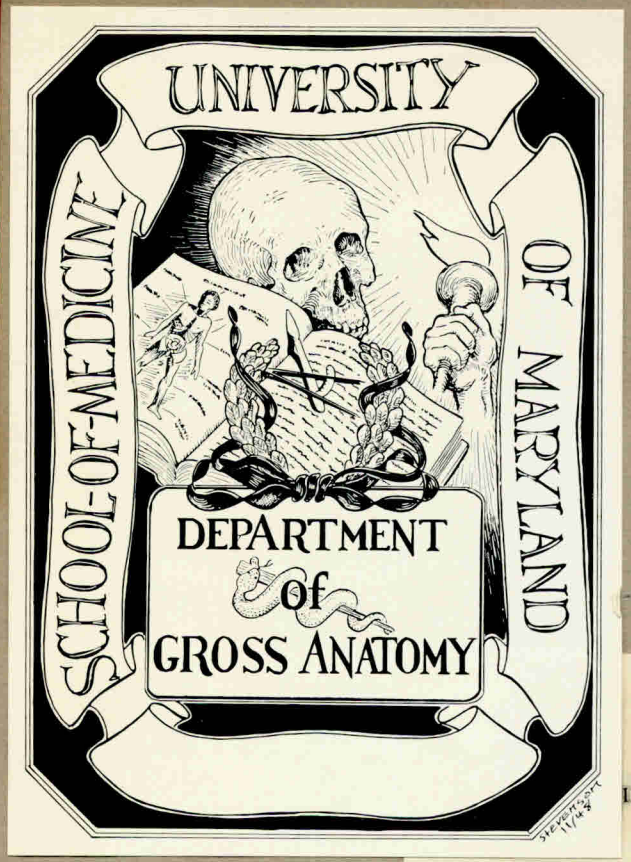

IC WOOD JONES.

E. W. Bligh

BLIGH & Co.,
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London, W.C. 2.

Medical and Scientific Literature

From the Dictionary of National Biography.
James Douglas. by Sir Norman Moore.

"His description of the Peritoneum ... beautifully printed by Roberts, in the medical region of Warwick Lane, is dedicated to Dr. Mead, who had reintroduced the custom of tapping the Peritoneum in dropsy of the abdomen. Douglas instituted the method of demonstrating the relations of the Peritoneum by removing it as a whole with the contained viscera from the body.

.. He describes a particular fold which always goes by his name (page 37). Douglas supported all his statements by carefully dissected anatomical preparations which he preserved in his house and allowed anyone to see. Freind, writing at the time, says of them ('History of Physick', 1725, 1. 172): 'One ought to see the curious preparations of that diligent and accurate anatomist, Dr. Douglas, who is the first who has given us any true idea of the Peritoneum'.

"Douglas's name is mentioned nearly

To Dr. Wood. Jones.
Adelaide.
from E.B..
London. Feb. 1920.

A DESCRIPTION OF THE *PERITONÆUM*,

And of that Part of the

MEMBRANA CELLULARIS

Which lies on its OUTSIDE.

WITH

An ACCOUNT of the True Situation of all the ABDOMINAL VISCERA, in reſpect of theſe two Membranes.

BY

Dr. *JAMES DOUGLAS*,

Phyſician in Extraordinary to HER MAJESTY, Honorary Fellow of the Royal College of Phyſicians, *London*, and Fellow of the Royal Society.

LONDON:

Printed for J. ROBERTS, near the *Oxford-Arms* in *Warwick-Lane*. M. DCC. XXX.

TO

Dr. *MEAD*,

Phyſician to His MAJESTY,

Fellow of the *College of Phyſicians*,

And of the *Royal Society*.

SIR,

IT is now many Years ſince I firſt had the Honour to diſcourſe with you concerning the

Situation and Structure of the *Peritonæum*; neither of which have, in my Judgment, been hitherto rightly deſcribed. When I began my Inquirys about this important Membrane, I had the Ætiology of ſeveral Diſeaſes principally in view; among which were Dropſys, Hernia's, and ſome other accidents peculiar to Women.

Concerning the true Method of treating the firſt of theſe Diſtempers, Dropſys, I am certain you have made many judicious and valuable Obſervations founded on a nice Examination of the diſeaſed parts after Death, with which whenever your Leiſure can permit

mit you to favour us, *Phyſick* muſt thereby receive as much benefit, as *Surgery* has for many Years paſt from your having invented the Method of drawing off the whole quantity of Water at once in an *Aſcites*, by which, *Tapping* grown almoſt into diſuſe, is now revived not only amongſt us, but alſo abroad; and the Operation of the *Paracenteſis*, is often found to be attended with Succeſs, and never with any ill Conſequences.

Upon the revival of the high Operation for the Stone, by my Brother the Surgeon, I likewiſe undertook to conſider the *Peritonæum*,

tonæum, with relation to the different Methods of Lithotomy, for the ſafe Performance of which, the Knowledge of this Membrane is of the utmoſt Importance. I have now a great Number of Obſervations on all theſe Subjects; but before I communicate any of them to the Publick, I think it neceſſary to premiſe, as the main Baſis and Foundation on which they ſtand, an exact Anatomical Deſcription of the *Peritonæum* in a natural State. This, Sir, is what I now take the Liberty to offer you: And after the advantagious Judgment which the late Learned Dr.

Friend, in a Diſcourſe written to you, has given of my Preparations, which he had ſeveral times examined with great Care and Satisfaction; I ſhall reckon all the Pains I have been at to improve this part of Anatomy, fully rewarded, if I can be ſo happy as to have your Approbation join'd to his. I am with the greateſt Reſpect,

SIR,

Your Moſt Obliged

Humble Servant,

JAMES DOUGLAS.

Auguſt 24, 1730,
Great Piazza,
Covent-Garden.

A

DESCRIPTION

OF THE

PERITONÆUM.

THE common Diviſion of the Abdominal Parts into *Containing* and *Contained*, may juſtly enough be retained. Among the Containing Parts may be reckoned the common Integuments, the oblique Muſcles, the *Cartilago Enſiformis*, falſe Ribs, and *Oſſa Ilium & Iſchii*: but I chuſe to confine that Appellation, in this place, to ſuch Parts only as immediately form the Cavity of the *Abdomen*; and theſe are either Muſcles or Bones. The Muſcles are the Diaphragm, *Muſculi Tranſverſales*, lower

Enumeration of the principal Parts of the Abdomen.

part of the *Muſculi Recti* which are not covered by the Tendons of thoſe laſt named, *Muſculi Iliaco-Pſoai* (as I term theſe two which have hitherto been deſcribed as double that Number, by the Names of *Pſoai* and *Iliaci Interni)* and laſtly the *Levator Ani*. The Bones are the *Vertebræ Lumborum*, *Os Sacrum*, and *Oſſa Pubis*.

