 2 3 5 9
Wiegand, Debra	2005 Assistant Professor NT	PhD MBE MSN BSN Diploma	Yale University University of Pennsylvania University of Pennsylvania Wayne State University Bowling Green State University MB Johnson School of Nursing	Postdoc fell Nursing Bioethics	End of life in the ICU Families of the critically ill Withdrawal of life-sustaining therapy Bioethical issues related to critical illness	1 5 9
Yocom, Carolyn Regular Member	2006 Associate Professor T	PhD MSN BSN Diploma	College of Nursing, University of Illinois at Chicago Francis Payne Bolton School of Nursing, Case Western University University of Pennsylvania Abington Memorial Hospital School of Nursing	Nursing Science Medical-Surgical/Nsg. Education Nursing	Educational research Survey research methods Policy research Instrument development Nursing regulation Nursing workforce supply and demand	Dept. Chair
Zangaro, George	2007 Assistant Professor NT	PhD MS BSN	University of Maryland, Baltimore University of Maryland, Baltimore Columbia Union College	Nursing Nursing Nursing	Retention and recruitment of nurses Workforce issues Job Satisfaction/Organizational Commitment	1 11

T – Tenure
TT – Tenure Track
NT – Non-Tenure

1 = Course Faculty
2 = Advisor
3 = Research Advisor
4 = Preliminary Examination Committee

5 = Comprehensive or Dissertation Committee Member
6 = PhD Curriculum Subcommittee Member
7 = PhD Admissions and Progressions Advisory Board
8 = Administrative Responsibility

9 = Supervision of Graduate Research Assistant
10 = Supervision of Graduate Teaching Assistant
11 = Newly Appointed to Graduate Faculty

the Graduate Faculty members are African-American and one is Asian. All are full-time faculty members. When compared to the total SON faculty, the Graduate Faculty members have the same gender distribution (89.3% female total faculty versus 85.5% in the SON graduate faculty) and nearly the same number of faculty from ethnic minorities (8.8% minorities total faculty versus 9.6% in SON graduate faculty). Since the average age of full-time faculty members across the SON is 51 years, it can be inferred, given the similarities just noted, that is the approximate average age of the Graduate Faculty members. Fifteen current SON faculty members are Fellows of the American Academy of Nursing.

Activities of Graduate Faculty members related to the PhD program vary in extent over time. It is noteworthy, that because of their particular area(s) of expertise, all Graduate Faculty members are available to students as advisors, resources for mentoring, independent study learning experiences, and roles on the Comprehensive and/or Dissertation Committee.

Extramural Funding

The SON's Graduate Faculty members are highly productive in obtaining extramural funding for their research and projects. The School of Nursing has advanced from 54th in 2003 to 31st in 2007 in ranking in the National Institutes of Health funding in FY 07 (for nursing schools). See section III, pages 7-8. As seen in Table VI.2, 68 grants and contracts comprise this total. The largest proportion of these grants (17 grants - 45% of total extramural funding) are research grants for a total of more than \$3 million.

Table VI.2: Classification and Amounts of Externally Funded Projects

Grant Category	Clinical Service (C)	Research (R)	Training (T)	Total
	28 (19.3%)	17 (45.4%)	23 (35.3%)	68
Total Award	\$1,307,616	\$3,082,353	\$2,400,012	\$6,789,981

A complete listing of the titles of these project titles, sponsor, lead faculty and amounts are found in Table VI.3. Also, Table VI.3 lists all currently funded grants. Excluded from this list is the most recently awarded R01 to Dr. Lynn Oswald because her funding became available in July and is not part of the past fiscal year. Drs. Louis Jenkins and Carol O'Neil were awarded \$770,000 for the Nurse Educators Institute for next year.

The SON has focused considerable effort and investment on increasing the amount of external funding, particularly in the area of research. These efforts have included the recruitment of twenty-one research focused faculty since 2002 and enhancing the infrastructure for research including the development of the Office of Research. Students have been successful in obtaining external funding for their research projects from a variety of sources including the American Cancer Society and John Hartford Scholar Foundation.

In 2007-2008 eight PhD students were funded by faculty grants. In addition, the Graduate School provides four Graduate Assistantships to full time students. This support is significant as Graduate Assistantships provide for up to 10 credits of tuition/semester and stipend of approximately \$19,000 in return for 20 hours/week of student work on faculty projects. An additional six PhD students had similar support and worked as teaching assistants for the SON.

Table VI.3: Active Grants & Contracts (As of May, 2008)

CATEGORY – type of grant			
	Frequency	Percent	Cumulative Percent
Research	17	25.0	25.0
Training	23	33.8	58.8
Clinical Services	28	41.2	100.0
Total	68	100.0	

	Research	Training	Clinical Services	2007-2008 Current Dollars Awarded
Award Total	3,082,353	2,400,012	1,307,616	6,789,981

CATEGORY	PI NAME	TITLE	SPONSOR	CURRENT YEAR AWARD - TOTAL
TRAINING				
Training	Allan, Janet D.	Advanced Education Nursing Traineeships	HRSA-BHP-Division of Nursing	\$183,578
Training	Yocom, Carolyn	Nurse Education, Practice and Retention: Career Ladder	HRSA-BHP – Division of Nursing	\$213,883
Training	Heindel, Louis	Advanced Educ Nursing/Anesthesia Diversity/Underserve	HRSA-BHP-Division of Nursing	232,462

CATEGORY	PI NAME	TITLE	SPONSOR	CURRENT YEAR AWARD - TOTAL
Training	Montgomery, Kathryn	Advancing Evidenced Based Practice for Leaders and Professionals	AONE	6,000
Training	Montgomery, Kathryn	Project RN	Care First Blue Cross Blue Shield	320,000
Post-doctoral	Michael, Kathleen	Increasing Ambulatory Activity After Stroke (NRSA)	NINR	51,286
Post-doctoral	Thomas, Sue A.	Teaching Scholars Training Program	U.S. Department of Education	295,568
Pre-doctoral	McGuire, Deborah	Uncertainty and First Line Treatment for Head and Neck	American Cancer Society, Nat'l	15,000
Pre-doctoral	McGuire, Deborah	Constipation in the Pediatric Oncology Patient: Myra Woolery	American Cancer Society, Nat'l	15,000
DNP	Duell, Michele Haye	New Nursing Faculty Fellowship	Maryland Higher Education Commission	5,000
DNP	D'Angelo, Matthew	New Nursing Faculty Fellowship	Maryland Higher Education Commission	2,500
DNP	Morton, Patricia	The Doctor of Nursing Practice: In Initiative to Increase	Maryland Higher Education Commission	185,000
Post-doctoral	Owens, Denise	New Nursing Faculty Fellowships	Maryland Higher Education Commission	10,000
Masters	Heindel, Louis	Nurse Anesthetist Traineeships	HRSA-BHP-Division of Nursing	14,033
Masters	McGuire, Deborah	ACS Master's Scholarship in Cancer Nursing: Ted Robert	American Cancer Society, Nat'l	10,000
Masters	McGuire, Deborah	ACS Master's Scholarship: Kristine Broge	American Cancer Society, Nat'l	10,000
Masters	McGuire, Deborah	ACS Master's Scholarship in Cancer: Tammy Beckm	American Cancer Society, Nat'l	10,000
Masters	McGuire, Deborah	ACS Masters Scholarship: Carrie Ann Staines	American Cancer Society: Nat'l	10,000
Masters	McGuire, Deborah	ACS Masters Scholarship: Alicia Tanner	American Cancer Society: Nat'l	10,000

CATEGORY	PI NAME	TITLE	SPONSOR	CURRENT YEAR AWARD - TOTAL
Masters	McGuire, Deborah	ACS Masters Scholarship: Phuong Nguyen	American Cancer Society: Nat'l	10,000
Masters	Satyshur, Rosemarie	MCH Nursing Leadership at the University of MD	HRSA-Bur/Maternal & Child Hlth	143,472
Masters	Mills, Mary Etta	Master's Preparation of Staff Nurses to Expand Clinical	Maryland Higher Education Commission	350,000
Masters	Ozbolt, Judy	Nursing Informatics Program Focused on Diversity and the	HRSA-Contract Operation Branch	297,230
CLINICAL SERVICES				
Clinical Services	Resnick, Barbara	Roland Park Place Health Care Corp: Nurse Practitioner	Roland Park Place Incorporated	69,317
Clinical Services	Guberski, Thomasine	Professional Services Contracts/UMMS & SON	University of Maryland Medical Center	28,315
Clinical Services	Antol, Susan M.	Dorchester County Public Sch-Mace Lane Middle/Cambridge	Dorchester County Health Dept.	64,474
Clinical Services	Morton, Patricia G.	Pre-Admission Testing- UMMS (PSA)	University of Maryland Medical Center	20,361
Clinical Services	Antol, Susan M.	School Based Wellness Centers-Harford County	Harford County Health Dept.	53,270
Clinical Services	Wiseman, Rebecca	Allegany County Health Dept-Breast & Cervical Cancer	Allegany County Health Dept.	1,000
Clinical Services	Wiseman, Rebecca	Worcester Co Health Dept-Sexually Transmitted Disease	Worcester County Health Dept	1,000
Clinical Services	Wiseman, Rebecca	Anne Arundel Co-Breast & Cervical Cancer Screening Program	Anne Arundel County, MD	3,000
Clinical Services	Wiseman, Rebecca	CPEST-Cancer Prev & Educ Screening Prog (Garrett Co)	Garrett County/General Service	2,379
Clinical Services	Resnick, Barbara M.	Professional Services Agreement-Elsevier	Elsevier	30,000

CATEGORY	PI NAME	TITLE	SPONSOR	CURRENT YEAR AWARD - TOTAL
Clinical Services	Resnick, Barbara	Professional Services Agreement-Elsevier	Elsevier	30,000
Clinical Services	VonReuden, Kathryn	Professional Services Agreement-UMMS	University of Maryland Medical Center	62,461
Clinical Services	Burda-Cohee, Charon	Professional Services Agreement	Health Care for the Homeless	43,655
Clinical Services	Watt, Margaret E.	Professional Services Agreement	Suburban Hospital	22,358
Clinical Services	Antol, Susan M.	Baltimore County School-Based Wellness Center Bid 2007	Balto County Public Schools	86,500
Clinical Services	Kapustin, Jane	Professional Service Agreement with UMMS and the Joslin	Univ of MD Surgical Associates	24,470
Clinical Services	Wiseman, Rebecca	Medicaid Title XIX-Reimburse of Medicaid/MD Children Pro	MD Dept of Health/Mental Hygiene	497,509
Clinical Services	Reedy, Shannon	PSA-Foster expanded Community/Research & Educ Services	Sinnarajah Raguraj, MD	42,230
Clinical Services	Galik, Elizabeth	Professional Services Agreement: Roland Park Place	Roland Park Place Incorporated	17,596
Clinical Services	Sattler, Barbara	HCWH FY08-Support the Nurses Workgroup Plan	Health Care without Harm	7,500
Clinical Services	Wiseman, Rebecca	Influenza Vaccinations for Takoma Park	MD Partnership for Prevention	2,950
Clinical Services	Bussell, Kristin	Pinderhughes Elementary School Service	Enterprise Foundation	17,137
Clinical Services	Harris, Patricia	Professional Services Agreement: Joslin Diabetes Center	Joslin Diabetes Center	15,664
Clinical Services	Johnson, Karen	Professional Services Agreement: UMMS	University of MD Medical Center	45,037
Clinical Services	Davenport, Joan	Professional Services Agreement: UMMS	University of MD Medical Center	26,318
Clinical Services	Hammersla, Margaret	Professional Services Agreement: Copper Ridge Institute	EMA Health Serv/Copper Ridge	21,115

CATEGORY	PI NAME	TITLE	SPONSOR	CURRENT YEAR AWARD - TOTAL
Other Sponsored Activities	Sattler, Barbara	MOU-Technical Assistance to Hospitals	MD Dept of the Environment	12,000
Other Sponsored Activities	Sattler, Barbara	Local Foods to Local Hospitals	U.S. Department of Agriculture	50,000
SPONSORED RESEARCH				
Research	Sattler, Barbara	Training & Tech Assistance to Brownfields EPA Region 3	JHU School of Medicine	5,000
Research	Lipscomb, Jane	Blood Exposure & Primary Prev in the Home Care Workplace	NIOSH	491,294
Research	Resnick, Barbara	Tuberculosis Curriculum Coordinating Center	Arkansas Department of Health	8,829
Research	Geiger-Brown, Jeanne	Sleep Loss, Sleepiness and Neurobehavior in 12 hr nurses	NIOSH	222,750
Research	Wiseman, Rebecca	Colorectal Cancer Screening Program (CRCSP)	Wicomico County Health Dept.	1,000
Research	McGuire, Deborah	Pain Assessment in Non-Communicative Palliative Care Patient	NINR	489,706
Research	Ward, Christopher	Local Calcium Signaling: Implications in Fatigue	NIAMS	72,097
Research	Smith, Barbara	An Exercise Intervention to Improve Health in Post Menopause	Yale University	11,750
Research	Nahm, Eun-Shim	Feasibility of a Theory-Based Online Hip Fracture Resource	NIA	184,500
Research	Lipscomb, Jane	Evaluation of Organization Justice Intervention to Alle	NIOSH	279,420
Research	Newhouse, Robin P.	Rural Hospital Nursing: Environment Effects and Evidence	AHRQ	573,779
Research	Newhouse, Robin P.	Rural Hospital Nursing: Environment Effects and Evidence	AHRQ	108,274

CATEGORY	PI NAME	TITLE	SPONSOR	CURRENT YEAR AWARD - TOTAL
Research	Newhouse, Robin P.	Rural Hospital Quality Collaborative on Evidence Based N	Robert Wood Johnson Foundation	130,572
Research	Friedmann, Erika	PETs for Older Adult Hypertensives Study (PETs)	WALTHAM/AAH-ABV	27,500
Research	Trinkoff, Alison	Impact of Work Related Sleep Loss	NIOSH	5,334
Research	Rodney, George G.	Calmodulin and Calmodulin Binding Domains in E-C Couplin	NIAMS	106,352
Research	Dorsey, Susan	BDNF Signal Strength Modulates NRTI-Induced Allodynia in the Mouse	NINR	364,196

Enhancing student success in obtaining funding for their training and research as well as encouraging post-doctoral study are high priorities. Supportive efforts to achieve these goals include: 1) the research infrastructure within the SON with the Office of Research; 2) focused faculty recruitment and hiring efforts to develop a critical mass of faculty in targeted research areas consistent with the SON Strategic Plan; and 3) the strengthening of the research environment in initiatives such as the regularly scheduled research seminar series coordinated by Dr. Barbara Smith, Associate Dean of Research. See Appendix A for a complete list of seminars. As the depth of research in the SON's Centers of Excellence continue to increase, it is anticipated that it will be possible to submit a competitive application for an Institutional NRSA grant in the future.

Faculty Research

Targeted recruitment and appointment of researchers to facilitate the development of the Centers of Excellence is highly consistent with the SON's Strategic Plan. This focused effort has the benefit of being highly congruent with both SON and UMB missions and directions. Also consistent with the AACN *Indicators of Quality in Research-Focused Doctoral Programs in Nursing*, SON researchers are developing and growing research programs that have the characteristics of being built over time and logically flowing from previous work. Examples of faculty research with respect to the SON targeted research areas is evident from the development of one Center of Excellence, Work and Health Research Center, two developing centers, Palliative Care Research and Disorders of Neuroregulatory Function and one proposed Center of Cardiovascular Health and Aging.

Scholarship

A review of the most recent Faculty Progress and Productivity Reports for FY 2007 shows that a large proportion of these achievements came from Graduate Faculty Members who are most productive in the area of scholarship and funded research grants. They also continue to receive state, regional, national and international recognition in their respective areas of expertise. An overview of these activities is found in Volume II of this self-study containing Biosketches of Graduate Faculty Members.

One-half of the faculty reported publishing at least one refereed journal article (or book chapter). Nine published five or more and one individual published a total of 30 articles/book chapters. The total refereed output the school in 2006-2007 was 159 scholarly works.

Fewer faculty reported publishing non-refereed works with only 28.5% of the faculty engaging in this activity. The total faculty output for this indicator was 35 published works. A majority of the faculty presented at least one paper or poster at a professional meeting during the 2006-2007 fiscal years for a total of 180 presentations. Almost half of the faculty (47.1%) reviewed one or more manuscripts for a professional journal, conference, or other publishing outlet. Ten individuals reviewed 11 or more manuscripts. This was the most frequently engaged in activity, with a total of 323 manuscripts/papers reviewed for the year. A total of 30% of the faculty served as an editor, associate editor or members of an editorial board, although one individual reported serving in a leadership capacity on 14 journals.

SON faculty productivity was tracked across the 10 indicators as the proportion of faculty engaged in each type of scholarly behavior. Proportions were used because they are not as susceptible to outliers as presented in Table VI.4.

