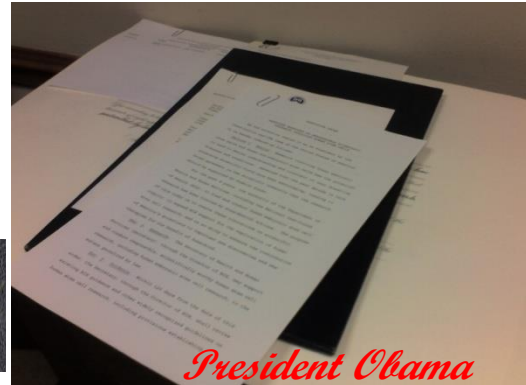
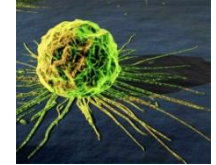
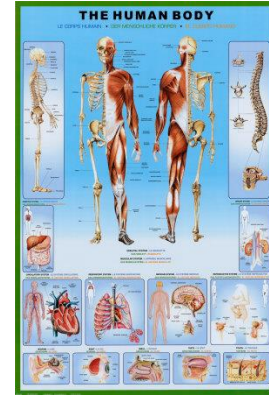
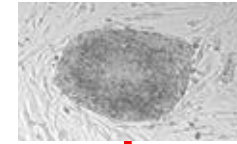
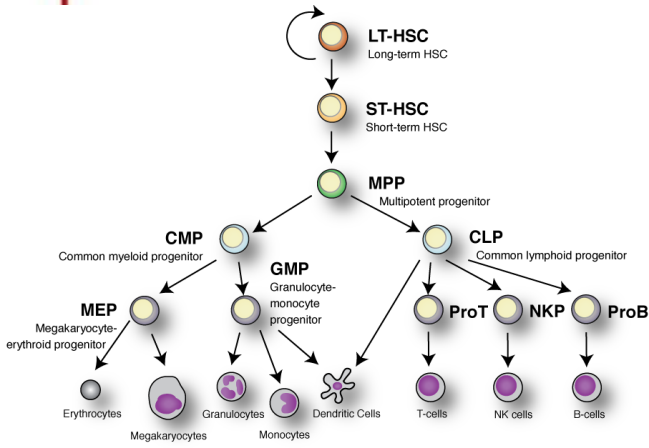






UM Stem Cell Center 2016

Curt Civin, MD
MSCRF) Information Session
July 22, 2016



Bench   **Bedside**



Center for Stem Cell Biology & Regenerative Medicine

- **Mission:**
 - Foster collaborative, interdisciplinary research in stem cell biology and regenerative medicine
- **The Center has over 80 faculty members, mainly from across the SOM:**
 - Some members from SOP, SOD, UMCP, UMBC, industry, other universities
- **Research involves all kinds of stem cells**
- **Most projects are at the basic or translational stages**
- **Some groups are relatively close to clinical trials in regenerative medicine or diagnostics, e.g.:**
 - S. Kaushal: Endogenous cardiac stem cells for congenital heart failure
 - C. Civin: Gene-edited hematopoietic stem cells for sickle cell anemia
 - R. Feldman: Induced pluripotent stem cell models to screen for new drugs for Gauchers Disease, Parkinsons Disease
 - M. Trudeau: Induced pluripotent stem cell models to screen novel drugs for potential cardiac arrhythmogenicity (1st or 2nd most common cause of clinical trials failures of novel drugs)



Stem Cell Center Working Groups

Stem Cell Center Working Group	Leaders
Cardiovascular stem cells	Terry Rogers PhD; Matthew Trudeau PhD
Hematopoietic and cancer stem cells	Arnob Banerjee MD PhD; Tami Kingsbury PhD
Neural stem cells	Marta Lipinski PhD; Michael Nestor PhD
Mesenchymal stem cells	Joseph Stains PhD; Michal Zalzman PhD



Stem Cell Center Events

- The Center held its popular **Annual Retreat** on October 29 2015 with Valina Dawson (JHMI) and Harry Malech (NHLBI) as terrific keynote speakers.
- The Center also continued its **3pm Thursday meetings**, often arranged in part by a Working Group. In FY2016, these Thursday meetings were held once-twice monthly for 1 of 3 purposes:
 - Stem cell research grant application critique sessions, providing advice to investigators for submission of new and revised research grants (mainly Summer, Fall),
 - Stem cell research presentations by UMSOM faculty,
 - Stem cell research seminars by invited external speakers, generally hosted by a Working Group and funded by the Center.



Stem Cell Center Project Mentoring

Purpose:

- Maximize grant application successes

Concept:

- Internal critical scientific pre-review of grant applications from faculty

Mechanism:

- Reviewees provide a Specific Aims page and 3 suggested faculty Reviewers to Working Group Leaders and Center Director
- Reviewers provide written bullet critiques
- Subsequent meetings of reviewees-reviewers for personalized follow-up discussion and ongoing advising on the grant application as it progresses

Feedback:

- Very helpful
- Need to formalize this process and scale it up
- Enlarge focus beyond MSCRF grants to NIH, etc.



2016 MSCRF/TEDCO grants awarded to UM

PI	Grant type	Grant title (amount)
Tami Kingsbury PhD	Exploratory	Eyes absent-1 (EYA-1) as a novel hematopoietic stem-progenitor cell regulator (\$230K over 2 yrs)
Chinmoy Sarkar PhD	Exploratory	Neuronal differentiation of iPS cells by autophagy induction in oxidative environment to treat TBI (\$230K over 2 yrs)
TheraCord Corp - Tami Kingsbury PhD	Investigator-Initiated	TheraCord Cord Blood Collection Device (\$270K over 2 yrs)
Rebecca Fawcett PhD (Steven Bernstein lab)	Postdoctoral Fellow	The role of human optic nerve stem cells in glaucoma and optic nerve disease (\$110K over 2 yrs)



Active MSCRF/TEDCO grants to UM PIs (as of June 30 2016)

PI	Grant type	Annual direct costs	Total costs (all years)	Funding dates
Civin, Curt	Investigator-Initiated	\$200,000	\$690,000	6/30/2014-6/29/2017
Civin/Fisher	Investigator-Initiated	\$200,000	\$690,000	6/30/2015-6/29/2018
Feldman, Ricardo	Investigator-Initiated	\$200,000	\$690,000	6/30/2015-6/29/2018
Kaetzel, David	Investigator-Initiated	\$200,000	\$690,000	6/30/2015-6/29/2018
Kingsbury/TheraCord	Investigator-Initiated	\$117,359	\$270,000	6/30/2016-6/29/2018
Kingsbury, Tami	Exploratory	\$100,000	\$230,000	6/30/2016-6/29/2018
Gong, Da-Wei	Exploratory	\$100,000	\$230,000	6/30/2015-6/29/2017
Sarkar, Chinmoy	Exploratory	\$100,000	\$230,000	6/30/2016-6/30/2018
Fawcett, Rebecca	Postdoctoral Fellow	\$47,826	\$110,000	6/30/2016-6/29/2018
Sharma, Sudhish	Postdoctoral Fellow	\$47,826	\$110,000	6/30/2015-6/29/2017
Datla, Srinivasa	Postdoctoral Fellow	\$47,826	\$110,000	6/30/2015-6/29/2017
TOTAL		\$1,360,837	\$3,820,000	