THE Contained Parts are the *Peritonæum* ſurrounded by its Veſicular Subſtance, and thoſe which either lie within the Cavity of that Membrane, in the Senſe afterwards to be explained, or are ſituated without it, that is between it and the containing Parts; being all involved in the Veſicular Subſtance already mentioned. The principal Parts within the *Peritonæum*, are the *Omentum*, *Hepar*, *Veſicula Fellis*, *Ventriculus*, *Inteſtina*, *Lien*, *Pancreas*, *Vaſa Umbilicalia*, and Glands, eſpecially the *Glandulæ Meſentericæ*. The Parts without the *Peritonæum* being much more numerous, it will not be improper to divide them into the ſix following Claſſes: the Chyliferous Ducts, Glands, Blood Veſſels, Urinary Parts, Parts of Generation and Nerves. To the firſt belong the *Receptaculum*

lum Chyli, and lower portion of the *Ductus Thoracicus*. To the ſecond, the *Glandulæ Lumbares*, *Iliacæ* and others of the Lymphatick kind, together with the *Vaſa Lymphatica* belonging to them. The Blood Veſſels, which make the third Claſs, are the *Aorta*, *Vena Cava*, *Vaſa Emulgentia*, *Vaſa Spermatica*, *Rami Iliaci*, and the *Vena Azygos*. The Urinary Parts are the *Renes*, *Glandulæ Renales*, *Ureteres* and *Veſica Urinaria*. The Parts of Generation here concerned, are the *Glandula Proſtata*, *Veſiculæ Seminales*, and *Vaſa Deferentia*. In fine, among the Nerves may be reckoned the *Par Vagum*, *Intercoſtales*, *Spinales*, and their Ramifications.

I HAVE now a very conſiderable Number of Obſervations concerning all the Parts here mentioned, taken from Diſſection; but at this time, I propoſe only to explain what I have remarked about the *Peritonæum* and Veſicular Subſtance, together with a few general Hints concerning the Situation of the reſt, which, to me, appeared neceſſary for the Illuſtration of thoſe two which I principally treat of.

Anatomical Adminiſtration of the Peritonæum.

AN exact Knowledge of the *Peritonæum* or inveſting Membrane of the *Abdomen*, is highly neceſſary in the Practice both of Phyſick and Surgery; and the greateſt Part of the Miſtakes which Authors have fallen into in deſcribing it, ſeem, to me, to have proceeded from wrong or imperfect Methods of bringing it into view. I therefore contrived a new Anatomical Adminiſtration thereof, which muſt here be explained previouſly to any Part of my Deſcription. This in general conſiſts in taking the *Peritonæum* out of the Body intire; all the *Viſcera* that lie within it, ſtill remaining in its Cavity: and it is in the firſt place to be obſerved concerning the Manner of its adheſion to the containing Parts of the *Abdomen*, that this is every where by the Intervention of the abovementioned veſicular or cellulous and dilatable Subſtance, the Nature of which I ſhall afterwards particularly explain; and in proportion to the different Quantities of this Subſtance which lie between the external Surface of the *Peritonæum*, and the Muſcles and Bones, it is ſeparable from them with more or leſs eaſe: but I have frequently experienced that when due

due Care is taken, this may be done in all its Parts.

My Method has hitherto always been to begin on the foreſide of the *Abdomen*, where a Longitudinal Inciſion being made through the common Integuments and Muſcles, from a little above the *Cartilago Enſiformis* to the *Umbilicus*; I divide them obliquely from thence downwards all the way to the middle or lower part of the *Inguina* on each ſide; ſo that this triangular Portion, in the ſuperior Angle of which the *Umbilicus* is left, may conveniently be turned down to cover the *Pudenda* in both Sexes: in which reſpect, I think this way of opening the *Abdomen* much preferable, in moſt caſes, to the common one.

This being done, we find the *Peritonæum* cloſely connected to the Tendon of the *Tranſverſalis*, ſcarce any Veſicular Subſtance being perceivable by the naked Eye between them; and therefore a great deal of Nicety and Patience is required in dividing this Tendon from the *Peritonæum*, all the way to the fleſhy Bellys on each ſide. I next go on to the lower part of this foreſide, where the *Muſculi*

culi Recti come between the Tendon of the *Tranſverſalis* and *Peritonæum*; and here the Separation is eaſily made, becauſe the Quantity of Cellular Subſtance increaſes conſiderably all the way down to the *Os Pubis*. The Lateral Parts of this Membrane were next divided from the fleſhy Bellys of the *Tranſverſalis*, to which it adheres much cloſer than to the *Recti*, yet not ſo much as to cauſe any conſiderable difficulty in the Separation, there being a ſufficient Stock of Cellulous Subſtance to admit the Knife, when managed to Advantage. What has been ſaid about the Tranſverſe Muſcle, may likewiſe be applyed to the Body or thin part of the Diaphragm, to which I afterwards proceeded; for the *Peritonæum* adheres in the ſame manner to the *Centrum Nerveum* and fleſhy Circumference of that curious Muſcle, as to the tendinous and fleſhy Portions of the former; and the ſame Precautions are to be uſed in dividing it. From the body of the Diaphragm I continued the Diviſion down the whole backſide of the *Peritonæum*, which is done with the greateſt Eaſe, there being a large Quantity of Veſicular Subſtance between

tween it and the ſurrounding Parts, the chief of which are the *Appendices Muſculoſæ Diaphragmatis*, the poſteriour Parts of the *Tranſverſalis*, the *Iliaco-Pſoai* Muſcles, and the *Vertebræ* of the Loins: and the only thing I would here adviſe to be obſerved, is to divide this Cellular Subſtance cloſe to theſe Parts, in order afterwards to examine its Structure more particularly. Having carryed this Separation as low down as the *Pelvis*, I continued, with almoſt the ſame eaſe, to divide the large Quantities of Cellular Subſtance found here, from the remaining Parts of the *Iliaco-Pſoai* Muſcles, from the *Os Sacrum*, *Oſſa Pubis*, and *Levator Ani*; there being no other difficulty to be met with but what ariſes from the want of Room to apply the Knife, and the Danger of cutting or tearing ſome looſe thin Portions of the laſt named curious Muſcle.

Figure of the Peritonæum *within and out of the Body.*

THE Figure of the *Peritonæum*, while in the Body, exactly anſwers to that of the *Abdomen* and upper wide part of the *Pelvis*; and as it is a very pliable Membrane, it accommodates itſelf to all the changes of Figure in the containing Parts: but being in the manner juſt

juſt now related, taken out of the Body and laid on a Plain, it appeared pretty much of the Figure of a large Pear flattened on two oppoſite ſides. The middle of its upper Edge was depreſſed, and, as it were, pulled inwards by its adheſions to the Liver. The lateral Edges from thence downward to where the Spermatick Veſſels leave it, were pretty regularly Oval, and from thence it contracted towards an Angle, to which the lower part of the *Inteſtinum Rectum*, Bladder, and ſometimes the narrow membranous Part of the *Urethra*, and *Levator Ani*, being left ſticking as appendages, gave me a very curious and inſtructive View of the ſituation of all theſe Parts with reſpect to one another.

General Hiſtory of the Veſicular Subſtance.