Table VI.4: Year-to-Year Differences with regards to Proportions of Faculty Engaged in Scholarly Activity

Indicator	2003 (N=94)	2004 (N=85)	2005 (N=102)	2006 (N=98)	2007 (N=92)	4-Year Average (N=472)
Books	.12	.12	.11	.08	.03	.09
Refereed Articles	.46	.51	.48	.59	.51	.51
Non-Refereed Articles	.20	.20	.20	.23	.18	.20
Papers-Posters	.57	.63	.53	.59	.52	.57
Peer Review Panels	.35	.34	.35	.33	.32	.34
Manuscripts Reviews	.52	.51	.51	.49	.47	.50
Journal Editorial Functions	.30	.32	.29	.30	.20	.28

Since our 2002 external review, the emphasis on interdisciplinary collaboration has become the research movement of the decade. The escalating cost of clinical trials makes it imperative to develop interdisciplinary teams of researchers with varied expertise to maximize evidence gathered and scientific impact of each funded project. Only with a trans-disciplinary effort of scientists to integrate their individual perspectives and form a shared understanding will science advance. There are few true trans-disciplinary studies although the ones that have succeeded have yielded new perspectives and insights. Our faculty at the SON is involved in multiple interdisciplinary research efforts. The need for interdisciplinary research is obvious in global health, health care practice and unique clinical situations. The following three faculty exemplify the broad and complex nature of interdisciplinary research: one is a senior faculty member, Dr. Jeff Johnson, one has a joint appointment with UMMS, Dr Karen Johnson and the third is a junior faculty member, Daryl Roberts. Appendix C provides a growing list of all faculty interdisciplinary collaboration available at the time of this report.

Jeff Johnson, PhD and Professor, is actively involved across campus in public and global health groups. He is a member of the following committees and advisory boards: Education Committee, University Framework Program for Global Health, Social and Behavioral Sciences

Concentration Committee, Masters in Public Health (MPH) Program, Global Health Concentration Committee, MPH Program, SON representative to University of Maryland Global Health Multi-Disciplinary Research Committee, Scientific Advisory Board of the Child Welfare Worker Retention Study performed by the University of Maryland, Baltimore, School of Social Work, Strategic Planning Committee, University of Maryland Baltimore and Multi-Disciplinary Network for Global Health. He has leadership positions in each of these initiatives and has involved PhD students in this work.

Karen Johnson, RN, PhD, assistant professor, has a joint appointment with UMMS and the SON to coordinate nursing research at the hospital and involve faculty. Examples of current collaborative research projects with Dr. Johnson, SON faculty, UMMS staff and students are: Incidence of Cumulative Trauma Stress in Trauma Nurses with Kathryn Von Rueden, MS, RN (SON/UMMS), Karen McQuillan, MS, RN (UMMS), Shock Trauma Nursing Research Committee; Erika Freidman, PhD (SON) and Katie Green, MS, RN (SON PhD student); Errors in Interpretation of a Tight Glycemic Control Protocol with Badia Faddoul, MS, RN (UMMS), Azizeh Sowan, PhD, RN (SON recent PhD graduate), Anthony Lee, MD, Kristi Silver, MD and Vinay Vaidya, MD (UMMS) Pain Assessment in Non-Communicative Palliative Care Patients with Deborah McGuire, PhD, RN (SON), Karen Kaiser, PhD, RN (UMMS), Karen Soeken, PhD (SON), and Timothy Keay, MD; Evaluation of a Web-based Preoperative Teaching Methodology with Eun-Shim Nahm, PhD, RN (SON), Lena Stevens, MS, RN (UMMS), and Barbara Georg, RN (UMMS); Paclitaxel-induced Peripheral Neuropathy: A Natural History Study with Nancy Gambill, MS, RN, (UMMS) and Susan Dorsey, PhD, RN (SON); Evaluation of the Process of Time Spent in Discharging a Patient with Judy Slide, MBA, RN, (UMMS), Lyn Murphy, PhD, RN (SON), and George Zangaro, PhD, RN (SON); Effect of restorative care

intervention in an acute care setting with Barbara Resnick, PhD, RN (SON) and Beth Galik, PhD, RN (SON).

Daryl Roberts, Assistant Professor, is involved in multiple collaborative efforts. He presently is working on "Predictors of dementia pugilistica in professional boxers: A panel study in Maryland" with Dr. John Stiller. They are funded by the Maryland State Athletic Commission. He is a co-investigator in the study, "Identifying predictors of obstructive sleep apnea in children with asthma" with Dr. Maya Ramagopal. This project is funded by the Robert Wood Johnson University Hospital. Dr. Judy Ozbolt and Mr. Roberts are presently working on 'Project Manager: Nurse 21: Implementing the Cerner Academic Education Solution into the University of Maryland School of Nursing Curriculum. This project is a joint venture between the University of Maryland School of Nursing and the Cerner Corporation. Mr. Roberts is also a consultant on the project "Intimate Partner Homicide/Suicide: An investigation of the act in the Netherlands" which is funded by Willem Pompe Institute for Criminal Law and Criminology. Appendix C lists Faculty members and their current collaborative efforts.

Faculty Role in PhD Student Advisement

As seen in Table IV.1, SON Graduate Faculty members serve as advisors to PhD students in two categories: 1) Advisor and 2) Research Advisor. The Assistant Dean of the PhD Program, in collaboration with those Graduate Faculty members participating in admission decisions, assigns each incoming student to an Advisor. The Advisor can be a Regular or Associate member of the Graduate Faculty and is selected on the basis of expertise in the general area of the student's research interest. The role of the Advisor is very important because it represents a vital linkage between the entering student and the doctoral program. The Advisor plays an important role in orienting the student to the School and the program, assisting with clarification of goals, helping the student to structure a meaningful and integrated learning experience and monitoring the

student's progress in and adjustment to doctoral study. The specific responsibilities of the Advisor are to:

1. Interpret to the student the PhD program design, requirements and policies
2. Assist the student in planning objectives for doctoral study and clarifying career goals
3. Assist the student in planning his/her program of study in accordance with program requirements, individual research interests and career goals
4. Assist the student with registration procedures
5. Approve and sign all registration materials, drop-add forms and other records
6. Monitor the student's academic progress through communication and discussion with faculty teaching doctoral courses, checking grades and meeting with the student
7. Communicate evaluation of the student's academic progress in writing to the student and Assistant Dean of the PhD Program at the end of each year. (End-of-Year Appraisal Form for PhD Students in Student Handbook)
8. Maintain student records to include:
 - a. annual statement of student progress (PhD program file)
 - b. notation of special advisement consultations, phone calls, etc.
9. Assist the student in selecting a dissertation research topic (general area for the research and Research Advisor
10. Forward the student's file to the Research Advisor

The Research Advisor must be SON faculty who holds Regular membership on the Graduate School faculty. The Research Advisor must have sufficient expertise to guide the Student's proposed area of research. In some instances, Associate Members of the Graduate School faculty may co-advise doctoral students along with a Regular member. The choice of a Research Advisor is based on mutual agreement between the faculty member and the student. The

Assistant Dean of the PhD Program is informed of the student's selection by a written letter from the student. The Research Advisor assumes the above listed responsibilities with respect to academic advisement of the student. In addition, the Research Advisor has the following responsibilities:

1. Assist the student with the selection of specialty and elective courses for pursuing a unified program of study supportive of the student's interests and career goals
2. Ensure the Plan of Study has been completed and submitted to the Assistant Dean of the PhD Program for approval before the student registers for elective/specialty credits. (Plan of Study form in Student Handbook)
3. Serve as Chairperson of the student's Dissertation Advisory Committee
4. Assist the student in selecting a Dissertation Advisory Committee
5. Assume primary responsibility for guiding the student throughout the dissertation research process and completion of the dissertation, to include assistance with:
 - a. Selecting and delimiting a research topic
 - b. Developing a written proposal for the research project
 - c. Obtaining permission for the conduct of the study from the Institutional Review Board for the Protection of Human Subjects
 - d. Carrying out the research as proposed (and approved)
 - e. Developing the written dissertation with the student
6. Notify the Assistant Dean of the PhD Program in writing of the proposed dissertation topic and Dissertation Committee membership prior to the student's defense of the research proposal
7. Notify the Assistant Dean of the PhD Program in writing when the student has

successfully defended the dissertation research proposal. (Notification of Doctoral Dissertation Committee's Approval of the Research Proposal Form in Student Handbook)

8. Forward a copy of the approved dissertation proposal to the Assistant Dean of the PhD Program
9. In conjunction with the student, determine his/her readiness to take the comprehensive examination, and subject to approval by the Assistant Dean of the PhD Program, appoint a committee to administer the comprehensive examination
10. Serve as a member of the committee which administers the comprehensive examination to the student. (Forms for Nomination of Members of the Comprehensive Examination Committee and Notification of Results of the Comprehensive Examination in Student Handbook)
11. Evaluate the student's progress toward completing candidacy requirements, and complete and sign the Admission to Candidacy Form, forwarding it to the Assistant Dean of the PhD program and the Graduate School
12. Recommend to the Dean of the Graduate School via the Assistant Dean of the PhD Program, the nomination of membership for the student's Dissertation Committee and Final Oral Examination Committee six months prior to the dissertation defense
13. Once the dissertation has been approved for defense by the student's Dissertation Committee, send the certification form to the Assistant Dean of the PhD Program for signature and forward to the Graduate School

14. Serve as the chairperson of the student's Final Oral Examination
Committee

15. Complete and forward to the Graduate School the Report of the Examining
Committee form

16. Approve and sign the final version of the dissertation

Specific roles of the Advisor and the Research Advisor are further detailed in pages 6-8 of the PhD Student Handbook which is included in Volume II of this self-study. Since the advisement process is highly interactive, responsibilities of the student are also identified in the process as follows:

1. Communicating regularly with his/her advisor regarding progress, goals and plans
2. Initiating contact with faculty members whom s/he is considering as Research
Advisors
3. Selecting a Research Advisor, in consultation with the Advisor
4. Initiating contact with faculty members being considered as members of the
Dissertation Advisory Committee and Comprehensive Examination Committee
5. Selecting in collaboration with the Research Advisor and subject to approval by
the Assistant Dean of the PhD Program, members of his/her Dissertation Advisory
Board Committee prior to registering for elective/specialty courses
6. Communicating with Dissertation Committee members on a regular basis (at
least every 6-8 months) regarding progress, scheduling meetings (including the
defense), etc.
7. Communicating to the Advisor and the Assistant Dean of the PhD Program a
desire to change advisors

8. Becoming familiar with and complying with all relevant policies and procedures as set forth by the Graduate School and PhD program of the School of Nursing
9. Reporting problems that delay progress in completing the degree requirements to the Assistant Dean of the PhD Program, and when appropriate, the Dean of the Graduate School
10. Requesting appropriate approval of the Assistant Dean of the PhD Program and ultimately the Graduate School where unusual problems have been encountered in meeting specific deadlines

Advisement is a crucial and demanding aspect of Graduate Faculty members work with PhD students as they indeed devote a significant proportion of time to the process in working as either an Advisor or Research Advisor. The number of advisees per faculty member varies depending on a variety of factors such as the proposed timetable for student progression through the program and dissertation and faculty commitments and assignments. The average number of advisees per SON Graduate Faculty member is three with the range from one to nine. Only one faculty member has 9 advisees. This average is consistent with the suggested indicator of three to five students per advisor during during the dissertation phase found in the AACN 2001 Quality Indicators.

Each faculty member individually determines the appropriate number of research advisees they can optimally work with and this number of research they can optimally work with and this number does vary over time and their respective situations. Typically, faculty having more than one advisee work with students at various points in their program of study. As will be seen in Section VII, 28 students are in their first year of courses, and 16 are preparing for preliminary exams in June 2008. 14 students are in pre-candidacy phase and 26

students are in the dissertation stage. Currently, 24 SON Graduate Faculty members serve as Advisors.

Teaching

Only Graduate Faculty members with active research programs teach in the PhD program. They also share their expertise in other learning experiences with students such as mentoring during an independent study, collaborating on a research activity, or serving as a role model.

In addition to being experts in their field, faculty members share a commitment to life-long learning. From information contained within the vitas that will be available for review at the time of the site visit, it is evident that faculty have been involved in many and varied activities to maintain and further develop their expertise as appropriate to their role and focus of responsibility at the SON.

Funds are available for faculty registration and/or travel to faculty development programs in their area of expertise and faculty are encouraged to submit papers for presentation at conferences that can serve as a stimulus for new ideas and innovations in their area of expertise. From FY 2003 to FY 2007, the SON investment in faculty development was over \$1.1 million. During this same time period, the cost for consultants and visiting professors was approximately \$1.0 million. The Assistant Dean of the PhD Program, Associate Dean for Academic Affairs and several SON Graduate Faculty members attend the annual AACN Doctoral Conference. Faculty members may attend all SON sponsored professional education programs at a reduced rate. In addition, faculty may receive free tuition at any USM institution.

To assure quality of courses and teaching, each student completes course and faculty evaluations at the end of each semester according to the SON Master Plan for Evaluation. For each of the past four years, the PhD student ratings on the Course Evaluation Questionnaire

and the Faculty Evaluation Questionnaire have indicated satisfaction with aspects of their courses and quality of teaching. Details of these evaluations are included in Section IX, pages 2-5.

Relationship to AACN Quality Indicators (2001)

With respect to the AACN Quality Indicators, the SON faculty compares favorably. They meet the UMB Graduate School criteria for faculty working with graduate students; they all hold earned doctorates in nursing and related fields (with the exception of the two Juris Doctors who are Associate Members of Graduate Faculty). All Graduate Faculty involved with the PhD Program have productive programs of scholarship and research and are involved in appropriate scholarly activities. One Center of Excellence is established, two are developing and one is in the proposal stage. Details regarding the these Centers are in Section IV, pages 2-15. Faculty members serve as role-models for students and assist in socializing students into the role of scholar and researcher. The advisement process is well defined and faculty members are actively guiding and advising students. Quality of teaching is monitored as part of the SON plan for evaluation and results reflect a high level of student satisfaction with aspects of courses as well as with teaching.

Reference:

American Association of Colleges of Nursing. (November, 2001). *Indicators of Quality in Research-Focused Doctoral Programs in Nursing*, Washington, D.C.

II. The University System of Maryland (USM), University of Maryland Baltimore and the Graduate School

Introduction

Since our 2002 report, major changes have occurred at the UMB campus including six new or expanded clinical facilities which are detailed on pages 2-3. A 10 acre Biopark is currently under development and is described on page 6. The campus Institutional Review Board has expanded and kept pace with increasing numbers of research proposals and projects. The centers of research excellence have increased from six to nine, adding the Center for Mucosal Research Biology, the Center for Vascular Inflammatory Diseases and Center for Nanomedicine and Cellular Delivery. These centers are described on pages 15-21.

The 2002 external review suggested an increase in support services for international students. The new support services are the Office of International Services and the Writing Center described in this section on pages 26-27. Also, opening in 2008 is a new campus center with enhanced wellness, recreation and fitness programming.

The University System of Maryland

The twelfth largest university system in the nation, the University System of Maryland (USM), governed by a Board of Regents and headed by a Chancellor, offers over 600 academic programs to more than 130,000 students at 200 sites worldwide. The unparalleled learning opportunities at the system's 13 member institutions include nationally ranked programs, leading edge research collaborations and innovative business partnerships lead to opportunities that sustain the USM tradition of quality as they prepare students for the promises and demands of the new century.

The University of Maryland Baltimore (UMB)

UMB, the founding campus of USM, was established in 1807 as the fifth medical college in America. In 1812, at the time of charter by the General Assembly, the young, privately held institution was named the University of Maryland. This name was uniquely its own until its reestablishment as a public institution following its merger in 1920 with the (then) Maryland State College of Agriculture, located in College Park. University of Maryland Baltimore is located on a 61-acre site in downtown Baltimore, and is comprised of six professional schools: dentistry, law, medicine, nursing, pharmacy, social work and an interdisciplinary graduate school which manages Master of Science and doctoral degree programs. The University of Maryland Medical System (UMMS) includes the University of Maryland Medical Center (UMMC), Baltimore Washington Medical Center, Maryland General Hospital, University Specialty Hospital, Mt. Washington Pediatric Hospital and Shore Health System. The major partners located on the Baltimore campus are the UMMC, the Institute of Human Virology, the Baltimore VA Medical Center and the UMB BioPark.

The University provides an ideal setting for research, clinical practice and commercialization of biomedical innovations. Areas of research excellence include biodefense, cancer, drug development, HIV/AIDS, infectious diseases, neuroscience, vaccine development and vascular biology. Since our report in 2002, six new or expanded UMMC facilities on campus have been added. First, The Harry and Jeanette Weinberg Building is one of the nation's most technologically advanced surgical facilities and includes spacious units for Medical Intensive Care, Cardiac Surgery Intensive Care and Telemetry and Surgical Acute Care. The building also features state-of-the-art radiology facilities as well as new adult and pediatric Emergency

Departments. Second, The Homer Gudelsky Building houses dedicated patient floors for neurocare, cardiac care, cancer care and organ transplantation. Third, The R Adams Cowley Shock Trauma Center (STC) has expanded its surgery suites, intensive care units, CT scanners and diagnostic imaging. The STC is the world's first and foremost center dedicated to saving lives of people with severe, life-threatening injuries sustained in auto crashes, violent crimes and other traumatic incidents. Fourth, The Marlene and Stewart Greenebaum Cancer Center is an internationally recognized center for cancer care and research. The Cancer Center offers comprehensive, coordinated care from teams of specialists who consult on each patient's case and develop a joint treatment plan. The Cancer Center recently received the designation as a National Cancer Institute. Fifth, The University of Maryland Hospital for Children is a new and expanded statewide resource providing the finest care for serious and complex health problems in patients ranging from newborns to young adults. Its primary care and highly specialized programs attract patients from the entire mid-Atlantic region. Sixth, The Joseph and Corinne Schwartz Division of Transplantation is one of the nation's largest kidney and pancreas transplant programs with an international reputation for innovation and surgical excellence for patients who need kidney, pancreas or liver transplants. The Division of Transplantation is known for such innovative programs as a steroid-free protocol, which reduces medication side effects following a transplant, as well as islet cell transplants and "domino" or sequential liver transplants. The division's leadership is evident in many milestones, including the state's first pancreas-alone transplant and first successful pancreas/kidney transplant.

