

**Department of Surgery
FY 2016 Annual Report
July 1, 2015 to June 30, 2016**

EXECUTIVE SUMMARY

The Department of Surgery had a challenging FY 2016. The Department continues to increase and strengthen its core mission of education, patient care, and research. The entire departmental faculty has contributed to these activities. The past fiscal year included recruitments of high quality faculty, clinical program development, investment in research programs, and success in attaining research funding. We added thirteen faculty to the Department, seven of which were recruited to the Trauma Program. The past year also included transition as we received ten resignations.

CLINICAL OVERVIEW

Overall, the clinical mission of the department did not meet our targets in FY 2016. We experienced a great many challenges in FY2016 that affected our overall clinical productivity. These challenges included the EPIC rollout, the elimination of the United Healthcare MCO, continued growth restrictions with GBR, the fire in our clinic building, the winter blizzard, unrest in the City, the Amerigroup ASC requirements and our lack of unregulated surgery centers for both our adult and pediatric patient population. Despite all the challenges, the Department of Surgery continued our strategy to build referrals and to move volume to off campus locations. In doing so, we ended the year with much less of a negative variance than projected.

The clinical programs primary case volume at UMMC in FY 2016 was 8,783 representing a 1.7% decrease from FY 2015. Overall case volume at system and non-system hospital (both billable and unbillable) decreased to 12,899 representing a 0.6% decrease from FY 2015. Locations that showed case growth included; UMMC-Cath Lab (36.8%), UMSJ (7.6%), UMSH-Easton (5.8%), UMROI (24%), Dimensions Health (26.7%), Sinai (17.1%) and the VA (15.4%). Our increase in the UMMC Cath Lab is attributed to transferring cases from the O.R. to a more cost effective and efficient location. Clinical Revenue decreased by \$510,024, representing a 2.2% reduction over FY 2015. Our faculty wRVU productivity also decreased slightly by 0.2% over FY 2015. We have not yet closed our financial books for FY16, so we do not have a profit and loss statement to share at this time.

COST SAVINGS INITIATIVE (CSI)

- With implementation of Maryland's All-Payer Hospital System Modernization Initiative, the HSCRC has initiated a model with a shared goal to develop a health care system that enhances patient care, improves health outcomes and lowers costs.
- In FY16 the Department of Surgery continued to partner with the UMMC to develop a shared cost savings initiative with the goal to review all inpatient operations and incorporate efficiencies to reduce UMMC's surgical costs while maintaining patient safety, improving quality and outcomes.
- Dr. Bartlett commissioned Cardiac, Thoracic, Transplant & Vascular surgery to take on this challenge for FY16.
- Each Division Chief, selected faculty and Department Administrative Leadership met with the UMMC Financial, Quality and Operations teams each month to review LOS, readmissions, supply chain standardization, blood usage and pharmaceuticals expenses.
- The Department worked with the UMMC to diligently review pre-operative and post-operative LOS patterns, changing rounding times and working closely with nursing, rehab, case management and patient's families to discuss patient needs so efficient patient discharges could be achieved.
- Due to the implementation of EPIC, the UMMC Financial Office has not yet been able to determine the FY16 savings to UMMC generated by the work of the Department of Surgery. However, we anticipate that the savings in FY16 will be greater than in FY15 as FY15 was a partial year.
 - FY15 savings to UMMC = \$2,338,425
 - FY15 Incentive to Surgery = \$467,685
- The Department will continue this initiative in FY17

RESEARCH OVERVIEW

Overall, the research mission of the department had a very successful year in FY 2016. We increased new award dollars by 26.66%, increased our revenue from awards by 13.51% and increased submissions by 1.83%. Our overall revenue from Federal awards increased slightly as well. In FY2017 we are adding research expectations to our faculty incentive plan.

RESEARCH

- 111 Grant Applications this Fiscal Year
- 18 New NIH applications
- 17 NIH sub-contract applications
- 18 other-Federal applications
- 58 Corporate and Foundation sponsored applications

- 45 new awards TO Date
- 6 NIH awards/sub-contracts
- 5 other-Federal awards
- 34 Corporate or Foundation award
- Department of Surgery ranked 22nd in NIH funding for all Departments of Surgery in CY 2015 up from 24th in CY2013

Notable New Awards:

- A \$5-year, \$1.7M NIH R01 award for Dr. Bromberg’s project, “Induction and Migration of Regulatory T cells: role of lymphotoxin.”
- Awards from Mt. Sinai Icahn School of Medicine for Dr. Griffith, Dr. Taylor and Dr. Gammie for their Cardiothoracic Surgical Trials Network (CTSN) studies.
- Extension of Dr. Lal’s NIH contract for “Evaluation of Intimal Medial Thickness”
- Department of Defense grant awards for Dr. Crawford and Dr. Siddiqui for their respective studies, “Adjunctive therapy to improve functional recovery after limb ischemia” and “Using metabolic pathways to improve diagnosis and risk stratification of prostate cancer.”
- Dr. Siddiqui is the Co-PI for an NIH R21 Hyperpolarized 13C imaging of mitochondrial metabolism for improved characterization of prostate cancer”
- Subawards from MD TEDCO grants to Dr. Bromberg for “Intra lymph node controlled release to combat autoimmunity” and to Dr. Bluebond-Langner for “Operative Entrustability System.”
- A 3-year \$5.2M award from Lung Biotechnology PBC for Dr. Pierson’s “Lung Xenotransplantation with Tolerance” project.
- A NIH T32 award for Dr. Strickland’s “Training program in cardiovascular cell biology.”

Submitted NIH RO1 Proposals, Pending Review

- Dr. Kaushal: “A stem cell trial in hypoplastic left heart syndrome”
- Dr. Sarkar: “PLGA nanoparticles for delivery of P53 inhibitors to promote arteriogenesis”
- Dr. Monahan: “The effect of myristoylated alanine-rich CKinase substrate on kinase interacting with stathmin”
- Dr. Lal: “CREST 2: Carotid plaque vulnerability study (CREST-P)”
- Dr. Lal: “CREST 2: Transcarotid v. transfemoral carotid revascularization (CREST-T)”

DIVISION AWARDS

GENERAL

- Dr. Nariman Balenga received an Institutional Research Grant from the Greenebaum Cancer Center/ACS to study the mechanisms of RGSS-mediated tumorigenesis in the parathyroid gland.