I HAVE already often had occaſion to mention that veſicular or cellulous Subſtance, by the Intervention of which, the *Peritonæum* is connected to the neighbouring Parts; and as in taking that membranous Bag out of the Body, I deſignedly left the moſt conſiderable Parts of this Subſtance adhering to its outer Surface, the Nature thereof muſt next be inquired into. It is a Portion of that Congeries of membranous Cells continued over

over the whole Body, and which by the lateſt Obſervations that have been made about it, appear to communicate with one another; being the Receptacles of Fat, and ſerving as a Bond of Union between the ſmaller as well as the larger Parts of the Body, without confining them ſo cloſely to one another, as to obſtruct them in their reſpective Offices. The Nature, Uſes, and Univerſality of this Subſtance or Membrane, as it may be termed with the Limitations already mentioned, have been but very lately underſtood; and the Miſtakes of Anatomiſts about it, ſeem to have been as univerſal as the Membrane it ſelf, till *Malpighi* did, in part, remove them, to whoſe Diſcoverys, ſucceeding Authors have made ſome conſiderable Additions, as will appear by the following ſhort Detail, which, I hope, will not be diſagreable to the Reader.

Malpighi having obſerved, that in the *Omentum* the Fat is contained in membranous *Sacculi* or Cells, adds, that the ſame Proviſion is made for its reception all over the Body; that the *Sacculi* which contain it are of different Figures, all communicating with

one another, and ſeemingly adhering to a ſtronger Membrane as to a Baſis, which being torn off, they appear like a Honeycomb. In emaciated Bodies, continues he, inſtead of Fat, we meet in many places with no more than a complication of *Pelliculæ*; but he could never diſcover how far the Subdiviſions went in theſe Cells, nor conſequently the different Figures and Capacitys of each of them taken ſingly. But he poſitively affirms, that this adipoſe Membrane is continued over the whole Body, even into the Subſtance and Cavitys of the Bones; what is found of it in any one place being continuous with the whole. From this Account, it is plain that *Malpighi* was acquainted not only with the true Structure of this Membrane, but alſo with its Continuity over the whole Body. He has not however, particularly mentioned ſome Membranes as parts of it, which had, before his time, been falſely reckoned diſtinct; we muſt therefore next examine what has been ſaid on that Subject, and alſo concerning ſome other Portions of it with which *Malpighi* ſeems not to have been acquainted. It has, for Inſtance, been the Opinion of the beſt Anatomiſts

ſince

ſince *Malpighi*, that what was anciently termed the *Membrana Carnoſa*, and *Membrana Muſculorum communis*, as far as they are found in the human Body, are not different from his *Membrana Adipoſa*; and Mr. *Cowper* tells us, that Butchers diſtend the Cells of this Membrane in blowing up their Meat. He ſays likewiſe, that the proper Membrane of the Muſcles, which covers not only each Muſcle in particular, but each *Faſciculus* of its fleſhy Fibres, is frequently complicated with their common Membrane, to which Dr. *Pemberton* adds, that the Fat found in the Interſtices of Muſcles is contained in their proper Membrane: ſo that taking all theſe Obſervations together, we ſhall find *Malpighi*'s *Membrana Adipoſa* extended to all the Membranes of the Muſcles and muſcular Fibres.

We meet with ſeveral material Obſervations upon this Subject in the numerous and uſeful Works of Dr. *Ruyſch*, among which, this may be reckoned the firſt, that as this Membrane may, by a proper Adminiſtration, be ſhown through the whole Body, even where no Fat is ever to be found, as in the *Penis* and other Parts; it is more properly

termed *Celluloſa* than *Adipoſa*. He found it likewiſe between the two Membranes of the *Meſentery*, under the outer Coat of the Inteſtines and other *Viſcera*, and declares it to be every where of the ſame Nature. But what is ſtill more particular, this Author ſeems long ago to have known that the *Membrana Celluloſa*, which every where ſurrounds the *Peritonæum*, is no more than a veſicular Subſtance of the ſame Nature with the former; for he expreſſly denys the Duplicature of the *Peritonæum* in the common acceptation of that Term, and obſerves, that the Kidneys are intirely ſurrounded by a *Membrana Celluloſa*; as alſo, that the Spermatick Veſſels are falſely ſaid to be contiguous to the internal Surface of any Part of the *Peritonæum*; the Coats thereof being diſtinct from that Membrane. In another Place he tells us, that the *Pleura*, the *Membrana Celluloſa* on its outer Surface, and the *Perioſteum* of the Ribs without that, are the only Membranes to be found on the inſide of the *Thorax*, and therefore he muſt have conſidered the *Pleura* as a ſingle Membrane.

THE

THE Obſervations that I have hitherto ſet down from Authors concerning this Veſicular Subſtance or Cellular Membrane, have been lately elegantly ſummed up by the Learned Profeſſor *Boerhaave*, who may, for this Reaſon, juſtly be ſaid to have known more about it than any one Writer before him. The Seat of the Venereal Diſtemper, ſays he, I have always found to be in that oily Fluid of the Human Body, which in a State of Health is contained in that Part which the Ancients termed *Panniculus Adipoſus*, and the Moderns, *Membrana Celluloſa*. The Structure of this Membrane is held to be Vaſcular, and it is diſpoſed in an infinite number of very ſmall Cells, communicating with one another, and dilatable to a great degree by a very ſmall Force. In emaciated Bodies no Veſtige of theſe Cells is to be ſeen; in an *Emphyſema* they are ſwelled by Air, and in a *Leucophlegmatia*, by Water. This Cellular Membrane involves all the moveable Parts of the Body, and therefore is found under the whole Skin, above all the Muſcles, both which are for that Reaſon, moveable upon one another. In Muſcles deſigned for the greateſt and moſt frequent Action,

Action, this Membrane is thickeſt and moſt plentifully ſtored with Fat, as may be ſeen on the Breaſt, *Abdomen*, Back, Loins, *Clunes*, Thighs, Legs, Shoulders, Arms, Temples, and Neck; but where the Muſcles are ſmall, and have little Action, this Membrane has ſo little Fat, that all Authors there deny it the Name of *Membrana Adipoſa*; but *Ruyſch* juſtly terms it *Celluloſa*. Thus it is ſaid, tho' falſely, not to be found in the Head, Eyelids, Face and *Scrotum*, where its Quantity, indeed, is as much leſs than on the *Clunes*, as the *Glutæi* are larger than the *Elevator Palpebræ ſuperioris*, or *Corrugator Frontis*. As this Membrane, by being interpoſed between the Skin and Muſcles keeps them both moveable, ſo Portions thereof are detached quite round each ſingle Muſcle, the leaſt as well as the greateſt, ſo that no Muſcle touches another immediately, but they are as really ſeparated as the Skin is from them all, and by this Contrivance each of them is preſerved moveable, on all the reſt which it lies near. It likewiſe involves the Tendons, and lines thoſe *Vaginæ* within which they move. From the Muſcles and Tendons it is carryed

to

to the *Perioſteum*, over both ſides of which it is expanded, and it involves the Ligaments of the Joynts. It likewiſe reaches to all the *Viſcera*, being ſpread over the *Meninges* of the Brain, the *Pleura* and *Peritonæum*. Further, that Portion of this Membrane which involves each Muſcle inſinuates it ſelf likewiſe between the ſeveral larger *Faſciculi* of which that Muſcle is compoſed, and even between the ſeveral Fibres that belong to each *Faſciculus*; ſo that even the moſt ſimple Fibre is moveable by it ſelf upon the other Fibres remaining at reſt. From hence the Univerſality, and vaſt Uſes of this Membrane may be underſtood, and eſpecially how by means thereof, the moſt remote Parts of the Body communicate with one another; for we have traced it from the Skin to the *Perioſteum*, along with the Veſſels of which it likewiſe penetrates the Subſtance of the Bones, and reaches to the Medullary Cavitys. I could demonſtrate all I have ſaid about this Subſtance by invincible Arguments drawn from Obſervation and Experience, which will likewiſe prove of how great Conſequence it is in many Diſeaſes, that the Nature of it be rightly conceived.