Mission of University of Maryland Baltimore

The University of Maryland, Baltimore (UMB) is the State's public academic health center and law and social work university devoted to excellence in professional and graduate education,

research, patient care and public service. Our mission is to provide outstanding and innovative education in health care, biomedical science, social services and the law; to attract and admit diverse students of exceptional character and accomplishment; to carry out internationally recognized research to cure disease and to improve the health, social functioning and treatment of people; to translate discoveries into public benefit; and to ensure that the knowledge we generate provides maximum benefit to society (Mission Statement approved by the Board of Regents, 2005).

UMB Administrative Infrastructure

The administrative infrastructure of the University includes the President's Office and five offices: Academic Affairs, External Affairs, Administration and Finance, Information Technology, Research and Development units, each of which is headed by a Vice President. Each of the UMB Schools has a Dean who serves in an autonomous capacity reporting to the President. The Vice President and Deans comprise the leadership group. The campus has enjoyed a period of stability in its senior leadership team since the appointment of President David J. Ramsay in 1994. This stability has allowed the University to make substantial progress in fulfilling its mission. The University has a long and rich tradition of serving the needs of society and of being innovative in the education of the professionals graduating from UMB's constituent schools.

UMB enrolls more than 5,600 students and had 2,200 faculty in Fall 2007. It is strategically located in the Baltimore-Washington corridor, forty-five minutes from the nation's capital, the National Institutes of Health (NIH) and entities such as the U.S. Department of Health and Human Services (DHHS), the Agency for Healthcare Research and Quality and the National Science Foundation (NSF). UMB represents one of the fastest growing biomedical research

centers in the United States, ranking among the top 10 percent of institutions receiving funding from NIH, with grant and contract awards totaling over \$410.9 million in FY 2007 compared to \$255 million in 2001. UMB was accredited by the Middle States Association of Colleges and Secondary Schools in 2006 and is a member of the Association of American Universities.

The six key goals of UMB that form the basis of their current strategic plan are:

1. Evolve and maintain a competitive edge as a center of excellence in the life and health sciences, law and social work and as a campus of professions committed to addressing complex social issues at local, state, and international levels
2. Conduct recognized research and scholarship in the life and health sciences, law and social work that fosters economic and social development
3. Recruit outstanding students, increase access for disadvantaged students, provide excellent graduate and professional education and graduate well-trained professionals who will be leaders in their fields and in the development of public policy
4. Encourage, support and reward entrepreneurship; increase fundraising and philanthropic support
5. Provide public service to citizens in all sectors and geographic regions of Maryland; provide outstanding clinical care appropriate to mission
6. Increase efficiency, effectiveness and accountability and respond to fiscal pressures, both those that are unique to academic health centers and those affecting higher education in general

UMB Campus Resources

A major objective of the UMB campus is the creation of an environment that maximally encourages and facilitates quality interdisciplinary research as well as outstanding science of the

specific discipline. Significant resources are in place and devoted to the achievement of this objective and described in the next section. The School of Nursing faculty and students have access to a number of outstanding resources at the campus level to support research, scholarship and education.

UMB Research Resources

UMB's research infrastructure is under the direction of Mr. James Hughes, Vice President for Research and Development, who is responsible for the Office of Research and Development (ORD) at the University of Maryland Baltimore, which is organized to leverage the University's position as a major biomedical research institution in an effort to capture and market its growing portfolio of intellectual property. ORD also directs UMB's research administration and technology commercialization efforts.

Since our last report, the UMB has initiated a privately developed bio-medical research park. The park houses private tenants and University researchers who are commercializing bioscience innovation in the areas of cancer, biodefense, vaccine development, neuroscience, vascular biology and HIV/AIDS. The BioPark, a model of economic development well suited to UMB, enhances research capacity, serves to draw entrepreneurial faculty, improves the community surrounding the University and facilitates commercial opportunities by promoting translational programs that link basic research and clinical care competencies.

The BioPark consists of 10-acres, on the west side of campus with 1.2 million square feet of lab and office space in ten buildings plus garage parking and landscaped parks. Currently, two multi-tenant buildings and one garage are completed and a third similar building is in the initial stages of development.

The Office of Research and Development provides prompt and efficient support to the University and its faculty in their tripartite mission of research, teaching and service. It does so by bringing the specialized knowledge and expertise of the ORD staff to bear on the management of sponsored programs and technology development.

ORD is responsible for the review, approval and final sign-off of all sponsored proposals submitted to an external funding source. ORD is the office entrusted with institutional responsibility for all issues related to sponsored projects and coordinates all activities involving research and grants administration.

The ORD staff:

- assists faculty in identifying funding opportunities to match proposed projects
- works with faculty in the development and preparation of a grant application or contract proposal
- negotiates the terms and conditions of the award document
- negotiates material transfer agreements for sharing of research materials between the University and other organizations
- has the authority to sign agreements and contracts for the University (“contractually obligate the University”)
- works with the Office of Financial Services to establish the University account once an award has been made
- provides continued oversight for sponsored projects, including proposed changes to the project (such as extensions or budget modifications)
- monitors close-out of projects to ensure that project reports are submitted as required by the sponsor

- is responsible for the negotiation of all grant and contract agreements including Federal, State and local government contracts, research agreements, and clinical study agreements, except for School of Medicine corporate-sponsored clinical study agreements negotiated by the Center for Clinical Trials
- facilitates the transfer of grants and equipment for faculty moving to UMB or transferring from UMB to another university
- coordinates and signs visiting faculty agreements

Community of Science (COS) Research Database

The Community of Science (COS) is a leading provider of information resources to researchers, scholars and other professionals around the globe. COS brings together the world's most prominent scientists, researchers and scholars at more than 1,600 universities, corporations and government agencies in more than 170 countries. COS provides services that enable these professionals to find the funding, people and information that are important to their work. This comprehensive source of funding information is Internet based with more than 24,000 records, representing over 400,000 funding opportunities, worth over \$33 billion.

All SON faculty have the opportunity to utilize COS and register their research interests and expertise, as well as receive individually tailored announcements of funding opportunities relevant to their research areas. Currently, over 1,691 UMB researchers are represented in the database.

Institutional Review Board (IRB) Human Subjects Research

It is the responsibility of the University of Maryland Baltimore (UMB) Institutional Review Board (IRB) Committee Members to review all human participants' research activities under University of Maryland Baltimore's jurisdiction.

The mission of the UMB IRB is to protect the rights and welfare of human research participants recruited to partake in research activities conducted by UMB Investigators through ethically responsible and scientifically valid research, continuous education of the research community, monitoring of research activities, and compliance with the federal regulations and institutional policies and procedures. There are currently 2,284 active protocols. This number has increased by 400 in the last 4 years.

The Dean of the School of Medicine serves as the Institutional Official and is, overall, responsible for the Human Research Protections Program (HRPP). It is the Institutional Official's responsibility to exercise appropriate administrative oversight to assure that UMB's policies and procedures designed for protecting the rights and welfare of human participants are effectively applied in compliance with its Federal Wide Assurance.

All Committee members have an understanding of basic ethical principles, the regulatory requirements and the mechanics of serving on the IRB. Committee members conduct prospective and continuing review of proposed research activities according to DHHS regulations 45 CFR 46, FDA regulations 21 CFR 50 and 56 and when applicable, VA regulations 38 CFR 16 and 17, Federal, State and local laws, and institutional policies and procedures including the IRB.

The University of Maryland Baltimore's IRB is comprised of four permanent panels and one ad hoc/emergency IRB panel. All panels of the UMB IRB review biomedical and social behavioral research, and are constituted of appropriate expertise to review the type of research conducted at UMB. There are approximately 120 faculty members, non-scientists and alternates comprising the IRB panels. Dr. Sandra McLeskey, from the School of Nursing, serves as a

member of the University of Maryland Baltimore's IRB . In addition, a Research Subject Advocate sits on each panel.

The IRB is led by a Chair and four Vice-Chairs who are experienced researchers, former IRB Members and are respected among the research community. The IRB Chair reports directly to the Institutional Official, Dean E. Albert Reece, School of Medicine and is supported administratively by the Human Research Protections Office.

General Clinical Research Center (GCRC)

The General Clinical Research Center (GCRC) is the cornerstone for clinical research within the University of Maryland. Funded by the National Institutes of Health (NIH) through a grant from the National Center for Research Resources (NCRR), the GCRC supports the full spectrum of patient-oriented research.

The GCRC is available to all University of Maryland investigators who have a need for Center resources and who will conduct clinical research of scientific merit. NIH funded research has top priority, but studies funded by foundations, industry and other sources are also welcome. The GCRC welcomes pilot studies that may lead to future peer-reviewed clinical research. Industry-initiated studies reimburse the GCRC for costs.

The GCRC provides investigators with the resources they need to conduct clinical research, including nursing support for inpatient and outpatient data collection and patient care, a DEXA Facility, Genomics, Bioinformatics, Biostatistics Cores and Bionutritional Services.

Clinical Trials Center (CTC)

The Center for Clinical Trials (CTC) is a unit of the University of Maryland School of Medicine that brings together University investigators and sponsor organizations to conduct clinical research trials. CTC serves as a liaison between commercial sponsors and the University

of Maryland School of Medicine investigators to assist them in identifying the resources and expertise needed to perform high quality investigational drug and medical device research.

CTC assists sponsors in placing and completing studies by identifying experienced faculty from all diagnostic and therapeutic clinical areas. A pool of more than 1,500 faculty researchers in the professional Schools of Medicine, Dentistry, Nursing and Pharmacy are available, as well as some of the most advanced equipment and facilities of any academic medical center in the world.

CTC provides the following services for industrial sponsors:

- serves as liaison between industry and the School of Medicine to establish research partnerships and collaborations
- develops budgets and negotiate commercial study agreements and NDAs
- provides access to top-quality investigators and scientists
- conducts Medicare preliminary coverage analyses for clinical research studies

The center has ongoing clinical trials in the areas of anesthesiology, diabetes, cardiology, dermatology, epilepsy, heart disease, HIV-adult, Huntington's disease, hypertension, infectious disease, multiple sclerosis, oncology-adult, ophthalmology, Parkinson's disease, pediatrics, psychiatry, pulmonary disease, radiology, renal failure, spinal cord injury, stroke, surgery, transplant, trauma and vaccines.

Academic Integrity and Freedom

In the conduct of its programs and activities involving the public and the constituencies it serves, UMB demonstrates adherence to ethical standards and its own stated policies, providing support to academic and intellectual freedom.

Consistent with USM policies, UMB promotes academic freedom for faculty and students. Faculty members may freely discuss in the classroom all subject matter reasonably related to the course. Students are encouraged to pursue free and honest inquiry and expression. By tradition, students and teachers have certain rights and responsibilities that they bring to the academic community. USM policy III-1.00, spells out these rights and responsibilities, many of which deal with ethical conduct. This policy is part of the Faculty Handbook (www.umaryland.edu/academicaffairs/faculty_affairs.html) and the Student Answer Book. A student handbook is given to all students in hard copy as well as online at www.umaryland.edu/student/sab. All members of the academic community, faculty, students and administrators, share responsibility for academic integrity. Evidence of the value placed upon academic freedom may also be found in the USM Policy on Classified and Proprietary Work (IV-2.2), which prohibits classified or proprietary research or research agreements that would not allow acknowledgement of the existence or nature of the agreement or the identity of the sponsor. The policy protects researchers' rights to publish their findings, by prohibiting research agreements that would bar publication.

UMB policy III-1.00(A) states that each school is responsible for compliance in its policies and procedures with USM Policy III-1.0. Each school has policies that define acts of academic dishonesty, ensure procedures for due process for students accused or suspected of acts of academic dishonesty and impose appropriate sanctions on students found to have committed such acts. Faculty members are required to make all reasonable efforts to prevent the occurrence of academic dishonesty, including such types of behavior as cheating and plagiarism. When instances of academic dishonesty are suspected, faculty members have the responsibility to see that appropriate action is taken in accordance with school policies.

Definitions of academic misconduct and procedures to investigate allegations of misconduct are detailed not only in school policies but also in Board of Regents and University policies. Under USM Policy III.1.10 and UMB Policy III.1.10(A), misconduct in scholarly work by any employee is a breach of contract. Furthermore, misconduct in scholarly work by others associated with UMB (e.g., graduate students, volunteer faculty) is not tolerated. It is the policy of UMB and USM to maintain high ethical standards in science and other scholarly work, to prevent academic misconduct whenever possible; to evaluate and resolve promptly and fairly instances of alleged or apparent academic misconduct; to take disciplinary action, which may include the termination of employment, against any individual found guilty of academic misconduct; to award no degree if academic misconduct in science or other scholarly work contributed to that degree and, if warranted, to revoke such a degree if academic misconduct is discovered after its award. Two courses specifically designed to satisfy current Federal requirements for trainees on federally sponsored training grants are offered each year. Federally sponsored trainees are required to take the course, but nonfederally sponsored trainees and others are encouraged to take or audit the courses, which comprehensively cover the responsible conduct of research.

Administrative activities also are carried out with strict attention given to sound ethical practice. Employees are directed to report suspected or known fiscal irregularities under UMB Policy VIII-7.10.

Academic activities, especially research, are protected from bias resulting from conflicts of interest by either eliminating or managing the conflict. The conflict of interest procedures are integrated into the research and human subjects protection operations and are coordinated on a University-wide basis by the Office of the Vice President for Academic Affairs. UMB

procedures implement the USM Policy on conflict of interest and may be found at http://www.ord.umaryland.edu/policies_procedures/umproceed.html.

Intellectual property rights and the development of intellectual property for the benefit of the University and for society in general are key to UMB's continued success in the biomedical research field. Researchers who discover and/or develop intellectual property are required to report their findings to the University. The University is responsible for patent and marketing activities and shares revenue with the researchers/inventors. The applicable USM policy is IV-3.20

As stated in the UMB policy on human subjects research, IV-2.10(A), UMB is guided by the ethical principles governing all research involving humans as subjects, as set forth in the report of the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, *Ethical Principles and Guidelines for the Protection of Human Subjects of Research*, regardless of whether the research is subject to federal regulation, with whom it is conducted, or the source of support. Research investigators must acknowledge and accept their responsibility for protecting the rights and welfare of human research subjects and for complying with all applicable provisions of the policy. In addition, all institutional and noninstitutional performance sites for UMB are obligated to conform to ethical principles that are at least equivalent to those of UMB.

The section Academic Integrity and Freedom is directly quoted from UMB Self Study for the Middle States Commission on Higher Education pages 41-42

Organized Research Centers (ORC)

Since our last report in 2002, UMB has increased the number of organized research centers from six to nine. Six centers currently exist in the School of Medicine and one each in the Dental School, School of Social Work and the School of Pharmacy.

The six centers in the School of Medicine are:

Center in Health Policy/Health Services Research, established in 1995

Center in Integrative Medicine, established in 2002

Center in Mucosal Biology, established in 2003

Center in Vascular and Inflammatory Diseases, established in 2005

Center for Research on Aging, established in 1997

Center for Vaccine Development, established in 1996

The center in the Dental School is the Organized Research Center on Persistent Pain. The center in the Social Work School is the Ruth H. Young Center. The center in the School of Pharmacy is the Center for Nanomedicine and Cellular Delivery.

Center for Health Policy/Health Services Research

The Center for Health Policy/Health Services Research provides epidemiologic/biostatistical support, quality improvement study design and evaluation, disease management program support, health outcomes studies, low literacy patient education and outreach, Medicare patient compliance studies, patient and provider surveys and research related to rural and urban health, underserved populations and minority health care. The Center has completed health services research projects for the Maryland Department of Health and Mental Hygiene and other agencies and conducted quality improvement studies for the managed care industry. In addition, the Center has established community outreach research and education networks in urban and rural

Maryland, influenced national and state health care policy and established telemedicine research and clinical programs in underserved areas.

The mission of the Center for Health Policy/Health Services Research is to assess the changing health needs of Maryland citizens and the nation, to conduct analyses and develop policy related to city, state and national health care services. The center also analyzes financial and economic costs, clinical outcomes, efficacy, equity and the impact of reimbursement on patient and provider behaviors. The center's goal is to stimulate, support and conduct interdisciplinary health policy and health services research.

Center for Integrative Medicine

The Center for Integrative Medicine is dedicated to enriching current medical practice through evaluation of the scientific foundation of complementary medicine, integration of evidence-based complementary medical therapies and approaches for patient care. The center's emphasis is on a humanistic approach to healing that values mind, body and spirit and partners with patients in healing. It is comprised of four interdependent divisions of research, education, patient care and informatics. Faculty members from the Center work collaboratively with departments and colleagues across the schools at the University of Maryland Baltimore, as well as with investigators nationally and internationally.