TRAUMA

- Dr. Deborah Stein received a new award from the Air Force Office of Scientific Research for “Assessing the accuracy and impact of ventricular drainage on intercranial pressure measurements.”
- Dr. Stein also received a subaward from a Dept. of Defense grant to study “sigh ventilation to prevent and treat acute respiratory distress syndrome”.

UROLOGY

- Dr. Minhaj Siddiqui received an Institutional Research Grant from the Greenebaum Cancer Center/ACS to study metabolic correlates of prostate cancer aggressiveness.

VASCULAR

- Dr. Thomas Monahan received a subaward from a NIH SBIR grant for an experiment design to test dHACM on neovascularization in vitro.

RESEARCH TABLES:

Table 1: New Awards Comparison – Fiscal Year 2016 vs. Fiscal Year 2015

New Sponsor Award	FY2015	FY2016	Variance
NIH direct awards	\$5,002,041	\$4,319,304	-\$682,737
NIH sub-contracts	\$4,086,192	\$1,030,198	-\$3,055,994
Corporate	\$958,834	\$8,292,905	\$7,334,071
DOD direct and sub-contracts	\$2,263,538	\$2,589,729	\$326,191
Foundation, State, Other Non-profit	\$605,790	\$127,747	-\$478,043
Total	\$12,916,395	\$16,359,883	\$3,443,488

Table 2: Revenue from Awards - Fiscal Year 2015 vs. Fiscal Year 2016

FY15 vs FY16 Revenues from Awards			
	FY2015	FY2016	Variance
Common Trust	\$57,834	\$340	-\$57,494
Federal Standard:			
DOD	\$1,489,326	\$1,521,664	\$32,338
IPA/Contract	\$660,248	\$537,390	-\$122,858
NIH	\$5,426,215	\$6,053,236	\$627,021
Non-Gov. Deliverable:			
Corporate	\$1,919,768	\$2,995,436	\$1,075,668
DOD Subcontract	\$0	\$32,412	\$32,412
Foundation	\$287,445	\$250,000	-\$37,445
Other non-profit	\$2,000	\$0	-\$2,000
NIH Subcontract	\$137,003	\$33,159	-\$103,844
Non-Gov. Standard:			
Corporate	\$76,684	\$307,005	\$230,321
DOD Subcontract	\$250,578	\$137,451	-\$113,127
Foundation	\$115,988	\$98,708	-\$17,280
Other non-profit	\$13,093	\$287,365	\$274,272
JPA	\$4,450	\$0	-\$4,450
NIH Subcontract	\$1,443,302	\$1,275,356	-\$167,946
State Deliverable:	\$0	\$4,285	\$4,285
State Standard:			
MD TEDCO	\$346,803	\$220,188	-\$126,615
NIH Subcontract	\$117,246	\$376,882	\$259,636
DOD Subcontract	\$0	\$123,653	\$123,653
Other	\$70,000	\$9,901	-\$60,099
Totals	\$12,417,983	\$14,264,431	\$1,846,448

Table 3: Revenue from Awards by Type - Fiscal Year 2015 vs. Fiscal Year 2016

FY15 vs FY16 Revenues from Awards by Type			
	FY2015	FY2016	Variance
Total NIH	\$7,123,766	\$7,738,633	\$614,867
Total Other Federal	\$2,404,602	\$2,352,570	-\$52,032
Total Other	\$2,889,615	\$4,173,228	\$1,283,613
TOTAL	\$12,417,983	\$14,264,431	\$1,846,448

**Table 4: Grant Proposal Submissions (excluding non-competitive renewals & transfers)
Fiscal Year 2016 vs. Fiscal Year 2015**

Type	FY2016		FY2015	
	# submitted	# funded TO DATE	# submitted	# funded
NIH direct -Research	18	0	19	3
NIH direct - Training	0	0	1	1
NIH direct - Fellowship	0	0	2	0
NIH subcontract -Research	12	2	10	6
NIH subcontract -Clin.Trial	5	4	0	0
Other Federal direct -Research	9	3	9	1
Other Federal direct -IPA	3	0	6	6
Other Federal direct -Clin. Trial	0	0	1	0
Other Federal subcontract -Research	6	2	2	2
Other Federal subcontract -Training	0	0	2	2
ALL FEDERAL	53	11	52	21
MD TEDCO direct -Research	4	0	4	1
MD TEDCO direct -Fellowship	0	0	3	2
MD TEDCO subcontract -Research	4	2	2	1
Corporate - Research	4	4	0	0
Corporate - Clin. Trial	19	19	26	22
Corporate - Fellowship	1	1		
Assoc./Foundation direct -Research	15	3	11	7
Assoc./Foundation direct -Fellowship	4	2	4	0
Assoc./Foundation direct -Clin. Trial	0	0	0	0
Assoc./Foundation direct -IPA	0	0	0	0
Assoc./Foundation subcontract - Research	3	0	2	1
Hospitals	0	0	1	1
Public Universities	0	0	2	1
UMD internal seed funding	4	3	2	2
ALL NON-FEDERAL	58	34	57	38
TOTAL	111	45	109	59

**Table 5: Revenue from Federal Awards by Department/Program
Fiscal Year 2015 vs. Fiscal Year 2016**

FY15 Revenues from Federal Awards by Department/Program				
	Surgery	CVID	Trauma	Total
NIH- direct	\$2,976,718	\$2,306,624	\$142,873	\$5,426,215
NIH –subcontract	\$1,312,317	\$283,080	\$102,154	\$1,697,551
Total NIH	\$4,289,035	\$2,589,704	\$245,027	\$7,123,766
Other Federal- direct	\$1,029,447	\$332,898	\$787,229	\$2,149,574
Other Federal- subcontract	\$251,000	\$4,000	\$28	\$255,028
Total Other Federal	\$1,280,447	\$336,898	\$787,257	\$2,404,602
TOTAL FEDERAL	\$5,569,482	\$2,926,602	\$1,032,284	\$9,528,368