One Remark, among many, I cannot omit: If by a Subcutaneous Suppuration this Membrane be quite conſumed in any part of the Body, the Skin, as has been often ſeen, remaining intire, together with the Muſcular Fleſh then immediately under it; they afterwards grow together, in ſuch a manner as that neither the Skin nor Muſcle can move alone, but always together, which is a very great Inconveniency to both: The ſame thing I have obſerved in Tendons, where the mucilaginous or cellulous *Vaginæ* have been totally conſumed.

M. *Winslow* has repeated ſeveral of theſe Obſervations which we have heard from *Boerhaave*, and has withal applied them more particularly to the cellular Membrane of the *Peritonæum* with which we are here principally concerned. Authors, he ſays, univerſally talk of a pretended Duplicature of the *Peritonæum*, of which I demonſtrated the groundleſneſs above ten Years ago, both in the Royal Garden and Phyſick Schools, and at my own private Courſes. What is commonly called the Internal *Lamina* of the *Peritonæum*, immediately contiguous to the Cavity

Cavity of the *Abdomen* and *Viſcera* contained in it, deſerves alone the Name of *Peritonæum*, the external *Lamina* being no more than a cellulous filamentary Body of different thickneſs and ſolidity in its different Parts, and ſerving to connect the outer Surface of that Membrane to the neighbouring Muſcles and Bones, ſo that it is between theſe Parts and the *Peritonæum* what a Wadding is between a Coat and its Lining. It involves all that lies between the true *Peritonæum* and Muſcles and Bones, and in many places Fat is contained in its Cells. In endeavouring to ſeparate the *Peritonæum* from theſe Parts, the Cells of this Subſtance being drawn out and lengthened, put on the appearance of an uniform Membrane, and thereby deceive the Unwary. The *Vaginæ* of the Spermatick Veſſels, and of the round Ligaments, are Portions of this Subſtance; and one of the ſame nature is found in the Duplicature of the Meſentery; as is alſo that which inſinuating it ſelf between the fleſhy Fibres of the Muſcles, forms what is called their proper Membrane, and likewiſe that univerſal Integument termed *Membrana Adipoſa*. The Extent of this

Cellular Subſtance, is ſufficiently demonſtrated from the general *Emphyſema*, Dropſys by Infiltration, and the Practice of Butchers in blowing up their Meat. Since the time which I mentioned above, I have applyed the ſame Idea to the two *Laminæ* of the *Pleura*, and it is very probable that the Cellular Portion belonging to that Membrane communicates with that of the *Peritonæum*. All the Obſervations which our Author here gives us as his own, might have been gathered from the Anatomiſts already mentioned; but what he ſays about the probability of the Communication between the Veſicular Membranes of the *Pleura* and *Peritonæum*, ſhows that he does not conceive this Subſtance altogether in the ſame manner with them.

Some farther Light concerning what M. *Winſlow* calls his own Obſervations, may be got from the following Paſſage of M. *Garengeot*. This Cellular Subſtance, or *Membrana Adipoſa*, ſays that Author, is made up of membranous *Folliculi*, parted by intermediate *Septa* of the ſame nature; and which altogether form a great Number of Cells more or leſs filled with Fat, in proportion

portion to the Blood-Veſſels that belong to them; and inſtead of being reckon'd an external *Lamina* of the *Peritonæum*, it ought rather to be looked upon as the Means made uſe of by Nature, for the Secretion of Fat, and for lodging it near ſuch *Viſcera* as moſt require it; and alſo for ſurrounding the great Blood-Veſſels, eſpecially in ſuch places where they have the greateſt Motion. I was extremely pleaſed to ſee my own Obſervations on this Matter confirmed by the Authority of M. *Winſlow* in his Lectures at the Phyſick-Schools, with this difference, that he did not confine this Subſtance to ſome parts only of the external Surface of the *Peritonæum*, as I have done. This Joy was however but of very ſhort duration, for I afterwards heard him at the Royal Garden advance, that the *Peritonæum* is compoſed of two *Laminæ* with a Cellular Subſtance between them. The only Reaſon I can give for this ſudden change of Opinion, is that he was unwilling to contradict M. *Du Verney*.

BEFORE we conclude this Subject, it may be proper to take notice of the chief Miſtakes that have been corrected by the Diſcoveries

made by *Malpighi* and others, concerning this Veſicular Membrane. Anatomiſts before him generally talked of a *Membrana Adipoſa* as an univerſal Integument of the Body, which they thought to conſiſt only of Cluſters of Fat ſticking to the Skin and *Panniculus carnoſus*, without being included in Cells; and indeed the Manner in which they conceived this Fat to be formed, made ſuch Receptacles altogether unneceſſary. Tho' they deſcribe this as an univerſal Covering, yet they were all of Opinion that ſome Parts of the Body are without it, thoſe, to wit, on which no Fat had ever been obſerved. Next under this Membrane, they placed a *Panniculus carnoſus* intirely diſtinct from it, and in ſome places intermixed with fleſhy Fibres, which ſome among them deſcribe as Subcutaneous Muſcles: And hence ſome Diſputes have ariſen about the Name of this Membrane. Under it, were the Membranes of the Muſcles common and proper diſtinct from one another. And in the ſame manner, all that they knew concerning the Continuations of the true Cellular Subſtance in the internal Parts of the Body, they looked upon as ſo many par-

particular Membranes of different Subſtances and Kinds; and of theſe an external *Lamina* of the *Peritonæum* was one, as we ſhall afterwards hear.

Deſcription of the Veſicular Subſtance of the Peritonæum, *and Situation of the Parts involved by it,* viz.

In giving the Anatomical Adminiſtration of the *Peritonæum*, I have ſufficiently aſcertained the different Quantities of Veſicular Subſtance found on the anteriour, lateral, and ſuperiour Parts of that Membrane. The far greateſt ſhare of it is found on the poſteriour and lower Sides, where it is, in many places, plentifully ſtored with Fat; and there likewiſe it ſurrounds and involves a great many conſiderable parts contained in the *Abdomen*, either in looſe diſtinct *Capſulæ* or Folds, by which they are ſeparated not only from the external Surface of the *Peritonæum* on one Side, but alſo from the Muſcles and Bones on the other, and each of them from all the other Parts which are involved in the ſame manner with themſelves. We have already ſet down a particular Liſt of thoſe Parts that lie without the *Peritonæum* involved by the Veſicular Subſtance; and in the few Remarks, which we judge it neceſſary to make concerning their Situation in both theſe reſpects, we ſhall obſerve the Order of that Liſt.

The

Clyliferous Ducts.

THE *Receptaculum Chyli* is an oblong Cavity, formed by a thin pellucid Membrane ſituated on the left ſide of the third and fourth *Lumbar Vertebræ*, cloſe to the Trunk of the *Aorta*, which even lies upon ſome part of it. About the middle of the forementioned third *Vertebræ*, it contracts into a narrow Canal, known by the Name of the *Thoracick Duct*, which aſcending from thence in a Courſe obliquely to the right hand, gets immediately under the Trunk of the *Aorta*, that is between it and the Bodies of the *Vertebræ*, and emerges again on the other ſide at the Articulation of the third *Vertebra* with the ſecond. From thence it runs up in a winding courſe, between the *Aorta* and right muſcular Appendix of the Diaphragm, and ſoon leaves the *Abdomen* to enter the *Thorax*.