For the past nine years the Center for Integrative Medicine has been a National Institutes of Health (NIH) specialized center for research in complementary medicine with a broad-reaching program of clinical, pre-clinical and survey research investigating the safety, efficacy, cost-effectiveness and mechanism of action of complementary medicine, as well as evaluating integration of these approaches into mainstream care. Areas of focus include traditional Chinese medicine, including acupuncture, herbs and Qi Gong, and mind/body therapies, with disease

areas of focus in pain related disorders such as arthritis, fibromyalgia, cancer pain, and low back pain. The Center also has a NIH planning grant for an international collaborative center with the Chinese University of Hong Kong investigating traditional Chinese medicine for functional bowel disorders.

Mucosal Biology Research Center

An innovative partnership “bridging science and life,” the Mucosal Biology Research Center (MBRC), located at the University of Maryland School of Medicine is where leading scientists and physicians collaborate on cutting edge research. Mucosal biology research investigates diseases of the gastrointestinal tract and lung, the two major organs of the body that possess a protective mucosal barrier that is essential for health.

The mission of the MBRC is to serve as a unique multidisciplinary research center focused on the use of “cutting edge” tools to understand the molecular basis for human diseases of the gastrointestinal and respiratory tracts. The MBRC is comprised of 33 University of Maryland faculty members, plus adjunct members in associated academic and biotechnology centers.

The MBRC is designed to establish joint ventures with innovative biotechnology and pharmaceutical companies in areas of translational research. Translational research is the process by which discoveries made in the laboratory are developed into novel drug candidates, new models of human disease, pioneering therapies and drug delivery systems that can benefit patients with various diseases of the gastrointestinal tract and lung. A partial list of these diseases includes: inflammatory bowel disease, asthma, bacterial sepsis, chronic obstructive pulmonary disease, autoimmunity and acute respiratory distress syndrome.

Center for Vascular and Inflammatory Disease

The primary goal of the Center for Vascular and Inflammatory Diseases is to advance current knowledge in the field of cardiovascular and inflammatory diseases such as heart attack, stroke, rheumatoid arthritis and autoimmune diseases. It includes an extensive program in research, advanced clinical services for patients and an education program for medical students, graduate students and postdoctoral fellows.

The center is organized into three scientific core programs with basic research, graduate studies and clinical and translational research activities taking place in each area. The core programs are vascular biology and stroke, vascular physiology and hypertension and immunity and inflammation. A group of 13 senior faculty members and eight junior faculty members representing a variety of disciplines at the School of Medicine forms the nucleus of the new center, which has facilities in the first building of the new BioPark.

Center for Research on Aging

The Center for Research on Aging interfaces with and complements the existing efforts of investigators in gerontology and geriatric medicine to develop research, educational and clinical programs that nurture and expand research and research training in aging. The center is committed to developing and implementing collaborative research and training in the critical areas at University of Maryland campuses.

The mission of the Center for Research on Aging is to enhance the involvement and collaboration among University of Maryland faculty members in the conduct of research in aging, and to expand the conduct of interdisciplinary research training in gerontology through collaborations of investigators in gerontology at the University of Maryland Baltimore's six professional schools, the University of Maryland, Baltimore County and the University of

Maryland College Park. To accomplish these goals, the Center coordinates research and research training in those areas of gerontology that transcend traditional disciplinary lines and are amenable to an interdisciplinary approach. The Center has created, facilitated and expanded collaborations among investigators to further the development of academic excellence in key areas of clinical, epidemiological, basic-biomedical, mental health, legal-ethical, health services and population-based research in aging. This has amplified and enriched these areas, provided outstanding research training and educational opportunities for students, trainees and health professionals, and enhanced the delivery of multidisciplinary geriatric care. Drs. Barbara Resnick, Eun-Shim Nahm, Marianne Shaughnessy and Elizabeth Galik from the SON are active participants in the Center for Research and Aging.

Center for Vaccine Development

The Center for Vaccine Development (CVD) is dedicated to research, training, clinical consultation and public health consultation in the broad field of vaccinology. CVD faculty hold primary appointments in the departments of medicine, pediatrics or microbiology and immunology.

The CVD has four primary missions. The first is to foster and carry out superior, state-of-the-art, peer reviewed, innovative, multidisciplinary research on all aspects of vaccinology. The second mission of the CVD is to train medical and graduate students, postdoctoral fellows and visiting scientists in the broad discipline of vaccinology. The CVD's third mission is to provide consultations in the area of clinical vaccinology and advice on immunizations for infants, children, travelers, pregnant women and immunocompromised hosts, especially through the Traveler's Health Service outpatient clinic. Finally, the CVD provides expert consultancies or committee membership to national and international agencies (e.g., National Institutes of Health,

Food and Drug Administration, World Health Organization, Institute of Medicine) and the Ministries of Health of various countries and industry.

Organized Research Center on Persistent Pain

The Center for Organized Research on Persistent Pain conducts basic science research, translational approaches, clinical trials and the management of pain. Research training programs with over 50 mentors are available to high school, college, graduate, dental and medical students, postdoctoral fellows, and junior faculty desiring to enhance their research skills and portfolio.

Faculty affiliated with the ORC are actively engaged in pain research with approaches, spanning the laboratory bench to the clinical side. Basic science research, translational approaches, clinical trials and the management of pain are at the center of this research.

Ruth H. Young Center (RYC) for Families and Children

The Ruth H. Young Center for Families and Children promotes the safety, permanence and stability, and well-being of children, youth, families and communities through education and training, research and evaluation and best practice service programs. Consolidated under the Ruth H. Young Center are the School's growing portfolio of family and children's services education, training and research. These programs and research include Family Connections, Grandparent Family Connections, Family Connections National Program Replication Project, Title IV-E Education for Public Child Welfare Services Program, training programs, extensive ongoing research involving foster care, independent living and recruitment and selection of the child welfare workforce, as well as community based research focused on children, youth and families.

Center for Nanomedicine and Cellular Delivery

The School of Pharmacy Center for Nanomedicine and Cellular Delivery (CNCD) focuses on designing and developing revolutionary nanosystems and devices to treat disease. The Organized Research Center (ORC) designation moves the CNCD from a departmental center to a campus-wide center. The new status recognizes and helps to further facilitate the multidisciplinary nature of Center members' research, which covers material design and fabrication, cellular and biological evaluation and translational research. The Center is comprised of 26 members from several departments and spans three campuses: Baltimore County (UMBC), University of Maryland Biotechnology Institute (UMBI) and University of Maryland, College Park (UMCP). The ORC's first activities include participation in collaborative projects funded by the Maryland Nanobiotech Initiative and the organization of the first Nanomedicine Research Day.

Center for Information Technology Services (CITS)

The University of Maryland, Baltimore schools and departments have access to a wide range of Information Technology (IT) services and support offered by the Center for Information Technology Services (CITS). The CITS is the central information technology organization that develops and maintains mission-critical information systems and technologies for UMB academic and administrative operations.

The newest development in technology at UMB is the communications infrastructure. CITS, as well as UMB schools and departments, has been upgrading network and communications equipment in preparation of a migration to more contemporary communication services. The first pilot program began Spring 2008 with the Dental School testing the delivery of voice, as well as data and video, across a new communications infrastructure and with the use of new

communication devices. A converged voice, video and data infrastructure, and the use of digital technologies, will provide UMB faculty, staff, administrators and students with the capability to communicate more effectively.

Internet Protocol Communications (IPC) which includes Voice over Internet Protocol (VoIP) and other IP-based communication services have matured as a technology solution. Voice “traffic” can now be transmitted over a packet-switching technology, which essentially means that voice “packets” can be sent and received like data and video “packets” over one converged campus network and across the Internet. IP Communication provides the foundation for future developments in networking and telephone services. It will increase the availability of modern communications products, features and functionality to the UMB campus community. The benefits to users of this technology include many new features, such as: unified messaging that provides access to e-mail and voice messages on one device; integrated conferencing, which increases productivity by enabling real-time collaborative work via a combination of audio, video or Web conferencing; mobility for users to log onto any networked telephone and have calls to their extension routed to any phone from which they are working, including cell phones. Soft phones (IPC software installed on laptops, desktops, etc.) further broaden mobility for faculty, staff and administrators since they will be able to use their laptop to get a dial tone as if they were sitting in their office. Other benefits include improved organizational efficiency, e.g., improving help desk call centers, strengthening disaster recovery and business continuity plans since the recovery of a single converged network typically takes less time than recovering separate voice and data networks.

A new service that was implemented this year for faculty, staff and administrators is unified messaging. Unified messaging is the capability of having voice mail messages delivered to UMB faculty and staff via their email account.

All of the schools and departments on campus have access to a very high speed campus fiber-optic network backbone which connects campus buildings at Gigabit speeds. The campus network connects to a primary commercial Internet provider at Gigabit speeds. Two back-up Internet connections are maintained with different commercial providers at 200 Mbps. UMB is also a member of the Internet2 consortium and has access to this high-speed higher education, government, non-profit and private partner network. The campus connection to the Internet2 Abilene network is at 2.45 Gigabits per second.

The central campus computing facility managed by CITS is housed in the Health Sciences and Human Services Library. This newly upgraded facility includes server, storage, networking and database resources as well as other contemporary computer room technologies. It also has the latest in environmental controls including uninterruptible power supply, generator power, a fire suppression system and daily back-ups of systems that are stored in off-site locations. A business continuity and disaster recovery plan has been created for emergency restoration of systems, operations and services.

The UMB IT security model is comprised of a multi-level layer of appliances and technology to protect us from outside as well as internal threats to the campus infrastructure. IT leaders and staff across campus have collaborated to create an IT security strategy that includes multi-organization coordination and communication. By mutually confronting common threats campus organizations have strengthened IT security across the enterprise. An IT security “quilt” effectively blankets the entire campus and protects schools and departments from security

breaches. The implemented technologies include: firewalls, intrusion prevention and detection systems; monitoring; bandwidth “shaping”, filtering and “pinpointing” spyware and viruses, etc. The ongoing goal is to achieve a balance of strong IT security while providing appropriate access to contemporary systems and to a wealth of campus information resources.

In the effort to provide both easy and secure access to contemporary computer systems, UMB has developed a directory services and authentication strategy. The goal of the directory services and authentication strategy is to protect against security breaches, improve the management of identities and support appropriate access to data for research, teaching and administrative operations. CITS has created an identity management system that maintains data regarding people and their attributes in the campus enterprise directory service.

The Student Information Management System (SIMS) includes modules for recruiting, admissions, registration, financial aid, student accounts, degree audit and graduation. Because SIMS is designed to accommodate different academic practices, all of UMB’s schools can use one student system. SIMS is fully web-based, which gives administrators and students web-browser access to the system from off-campus as well as on-campus locations. SIMS provides the schools with the ability to manage their own student data. Direct access to information supports improved decision making in areas such as admissions, enrollment management and student support services.

The student interface, SURFS (Student User Friendly System), allows current and former students, through a secure server to see their grades, billing and demographic information. Using SURFS, students can register online, request transcripts, apply for graduation and maintain accurate address, telephone and emergency contact information. It allows the students to view and accept financial aid awards. SIMS has been integrated with the Blackboard Learning

Management system to enable students to register for and add/drop electronic courses in the campus course catalog.

CITS also supports enterprise-wide eLearning applications. The Blackboard course management system is used by hundreds of faculty and thousands of UMB students. The electronic delivery of course materials has become commonplace within schools and academic departments and includes the use of online assessment and testing software (QuestionMark), lecture capture technology (Mediasite and iTunes University and podcasting) and many other web applications and technologies. The goals for teaching and learning with technology include: facilitating the delivery of education to students online; ensuring that conference and lecture room technologies are easy to use and intuitive; supporting faculty instructional initiatives that send and receive voice, video and data; and supporting a digital environment of synchronous and asynchronous learning for the school curriculum as well as for continuing education programs.

A CITS Web development group is also available to schools and departments. This Web services group provides assistance with Web page/application design, update and redesign, the creation of new applications, monitoring and maintenance of existing campus web applications and sites and assistance with use of Content Management System.

The CITS Assistance and Services Center includes a help desk operation and an enterprise training group. The campus Help Desk is the first line of support for student, faculty and staff who have questions or problems with campus software and systems. After hours support is available for critical applications and systems.

In 2007, CITS collaborated with UMB schools and Dell Corporation and developed a student laptop program. Students received discounted prices for laptops that were specifically designed and configured for UMB as well as for each school's academic program needs.

The information on the Center for Information Technology Services was copied from UMB Self Study for the Middle States Commission on Higher Education pages 51-58.

Student Support Services

UMB and the individual schools/programs are acutely aware of the challenges of meeting student needs in a diverse and academically challenging community. There are central University offices and school-based offices devoted to ensuring that all students are provided with the services necessary for their academic and professional development. These services represent a significant investment by UMB and its schools.

Students learn about the services available to them through University and school web sites, through the University's Student Answer Book and through each school's student handbook. The support service offerings are as dynamic and varied as the schools' professional offerings and these services are continually updated to meet student needs.

The mission of the UMB Office of International Services (OIS) is to provide information, process documents and facilitate visa services for students, scholars, exchange visitors and other University sponsored non-immigrants. This mission supports a non-immigrant's effort to enter and remain in the U.S. legally to participate in an Exchange Visitor program at the University of Maryland Baltimore. The OIS staff advises UMB departments and non-immigrants on the following: obtaining visas and entry to the United States, extensions of stay, work authorization, change of status within the U.S., travel authorization/re-entry to the U.S. and transfers to/from UMB.

The Disability Support Services component of the Student Affairs Office acts as a central point of contact for the identification and provision of reasonable accommodations that may include educational support services designed to assist qualified students with disabilities in

achieving their academic goals. The campus Student Affairs Office works closely with each of the schools to ensure that qualified students with disabilities receive appropriate and equitable services.

The Writing Center provides students with individual help in the preparation of class papers, dissertations and articles for publication in professional journals, grant proposals, resumes and curricula vitae, personal statements, slide presentations and job applications. In addition, the center offers full-day workshops, mini-workshops, and classes. Recent programs included “Writing for English as Second Language (ESL) Students” and a one-day writing conference that covered such topics as essay exams, APA style and practical tips for scientific poster development.

UMB continually strives to ensure that support services for students are comprehensive, effective, and adapted to evolving student needs. Student support services are assessed at the institutional and school level through formal surveys and focus groups. Library hours have been extended 10 hours a week, resulting in the building being open until midnight Sunday through Thursday.

Planning for the new Campus Center, which will replace the 50 year-old Baltimore Student Union in 2008, is providing a special opportunity to review student programming and to conceptualize another level of co-curricular activity for UMB students. There will be considerably enhanced wellness, recreation and fitness programming as well as new types of space, such as a ballroom that can accommodate different types of campus events. With the addition of the new center comes the opportunity to create well beyond the services now provided. Students, faculty, and staff are actively working to design this building to facilitate a different vision of campus life for students.

The information on the Student Support Services was copied from UMB Self Study for the Middle States Commission on Higher Education pages 51-58 .

Library and Database Resources

Extensive learning resources for students are provided by campus-wide library and computer facilities and by specialized laboratories, clinics and other program-based resources in the professional schools.

Health Sciences and Human Services Library

The University of Maryland Health Sciences and Human Services Library (HS/HSL) is dedicated to providing quality information resources services and infrastructure supporting the education, research, clinical care and public service missions of the University. One of the largest health sciences libraries in the United States and a recognized leader in state-of-the-art information technology, the HS/HSL supports the programs of the professional schools (with the exception of the School of Law, which operates the Thurgood Marshall Law Library, described below) and the Graduate School as well as the University of Maryland Medical Center, the R Adams Cowley Shock Trauma Center and the Baltimore VA Medical Center.

The HS/HSL serves as the headquarters of the National Network of Libraries of Medicine, Southeastern/Atlantic Region. This distinction, a five year competitive contract, has been held by the HS/HSL since 1983.

In 1998 the HS/HSL moved into a new facility housing the library as well as central campus computing and communications resources. The building provides 118,000 net square feet of space with 900 seats for users, over 40 small group study rooms for students and three microcomputer labs. These provide the University with a focal point for both traditional and computerized information resources and services. The library is open 90 hours per week,

including weekend and evening hours. Of the more than 100 public access computers, 50 are supported in the Research and Information Commons where users may access databases, electronic journals, electronic books, electronic reserve items, e-mail, the Web, word processing, desktop publishing, spreadsheets and other software. Wireless capability was added in 2004. The Circulation Reference and Computing Assistance desks provide quality service to faculty, staff and students.

HS/HSL holds more than 385,000 volumes, including more than 19,868 print and digital journal titles. It is consistently ranked among the top 25 health sciences libraries in the country.

The Thurgood Marshall Law Library

The Thurgood Marshall Law Library is the largest and most comprehensive academic law library in Maryland. Although part of the School of Law, the library is available for use by the entire University community and external constituencies. The library maintains a collection of more than 468,000 volumes and subscriptions to more than 3,000 periodicals, serials and continuations. This library also offers online access to an array of legal and non-legal electronic databases, journals and reference sources. The Thurgood Marshall Law Library participates in collaborative ventures with other libraries within USM and with affiliated institutions in order to meet the needs of faculty and students engaged in interdisciplinary research and study. This library is a member of the University System of Maryland and Affiliated Institutions (USMAI).