FY16 Revenues from Federal Awards by Department/Program				
	Surgery	CVID	Trauma	Total
NIH- direct	\$3,068,842	\$2,045,876	\$938,518	\$6,053,236
NIH –subcontract	\$1,477,815	\$0	\$207,582	\$1,685,397
Total NIH	\$4,546,657	\$2,045,876	\$1,146,100	\$7,738,633
Other Federal- direct	\$1,282,753	\$271,029	\$505,272	\$2,059,054
Other Federal- subcontract	\$137,451	\$0	\$156,065	\$293,516
Total Other Federal	\$1,420,204	\$271,029	\$661,337	\$2,352,570
TOTAL FEDERAL	\$5,966,861	\$2,316,905	\$1,807,437	\$10,091,203

EDUCATION

- Strong match with class of interns for FY 2017 from the following programs: Drexel University College of Medicine, Universita degli Studi de Verona, Eastern Virginia Medical School, Georgetown University School of Medicine, University of Michigan Medical School and West Virginia University School of Medicine.
- Incoming Preliminary General Surgery Residents matched from the following programs: American International Medical University, University of Khartoum Faculty of Medicine, Temple University School of Medicine, University of Bristol Faculty of Medicine, The University of Pittsburgh School of Medicine, Trinity School of Medicine, and University of Dammam College of Medicine.
- Our graduating FY16 class matched into the following fellowships:
 - University of Southern California-Plastic Surgery

- St. Louis University-Pediatric Surgery
 - University of Pennsylvania-Critical Care
 - University of Maryland-Vascular Surgery
 - Miami University-Cardiac Surgery
 - Anne Arundel Medical Center-MIS
- Medical Student shelf exam scores of 56th percentile nationally.
 - The undergraduate and graduate educational programs continue to provide quality learning experiences. The residency program graduates successfully match into quality fellowships and the fellowship graduates attain excellent employment opportunities.

Sponsored Lectures and Symposiums:

- Buxton Research Symposium – 6/23/16, Speaker Bartley Griffith, MD
- Abramson Distinguished Lectureship – 9/15/16, Speaker William E. Cohn, MD
- Ganey - Maryland Surgical Society – 9/22/16, Speaker Brian Eastridge, MD

FY2016 FACULTY RECRUITMENTS

- The Cardiac Surgery Division added Dr. Zachary Kon. Dr. Kon is a graduate of the University of Maryland, School of Medicine and is our first Cardiothoracic Surgery Resident.
- The Pediatric Surgery Division added Dr. Helene Crowley. Dr. Crowley completed her M.D., Internship and Residency at Tufts University, School of Medicine. She also completed her Ph.D. in Immunology from Tufts, Sackler School of Graduate Biomedical Sciences. She completed her Pediatric Surgery fellowship at the Nationwide Children’s Hospital. She comes to us from Drexel University College of Medicine, where she had worked since 8/2012 as an Assistant Professor
- The Surgical Transplant Division added Dr. David Bruno and Dr. Soo Yi. Dr. Bruno completed his M.D., Internship and Residency from Georgetown University, School of Medicine. He completed a Research Fellowship at the NIH, NIDDKD, Transplantation Branch, then returned to Georgetown University to be the Chief Resident. Dr. Bruno completed his Liver, Kidney, Pancreas Transplantation Fellowship at Emory University, Department of Surgery. He comes to us from Wayne State University, where he has worked since 2014 as an Assistant Clinical Professor. Dr. Yi completed her M.D. and Residency from The Robert Wood Johnson Medical

School. She completed her Abdominal Organ Transplant Surgery Fellowship at the Columbia University College of Physicians and Surgeons. She comes to us from Colombia University, where she has worked since 2013 as an Instructor in Clinical Surgery.

- The Vascular Surgery Division added Dr. Tanya Flores and Dr. Areck Ucuzian. Dr. Flores completed her M.D. from Drexel University College of Medicine. She completed her Internship, and Residency from the University of Virginia Health System. She also completed both her Research Fellowship in Transplant Surgery and her Clinical Fellowship in Vascular and Endovascular Surgery at the University of Virginia Health System. Dr. Ucuzian completed his M.D. from Tufts University, School of Medicine. He completed his Residency and his Ph.D. in Cell Biology, Neurobiology and Anatomy at Loyola University Medical Center and his Fellowship in Vascular Surgery at the University of Pittsburgh Medical Center.
- The Trauma Surgery Program added Dr. Cherisse Berry, Dr. Mary Boggs, Dr. Kyle Cunningham, Dr. Molly Deane, Dr. Jeffrey Lodermeier, Dr. Amelia Pasley, and Dr. Carrie Valdez in FY2016

FY2016 Departures

Alexander, Richard B.	Urology
Chun, Jeannie	Pediatric
Chun, John	General
Gopal, Kapil	Vascular
Holton, Luther	Plastic
Lamond, Katherine	General
Martin, Linda	Thoracic
Rajagopal, Keshava	Cardiac
Sanchez, Pablo	Cardiac
Singh, Devinder	Plastic

DIVISIONAL UPDATES:

Cardiac Surgery:

Bradley Taylor, MD:

Co-Director of the University of Maryland Center for Aortic Disease. He will join Robert Crawford, MD, current Co-Director, in this important effort.
Received the Golden Apple Teaching Award from residents

Sunjay Kaushal, MD:

First stem cell HLHS trial patient was successful. ECHO showing RV improvement. first trial in the nation of its kind.

First Heartware device in a child (age 9) which has never been performed here (only in teenagers). Listed for heart transplant at the present time.

Continue with strong outcomes. LOS and Mortality rates less than the national average. I can provide details.

Academically, 12 publications and numerous national and international presentations.