Lymphatick Glands and Veſſels.

THE Situation of the *Lumbar*, *Iliack*, and other Lymphatick Glands, and the Courſe of the numerous Veſſels of the ſame kind, require a more particular Deſcription to make them intelligible, than we can poſſibly enter upon in this place.

Blood-Veſſels.

THE *Aorta* comes down from behind the Diaphragm through the curious Fiſſure in that

that Muſcle, on the body of the firſt *Vertebra* of the Loins, a little to the left of its Middle, and from thence runs down to the beginning of the fifth *Vertebra*, inclining a ſmall matter to the right in its Courſe. The *Vena Cava* having paſſed through a large Circular *Foramen* in the Diaphragm, a conſiderable way to the right of the *Aorta*, there perforates the *Peritonæum* likewiſe, and having run down within its Cavity the Space of an Inch, it afterwards emerges again through another oblique Hole, and when the backſide of the *Peritonæum* is turned to view, that part of it which lies without the Veſſel, appears like a tranſverſe thin Ligament; and for a ſmall ſpace below the loweſt Perforation, the *Peritonæum* adheres ſo cloſely both to the *Vena Cava*, and Liver, as to be hardly ſeparable from either without tearing. From thence downward, this Trunk lies on the right ſide of the *Lumbar Vertebræ*, obſerving the ſame gently inclined Courſe with the *Aorta*, to which it becomes contiguous at the fifth *Vertebra*, that is, juſt before the Diviſion of both into the Iliack Branches. The *Vaſa Emulgentia* go off from the great Trunks

near the Articulation of the firſt and ſecond *Vertebræ Lumborum*. Their Courſe on both ſides is obliquely downwards, but moſt ſo on the right ſide. Both Arterys lie between the *Vertebræ* and the Veins, and likewiſe ariſe a ſmall matter higher up. The Spermatick Arterys ariſe from the foreſide of the *Aorta* a little below the *Emulgents*: the right Spermatick Vein opens into the *Cava*, the left into the *Emulgent* on that ſide. From thence the Courſe of both is obliquely downward and outward, and they paſs firſt over the *Ureters*, then over the external *Iliacks*, and ſo under the lower Edges of the *Tranſverſalis* and *Obliquus Internus*, through the *Fiſſures* of the *Obliquus Externus*; a Production of the veſicular Membrane involving and accompanying them out of the *Abdomen*, which I term *Tunica Vaſorum Spermaticorum propria*. Before they reach the *Tranſverſalis*, they run for ſome Space pretty cloſe to the external Surface of the *Peritonæum*; and when that Membrane is viewed on the Inſide, a ſort of Stricture or Depreſſion may be obſerved, as if it were there tack'd down to the Veſſels. This Appearance, however, is owing to a ſort of

of tendinous ſemioval *Frænum* in the Veſicular Membrane, cloſe to the Veſſels, the uſe of which is, probably, to prevent in ſome meaſure the Danger of *Hernia's*. The *Aorta* and *Vena Cava* having reached as low down as the fifth *Vertebra Lumborum*, there divide into two large Branches called *Iliacks*; the Courſe of which is obliquely downward and outward on the long or ſuperiour Heads of the *Iliaco-Pſoai*, the Arterys lying partly upon, but moſtly without the Veins. About an Inch or more below this firſt Diviſion, each of theſe Branches is again parted into two others call'd *Iliaci Interni & Externi*. The Internal changing the obliquity of their Courſe, go down into the *Pelvis*, where they are diſtributed to the Bladder, *&c.* but the External continue to run upon the *Iliaco-Pſoai* till juſt before they leave the *Abdomen* and become the *Crurales*. The lower beginnings of the *Vena Azygos* may be traced from near the Kidneys or *Glandulæ Renales*, and afterwards uniting into one Trunk, with ſome other Branches that bring back the Blood carryed to the Liver by the *Hepatick* Artery, it aſcends into the *Thorax* through an Arch of

the Diaphragm on the right ſide of the firſt *Vertebra Lumborum.*

ALL theſe Blood-Veſſels, even to their ſmalleſt Branches, are incloſed in ſeparate and diſtinct Folds of the Veſicular Membrane, upon which the *Vaſa Vaſorum* are carryed to and from the greater Trunks: and tho' in dry Preparations, theſe ſeem to run immediately on the Trunks themſelves, the Veſicular Subſtance being then ſhrunk beyond the Limits of our Senſes, yet in freſh Subjects they may be plainly ſeen to be intirely ſurrounded by it. The generality of Anatomiſts have looked upon this Subſtance as an external membranous Coat of the Arterys, but without any Foundation: an Artery being in reality no more than a hollow Muſcle conſiſting of ſeveral Series of contractile Fibres which lie in different Directions; the outermoſt being Circular or Spiral, the innermoſt Longitudinal. All theſe make properly but one Coat, and their being involved by a Subſtance of a Structure quite different from their own, and common to them with all the other Parts of the Body, can never be a Reaſon why that Subſtance ſhould be reckon'd

a Part of them. And hence it appears, to mention it by the bye, to how little purpoſe Authors have diſputed about the Nature and Kinds of *Aneuryſms*, or Tumours formed by Arterial Blood; for the Coats of the Arterys being reduced to one, it follows that an *Aneuryſm* cannot poſſibly be of more than two kinds, which have gone by the Names of Falſe and True. A Falſe *Aneuryſm* is that which proceeds from an external Cauſe, as Wounds, Punctures in Blood-letting, *&c.* in which the Tumour is formed by extravaſated Blood lodged and accumulated in the Interſtices of the Muſcles immediately under the Skin, or whereever elſe it finds or forms a proper Receptacle, which will always be in the Veſicular Membrane, that Subſtance ſerving as the Groundwork for the *Cyſtis* wherein the evaſated Fluid is afterwards found to be lodged. True *Aneuryſms*, or thoſe from an internal Cauſe, begin always by a Dilatation of the whole Subſtance of the Artery; and more ſuch Tumours have been met with in the Arch or Curvature of the *Aorta*, than in all the other Parts of the Body taken together. As the Aneuryſmal Bag comes to increaſe, and the ſtagnating Blood to con-

tract an Acrimony, or whatever elſe is the Principle of Corroſion, the inner *Laminæ* of the Muſcle may, by degrees, be waſted and conſumed thereby, and afterwards the other *Strata* likewiſe, by a continuance of the ſame Cauſes, upon which a mortal Extravaſation of Blood moſt commonly happens; but ſtill this Corroſion or Rupture is the Conſequence, not the Cauſe of the *Aneuryſm.* That Tumour was formed before the Corroſion could happen, and was formed by a Dilatation only.

Urinary Parts.