Graduate School

Graduate programs at UMB are offered as collaboration between one or more of the professional schools and the six graduate schools. The Graduate School offers graduate education and research opportunities in more than 20 programs related to the health, biomedical, life and social sciences.

In addition to its degree-granting programs, the Graduate School offers programs in the responsible conduct of research and a survival skills seminar series. The latter aims to provide professional enrichment and addresses such topics as effective oral presentations, grant writing and mentor selection. These programs are open to all students and faculty.

The Graduate School supports the activities of the Graduate Student Association (GSA), a student-run organization that represents graduate students in all schools. The GSA coordinates many services and programs including awards and grants, orientation, social events, a research conference and a graduation ceremony for PhD students.

The Graduate School is a key partner in PROMISE, Maryland's Alliance for Graduate Education and Professoriate (<http://www.umaryland.edu/promise>). PROMISE seeks to increase enrollment and diversity in PhD programs in the sciences and engineering and to encourage graduates in those fields to pursue academic careers. PROMISE serves the needs of graduate students across three campuses (UMB, UMBC, and the University of Maryland College Park) through activities that range from retreats, seminars and conferences, to informal breakfast discussions. The services and programs of PROMISE are open to most graduate students who are seeking or interested in obtaining a PhD, regardless of discipline.

The Graduate School is part of the University of Maryland Graduate School Baltimore (UMGSB). The UMGSB oversees the joint academic and research resources of UMB and UMBC and facilitates a joint Graduate Council, which reviews and approves new and existing graduate programs, courses, faculty and policies on both campuses. The Graduate Council, composed of elected faculty representatives, is responsible for approval of all proposals for new graduate programs or significant modifications of existing ones and for the approval of all new courses offered in any graduate program.

University Support of Interdisciplinary Education

Interdisciplinary education as well as research is encouraged at UMB. An example of how interdisciplinary education is supported is found in the area of use of educational technology. Universities function in an increasingly technological environment. Not only are students technologically savvy but also increasingly expect instruction to be delivered and/or enhanced by technology. For this reason, investment in the creation of an infrastructure, including resources to enable faculty to teach with technology, has become a priority for the USM, UMB and SON. The Maryland Higher Education Commission (MHEC) and the USM have provided small grand funding for innovative projects related to excellence in teaching.

An example of these system-wide efforts to develop faculty who teach with technology is the collaboration of Dr. Louise Jenkins, Professor and Co-Director, Institute for Educators in Nursing and Health Professions and Dr. David Mallott, Associate Dean, School of Medicine, who obtained two faculty technology training grants from MHEC. The goal of these grants is to train health care faculty in how to integrate advanced simulation into curricula to enhance student learning and clinical skill proficiency. The sequential, in-depth nature of the faculty development activities encompassed in these projects afforded participants opportunities to gain a full understanding of the theoretical and methodological basis for integrating critical stepwise clinical competency assessment progression into their curricula with experiences ranging from classroom to model to person to patient. These projects develop faculty in a variety of disciplines throughout Maryland and were made available to PhD students free of charge to contribute to the development of students planning on an academic role.

APPENDIX C - Interdisciplinary Faculty Collaboration and Research

Faculty Name	Collaboration	Project
Elizabeth Helm, CPNP	James King, MD Department of Pediatrics, UMMS	Vaccine Trial – MMR/V
Carla Storr, ScD, MPH	Pam Clark, PhD, Elbert Glover, PhD, Bradley Hatfield, PhD, Amy Haufler, PhD, Jessica Rath, PhD, Stephen Roth, PhD, Amir Sapkota, School of Public Health, UMCP, Charmaine Rochester, PharmD, School of Pharmacy, UMB	UM SEED proposal: A transdisciplinary investigation of light and intermittent tobacco smokers (LITS)
Jane Lipscomb, PhD, RN	Department of Epidemiology and School of Social Work	CTSI application
Alison Trinkoff, PhD, RN	Yan Xiao, PhD, Director, Research in Patient Safety, Program in Trauma PhD, Human Factors, Department of Surgery, University of Maryland Medical Center Jeanne Geiger-Brown, PhD, RN, University of Maryland School of Nursing, Alan Shuldiner,	Instrument flow, operative flow in minimally invasive surgery K12 Multidisciplinary Clinical Research Scholar Award
Jeanne Geiger-Brown, PhD, RN	Steven Scharf, MD, PhD, UMSOM Dept. of Pulmonary and Critical Care Medicine, Div. of Sleep Disorders Robert Kane, PhD, VA, UMSOM, Dept. of Neurology (UM) and Dept. of Psychiatry and Human Behavior (VA) UMSOM	Sleep, sleepiness and neurocognition in 12-hour nurses
Lynn Oswald, PhD, RN	Henry Holcomb, MD Maryland Psychiatric Research Center Ted Postolach, MD, Dept of Psychiatry	Use of fMRI - increase understanding of brain mechanisms involved in reward processing and drug abuse Substudy on subjects enrolled in RO1 grant that will allow examination of associations among cytokines, suicide risks and impulsivity

Sandra Giangrande, PhD, RN	Howard Dubowitz, MD, MS Professor of Pediatric Chief Division of Child Protection Director, Center for families, UMMS	R01: A Safe Environment for Every Kid (SEEK) III: A Promising Model for Preventing Child Maltreatment NICHD
Gail Lemaire, PhD, RN	Trisha Fronzcek, MS, RN, Office of Professional Development at UMMC	Preceptors perceptions of the skills and abilities of new CNL program graduates
Mary Haack, PhD, RN	Barbara Baumgardener, PhD, RN at Out-patient Psychiatric Services	Improving the Outcome of Children and Families through Alternative Dispute Resolution
Patricia Harris, MS, RN	Dr. Gloria Reeves UMMS Child and Adolescent Out-Patient Clinic	Monitoring metabolic parameters in children with bipolar illness
Karen Clark, PhD, RN, CCRN	UMCP, Center for Academic Success Dr. Mark Smith, Director of Emergency Services, Washington Hospital Center	Investigating nursing students using CAS A medical record review for characteristics of patients admitted to the ICU from the ED related to method of arrival to the ED and collaborative interventions while in the ED on outcomes of hospital mortality
Debra Scrandis, PhD, RN	Teodor Postolache, MD, SOM	Inflammation markers and postpartum depression
Erika Friedmann, PhD	Michele Green, PhD and Ronald Adelman, MD, Cornell University Ingrid Connerney, DrPH, RN, University of Maryland Medical Center	Patient – Provider interactions with older adults Depression identification in acute care patients
Christopher Ward, PhD	Dr. Meredith Bond, Chair, Department of Physiology, SOM Dr. Robert Bloch, Department of Physics, DOM Jon Lederer, Director of University of MD Biotechnology Institute	Calcium signaling in cardiac cells Role of intermediate filaments in muscle injury and repair Confocal High Speed Imaging System
Dawn Mueller-Burke, PhD, CRNP, RNC		Sedation weaning protocol in critically ill pediatric patients
Susan Dorsey, PhD, RN	Dr. Meredith Bond, Chair Department of Physiology,	Calcium signaling in cardiac cells from wt and ko mice

	<p>SOM</p> <p>Dr. Bruce Krueger, Professor Department of Physiology SOM</p> <p>Dr. Tami Kingsbury, Asst Prof Department of Physiology, SOM</p> <p>Drs. Richard Traub and Sharon Gordon, Associate Professors Biomedical Sciences Dept Dental School</p>	<p>Role of NF1 in nociception</p> <p>KLF and nociception</p> <p>Chemotherapy-induced painful peripheral neuropathy and mucositis</p>
Kay Blum, PhD, RN	Steve Gottlieb, MD, SOM	Medicare Coordinated Care Demonstration Project
Kathryn Montgomery, PhD, RN	Joan Warren, PhD, RN, Franklin Square Hospital Center	Assessment of readiness, beliefs and implementation of Evidence Based Practice
Catherine Kelleher, ScD, MPH, MS, RN	<p>Laurence S. Magder, PhD, Associate Professor & Director of Biostatistics & Bioinformatics, Department of Epidemiology, SOM</p> <p>Kristin N. Frey, MS, Database Engineer, Bioinformatics Core, SOM</p> <p>David Salkever, PhD, Professor of Economics, Department of Public Policy, UMBC</p> <p>Deborah Rejent, DSW, Associate Professor & Associate Dean for MSW Programs, SSW</p>	<p>AHRQ Grant <i>Home Care Outcomes of Expanded Home Health Aide Roles, C.</i> Kelleher, PI.; L. Magder is a Co-Investigator</p> <p>AHRQ Grant <i>Home Care Outcomes of Expanded Home Health Aide Roles, C.</i> Kelleher, PI.; K. Frey serves as part-time statistician/ programmer</p> <p>AHRQ Grant <i>Home Care Outcomes of Expanded Home Health Aide Roles, C.</i> Kelleher, PI.; D. Salkever is a Co-Investigator</p> <p>Co-teach 8-week Mindfulness- Based Stress Reduction (MBSR) series offered in spring and fall semesters to all UMB students via the UMB Counseling Center and sponsored by Student Services</p> <p>Co-teach 8-week Mindfulness-</p>

	<p>Carrie Burmaster, MSW, Director, UMB Counseling Center</p>	<p>Based Stress Reduction (MBSR) series offered in spring and fall semesters to all UMB students via the UMB Counseling Center and sponsored by Student Services</p>
<p>Robin Newhouse, PhD, RN, CNAA, BC, CNOR</p>	<p>Laura Morlock, PhD Johns Hopkins Bloomberg School of Public Health and Peter Pronovost, MD, PhD, Johns Hopkins Hospital, Div. of Adult Critical Care Medicine</p> <p>Laura Morlock, PhD, JHBSPH, Peter Pronovost, MD, PhD, Johns Hopkins Hospital, Kevin Frick, PhD, JHBSPH, Cheryl Dennison, ANP, PhD, JHU SON</p> <p>Julie Stanik-Hutt, PhD, ACNP, CCNS, Johns Hopkins University, School of Nursing, Donald M. Steinwachs, PhD, Bloomberg School of Public Health, JHU, Jonathan P. Weiner, DrPH, JHBSPH, Eric Bass, MD, MPH, Johns Hopkins University School of Medicine, Kathleen M. White, PhD, RN, CNAA, BC, Johns Hopkins University School of Nursing, Lou Heindel, DNP, CRNA, University of Maryland School of Nursing, Dawn Mueller-Burke, PhD, RN, UMSON, George Zangaro, PhD, RN, UMSON</p>	<p>Rural Hospital Nursing: Environment, Effects & Evidence</p> <p>Rural Hospital Quality Collaborative on Evidence- Based Nursing (30 rural hospitals involved)</p> <p>An Assessment of The Safety, Quality and Effectiveness of Care Provided By Advanced Practice Nurses</p>
<p>Kristin Bussell, MS, RN</p>	<p>Dr. Gloria Reeves, Child and Adolscnt Out-Patient Psychiatric Clinic University of Maryland School of Medicine</p>	<p>NIH funded Child & Adolescent Metabolic and Psychotropic Studies (CHAMPS), a multisite, multidisciplinary investigation on the impact of psychotropic medications in the pediatric population</p>

Barbara Resnick, PhD, RN	Sheryl Zimmerman, Social Work	Impact of Nursing in Healthcare
Deborah McGuire, PhD, RN	<p>Dr. Patricia Langenberg, School of Medicine</p> <p>Dr. Edward Sausville, University of Maryland Greenebaum Cancer Center</p> <p>Dr. Carol Tacket, School of Medicine</p> <p>Dr. Alan Tomkinson, University of Maryland Greenebaum Cancer Center</p>	<p>Building Interdisciplinary Research Careers in Women's Health Advisory Committee Member</p> <p>Participating Faculty, University of Maryland Institute for Clinical – Translational Science</p> <p>American Cancer Society Institutional Research Grant</p>
Eun-Shim Nahm, PhD, RN	<p>Dr. L. Stevens, UMMS</p> <p>Dr. Lori Fontry, UMMS</p>	<p>Web-based Preoperative Education Program for patients who undergo surgery</p> <p>Improving Health Care of Persons Living with HIV Infections through the Use of an Electronic Medical Record</p>

I. Introduction

The Doctor of Philosophy (PhD) Program under review is housed in the School of Nursing (SON) and offered through the Graduate School of the University of Maryland Baltimore (UMB). The AACN Quality Indicators (2001) serve as an important resource for the program and are used as a reference for program planning and the consideration of progress in ongoing development of the PhD Program. Thus, these indicators are also used as an organizing framework for this self-study. When the term, AACN Quality Indicators, is used in this self-study, it refers to the *Indicators of Quality in Research-Focused Doctoral Programs in Nursing* (2001). At various points in the narrative, comparisons are made with the AACN Quality Indicators.

This self-study is organized in two volumes. The Volume I contains the narrative material and Volume II contains reference supporting material. The contents are as follows:

Volume I

- Section I** Introduction
- Section II** University System of Maryland, UMB and the Graduate School
- Section III** School of Nursing
- Section IV** Mission of UMB and the SON and the PhD Program
- Section V** The PhD Program
- Section VI** Faculty
- Section VII** Students
- Section VIII** Curriculum
- Section IX** Outcome Indicators
- Section X** Summary and Future Plans

Appendix A Research Seminar Log 2004-2008

Appendix B Definitions of Centers of Excellence, Developing Centers of Excellence and
Proposed Centers of Excellence

Appendix C Interdisciplinary Faculty Collaboration and Research

Volume II

Section I SON Strategic Plan

Section II PhD Student Handbook

Section III Biosketches (PHS 398) of SON Graduate Faculty Members

Reference:

American Association of Colleges of Nursing. (2001). *Indicators of Quality in Research-Focused Doctoral Programs in Nursing*, Washington, D.C.

X. Summary and Future Plans

Introduction

Section X, Summary and Future Plans, contains an overview of the strengths of the PhD program, the challenges and plans for the future. A summary of the 2002 external review is included.

Summary

Throughout this document attention has been given to aspects of the SON PhD Program as well as to how they compare to the AACN Quality Indicators. During this process, the following program strengths became evident:

- The high priority on research and scholarship converge in the missions of the program, SON and UMB. This convergence is a catalyst for the synergistic efforts of each in ongoing efforts in enhancing the strength and depth of the research environment for the PhD program.
- The multiple resources supporting research, interdisciplinary education, and nursing education including those of the campus and the SON are rich and highly accessible to support doctoral study. The cutting-edge learning environment of the SON and UMB campus in which the PhD students learn in unparalleled and offers exceptional opportunities for students.
- The administration of the program is stable and structured to very adequately support the PhD program and its ongoing development.
- The SON Graduate Faculty members involved in the PhD program are highly qualified with numerous funded, active researchers forming a cadre of mentors and role-models for the PhD students. These faculty are highly productive in the scholarly activities and are

- active participants in the research intensive environment being continuously enhanced at the SON. Faculty members are accessible to students and welcome opportunities to educate and socialize PhD students into the community of scholars. Faculty research activities in the PhD program's areas of emphasis support the research directions of
- students. The Center of Excellence, Work and Health Research Center, the Developing Centers, Palliative Care Research and Disorders of Neuroregulatory Function and the proposed Center of Excellence in Cardiovascular Health and Aging allow broad opportunities to support the PhD students' research.
- The PhD program attracts a highly qualified and diverse student body from across the nation as well as from other parts of the world. Student research interests are increasingly consistent with those of the centers and they are being productive in their scholarly activities in areas such as funding his/her research, publication, and presentations. There is a strongly collegial relationship between the program administration, faculty, and students that is supportive of ongoing development of a community of scholars in a research intensive environment.
- The curriculum of the program blends core and elective course work that allows each student to tailor the development of his or her area of research expertise in a manner supportive of achieving program goals. The research rotation and practica experiences formalize and support close mentoring of students by active researchers, early refinement of the student's research focus and selection of a research advisor, and structured progression through the program. Particular strengths of the program include the research design, statistics, and measurement components.
- Program graduates conduct dissertations that are meaningful to the discipline and provide a foundation for the development of research programs and scholarship. Graduates are

sought after by employers and many are in high leadership professions. Their achievements and contributions to science as well as society flow from their scholarship and various roles. The program supports students' progress through in a timely manner with well-established and clear policies. Degree completion rate is high and program retention is good.

From these strengths, it is clear that the consistency with the AACN Quality Indicators (2001) is high. Ongoing efforts will be devoted to the high quality of the program to assure and increase this consistency.

Challenges

During this process of self-study, the challenges listed below were also identified. These challenges reflect characteristics of the applicant pool; the mix of faculty and nature of their research programs; the evolution of SON structure, process, and outcomes; and scientific and fiscal changes in the larger research arena.

- Although the applicant pool is solid and GRE scores have been improving, the size of the applicant pool needs to be increased to permit admission of only the most highly qualified applicants (e.g., higher mean GRE scores), and to improve fit with research of faculty.
- The SON has a long and distinguished history of hospitality toward international PhD students; however, increased support at the School and University levels is necessary to ensure their continued success.
- Despite an active scholarly community at the SON, mentoring of students in the submission of pre-doctoral research training awards (e.g., F-31) has not been part of the culture. The aggregation of faculty within Centers of Excellence focused on high priority, significant areas will provide a foundation for increasing the number of

individual pre-doctoral fellowships and for obtaining one or more institutional research training grants (e.g., T-32).