Zachary Kon, MD:

Growing minimally invasive VAD Program.

Developing a minimally invasive approach to surgical Embolectomy

With Si Pham doubled heart and lung transplant volumes with high-risk recipients with better than expected outcomes for the national average.

Top 3 ECMO volume program in the USA with greater than 80% survival in VV ECMO patients to discharge.

Murtaza Dawood, MD:

The Atrial Fibrillation Program is gaining momentum with increased referrals for minimally invasive hybrid maze operation as well as stand-alone left atrial appendage management. The relationship between Cardiac Surgery and Electrophysiology is strong and on track to building a successful multi-disciplinary approach for the treatment of atrial fibrillation.

Si Pham, MD:

Highlights for the Heart Lung Transplant services:

From Fiscal year 2015 (7/1/2014 to 6/30/2015) to 2016 (7/1/2015 to 6/30/2016):

Increased the volume of heart transplants by 153% (from 15 to 38). This put the heart transplant program into the top 10% programs worldwide

Increase the lung transplant volume by 79% from 29 to 52. This put the lung transplant program into the top 7% of programs in the world.

ECMO volume increases by 88% from 92 to 173.

Philanthropic Effort:

Dorothy & Edwin Heller Heart Transplant Research Fund honors Dorothy Heller's heart transplant surgery, and her memory and is restricted to the Pham Lab for research to reduce dependency on immunosuppressant drugs following an organ transplant (\$85,000 received, additional pledge of \$765,000 per year over 9 years)

Erik Compton Foundation honors Eric Compton's heart transplant surgery and restricted to Pham Lab. (\$25,000)

Robin Pierson, MD:

U19 grant was renewed in 2016 (>2.3 million, >450K per year directs for 5 years)

Signed a 3-year sponsored research agreement with United Therapeutics/ Lung LLC (>1.6 million per year for 3 years) [2016-2018] Initiated the Perfusix EVLP trial (now called Lung BioEngineering EVLP trial,); and now the leading enroller nationally (tied with Mayo Jacksonville)

News story in Nature featured our lung xeno work.

Peer reviewed articles from the Pierson/ Azimzadeh lab, and 3 clinical papers

Sanchez PG, Rouse M, Pratt DL, Kon ZN, Pierson RN 3rd, Rajagopal K, Iacono AT, Pham SM, Griffith BP. Lung Donation After Controlled Circulatory Determination of Death: A Review of Current Practices and Outcomes. *Transplant Proc.* 2015; 47(6): 1958-65. PMID: 26293081

Starling RC, Stehlik J, Baran DA, et al for the CTOT-05 consortium (Pierson RN III, University of Maryland site PI). Multicenter Analysis of Immune Biomarkers and Heart Transplant Outcomes: Results of the Clinical Trials in Organ Transplantation-05 study. *AJT* 2016; 16(1): 121-36.. PMID: 26260101.

Timofte I, Terrin M, Barr E, Sanchez P, Kim J, Reed R, Britt EJ, Ravichandran B, Rajagopal K, Griffith B, Pham S, Pierson RN III, Iacono A. Belatacept for Renal Rescue in Lung Transplant Patients. *Transplant International* 2016; 29(4): 453-63. PMID: 26678245.

Mohiuddin M, Singh AK, Corcoran PC, Thomas ML III, Clark T, Lewis B, Hoyt R, Eckhaus M, Pierson RN III, Belli AJ, Wolf E, Klymiuk N, Phelps C, Reimann K, Ayares D, Horvath KA. Chimeric 2C10R4 anti-CD40 antibody therapy is critical for long-term survival of GTKO.hCD46.hTBM pig-to-primate cardiac xenografts. *Nature Communications*, accepted for publication [NCOMMS-11138].

Azimzadeh AM, Zhang T, Wu G, Kelishadi SS, Stoddard T, O'Neill N, Nguyen B-N, Welty E, Avon C, Higuchi M, Mitchell SL, Hershfeld A, Cheng XF, Kronfli A, Rybak E, Burdorf L, Pierson RN 3rd. Preemptive CD20+ B cell depletion attenuates cardiac allograft vasculopathy in CD154-treated monkeys. *Transplantation*, accepted for publication pending revisions. PMID: 27362307

Burdorf L, Riner A, Rybak E, Salles II, De Meyer SF, Shah A, Quinn KJ, Harris D, Zhang T, Parsell D, Ali F, Schwartz E, Kang E, Cheng X, Sievert E, Zhao Y, Braileanu G, Phelps CJ, Ayares DL, Deckmyn H, Pierson RN 3rd, Azimzadeh AM. Platelet sequestration and activation during GalTKO.hCD46 pig lung perfusion by human blood is primarily mediated by GPIIb, GPIIb/IIIa, and von Willebrand Factor. *Xenotransplantation* 2016; 23(3): 222-36. doi: 10.1111/xen.12236. PMID: 27188532

Review articles

Zhang T, Pierson RN 3rd, Azimzadeh AM. Update on CD40 and CD154 blockade in transplant models. *Immunotherapy*. 2015; 7(8):899-911. PMID: 26268734

Laird C, Burdorf L, Pierson RN 3rd. Lung xenotransplantation: a review. *Curr Opin Organ Transplant*. 2016; 21(3): 272-8. PMID: 26967998

James S. Gammie, MD:

Led the development of a prospective randomized trial assessing the worth of tricuspid valve repair in patients undergoing mitral valve surgery. This is a 400 patient international NHLBI/Cardiothoracic Surgical Trials Network- sponsored trial. Enrolled the 1st patient at the University of Maryland Medical Center.

Performed 20 Harpoon beating mitral valve repairs in Europe. Initial clinical expertise published in *Circulation* last week. Senior Author - Mehrdad Ghoreishi, M.D., 4th year intergrated Cardiothoracic Surgery Resident, Co-Author - Gregory Bittle, M.D., 3rd year Cardiothoracic Surgery Resident.

Visiting Professorship - The Joseph M. Craver Lectureship. Emory University. Atlanta GA. "The Bright Future of Heart Valve Surgery."