THE Kidneys are ſituated nearly, tho' not altogether according to the Length of the Body, their upper Extremities converging a little. The left Kidney reaches as high as the Eleventh Rib, the right only to the Twelfth; and there they lie upon the Diaphragm, as their lower Extremitys do on that part of the *Tranſverſalis* that covers the *Muſculus Lumborum Quadratus.* The Veſicular Subſtance by which they are involved, is in the Form of a pretty thick looſe *Capſula* repleniſh'd in many places with Fat, and which may be eaſily parted into ſeveral *Lamellæ*, ſome of which ſurround the Kidneys only, others are common both to them and to the *Glandulæ Renales.* Theſe Glands

Glands lie on the upper Extremitys of the Kidneys toward the inner ſide, cloſe to the *Appendices Diaphragmatis Muſculoſæ*; but they are ſeparated from both by Folds of the Veſicular Membrane, which between them and the Kidneys is of a conſiderable thickneſs. The *Ureters* go out from the Kidneys below the *Venæ Emulgentes*, and having in a gently inclined courſe on the ſuperiour Heads of the *Iliaco-Pſoai*, reached half way to the *Pelvis*, they croſs under or behind the Spermatick Veſſels, then over the *Iliacks* at the Entry of the *Pelvis*, and laſtly over the *Vaſa Deferentia* about an Inch or leſs, before they arrive at the Bladder. The Bladder lies in an horizontal Situation in the lower Part of the *Pelvis*, its whole upper ſide being covered by the *Peritonæum*, a ſmall Portion of Veſicular Subſtance only intervening; but the anteriour, lateral and poſteriour Parts of it, have a very large ſhare of that Membrane by which it is ſeparated from the *Oſſa Pubis*, *Muſculus Levator Ani*, and the *Inteſtinum Rectum*.

Parts of Generation.

THE *Proſtate* Gland ſurrounds the beginning of the *Urethra* in an irregular flat ſphæroidical Figure;

Figure; that part of the Bladder which is next its Orifice reſting on its upper and broadeſt Extremity, a very ſmall Quantity of veſicular Subſtance coming between them. Its poſteriour or thickeſt Side lies toward the *Inteſtinum Rectum*, from which however it is parted by a large Portion of this Membrane, as it is likewiſe from the *Os Pubis* on the foreſide. Laterally ſome Series of Fibres of the *Levator Ani* are very cloſely joyned to it, but the reſt of it is ſeparated from that Muſcle by a large Quantity of Fat. The lower conjoyned Portion of the *Veſiculæ Seminales* cloſely attached to the Bladder, but at a greater diſtance from the *Inteſtinum Rectum*, reſts on the upper and poſteriour Part of the *Proſtate*, the *Peritonæum* lying here very near them, as alſo for ſome ſpace after they divaricate. The other Extremitys of theſe *Veſiculæ* are however at ſome diſtance from that Membrane, the ſpace between them being filled up by veſicular Subſtance, which likewiſe ſurrounds the *Vaſa Deferentia* in their oblique incurvated Progreſs from the *Veſiculæ Seminales*, firſt over the *Ureters*, and from thence for about two Inches more, till they

they joyn the Spermatick Veſſels, from which however they ſtill continue ſeparated by a diſtinct Fold of this Subſtance.

THE Intercoſtal and Spinal Nerves, and the *Par Vagum*, with their numerous Ramifications, are involved in the ſame manner as the Blood-Veſſels, from their ſeveral Origins to the different parts of the *Abdomen* upon which they are beſtowed. Nerves.

HAVING in this manner examined the Veſicular Membrane of the *Peritonæum*, I ſeparated it as exactly as I could, with as many of the Parts as ſtill adhered to it, that I might have a clear View of the external Surface of this capacious Membrane. This I found in general to be very ſmooth through its whole extent; any roughneſs that remained on it, was probably owing to ſome ſmall Portions of the forementiond Subſtance ſtill adhering to it. The whole backſide was even as well as ſmooth, as was alſo the upper part of the foreſide, which lies over the Liver, Stomach and Spleen. Near the *Umbilicus* it appeared to be braced or bound down, for ſome ſpace longitudinally, by pretty ſtrong Fibres, which however may perhaps be no more *External Surface of the* Peritonæum.

more than ſome Remains of the united interwoven Tendons of the Abdominal Muſcles cut off from the reſt in ſeparating this part of the *Peritonæum* from them. The Inteſtines likewiſe formed ſeveral riſings on the lower part of this foreſide, anſwering to their Convolutions; but the Depreſſions between theſe Riſings ſeem'd to be owing to the tenſion of ſtronger Fibres than thoſe of which the reſt of this Membrane is compoſed.

HITHERTO I have deſcribed ſuch things belonging to the *Peritonæum* as appear on viewing it intire on the outſide, after taking it out of the Body. I come next to examine its Cavity and inner Surface, together with its Situation with reſpect to the principal *Viſcera* that lie within it. In doing this I ſhall intermix ſuch Obſervations as require a View of both ſides of it together; and in all theſe I ſhall have but little occaſion to diſtinguiſh between the *Peritonæum* conſidered *in Situ*, and when it is taken out of the Body. The *Peritonæum in Situ* being laid open in the uſual manner by a longitudinal Inciſion continued from the *Cartilago Enſiformis* to the *Os Pubis*, and then by a croſs one carryed from

Internal Surface of the Peritonæum.

from ſide to ſide through the *Umbilicus*; we perceive its internal Surface every where ſmooth and even, and lubricated by a Fluid, in order to preſerve it from thoſe Inconveniencys which would otherwiſe have followed from its continual attrition with the *Viſcera*.

Subſtance of the Peritonæum.

NEXT to the internal Surface, we muſt examine the Subſtance of the *Peritonæum* which we find to be the ſame with that of all the other Membranes of the Body as far as our Senſes can be Judges. It conſiſts of a fine Contexture of *Elaſtic* Fibres, being capable of a great Dilatation and Contraction, and ſeems to be every where nearly of the ſame Thickneſs and Solidity.

Situation of the Parts that lie within the Peritonæum, *viz.*

WE have already given a Liſt of the Parts that lie within the Cavity of this inveſting Membrane; the Manner of their Situation there, is now to be explained. Concerning the *Omentum* there can be no difficulty: This remarkable Portion or internal Production of the Veſicular Subſtance, lies in the Cavity of the *Peritonæum*, in the Senſe that every Perſon will, at firſt hearing, underſtand that Expreſſion; and as it adheres to the Stomach, Liver, Spleen, *Colon*, &c. its Origin, that is

Omentum.

its Continuation with other Portions of the ſame Subſtance, may be fixed at all, or any one of theſe Adheſions. Concerning all the other *Viſcera*, except ſome Part of the Liver, it is to be obſerved, that no part of them immediately touches the Internal or concave ſmooth Surface of the *Peritonæum*, and conſequently they cannot be ſaid to be contained in its Cavity, as Liquor is in a Bottle, Money in a Purſe, or in ſhort, as any thing, whether Solid or Liquid, is in a Caſe, Bag, or Veſſel, that ſimply ſurrounds it. To conceive therefore the Manner in which this is done, we muſt imagine the *Peritonæum* as a Bag of a much larger Extent and Capacity than the Cavity of the *Abdomen*; and that the *Viſcera* it contains being applyed to ſeveral Parts of its external Surface, thruſt its yielding ſides inwards, till at length the Edges of the Cavitys ſo formed by each *Viſcus*, come to touch one another. Thus will the Capacity of the *Peritonæum* be diminiſhed in Proportion to the Number and Size of theſe *Viſcera*; and each of them may be juſtly ſaid to be contained in its Cavity, not only as they form particular Cavitys to themſelves, where the

Pe-

Peritonæum ſeparately involves them, but as they all lie within the one common Cavity of the *Abdomen* lined by the *Peritonæum* conſidered as an uniform Membrane, without any regard to the particular Productions of it, which ſurround each *Viſcus*. From hence it is evident that the external Surface of the *Peritonæum* alone is contiguous to the Surface of the *Viſcera* contained therein, and that not immediately neither, but by the Intervention of a cellular Membrane deſcribed by *Ruyſch* as a reticular Coat peculiar to each. The inner ſmooth Surface of this Membrane touches only the ſame Surface of other Parts thereof, thoſe to wit, by which the ſeveral *Viſcera* are particularly ſurrounded.