- The SON has strengths in methodological coursework, particularly quantitative; however, there is a need to develop more topic-specific elective courses within the SON for both SON PhD students and those from other Schools on the campus. Concurrent with this activity should be an increased emphasis on interdisciplinary collaboration.
- Faculty governance and a matrix organizational schema are rapidly emerging as priorities in the SON. Approaches that maximize involvement and contribution of faculty to the goals, implementation, and outcomes of the PhD program are needed. Current structures and processes such as the PhD Curriculum Subcommittee provide a solid foundation for expansion.
- Given the rapidly evolving nature of interdisciplinary and transdisciplinary science (e.g., NIH Roadmap Initiative), with concurrent changes in the funding arena, increased emphasis must be placed on collaboration with Centers of Research Excellence on the University campus, members of other disciplines, and organizations housed in the adjacent Biopark
- Previous and current PhD students are conducting significant research. However, efforts need to be intensified in order to increase the transdisciplinary nature of students' developing programs of research and to position them optimally to compete in the world of research funding and to contribute to the scientific community.

Plans for the Future

The most immediate priority for the future is closer collaboration with the office of Research and Centers of Excellence and the Assistant Dean of the PhD program. The lack

of NRSA's in the past 5 years is due in part to lack of early identification of those funded researchers who are willing to support students. The Office of Research is willing to provide resources to simplify the application process for students and faculty.

The next priority is the development of elective courses offered by the Centers of Excellence. The centers are newly designated and their emphasis is building their research. Collaboration with the Centers of Excellence, Assistant Dean and the PhD Curriculum Subcommittee will facilitate progression in course development.

An additional priority is maintaining the number of students who elect the baccalaureate to PhD option. The MS degrees offered at the SON range from 34 to 72 credits. If a student transfers to the BSN to PhD option during the MS program, any credits above the 30 required credits for a Masters degree in Maryland are eligible to transfer as electives in the PhD program. This incentive has increased the number of students transferring to the PhD program.

Enhancing the intensity of the research environment is a school-wide effort, thus efforts at contributing to that goal will be ongoing. A major contribution is the establishment of the one Center of Excellence, the two developing Centers and the one proposed Center of Excellence.

Attention to increasing opportunities for funding of student training and research will continue. Grantsmanship skills will continue to be developed by course requirements and mentored research experiences. Efforts to seek and obtain a greater amount of funding for students from the Graduate School are indicated based on the large number of SON students in graduate programs. The GAANN fellowships are a new revenue source and are highly successful.

These future plans build on the strengths identified throughout this self-study and the ongoing efforts in continuous quality improvement of the program. These plans will also be influenced by the recommendations from the current Program Review. An update on the recommendations from the 2002 Program Review is found in an Appendix following this section.

Reference:

American Association of Colleges of Nursing. (November, 2001). *Indicators of Quality in Research-Focused Doctoral Programs in Nursing*, Washington, D.C.

Roadmap for Medical Research. [http://nihroadmap](http://nihroadmap.nih.gov) nih gov 2008 June 27.

Summary of the 2002 External Review: The reviews noted as particular strengths:

- The number and diversity of the faculty available to teach in the doctoral program
- Commitment of faculty to the personal and scholarly development of students
- Recognition of need for expansion of research enterprise
- Diversity of the student body in the PhD program
- Student satisfaction with the program
- Student understanding of relevant and important problems in nursing science
- Opportunities for research links with the clinical enterprise and affiliated hospitals
- Strong course work in research methodology and statistics
- Creative use of the year-end-appraisal to assist students in enhancing teaching, research, publication, public speaking, and service skills
- Existing Centers of Excellence will address National and State health problems and priorities –occupational and environmental health, gerontology and chronic illness, physiological research and end of life issues.

The reviewers made the following suggestions for improvement of the program:

- Increase the number of faculty with extramurally funded programs of research
- Develop a plan for faculty recruitment and development
- Suggest a higher cutoff for admission GRE scores
- Increase support services for international students
- Develop a plan to increase leadership in the research enterprise
- Stream line system for predicting course offerings into the future

Institutional Response: The University is appreciative of the thorough and thoughtful review of the PhD program. Reviewers' recommendations form the basis of the following action plan.

Action Plan: The action plan consists of implementing recommendations of the reviewers.

- Create a school-wide plan for development of junior faculty and priorities for faculty Recruitment.

In accordance with our 2003-2007 Strategic Plan and the research mission of the School: to shape the profession of nursing by developing nursing leaders in research with cutting edge science and research, in 2004 we developed and launched the Research Intensive Faculty (RIF) program. The RIF program is intended to support the scholarship development of new doctoral prepared faculty or current research focused assistant professors by providing an intensive goal-directed 3 year program to assist junior faculty in establishing a strong program of research. The program provided a research mentor, a \$10,000 grant, reduced teaching in fall/spring with no summer

teaching and no governance responsibilities for 2 years. RIF faculty are evaluated by the Department Chair, Research Dean and Mentor on a yearly and must meet the goals and outcomes established in the research plan to remain in the program. To date, 12 faculty have participated in the RIF program. Four RIFs have completed the program (2 are externally funded and 2 are on other grants), three RIFs did not complete the program (2 left the University for other positions and one decided to focus practice and education scholarship) and 5 faculty are currently in the program (one has a new R01 and one is funded on another PI's grant). By program end or while still a RIF, three have major external funding and 3 are funded as part of other PI's grants.

The School has focused on recruiting both new doctoral research focused faculty as well as mid and senior career research faculty. We have been successful in recruiting 19 research faculty over the past 6 years. In FY2008, we set the goal of recruiting one research faculty for each of the 3 Centers of Excellence and were successful. For FY09-FY13, we set a goal of recruiting 2 research faculty/year and by 2013 having 20-25% of the faculty be research intensive.

- Suggest a higher cutoff for admission GRE scores

The GRE cut off scores are a combined score of at least 1,000 in the quantitative and verbal sections. The admission and progressions committee considers the entire application and has maintained that a combination of GRE scores totaling 1000 is acceptable. The elimination of a rolling admissions policy helps because applicants are all reviewed at one time and the best applicants selected.

- Strengthen the Office of Research, enhancing its support for faculty and student research
Dr. Barbara Smith was appointed Associate Dean for research in 2003. Section III, pages 6-8 details the number of improvements in the research department in the past 4 years. The development of the center of excellence in Work and Health Research Center, the two developing centers, Palliative Care Research and Disorders of Neuroregulatory Function and the proposed center of cardiovascular health and aging reflects the increased emphasis in research and scholarship. The centers are described in detail in Section IV, pages 2-15. The initiation of the research intensive

faculty program in 2005 has helped new and junior faculty to devote more time to their research programs.

- Assess the learning and social needs of international and US students

The Office of International Services (OIS) provides needed support for out international students and is described on Section II, page 26.

- Increase number and amount of fellowships/other funding for doctoral students

Considerable progress in student funding has been achieved due to increased faculty support of student RA positions and the GAANN award. Detailed description of student funding is included in Section VII pages 6-8. Students have obtained American Cancer Society and Hartford Scholarship Foundation awards but no NRSA applications have been sent since 2004. This is due in part to poor mentor/student matching and few NIH grants in the past. Closer collaboration among the Office of Research, research faculty and the Assistant Dean of the PhD program will increase NRSA applications. Students will be alerted and introduced as soon as appropriate funding is awarded to the PI and matching of students and mentor initiated. A ‘boiler plate’ application kit will be developed to facilitate applications. Early identification of students willing to submit NRSA’s and ease of submission of application is critical to success.

- Develop a course mapping system that tracks and predicts doctoral core and elective courses at least two years into the future

Course mapping and prediction of core and elective courses completed.

- Augment faculty and student participation in research through seminars, journal clubs, etc.

Centers of excellence five year plans include faculty and student participation in research through seminars, journal clubs, etc. Each center’s five year plans will be available at time of review.

- Develop of advance course work in advanced, substantive nursing science content related to emerging faculty centers of excellence

Substantive, advanced nursing science course work has not been achieved.

Implementation of the new curriculum was successful and now attention to new courses developed by Centers of Excellence must proceed.
- Enhance communication among students, faculty, and administration

Communication with student is enhanced by twice a year town meetings with Dean Allan and a fully functioning Doctoral Student Organization. Faculty communication with each other has increased through twice yearly open forums and the development of the progression and advisory group.
- Enhance academic and personal supports for students

Student orientation is streamlined but extremely effective. “SPSS boot camp” is conducted each fall to prepare students for their rigorous experimental statistics and design courses. The review process for students failing prelims has resulted in a higher pass rate and students better prepared for course work. The “open door” policy of the program administration and the Assistant Dean has effectively increased student accessibility to resources.

VIII. CURRICULUM

Purpose

The purpose of the University of Maryland School of Nursing PhD Program is to prepare scholars and researchers who will advance nursing science and will provide innovative leadership in the profession. This purpose has remained consistent throughout the 29 year history of the program and continues to serve as the strong rationale for the continuation of the program.

Goals of the Program for Graduates

The faculty are to continually re-examining the program goals given the interdisciplinary nature of contemporary research programs and SON's Centers of Excellence.

Graduates will be able to:

- Construct, test and evaluate conceptual models and theories in nursing and related disciplines that reflect synthesis, reorganization, and expansion of knowledge
- Evaluate and apply appropriate research designs, measures, and statistics to the study of nursing and health phenomena
- Conceptualize practice phenomena from the perspective of frameworks and theory from nursing and related disciplines
- Design, conduct and communicate research relevant to nursing practice
- Facilitate the incorporation of new knowledge into practice
- Initiate, facilitate, and participate in collaborative endeavors related to the theoretical, conceptual and practical aspects of health care with clients, nurses and scholars from related disciplines

Curriculum

In light of the individualized learning goals of each student, the core curriculum has been decreased from 37 to 34 credits and electives increased to 15 credits. The 15 elective credits allows the student to incorporate into his or her plan of study courses which provide the needed expertise for their research interest. The curriculum of the SON PhD Program is comprised of: 1) 34 credits of required core courses in nursing theory (6 credits) and research and statistics (28 credits) including measurement; 2) 15 credits of specialty/elective courses designed to allow the student to develop an area of expertise supportive of the dissertation and foundational to a career research program; and 3) 12 credits of dissertation research, for a total of 61 credits.

Courses in the nursing theory component address the theoretical basis for nursing practice and the analysis and development of nursing theory. Included are the study and development of key concepts in nursing, the selection and integration of knowledge from nursing and other disciplines and the application of conceptual frameworks or middle range theories to research. Courses in the research and statistics component address the techniques of measurement, design, and advanced data analysis essential to conducting nursing research. Students apply these techniques in developing measurement tools and conducting research projects specific to their own research interest. Qualitative and quantitative research methods are addressed. Each student has the opportunity to work closely with a faculty member engaged in an ongoing research project as part of the requirements for his/her research rotation and practica. The research rotations are designed to introduce the student to active research programs in the School of Nursing with application of various research methodologies to specific research projects. Research practica are designed as independently arranged research experiences in which the student actively engages in research activities related to their dissertation topic under the mentorship of a faculty member.

Specialty/elective courses allow each student to pursue an individualized plan of study that builds a specialized area of competence and supports his or her research interests and career goals. A portion (minimum of three credits) of these elective courses are taken in other disciplines that contribute to the development of nursing knowledge through theoretical and methodological approaches. These courses are selected in consultation with the research advisor; thus, they may not be taken until the student has selected a research advisor.

The dissertation is an independent original research project that is communicated in written form. The research must address questions of significance to the discipline of nursing. Secondary analyses of large data sets can be undertaken for the dissertation project if the above criteria are met.

The SON PhD Curriculum is described on page 64 of the Graduate School 2007-2009 Catalog which accompanies this self study. Course overviews for required core courses (Nursing 840, 841, 850, 851, 852, 853, 811, 816, 819 and 818) as well as 800 level specialty/elective courses within SON are found on pages 84-87 of the same Graduate School catalog. Selected 600 and 700 level courses may be taken with appropriate adjustment of assignments to meet the PhD program standards with the student's advisor's permission. Copies of syllabi of courses in the SON PhD curriculum will be available for review during the site visit.

Throughout the program's 29 year history, continuous and multifaceted efforts in ongoing internal evaluation have taken place as part of SON's Master Plan for Evaluation. Evaluation by external reviewers occurred at a regular intervals as part of the Graduate School Program Review process; the most recent of these reviews took place in 2002.

Changes that have occurred since that time include the following;

- 1) Research emphasis areas/research rotations and practica – The growth of targeted Centers of Excellence and the number of funded faculty researchers allows for facilitation of early choices

of research emphasis by applicants and students. As the depth of the research in these centers continues to grow, so will availability of appropriate SON specialty/elective courses to support student development of knowledge and expertise for research in the area. In the Nursing 819, Research Rotation Course (2, 3 or 5 credits), students are introduced to active research programs. Each student is assigned a research mentor. The mentor actively engages the student in his/her current research. The student in collaboration with the mentor develops a contract which identifies the area(s) of research the student will pursue. Students may participate in activities such as literature review, measurement, data collection, statistical analyses, manuscript preparation or proposal development. The forms for evaluating course and faculty are not applicable to this course and were not collected. Informal discussions at the end of each semester are conducted with the students. The research rotation course is periodically reviewed by the PhD Curriculum Subcommittee and changes implemented.

The research practica, Nursing 818, are independently arranged research experiences in which the student actively engages in research activities under the mentorship of a faculty member. These activities are negotiated between student and faculty and relate to either an aspect of the faculty member's research related to the student's research area, or to the student's research area. Six credits of research practica experiences, again using the 3 hours/credit/week formula, are required with at least three of these being with the student's research advisor. The research practica are not formally evaluated since each is such a unique experience. The practica allow the students to gain the needed skills expertise to conduct their dissertations.

2) Preliminary and Comprehensive Examinations – These examinations are regularly reviewed to identify if changes are needed either in procedure or format. The basic preliminary examination format has not changed since 2002. The comprehensive examination format was changed in January 2008. The comprehensive exam no longer includes a written article critique

and study redesign. The PhD Curriculum SubCommittee voted to approve these changes and to eliminate this portion of the comprehensive examination because it was redundant to course work. The other change is that after the written exam, the student is given a printed copy of his/her answers. This allows the student to review the written exam before the oral examination. These changes were brought before the faculty teaching in the PhD program in January 2008 and they supported the changes.

3) Elective Courses – These include courses offered at the SON including: Nursing 820 – Meta Analysis (3 credits); Nursing 826 – Structural Equation Modeling in Health Care Research (3 credits); Nursing 830 Working with Large Health Care Databases (2 credits); Nursing 836 – Judgment and Decision Making in Nursing Informatics (3 credits); Nursing 837 – Nursing Informatics in Quality of Care; Nursing 817 – Longitudinal Designs in Health Care Research (3 credits). These courses have been taught and well-received by SON PhD students as well as students from other doctoral programs on campus. The syllabi of other electives taken recently by PhD students are kept in a binder and will be available for the external review.

4) Research and Statistics Test – This test is given to accepted students upon entry to the PhD program to validate the student’s level of current knowledge. This exam is regularly reviewed and updated. The test is designed to encourage review of content that students may not have used for some time. If the student does poorly on the exam, a plan for remediation is developed. The purpose of the test is proactive in assuring student’s ability to do well in doctoral level research courses.

5) Curriculum Revision – Other changes to the curriculum since the last self study were the elimination of Nursing 812 – Seminar in Nursing Measurement as a required course. The PhD Curriculum Subcommittee evaluated the course and determined that it did not contain enough content to warrant it being offered as a required course. Also, as a required course Nursing 851 –

Analysis for Experimental Nursing Research Designs has changed from 2 credits to 3 credits.

This change was necessary because of the amount of content in the course warranted more credit hours.

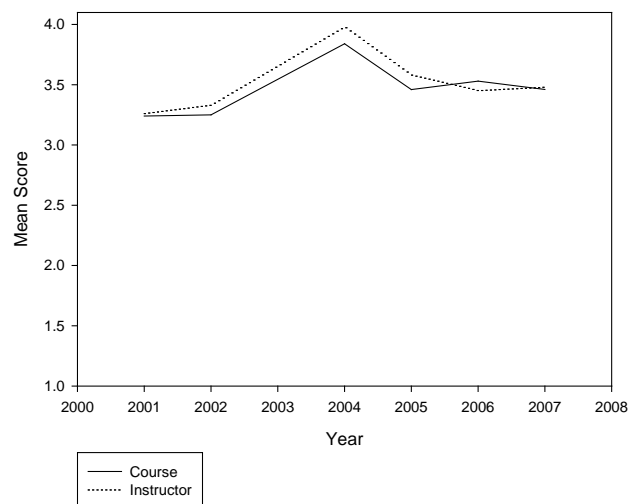
Student Course Evaluations

Near the end of each semester, students are asked to evaluate the course and faculty for each of the nursing courses in which they are enrolled. The procedure for administering the course evaluations is standardized, and the same items are used for every course. The data shown in the next section include student evaluations of the current courses in years 2001 to 2007. The data for Spring 2008 were not available when this document was written, but are available for the external review. In the Spring semester of 2007, the four-point Likert scale for student evaluations was replaced with a 5-point scale. We have converted all scores to a 4-point scale to facilitate comparison. Where more than one faculty taught a course, we have provided the overall mean for all faculty.