With partner Mark Vesely (interventional cardiologist) -performed 20 percutaneous mitral valve repairs (mitraclips)

Publications:

Impact of aspirin use on morbidity and mortality in massively transfused cardiac surgery patients: a propensity score matched cohort study. Mazzeffi M, Galvagno S, Gammie JS, Tanaka K. *J Anesth.* 2016 Jul 5. [Epub ahead of print] PMID: 27379496

Undersized Rigid Nonplanar Annuloplasty: The Key to Effective and Durable Repair of Functional Tricuspid Regurgitation. Maghami S, Ghoreishi M, Foster N, Dawood MY, Hobbs GR, Stafford P, Adawal D, Mohammed I, Zandee van Rilland ED, Diao XY, Walterhoefer M, Taylor BS, Griffith BP, Gammie JS. *Ann Thorac Surg.* 2016 May 24. pii: S0003-4975(16)00269-1. doi: 10.1016/j.athoracsur.2016.02.084. [Epub ahead of print] PMID: 27234578

The use of extended criteria donors decreases one-year survival in high-risk lung recipients: A review of the United Network of Organ Sharing Database. Mulligan MJ, Sanchez PG, Evans CF, Wang Y, Kon ZN, Rajagopal K, Iacono AT, Gammie JS, Griffith BP, Pham SM. *J Thorac Cardiovasc Surg.* 2016 Apr 28. pii: S0022-5223(16)30278-1. doi: 10.1016/j.jtcvs.2016.03.096. [Epub ahead of print] PMID: 27234027

Invited Commentary. Evans CF, Gammie JS. *Ann Thorac Surg.* 2016 Jun;101(6):2250-1. doi: 10.1016/j.athoracsur.2015.12.001. No abstract available. PMID: 27211937

Variation in Warfarin Use at Hospital Discharge After Isolated Bioprosthetic Mitral Valve Replacement - An Analysis of the Society of Thoracic Surgeons Adult Cardiac Surgery Database. Schwann TA, Habib RH, Suri RM, Brennan JM, He X, Thourani VH, Engoren M, Ailawadi G, Englum BR, Bonnell MR, Gammie JS. *Chest.* 2016 Apr 28. pii: S0012-3692(16)48651-4. doi: 10.1016/j.chest.2016.04.015. [Epub ahead of print] PMID: 27132702

Mitral Valve Surgery: Current Minimally Invasive and Transcatheter Options. Ramlawi B, Gammie JS. *Methodist DeBakey Cardiovasc J.* 2016 Jan-Mar;12(1):20-6. doi: 10.14797/mdcj-12-1-20. PMID: 27127558

Rate Control versus Rhythm Control for Atrial Fibrillation after Cardiac Surgery. Gillinov AM, Bagiella E, Moskowitz AJ, Raiten JM, Groh MA, Bowdish ME, Ailawadi G, Kirkwood KA, Perrault LP, Parides MK, Smith RL 2nd, Kern JA, Dussault G, Hackmann AE, Jeffries NO, Miller MA, Taddei-Peters WC, Rose EA, Weisel RD, Williams DL, Mangusan RF, Argenziano M, Moquete EG, O'Sullivan KL, Pellerin M, Shah KJ, Gammie JS, Mayer ML, Voisine P, Gelijns AC, O'Gara PT, Mack MJ; CTSN. *N Engl J Med.* 2016 May 19;374(20):1911-21. doi: 10.1056/NEJMoa1602002. Epub 2016 Apr 4. PMID: 27043047

Two-Year Outcomes of Surgical Treatment of Moderate Ischemic Mitral Regurgitation. Michler RE, Smith PK, Parides MK, Ailawadi G, Thourani V, Moskowitz AJ, Acker MA, Hung JW, Chang HL, Perrault LP, Gillinov AM, Argenziano M, Bagiella E, Overbey JR, Moquete EG, Gupta LN, Miller MA, Taddei-Peters WC, Jeffries N, Weisel RD, Rose EA, Gammie JS, DeRose JJ Jr, Puskas JD, Dagenais F,

Burks SG, El-Hamamsy I, Milano CA, Atluri P, Voisine P, O'Gara PT, Gelijns AC; CTSN. *N Engl J Med*. 2016 May 19;374(20):1932-41. doi: 10.1056/NEJMoa1602003. Epub 2016 Apr 3. PMID: 27040451

Transcatheter or Surgical Aortic-Valve Replacement in Intermediate-Risk Patients. Leon MB, Smith CR, Mack MJ, Makkar RR, Svensson LG, Kodali SK, Thourani VH, Tuzcu EM, Miller DC, Herrmann HC, Doshi D, Cohen DJ, Pichard AD, Kapadia S, Dewey T, Babaliaros V, Szeto WY, Williams MR, Kereiakes D, Zajarias A, Greason KL, Whisenant BK, Hodson RW, Moses JW, Trento A, Brown DL, Fearon WF, Pibarot P, Hahn RT, Jaber WA, Anderson WN, Alu MC, Webb JG; PARTNER 2 Investigators. *N Engl J Med*. 2016 Apr 28;374(17):1609-20. doi: 10.1056/NEJMoa1514616. Epub 2016 Apr 2. PMID: 27040324

Trends in Robotic-Assisted Coronary Artery Bypass Grafts: A Study of The Society of Thoracic Surgeons Adult Cardiac Surgery Database, 2006 to 2012. Whellan DJ, McCarey MM, Taylor BS, Rosengart TK, Wallace AS, Shroyer AL, Gammie JS, Peterson ED. *Ann Thorac Surg*. 2016 Jul;102(1):140-6. doi: 10.1016/j.athoracsur.2015.12.059. Epub 2016 Mar 24. PMID: 27016838