THIS in general is the Manner in which the *Peritonæum* contains the *Viſcera* belonging to the preſent Claſs, and the ſame Idea may be eaſily applyed to each of them in particular. To begin by the Stomach: from the ſuperiour Point thereof all the way to the *Oeſophagus*, its upper Edge is cloſely joyned to that part of the *Peritonæum* which lines the Diaphragm; and therefore it may be ſuppoſed that at that place the *Peritonæum* begins to Stomach.

involve it in the Manner already mentioned.

Inteſtines. The Inteſtines are no where cloſely connected to the *Peritonæum*, except at ſome parts of the *Colon* that lie below the Kidneys: the reſt lie looſe, becauſe they do not quite fill up that Elongation from the back part of the *Peritonæum* by which they are involved; for here, through a large Space, the outer Surfaces of the *Peritonæum* lie contiguous to one another, a Cellular Membrane, derived from that already deſcribed, only coming between them; in which the Meſenterick Glands, Lacteal Veſſels, &c. are lodged. Theſe Surfaces afterwards ſeparating, admit the Inteſtines between them, and ſo form their exteriour *Involucrum*. We have here likewiſe given the

Meſentery. true Structure and Formation of the *Meſentery*, which is only a looſe Fold or Doubling of the *Peritonæum* chiefly from where it covers the *Vertebræ*; and accordingly, if when we have taken the *Peritonæum* out of the Body intire, we divide it on each ſide of the great Blood-Veſſels, by two longitudinal Inciſions; the ſmall Guts will be found to lie as looſely as on the foreſide when the *Peritonæum* is opened in the common manner. But between the

the two Inciſions, the *Meſentery* forms a ſort of longitudinal *Septum* going between the *Inteſtines* and *Peritonæum*, and likewiſe another narrower Portion round the Edges of the ſmall Guts, which is chiefly between the *Peritonæum* and *Colon*, being that part of the *Meſentery* termed *Meſo-Colon*. In this View of the *Peritonæum* we likewiſe perceive, that having reached as low down on the *Vertebræ* as the laſt of the Loins, it ceaſes to ſurround the *Inteſtinum Rectum*, or, perhaps, the End of the *Colon* intirely, the poſteriour ſide thereof being covered only by Veſicular Subſtance; and this bare ſpace increaſes in breadth as it deſcends; the anteriour ſide of the Inteſtine remaining ſtill covered by the *Peritonæum* all the way down to where it comes neareſt to the *Veſiculæ Seminales*: below this it is intirely ſurrounded by a thick Veſicular Subſtance, which here, if any where, deſerves the Name of *Membrana Adipoſa*, becauſe of the vaſt Quantity of Fat contained in it. Where the *Peritonæum* leaves the foreſide of the *Rectum*, it makes an Angle, and changes its Courſe upwards and forwards over the Bladder; and a little above this Angle, there

is

is a remarkable tranſverſe Stricture or Semi-oval Fold of the *Peritonæum*, which I have conſtantly obſerved for many Years paſt, eſpecially in Women.

Spleen and Pancreas.

WHAT has been ſaid of the Stomach may likewiſe be applyed to the Spleen and *Pancreas*, both of them being involved by the *Peritonæum*, produced from where they are contiguous to it. The firſt is ſeated in the left ſide of the *Abdomen* nearly according to the length of the Body, reaching from the Diaphragm down below the Extremity of the twelfth Rib; the other lies almoſt tranſverſely on the firſt *Vertebra* of the Loins, above half of it being towards the left ſide.

Liver.

The Liver has this peculiar to it, that a large Portion thereof is immediately joyned to the internal Surface of the *Peritonæum*, *viz.* all the ſuperiour and back part of its convex Surface, which lies to the right of the *Ligamentum Latum*. This adheres cloſely to part of the *Peritonæum* that lines the Diaphragm, the reſt of it is involved in the ſame manner as the other *Viſcera*, by means of ſeveral Folds which go from the *Peritonæum* in form of Ligaments, and are afterwards ſpread on its

its Surface. The firſt of theſe is termed *Ligamentum Suſpenſorium*, which running down from the Diaphragm retains the form of a Ligament, from where the Branches of the *Vena Cava* go out of the Liver, all the way to the great *Fiſſure* in the anteriour ſide of that *Viſcus*, that is, during the ſpace of about four Inches meaſured in a ſtreight Line, and as it approaches the *Fiſſure* it increaſes in breadth. Its Courſe however is not ſtreight, for it joyns the Surface of the Liver in a large Arch, and juſt at the *Fiſſure*, where it joyns another Fold of the *Peritonæum* in which the Umbilical Vein is involved, it appears gathered or furled up, ſome Fat being contained between its two ſides. The next conſiderable Fold that goes from the *Peritonæum* to the Liver, is a thin Ligament joyned to the poſteriour Edge of the left *Lobe*, between which and the Stomach the ſuperiour Point of the Spleen may be obſerved to run in. The third is a broad Ligament from the lateral part of the *Peritonæum* a little higher than the right Kidney. This bounds the uninvolved Portion of the Liver on the right ſide, as the *Ligamentum Suſpenſorium*

ſorium does on the left. The Gall-Bladder ſeems to be contained in the ſame Productions of the *Peritonæum* that go over the Liver, and its exteriour *Involucrum* meets that of the *Colon* by the Intervention of a ſmall Ligament of the ſame Nature with thoſe already deſcribed. At the forementioned great *Fiſſure* in the Liver, the *Ligamentum Suſpenſorium* joyns another Fold of the *Peritonæum* much narrower than it ſelf, and which likewiſe decreaſing in breadth all the way to the Navel, involves the Umbilical Vein, and ſome Portions of Fat. Two other Folds narrower and leſs diſcernible than the former, going from the Navel obliquely downwards, and towards each ſide, afford a like Receptacle to the Umbilical Arterys in their courſe upwards from the internal *Iliacks*. A fourth Production not always diſtinctly viſible in Adults, reaching from the Navel to the anteriour Point of the Bladder, contains the *Urachus*. So that in reality, all theſe Veſſels are ſituated in the ſame manner with reſpect to the *Peritonæum*, as the *Viſcera* which are univerſally ſaid to lie in its Cavity. But what is ſtill more obſervable about theſe Veſſels is, that the

Umbilical Veſſels.