Core Courses

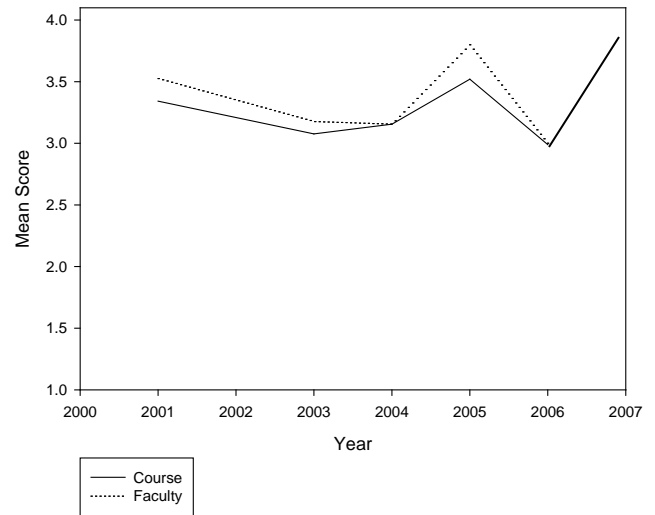
Two courses address the theoretical and conceptual basis for nursing practice and are taken in the first year of study. Nursing 840 – Philosophy of Science and Development of Theory replaced Nursing 805 in Fall of 2002. Nursing 840 emphasizes the nature of, knowledge of, and theory in the various scientific disciplines

Nursing 840: Philosophy of Science and Development of Theory



that provide the basis for nursing practice. The major shift between the two courses is the elimination of analyzing nursing theory and movement to the broader view of competing philosophical view points about the nature of scientific knowledge. Faculty evaluations ranged from 3.21 to 3.98 in years 2001-2007, and closely paralleled course evaluations. We have paired senior faculty with more junior faculty in recent years to afford these new faculty the opportunity to receive mentoring in doctoral teaching as well as to strengthen their own skills in theory

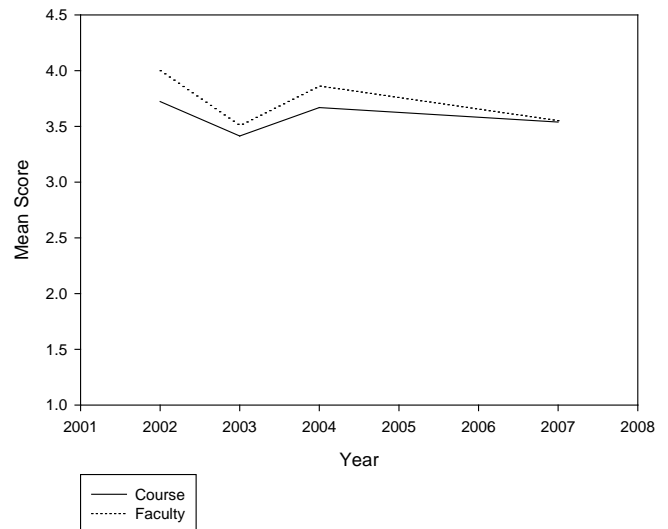
Nursing 841: Theory and Conceptualization in Nursing Science



development. This has been well received by students. Nursing 841 – Theory and Conceptualization in Nursing Science, the second theory course, is taken in the Spring semester of the first year. It replaced Nursing 801 – Conceptual Basis for Nursing when the curriculum changed

in 2002. Both courses focus on theory and conceptualization in nursing science. The major difference is the emphasis on development of research focus. The students analyze theory and concepts in their own research interest area. The students synthesize literature on a topic that they intend to do their dissertation research.

Nursing 850: Experimental Nursing Research Designs



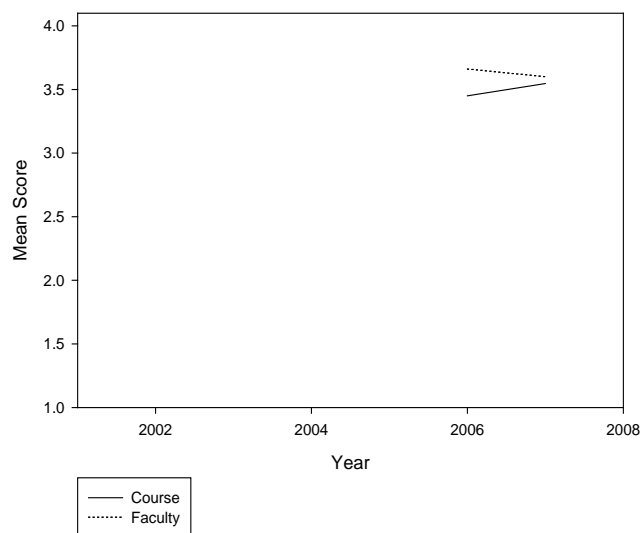
Throughout the semester, the students focus on editing and refining their topic and several produced manuscripts ready to be submitted for publication. In this course, there has been more variability in student satisfaction. Students gave

excellent evaluations in 2005 and less favorable evaluations in 2006. The number of student evaluations varied considerably between the two years. In 2005, most students returned their evaluations and in 2006 only 55% returned their evaluations. We responded by taking a critical look at the syllabus and assignments for the course. In 2007 with most of the students returning evaluations the course and faculty evaluation were excellent. The evaluations for the Spring of 2008 will be available at the time of the external review and we will share the results of our changes. The two theory courses prepare the students for the preliminary examinations exceptionally well with only two students failing the theory portion of the exam. One successfully retook the exam and the other two withdrew from the program. This validates the overall integrity of the core theory courses to prepare students to progress into the more advanced content in the second year of the program.

In addition to the two theory courses, there are 17 credits of research and statistics content that are taken in the first and second years of the program. Nursing 850 - Experimental Nursing Research Designs and 851 - Analysis for Experimental Nursing Designs both focus on experimental designs in nursing research, with the former emphasizing the relationship between theory and design, and the latter providing analytic methods. These courses are taken concurrently. Nursing 850 and 851 replaced 813 – Design of Nursing Research I after the curriculum change.

We increased the credits from 3 to 6 to reflect the increased depth of experimental research designs and analysis. The assignments encompass all assignments in 813 but expand the amount

Nursing 851: Analysis for Experimental Nursing Research Designs



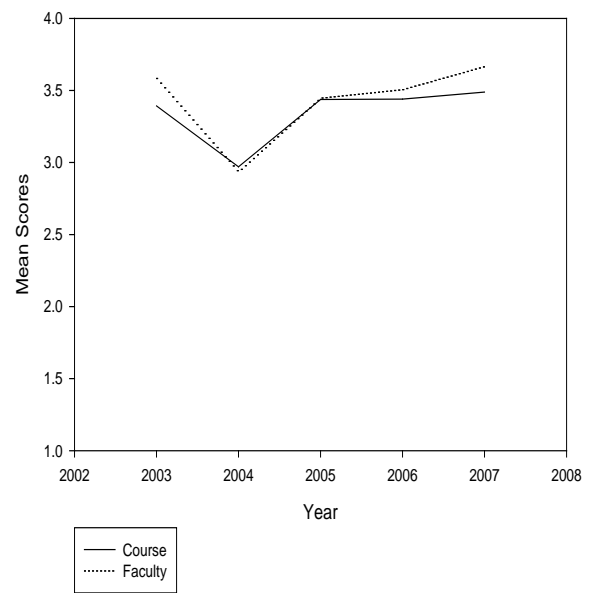
of homework assignments and include in class testing. Student evaluations of this course have been consistently high, and we attribute this to having one consistently strong faculty member that teaches the course every semester. We are missing several years of course evaluations for the Analysis course that accompanies N850, however the same instructor teaches both courses, thus the appraisal of the morning course may reflect the entire day's content.

Also in the first year of study, students have 2 required courses in non-experimental research designs and methods for analysis. In 2002, Nursing 814 – Design of Nursing Research and Nursing 815 – Qualitative Methods in Nursing Research were combined into Nursing 852 – Non-experimental Research Designs and 853 – Analysis for Non-Experimental Nursing Research Designs.

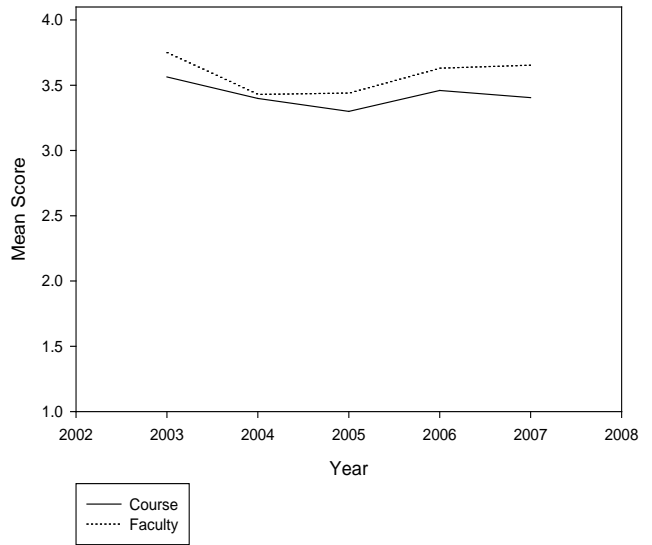
The first course in this series, Nursing 852 focuses on non-experimental research design including: descriptive, cross-sectional, survey, prospective, retrospective, exploratory and qualitative. In this course, we encountered a period of dissatisfaction

with both the course and faculty in the Spring of 2004, and we addressed this issue by evaluating the course requirements and faculty. Since that time student evaluations have returned to a satisfactory level. The companion analysis course has remained at a level of high student satisfaction. Nursing 853 focuses on 1) the analytical approaches in epidemiological, qualitative, and survey research and 2) approaches to data reduction and data summary in epidemiological, qualitative and survey research.

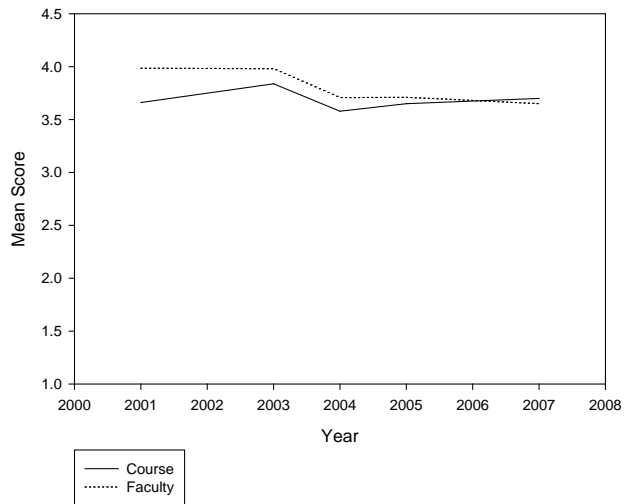
Nursing 852: Non-experimental Nursing Research Designs



The courses are split with 8 weeks on non-experimental research design and analysis and 8 weeks on qualitative research design and analysis. In response to student comments and faculty input, the PhD Curriculum Sub-Committee reviewed these courses and has revised them. There will now be a 3 credit non-experimental research course and a 3 credit qualitative research course beginning in Spring 2009. Nursing 850/851 and 852/853 provide the basic research design and analysis content for the research questions on the Preliminary exam. From 2005-2007 eight students have failed the research portion of the exam on their first attempt. On the retake exam five students passed, one failed and two withdrew from the program. Those students who fail the retake exam are asked to leave the program. Those passing on the retake have done considerable review and all have successfully continued in the program. Beginning in the second year, the students take additional core courses that provide specific skills in measurement and multivariate statistics.



Nursing 811: Measurement of Nursing Phenomena

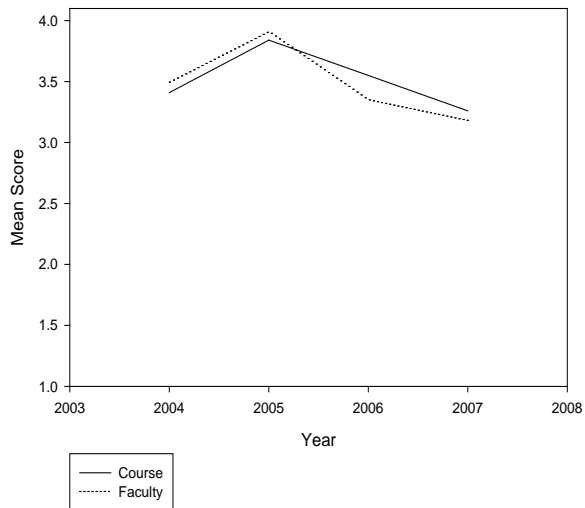


Nursing 811- Measurement of Nursing Phenomena, has shown a high level of student satisfaction as a course, with consistent high scores for the single instructor who has taught the course over this period.

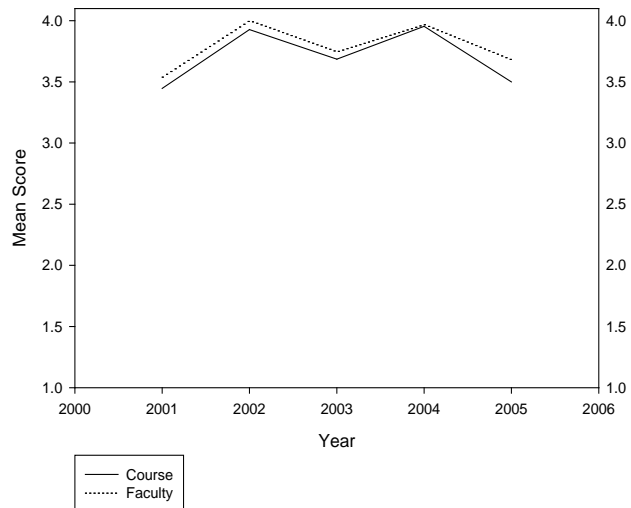
In 2006, we were saddened to note the retirement of a valued faculty member, whose multivariate statistics course was a staple of the program. Nursing 816 – Multivariate Analysis in Health Care Research, is a course taken not only by nursing students, but is frequented by social work, pharmacy, and gerontologic students. The new instructor showed a satisfactory performance in the 2006 course evaluations, but a dip in student faculty evaluations. In 2007, the course and faculty evaluations did not improve. The student class size has increased since 2004-2005 increasing the workload for this course. In 2008, an additional faculty member has been assigned to the course and course workload has been scrutinized.

Since the 2002 review, we have changed the second measurement course Nursing 812 – Seminar in Nursing Measurement from a required course to an elective. Nursing 812 was evaluated by the PhD Curriculum Subcommittee and the course did not have

Nursing 816: Multivariate Analysis in Health Care Research



Nursing 812: Seminar in Nursing Measurement



enough critical content to continue as a required course. It was approved as an elective.

Research Rotations and Research Practica

In the revised PhD curriculum, required and elective research experiences provide students with focused and in-depth opportunities to work with faculty mentors with active research programs on continuing projects and in the design of new projects. Research rotations and seminars connect students to active faculty researchers, ideally facilitating an earlier identification of a research area.

Research rotations with mentors who have active research programs are individually arranged for each student. Students are matched with mentors in the SON, other UMB programs and occasionally with mentors out of state. Dr. Resnick, a professor at the SON whose research expertise is gerontological nursing, has had students almost every semester for research rotation. Tinagene Pia Inguito, Elizabeth Galik, Ingrid Pretzor-Aboff and Valerie Rogers did research rotations with Dr. Resnick and she chaired three of these students' dissertations. Luke Michaelson has taken all his research rotations with Dr. Chris Ward at the SON, learning microscopy techniques. Another unique and successful pairing was Charlotte Seckman (Informatics) with Dr. Jacob Segull at UMMS. Nancy Ames learned laboratory techniques from Dr. Hart at the Dental Institute. Nancy also worked with Dr. Joshi an infectious disease specialist at Shock Trauma and was co-author of a paper with him. Sherry Goertz was mentored by Dr. Seth Himnulhock and Dr. Lisa Dixon at the SOM in Schizophrenia research. A final example is Myra Woolery who went to St. Jude's Children's Hospital in Memphis, Tennessee to be mentored in Pediatric Nursing research by Pamela Hinds, PhD, RN, FAAN. The research rotations are a unique opportunity for our students to be mentored by experts in their areas of interest.

Research practica provide a targeted experience to advance the student’s individual research capability. Course assignments and research experiences cultivate research skills, including problem conceptualization, design, grant application and proposal writing, statistical analysis, and manuscript preparation. These changes further enhance the strength of the PhD program, achieve the stated goals of the revisions, and better align theoretical content with research experiences to optimize the achievement of terminal objectives of the program. Sample plans of study for full and part-time study follow as Tables VIII.1 and VIII.2 and VIII.3.

Table VIII.1: Sample Full-Time Plan of Study – PhD Program

This plan of study utilizes summer sessions for elective credits and dissertation research. The student not wishing to study during summer sessions would need to increase the credit load each semester or prolong the program of study. Students who seek to complete the program in 3 years must begin dissertation work and take heavier credit loads in Year Two.