Practice gaps in the care of mitral valve regurgitation: Insights from the American College of Cardiology mitral regurgitation gap analysis and advisory panel. Wang A, Grayburn P, Foster JA, McCulloch ML, Badhwar V, Gammie JS, Costa SP, Benitez RM, Rinaldi MJ, Thourani VH, Martin RP. *Am Heart J*. 2016 Feb;172:70-9. doi: 10.1016/j.ahj.2015.11.003. Epub 2015 Nov 12. Review. PMID: 26856218

The Society of Thoracic Surgeons Mitral Repair/Replacement Composite Score: A Report of The Society of Thoracic Surgeons Quality Measurement Task Force. Badhwar V, Rankin JS, He X, Jacobs JP, Gammie JS, Furnary AP, Fazzalari FL, Han J, O'Brien SM, Shahian DM. *Ann Thorac Surg*. 2016 Jun;101(6):2265-71. doi: 10.1016/j.athoracsur.2015.11.049. Epub 2015 Dec 28. PMID: 26740032

Surgical and Transcatheter Mitral Valve Repair for Severe Chronic Mitral Regurgitation: A Review of Clinical Indications and Patient Assessment. Vesely MR, Benitez RM, Robinson SW, Collins JA, Dawood MY, Gammie JS. *J Am Heart Assoc*. 2015 Dec 11;4(12). pii: e002424. doi: 10.1161/JAHA.115.002424. No abstract available. PMID: 26656862

Two-Year Outcomes of Surgical Treatment of Severe Ischemic Mitral Regurgitation. Goldstein D, Moskowitz AJ, Gelijns AC, Ailawadi G, Parides MK, Perrault LP, Hung JW, Voisine P, Dagenais F, Gillinov AM, Thourani V, Argenziano M, Gammie JS, Mack M, Demers P, Atluri P, Rose EA, O'Sullivan K, Williams DL, Bagiella E, Michler RE, Weisel RD, Miller MA, Geller NL, Taddei-Peters WC, Smith PK, Moquete E, Overbey JR, Kron IL, O'Gara PT, Acker MA; CTSN. *N Engl J Med*. 2016 Jan 28;374(4):344-53. doi: 10.1056/NEJMoa1512913. Epub 2015 Nov 9. PMID: 26550689

Minimally Invasive Aortic Valve Replacement. Salenger R, Gammie JS, Collins JA. *J Card Surg*. 2016 Jan;31(1):38-50. doi: 10.1111/jocs.12652. Epub 2015 Oct 15. PMID: 26466846

Evaluation of The Society of Thoracic Surgeons Online Risk Calculator for Assessment of Risk in Patients Presenting for Aortic Valve Replacement After Prior Coronary Artery Bypass Graft: An Analysis Using the STS Adult Cardiac Surgery Database. Vassileva CM, Aranki S, Brennan JM, Kaneko T, He M, Gammie JS, Suri RM, Thourani VH, Hazelrigg S, McCarthy P. Ann Thorac Surg. 2015 Dec;100(6):2109-15; discussion 2115-6. doi: 10.1016/j.athoracsur.2015.04.149. Epub 2015 Jul 30. PMID: 26233279

Long-Term Clinical Outcomes of Silzone Era St. Jude Medical Mechanical Heart Valves. Brennan JM, Zhao Y, Williams J, O'Brien S, Dokholyan R, **Gammie J**, Edwards F, Loyo-Berrios N, Canos D, Gross T, Marinac-Dabic D, Peterson E. J Heart Valve Dis. 2015 Jan;24(1):66-73. PMID: 26182622

Surgical Management of Caseous Calcification of the Mitral Annulus. Wehman B, Dawood M, Ghoreishi M, Cheema F, Jones JW, Kane MA, Ward CW, Gammie JS. Ann Thorac Surg. 2015 Jun;99(6):2231-3. doi: 10.1016/j.athoracsur.2015.02.106. PMID: 26046892

Preoperative Aspirin Use and Lung Injury After Aortic Valve Replacement Surgery: A Retrospective Cohort Study. Mazzeffi M, Kassa W, **Gammie J**, Tanaka K, Roman P, Zhan M, Griffith B, Rock P. Anesth Analg. 2015 Aug;121(2):271-7. doi: 10.1213/ANE.0000000000000793.

General and Oncologic Surgery:

Promotions:

- Stephen Kavic, MD - Promoted to Professor
- Jonathan Pearl, MD – Promoted to Associate Professor, Section Chief General Surgery
- H. Richard Alexander – Section Chief Oncological Surgery

Successes:

- Successful residency match with all incoming interns in AOA
- Our faculty involvement in the UM Cancer Network which per Kevin Cullen played a key role in our Cancer Center's elevation to Comprehensive status and our improved US News rank.
- Continued expansion of our clinical footprint in Maryland to include Waterloo, Hagerstown, Easton, etc.

Dr. H. Richard Alexander:

Publications:

1. Endothelial Nitric Oxide Synthase Traffic Inducer (NOSTRIN) is a Negative Regulator of Disease Aggressiveness in Pancreatic Cancer.

Wang J, Yang S, He P, Schetter A, Gaedcke J, Ghadimi BM, Ried T, Yfantis HG, Lee DH, Gaida MM, Hanna N, **Alexander HR**, Hussain SP.

Clin Cancer Res. 2016 Jul 8. pii: clincanres.0511.2016. [Epub ahead of print]

2. Inducible nitric oxide synthase enhances disease aggressiveness in pancreatic cancer.

Wang J, He P, Gaida M, Yang S, Schetter AJ, Gaedcke J, Ghadimi BM, Ried T, Yfantis H, Lee D, Weiss JM, Stauffer J, Hanna N, **Alexander HR**, Hussain SP.

Oncotarget. 2016 Jun 29. doi: 10.18632/oncotarget.10323. [Epub ahead of print]

3. A Novel MIF Signaling Pathway Drives the Malignant Character of Pancreatic Cancer by Targeting NR3C2.

Yang S, He P, Wang J, Schetter A, Tang W, Funamizu N, Yanaga K, Uwagawa T, Satoskar AR, Gaedcke J, Bernhardt M, Ghadimi BM, Gaida MM, Bergmann F, Werner J, Ried T, Hanna N, **Alexander HR**, Hussain SP.