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Peritonæum accompanys them through the *Umbilicus* out of the *Abdomen* of the *Fœtus*, and thus becomes an *Involucrum* to the *Funis Umbilicalis* all the way to the *Placenta*. This may be eaſily exhibited to view in any proper Subject; but it became remarkably plain in a Child that I lately examined, in whom a *Hernia Umbilicalis* had been formed *in Utero*. Part of the Inteſtine was near two Inches without the Navel, and the *Peritonæum* which accompanyed it, was evidently continuous with the *Involucrum* of the *Funis*.

Duplicature of the Peritonæum.

FROM what has been ſaid concerning the Veſicular Subſtance of the *Peritonæum*, and its Continuations with a Subſtance of the ſame Nature ſpread over the whole Body, we are now in a condition to determine the famous Queſtion concerning the Duplicature of that Membrane. The *Peritonæum* is no more than one ſingle uniform Membrane; what has hitherto been taken for the outer *Lamina* thereof, being only the Veſicular Subſtance already deſcribed, laid upon its external Surface through its whole extent. This is ſufficient to enable us to form a Judgment of all that has been ſaid about this Duplicature in the

Hiſtory of the Duplicature of the Peritonæum.

the numerous Writings of Anatomiſts, of which the following ſhort Abſtract may perhaps be acceptable to ſome of my Readers. *Galen* diſtinctly mentions this Duplicature, τὸ διπλοῦν περίτονεον, in ſeveral places of his Works, as a thing generally known before his time; and he has named ſeveral Parts which he believed to lie between its two Membranes. *Fernelius*, the firſt Author who has added any thing to what we find in *Galen*, aſſerts that the *Peritonæum* is double through its whole extent, tho' by reaſon of the cloſe adheſion of its two Membranes in ſome places, it there appears to be only ſimple. As to *Veſalius*, it is certain that he has no where in his great Anatomical Work, talked of the *Peritonæum* as of a double Membrane; but that this Duplicature was not either unknown to or denyed by him, is evident from what he has ſaid concerning the Situation of ſeveral parts contain'd in the *Abdomen*, and eſpecially from what he anſwers to *Falloppius*, who had objected to him his ſilence about this matter. From *Stephanus* we learn that ſome Authors denyed the *Peritonæum* to be double, but he neither mentions their Names nor their Reaſons.

His own Arguments in favour of the Duplicature are taken chiefly from the *Involucra* which the *Peritonæum* ſends off to the *Viſcera* contained in its Cavity. *Columbus* gives us the Duplicature of the *Peritonæum* as a Diſcovery of his own, but what may more properly deſerve that Name, is his Opinion, that from the *Umbilicus* downward, the *Peritonæum* is double, but ſingle from the Navel upward. *Paræus* was not much better acquainted with the Hiſtory of Anatomy than *Columbus*, when he tells us that the Duplicity of the *Peritonæum* was known but a very little time before he wrote. *Vidius* affirms, that the Duplicity to be obſerved on the fore part of the *Peritonæum*, is made up partly by that Membrane, and partly by the Tendons of the tranſverſe Muſcles of the *Abdomen*. In this he has been followed by ſome very late Writers, particularly by Mr. *Cheſelden*, who in the ſecond Edition of his Anatomy, ſays expreſſly, that thoſe Authors who call the *Peritonæum* double, have always plainly deſcribed the Tendons and proper Membranes of the Abdominal Muſcles for part of it. No Authors have talked more explicitely and

intelligibly in favour of the univerſal Duplicity of the *Peritonæum*, than *Piccolhominus* and *Riolan* who alſo gives us a ſort of Anatomical Adminiſtration, in order to ſeparate every where the two Membranes from one another. Tho' Writers have as generally acknowledged the Duplicature where the Bladder of Urine is ſeated as any where elſe, yet *Laurentius* attributes the diſcovery thereof to himſelf. *Veſlingius* to prove that the *Peritonæum* is double in all its parts, obſerves that its two Membranes are ſometimes ſeparable above the *Umbilicus*, by reaſon of a purulent Matter found between them. But *Marchetti*, on the contrary, ſays it is every where ſingle except where parts are actually found in its Duplicature. According to *Blaſius* it does not deſerve the Name of a double Membrane except in ſome few places, but the ſame Author elſewhere tells us, that ſome parts of it conſiſt of more Membranes than two; and *Fantonus* ſays to the ſame purpoſe, that he divided the *Peritonæum* of an Ox into three *Laminæ* with a great deal of eaſe.

OUR *Engliſh* Writers afford us little new upon this Subject. They either allow the univerſal

verſal or partial Duplicature of the *Peritonæum*, juſt as the Authors from whom they copy, have directed them. Mr. *Cheſelden* indeed may be mentioned as an Exception, in the four Deſcriptions which he has given us of this Membrane.

FROM this ſhort Abſtract, it is evident that notwithſtanding all the different Opinions concerning the Nature, Extent and Uſes of this Duplicature of the *Peritonæum*; yet in this they all agree, that at leaſt ſome parts of that Membrane conſiſt of two *Laminæ*, that theſe may be actually ſeparated from one another, and that ſome of the *Viſcera* and Veſſels of the *Abdomen* lie between them.

THE firſt Author I have met with who expreſſly denies the Duplicity of the *Peritonæum* in all its parts, is that moſt accurate Anatomiſt, Profeſſor *Ruyſch*, in the Words already quoted from him. Soon after him, *Dionis* publiſhed the ſame Diſcovery, tho' in a much more imperfect manner; but no Author before M. *Winſlow*, has given us a full and ſatisfactory Account of it. Profeſſor *Boerhaave*, *Garengeot*, and others, have embraced the ſame

ſame Opinion. As for my own part, tho' I have always obſerved this Veſicular Subſtance in the manner in which I have here deſcribed it ; and have traced its different Folds through all the parts that lie without the *Peritonæum :* yet I willingly acknowledge that I formerly believed it to be part of the true *Peritonæum*, which I therefore conceived to be every where a double Membrane, and in ſome places to conſiſt even of more *Laminæ* than two: And as a Proof of this Duplicity, I uſed frequently to prepare the Bladder of Urine in particular, with the *Peritonæum* raiſed from it on one ſide, and this Veſicular Subſtance on the other; which, together, formed a large Bag in which the Bladder gently inflated, was looſely contained. I was likewiſe of opinion, that in what is called the Dropſy of the *Peritonæum*, the Water is contained in its Duplicature or between the two *Laminæ* of its anteriour ſide; but I am now fully convinced of what Mr. *Cheſelden* has very well obſerved, that the Seat of this Diſeaſe is between the *Peritonæum* and Tendons of the *Muſculus Tranſverſalis* ; to which I may here add, that the immediate Receptacle of the Water,

Water, can be no other than the diſtended Cells of the Veſicular Subſtance lying between the *Peritonæum* and the laſt named Muſcle and lower part of the *Recti*, where it is found in great plenty. And I have often obſerved, in opening the Bodies of ſuch who have died of this Diſtemper, that as the Quantity of Water increaſes, the *Peritonæum* is, by degrees, firſt ſeparated from the Muſcles, and thruſt inward on the Inteſtines; and afterwards the Inteſtines themſelves with the *Peritonæum* ſticking cloſely to them, preſſed or ſqueezed back on the *Vertebræ* into ſo ſmall a Compaſs, that a Perſon unacquainted with this Species of Dropſy would, when the Water is all taken out, be apt to imagine that the Inteſtines had been quite waſted.

F I N I S.