(Note: All students required to attend a research seminar every other week during fall and spring semesters (7-8 seminars/semester) through admission to candidacy; optional after that point)

<u>Fall - Year One</u>		<u>Credits</u>
NURS 840	Philosophy of Science and Development of Theory	3
NURS 850	Experimental Nursing Research Designs	3
NURS 851	Analysis for Experimental Nursing Research Designs	<u>3</u>
		9
<u>Spring - Year One</u>		
NURS 841	Theory and Conceptualization in Nursing Science	3
NURS 852	Non-Experimental Nursing Research Designs	3
NURS 853	Analysis for Non-Experimental Nursing Research Designs	2
NURS 819	Research Rotation *	<u>2</u>
		10
<u>Summer - Year One</u>		
NURS 819	Research Rotation *	3
	Specialty Elective	<u>3</u>
		6

Fall-Year Two

(NOTE: Second Year Courses Taken Only After Passing the Preliminary Examination)

NURS 811	Measurement of Nursing Phenomena	3
NURS 816	Multivariate Analysis in Nursing Research	3
NURS 818	Research Practicum I**	<u>3</u>
		9

Spring –Year Two

	Specialty Elective	3
NURS 818	Research Practicum II**	3
	Specialty Elective**	<u>3</u>
		9

Summer -Year Two

	Specialty Elective**	3
--	----------------------	---

Fall - Year Three

	Specialty Elective**	3
--	----------------------	---

Dissertation Credits

Continuing - Spring - Year 3 and Following

NURS 899 Dissertation Credits (Minimum total credits - 12)	<u>12</u>
--	-----------

(NOTE: Continuous Enrollment Required)

TOTAL 61

***Research Rotation I required for total of 5 credits for all students - requires 15 hours/week including conferences as scheduled. An additional Research Rotation is highly recommended for all students up to a maximum of 10 credits of NURS 819**

**** 6 credits of NURS 818 required for all students; 3 of these credits are to be as a research practicum (9 hours/week) with research advisor**

Table VIII.2: Sample Part-Time Plan of Study – PhD Program

This sample plan offers one way a part-time student can progress through the program and complete the full-time residency requirement during the third year in the program. Summer sessions are utilized; a decision not to study during the summer would prolong the program of study. Careful attention must be given to pre- and co-requisites.

(Note: All students required to attend a research seminar every other week during fall and spring semesters (7-8 seminars/semester) through admission to candidacy; optional after that point)

<u>Fall - Year One</u>		<u>Credits</u>
NURS 840	Philosophy of Science and Development of Theory	3
<u>Spring - Year One</u>		
NURS 841	Theory and Conceptualization in Nursing Science	3
	Specialty Elective	3
<u>Summer - Year One</u>		
	Specialty Elective	3
<u>Fall-Year Two</u>		
NURS 850	Experimental Nursing Research Designs	3
NURS 851	Analysis for Experimental Nursing Research Designs	3
<u>Spring - Year Two</u>		
NURS 852	Non-Experimental Nursing Research Designs	3
NURS 853	Analysis for Non-Experimental Nursing Research Designs	2
NURS 819	Research Rotation*	2
<u>Summer - Year Two</u>		
NURS 819	Research Rotation*	3
	Specialty Elective	3
Fall - Year Three - (Designed as the Full Time 2 consecutive semester residency)		
(NOTE: Second Year Courses Taken Only After Passing the Preliminary Examination)		
NURS 811	Measurement of Nursing Phenomena	3
NURS 816	Multivariate Analysis in Nursing Research	3
	Research Practicum I**	<u>3</u>
		9
<u>Spring - Year Three</u>		
	Specialty Elective	3
	Specialty Elective	3
NURS 818	Research Practicum II***	<u>3</u>
		9
<u>Summer - Year Three</u>		
NURS 899	Dissertation Credits and	

Continuing - Fall - Year 4 and Following

Dissertation Credits (Minimum total credits - 12) 12

(NOTE: Continuous Enrollment Required) TOTAL 61

***Research Rotation I required for total of 5 credits for all students - requires 15 hours/week including conferences as scheduled, An additional Research Rotation is highly recommended for all students up to a maximum of 10 credits NURS 819**

**** 6 credits of NURS 818 required for all students; 3 of these credits are to be as a research practicum (9 hours/week) with research advisors.**

Table VIII.3: Sample Full-Time Plan of Study – MBA/PhD Program

(Note: All students required to attend a research seminar every other week during fall and spring semesters (7-8 seminars/semester) through admission to candidacy; optional after that point)

<u>Fall – Year One</u>		<u>Credits</u>
NURS 840	Philosophy of Science and Development of Theory	3
NURS 850	Experimental Nursing Research Designs	3
NURS 851	Analysis for Experimental Nursing Research Designs	3
NURS 691	Organizational Theories: Applications to Health Services Management	<u>3</u>
		12
<u>Spring – Year One</u>		
NURS 841	Theory and Conceptualization in Nursing Science	3
NURS 852	Non-Experimental Nursing Research Designs	3
NURS 853	Analysis for Non-Experimental Nursing Research Designs	2
NURS 819	Research Rotation*	<u>2</u>
		10
<u>Summer – Year One</u>		
NURS 819	Research Rotation*	3
MGMT 506	Productions & Operations Management	<u>3</u>
		6
<u>Fall, Year Two</u>		
<u>(NOTE: Second Year Courses Taken Only After Passing the Preliminary Examination)</u>		
NURS 811	Measurement of Nursing Phenomena	3
NURS 816	Multivariate Analysis in Health Care Research	3
NURS 818	Research Practicum I*	<u>3</u>
		9
<u>Spring – Year Two</u>		
	Specialty Elective	3
NURS 818	Research Practicum II**	3
FIN 504	Financial Management	<u>3</u>
		9

Summer – Year Two

INNS 640	Information Systems & Technology	3
MKTG 504	Marketing Management	<u>3</u>
		6

Fall – Year Three

NURS 899	Dissertation	2
NURS 736	Information Technology in Nursing & Health Care	3
MGMT 506	Production and Operations Management	3
FIN 504	Financial Management	<u>3</u>
		11

Spring – Year Three

NURS 899	Dissertation	3
ECON 640	Global and Domestic Business Environment	3
MGMT 600	Leading with Integrity	<u>3</u>
		9

Fall – Year Four

NURS 899	Dissertation	3
MKTG 640	Organizational Creation and Growth	3
		<u>3</u>
		9

Spring – Year Four

NURS 899	Dissertation	4
	Business Elective	3
MGMT 700	Strategic Innovations and Renewal Business	<u>3</u>
		10

TOTAL 91

- * **Research Rotation I required for total of 5 credits for all students – requires 15 hours/week including conferences as scheduled. An additional Research Rotation is highly recommended for all students up to a maximum of 10 credits of NURS 819**
- ** **6 credits of NURS 818 required for all students; 3 of these credits are to be as a research practicum (9 hours/week) with research advisor**

Progression of Students

Policies governing the progression of students through the PhD Program, beginning with Admission through Graduation, are clearly described on pages 10-44 of the PhD Program Student Handbook that is found in Volume II of this self-study. Each student receives and signs for a copy of this handbook at orientation to the program. The handbook is revised annually to remain current. However, unless there is a program-wide change in policy, the policies in the handbook at the time of the student's entry to the program are those which govern student

progression in the program. Since SON PhD students are also Graduate School students, all policies are consistent with those of the UMB Graduate School.

Annually, each student and his or her advisor complete an end-of –year appraisal that documents student performance and progression for the year. The PhD Curriculum Subcommittee and its related Admissions Progressions Advisory Group regularly review progression of all students in collaboration with the Assistant Dean of the PhD Program and make recommendations regarding actions in cases of progression problems. Other mileposts in progression include the Preliminary Examination that is taken at the end of the first year of full-time study. This examination is designed to be diagnostic of the student’s ability to use and synthesize knowledge gained in core courses. Passing of this examination is necessary for students to progress to second year courses that will focus more directly on the dissertation research area. Upon completion of the 34 credits of required courses and a sufficient number of elective courses to total a minimum of 42 credits, students are eligible to take the Comprehensive Examination which evaluates mastery of all course work as well as readiness to proceed with the dissertation. The specific policies relating to the Preliminary and Comprehensive Examination, including criteria for grading, are found on pages 25-32 of the PhD Program Student Handbook.

Role Preparation

The major focus of the PhD Program is on developing the student for roles in research and scholarship. In addition, opportunities are available for students to have exposure to other roles while in the program such as those identified in the AACN 2001 *Indicators of Quality in Research-Focused Doctoral Programs* including nursing leader, scholarly practitioner, nurse scientist, and/or educator.

A particular concern within the nursing profession is the extent to which efforts are being made to prepare PhD graduates for academic roles. This is true as the critical shortage of nurses

in clinical settings is accompanied by a beginning shortage of doctorally prepared nurses available for roles as educators. Given the purpose of preparing scholars and researchers, the SON's PhD program recognizes the seriousness of this situation and the need for preparing nursing faculty for the future and has encouraged students to complete the Teaching and Learning in Nursing and Health Professions as part of their elective courses which is described next.

Institute for Education in Nursing and Health Professions

The University of Maryland School of Nursing (UMSON) took responsibility to begin to address the faculty shortage issue in 2004 with the conceptualization of the Institute for Educators in Nursing and Health Professions. Since its inception, a core initiative of the Institute is the Teaching and Learning in Nursing and Health Professions Certificate Program directed by Drs. Louis Jenkins and Carol O'Neil.

Assisted by Federal earmark funding, this program is a 12-credit certificate program in Teaching in Nursing and Health Professions. Courses include: 1) Theoretical Foundations of Teaching and Learning (2 credit course) in which the student examines a variety of learning theories, learning styles, methods for assessing learning needs; 2) Instructional Strategies and Assessment of Learning (4 credits); and 3) an individualized practicum in teaching (3 credits) where students develop learning contracts to pursue specific as well as course objectives while working with a preceptor in the learner group and environment in which they anticipate teaching. Students choose an elective course (3 credits) related to their teaching needs. Currently, courses are offered primarily in the online learning environment. The courses are designed to be fully interprofessional as the focus is teaching in practice disciplines. The first cohort of students completed the Certificate Program in December, 2004. The following PhD students have

completed the Teaching Certificate: Dawn Foster, Maranda Jackson and Cheryl Robertson.

Three students are currently in the process of completion and five have taken at least one course.

Technological Fluency

PhD students build on knowledge and skills in technological fluency attained at previous educational levels. PhD students are expected to possess a level of technological fluency upon entry to the program. SPSS (Statistical Package for the Social Sciences) workshops are held in the first weeks of class. There are two, 8 hour sessions. The students review use of SPSS to prepare them for their coursework, data file manipulation and statistical analysis. Students learn to use SPSS SYNTAX.

During the PhD orientation, special sessions are offered to acquaint students with: 1) using the campus email system upon which each student has an account, accessing that account on campus and from remote (e.g. home) locations; 2) conducting electronic database searches from campus and remote locations; 3) accessing electronic reserve materials from the Health Science and Human Service Library.

In addition, PhD students do frequent in-class presentations. These presentations are done in PowerPoint and typically demonstrate a high level of proficiency and creativity in the use of the software. Additional experiences gained in research experiences with faculty help in further assuring the technological fluency of students and graduates. This fluency is reflective of critical skills needed by contemporary scholars and researchers to accomplish the various activities required of the role.

Preliminary Examinations

The Preliminary Examination taken at the end of the first year of doctoral study is a written examination. The examination is administered to the group of eligible students in a computer laboratory on one full day or two half-day sessions (depending on the preference of the

majority of students) and written using Microsoft Word. The students open a formatted file for their document which contains the “code name” they select to use for the examination; this process assures that members of the Preliminary Examination Committee reading and grading the examinations are blind to the identity of the student writing.

Comprehensive Examination

The Comprehensive Examination is taken when the student has attained at least 42 credits toward the PhD degree, completed all of the required courses as well as a substantial number of specialty elective courses, and is intended to confirm the student’s readiness to proceed with dissertation research. There is a written component of the examination which the student may complete in one full day or two half-days. Since the questions are specific to the area of expertise being developed by the individual student, the Comprehensive Examination is scheduled individually through the Assistant Dean of the PhD Program’s Office. Each examinee is provided appropriate office space with a computer.

Relationship to AACN Quality Indicators (2001)

When considered within the context of the AACN Quality Indicators, curricula of the SON PhD program is consistent with the research mission of UMB as the parent institution, the discipline of nursing, as well as the PhD degree awarded by the Graduate School. The programs of study contain core and related course content consistent with the purpose and goals for the program. Of particular note is the strength of the research and statistics component. Student development related to a variety of roles as a researcher and scholar across multiple settings is fostered. The research immersion experiences made possible with the research rotations and research practica are specifically focused on early and targeted development of the knowledge and skills required for development of a career research program.

Reference:

American Association of Colleges of Nursing. (November 2001). *Indicators of Quality in Research-Focused Doctoral Programs in Nursing*, Washington, D.C.

Section II - University of Maryland Baltimore

Introduction

Since our 2002 report, major changes have occurred at the UMB campus. A 10 acre Biopark is currently under development and is described on page **. The campus Institutional Review Board has expanded and kept pace with increasing numbers of research proposals and projects. The centers of research excellence have increased from six to nine, adding the Center for Mucosal Research Biology, the Center for Vascular Inflammatory Diseases and Center for Nanomedicine and Cellular Delivery. These centers are described on pages ** - **.

The 2002 external review suggested an increase in support services for international students. The new support services are the Office of International Services and the Writing Center described in this section on page **. Also, opening in 2008 is a new campus center with enhanced wellness, recreation and fitness programming.

Section III – The School of Nursing (SON)

Introduction

Section III, The School of Nursing, includes an overview of the current enrollment in all programs, the Office of Professional Development, Mission of the school, administrative infrastructure, Office of Research, general clinical research centers, Office of Information Technology and Education and Learning Technologies and the Living History Museum.

The 2002 external review suggested developing a plan to increase leadership in the research enterprise. In 2002, the Research staff consisted of the Research Dean, a statistician and secretary. Today, under the leadership of the Associate Dean of Research, Dr. Barbara Smith, the budget has increased from \$270,999 in 2003 to \$788,343 in 2008. The staff now includes an Assistant Dean, newly appointed in August 2008 Dr. Deborah Sherman, research specialist, two research administrators, a research supervisor, a business service specialist, administrative assistant, a nurse coordinator and a graduate research assistant. Our NIH ranking in research funding has improved from 58th in 2005 to 31st in 2007. The newly imitated Research Intensive Faculty Program (RIF) allows new researchers to focus on their research. Since 2002, 21 research focused faculty were hired. These changes in the Office of Research are described on pages **.

Section IV – Mission

Introduction

Section IV describes the missions of UMB, SON and the PhD program. The Centers of Excellence; Work and Health Research Center, the two developing centers, Palliative Care Research and Disorders of Neuroregulatory Function and one proposed center, Cardiovascular Health and Aging are described on Page ***. The centers are critical to the SON's commitment to increase leadership in the research enterprise. The centers also have allowed us to recruit students whose interest matches the centers.

Section V – PhD Program

Introduction

Section V contains detailed description of the current PhD program. The 2002 external review noted the program was strong and productive. New avenues to increase communication have been initiated since 2002. Faculty forums are held twice a year, an Admissions and Progressions Advisory Group has been established and PhD student town meetings with Dean Janet Allan twice a year. These changes have been well received by students and faculty.

Section VI – Faculty

Introduction

Section VI, Faculty, contains details about the graduate faculty and their roles in the PhD program. Specific details of the extramural funding obtained by faculty and students are included. Faculty research and scholarship including interdisciplinary collaboration is described. Faculty research and scholarship including interdisciplinary collaboration is described. Faculty roles in advisement and teaching conclude this section. The 2002 review suggested increasing the number of faculty with extramural funded programs of research. Recent progress includes: Lynn Oswald's recently (7/08) 3 million dollar, 5 year RO1 to study ***** , Susan Dorsey's RO1 to study BDNF Signal Strength Modulates NRTI Induced Allodynia in the Mouse and Deborah McGuire's RO1 to study Pain Assessment in Non-Communicative Palliative Care Patient.

Section VII – Students

Introduction

Section VII, students describes the current PhD students. In the 2002 external review, the diversity of the student body, student satisfaction with the program and student understanding of relevant problems in nursing science were noted as strengths. The reviewers also suggested a higher cut off for the GRE scores. At the time of the last review the average verbal score was 473 and average quantitative score was 521 in years 1997-2001. Currently, the average verbal score is 500 and average quantitative score is 544 for years 2003-2008. Details of the current GRE scores are on page **.

Other major improvements included in this section are the increase in financial support for students, increasing number of full-time students, the newly appointed PhD Admissions and Progression Advisory Group, the manuscript option dissertation and the accomplishments of the students. This section documents the quality of the students and the progress since the 2002 review.

Section IX – Outcome Indicators

Introduction

Section IX, Outcome Indicators includes a detailed description of the PhD program assessment results, lists of all Dissertation titles, current roles and achievements of graduates and average time to graduation. Since our 2002 report, the productivity of our 232 graduates has remained outstanding. The average years to complete the PhD program have decreased from 7.14 years in 1998 to 3.3 years in 2004. The retention of students in the program is consistent and satisfactory.

Section X – Summary and Future Plans

Introduction

Section X, summary and Future Plans, contains an overview of the strengths of the PhD program, the challenges and plans for the future. A summary of the 2002 external review is included