Cancer Res. 2016 Jul 1;76(13):3838-50. doi: 10.1158/0008-5472.CAN-15-2841. Epub 2016 Apr 20.

4. Diagnosis and management of patients with malignant peritoneal mesothelioma. **Alexander HR**

Jr, Burke AP. J Gastrointest Oncol. 2016 Feb;7(1):79-86. doi: 10.3978/j.issn.2078-6891.2015.134.

Review.

5. Then and now: cytoreductive surgery with hyperthermic intraperitoneal chemotherapy (HIPEC), a historical perspective.

Neuwirth MG, **Alexander HR**, Karakousis GC.

J Gastrointest Oncol. 2016 Feb;7(1):18-28. doi: 10.3978/j.issn.2078-6891.2015.106. Review.

6. Cytoreductive surgery and hyperthermic intraperitoneal chemotherapy for peritoneal surface malignancy. Karakousis GC, **Alexander HR**. J Gastrointest Oncol. 2016 Feb;7(1):1-2. doi: 10.3978/j.issn.2078-6891.2015.133. No abstract available.

7. Regional Therapies for Advanced Cancer: Update for 2016.

Turaga KK, Gamblin TC, **Alexander HR**, Edwards R, Bartlett DL.

Ann Surg Oncol. 2016 May;23(5):1452-3. doi: 10.1245/s10434-015-5068-0. Epub 2016 Jan 5. No abstract available.

8. Results of a Randomized Controlled Multicenter Phase III Trial of Percutaneous Hepatic Perfusion Compared with Best Available Care for Patients with Melanoma Liver Metastases. Hughes

MS, Zager J, Faries M, **Alexander HR**, Royal RE, Wood B, Choi J, McCluskey K, Whitman E, Agarwala S, Siskin G, Nutting C, Toomey MA, Webb C, Beresnev T, Pingpank JF. Ann Surg Oncol. 2016 Apr;23(4):1309-19. doi: 10.1245/s10434-015-4968-3. Epub 2015 Nov 23.

Dr. Cherif Boutros:

National Service

2016

Editorial Board, Journal of Surgical research

Publications

Peer Reviewed Journal Articles

1. Sarcina, a new threat in the bariatric era. S. Sopha, A. Manejwala, **C.Boutros**. Hum Pathol. 2015 Sep;46(9):1405-7
2. The Role of Minimally Invasive Surgery in Gallbladder Carcinoma, is it Time to Change our Approach? A.Pinnolla, N.Hanna, **C.Boutros**. Surgery Curr Res 2015, 6:254
3. Large pleomorphic hyaline angiectatic tumor. A multidisciplinary perspective. P.Brazio, A.Morrison, M. OH, M. Goldberg, **C.Boutros**. Surgery 2016 May;159(5):1471-3.
4. Hybrid Pancreaticoduodenectomy for pancreatic and Periapillary Cancer in the Robotic Era: The Tango, Slow and Rock And Roll. **C.Boutros**, L. Uradomo, H .Singh, R. DeLuca, Y. Markan, A. Morrison JOP 2016, Feb;S(1):133-7
5. Regional CAR-T cell infusions for peritoneal carcinomatosis are superior to systemic delivery. Katz SC, Point GR, Cunetta M, Thorn M, Guha P, Espat NJ, **Boutros C**, Hanna N, Junghans RP. Cancer Gene Ther. 2016 May;23(5):142-8

Published multimedia

1. Minimally invasive surgery for to treat gastrointestinal cancers
<http://medschool.umaryland.edu/facultyresearchprofile/viewprofile.aspx?id=23299>
<https://www.youtube.com/watch?v=gOaFwGCFXkI>
2. Robotic Assisted Esophagectomy
<http://medschool.umaryland.edu/facultyresearchprofile/viewprofile.aspx?id=23299>
English narration https://www.youtube.com/watch?v=_HxFBIRMQA0
French narration <https://www.youtube.com/watch?v=69jS7QdJvCg>
Arabic narration <https://www.youtube.com/watch?v=abPZZCu127Y>

Published Abstracts

1. G.R. Point, M. Thorn, M. Cunetta, A.J. Bais, , **C. Boutros**, N. Hanna, N.J. Espat, S.C. Katz Anti-CEA chimeric antigen receptor T cells in combination with suppressor cell targeting for the treatment of colorectal cancer peritoneal metastases. Annual meeting of the American Association of Immunologists, New Orleans 2015. The journal of Immunology vol. 194(1S) 143.13.2015

MAJOR INVITED SPEECHES

2016 Contemporary Minimally Invasive Surgical Oncology. SinoAmerica Conference, Beijing, China

Oral Presentations

1. **Cherif Boutros**, Mckenzie Bedra, Sabrina Sofa. T-Cell infiltrate as a simple tool to predict intermediate term survival in pancreatic ductal adenocarcinoma. 50th annual Pancreas club meeting, San Diego 2016

Dr. Nada Hanna:

Peer Reviewed Publications:

1. Bikov KA, Mullins CD, Seal B, Onukwugha E, **Hanna N**. Algorithm for Identifying Chemotherapy/Biological Regimens for Metastatic Colon Cancer in SEER-Medicare. Med Care. 2015 Aug; 53(8):e58-64. doi: 10.1097/MLR.0b013e31828fad9f. PubMed. PMID: 23552436
2. Yang S, He P, Wang J, Schetter A, Tang W, Funamizu N, Yanaga K, Uwagawa T, Satoskar AR, Gaedcke J, Bernhardt M, Ghadimi BM, Gaida MM, Bergmann F, Werner J, Ried T, **Hanna N**, Alexander HR, Hussain SP. A novel MIF signaling pathway drives the malignant character of pancreatic cancer by targeting NR3C2. Cancer Res. 2016 Apr 20. pii: canres.2841.2015. [Epub ahead of print] PMID: 27197190
3. Bikov KA, Mullins CD, Hung A, Seal B, Onukwugha E, **Hanna N**. Patterns of Biologics Use Across Treatment Lines in Elderly (Age >65) Medicare Patients With Metastatic Colon Cancer. Oncologist. 2016 Jun;21(6):676-83. doi: 10.1634/theoncologist.2015-0199. Epub 2016 Apr 28. PMID: 27125751
4. Katz SC, Point GR, Cunetta M, Thorn M, Guha P, Espat NJ, Boutros C, **Hanna N**, Junghans RP. Regional CAR-T cell infusions for peritoneal carcinomatosis are superior to systemic delivery. Cancer Gene Ther. 2016 May; 23(5):142-8. doi: 10.1038/cgt.2016.14. Epub 2016 Apr 15. PMID: 27080226
5. Woldemichael A, Onukwugha E, Seal B, **Hanna N**, Mullins CD. Sequential Therapies and the Cost-Effectiveness of Treating Metastatic Colon Cancer Patients. J Manag Care Spec Pharm. 2016 Jun; 22(6):628-39. doi: 10.18553/jmcp.2016.22.6.628. PMID: 27231791
6. Asare EA, Compton CC, **Hanna NN**, Kosinski LA, Washington MK, Kakar S, Weiser MR, Overman MJ. The impact of stage, grade, and mucinous histology on the efficacy of systemic chemotherapy in adenocarcinomas of the appendix: Analysis of the National Cancer Data Base. Cancer. 2016 Jan 15;122(2):213-21. doi: 10.1002/cncr.29744. Epub 2015 Oct 27. PMID: 26506400
7. Yang S, He P, Wang J, Schetter A, Tang W, Funamizu N, Yanaga K, Uwagawa T, Satoskar AR, Gaedcke J, Bernhardt M, Ghadimi BM, Gaida MM, Bergmann F, Werner J, Ried T, **Hanna N**, Alexander HR, Hussain SP. Inducible nitric oxide synthase enhances disease aggressiveness in pancreatic cancer. Oncotarget. 2016 Jun 29. doi: 10.18632/oncotarget.10323. [Epub ahead of print]. PMID: 27367029

International invited lectures:

1. Surgical Management of Pancreatic Cancer; Predictors of outcomes. 15th Annual conference of Egyptian Society of Surgical Oncology. Cairo, Egypt 3/30/2016
2. Optimal Management of synchronous colorectal Liver Metastasis. 15th Annual conference of Egyptian Society of Surgical Oncology. Cairo, Egypt 3/30/2016
3. Cytoreductive Surgery and Hyperthermic Intraperitoneal Chemotherapy in Gastric Cancer: An Experimental Therapy or Standard of Care? International Congress of Hyperthermic Oncology. New Orleans, USA 4/2016.

National/regional invited lectures:

1. Improving Outcomes in Pancreatic Cancer. 3rd NCI-Pancreatic cancer symposium. September 28, 29. 2015, NCI, Bethesda, MD.
2. Recent Advances in Management of GI Cancers. Grand Rounds Speaker, Prince George's Hospital Center. 1/20/2016.

Activities:

- | | |
|-----------|----------------------------------------------------------------------------------------------------------------|
| 2015-2016 | Vice Chair, International Fellowship Subcommittee, American College of Surgeons |
| 2016 | Co-Chair, HIPEC symposium at International Congress of Hyperthermic Oncology meeting. New Orleans, USA 4/2016 |
| 2015 | Course Director: The 9 th Annual Cancer Symposium, UM-SJMC Cancer institute. Baltimore, MD. 11/2015 |

Dr. Stephen Kavic:

Publications:

1. Wise ES, Hocking KM, Weltz A, Uebele A, Diaz JJ, Kavic SM and Kligman MD. Red cell distribution width is a novel biomarker that predicts excess body-mass index loss 1 year after laparoscopic Roux-en-Y gastric bypass. Surg Endosc. 2016.
2. Weltz AS, Harris DG, Kidd-Romero S and Kavic SM. Assessing the night float experience. Am Surgeon. 2016; 82: 6-8.
3. Hansraj N and Kavic SM. Surgery for Crohn's disease: an emerging surgical specialty. Inflamm Bowel Dis. 2015; 21: 28-9.

4. Wise ES, Ahmad S, Ladner TR, Hocking KM and Kavac SM. Impaired weight loss in laparoscopic adjustable gastric banding patients over 50 years of age: diabetes mellitus as an independent risk factor. *Surg Endosc.* 2016; 30: 663-669.

5. Wise ES, Hocking KM and Kavac SM. Prediction of excess weight loss after laparoscopic Roux-en-Y gastric bypass: data from an artificial neural network. *Surg Endosc.* 2016; 30: 480-488.

Dr. Susan Kesmodel:

Publications:

1. Weinstock C, Campassi C, Goloubeva O, **Kesmodel S**, Bellavance E, Feigenberg S, Wooten K, Ioffe O, Tkaczuk KHR. Breast Magnetic Resonance Imaging (MRI) Surveillance in Breast Cancer Survivors. *Springerplus.* 2015 Aug 28;4:459.

2. Ashai N, Chumsri S, Kokh D, Ioffe O, Vujaskovic Z, Feigenberg S, Tkaczuk K, **Kesmodel S**. Complete pathologic response following multimodality therapy for a recurrent, high grade phyllodes tumor. *American Journal of Cancer Case Reports.* 2015 Oct 8;3(3).

3. **Kesmodel SB**, Olson JA. Neoadjuvant Endocrine Therapy for Estrogen Receptor-Positive Breast Cancer, *J Cancer Biol Res.* 2016 Jan 4(1): 1074.

4. Bellavance EC, **Kesmodel SB**. Decision making in the surgical treatment of breast cancer: factors influencing women's choices for mastectomy and breast conserving surgery. *Front Oncol.* 2016 Mar 29;6:74.

5. **Kesmodel SB**, Goloubeva OG, Rosenblatt PY, Heiss B, Bellavance EC, Chumsri S, Bao T, Thompson J, Nightingale G, Tait NS, Nichols EM, Feigenberg SJ, Tkaczuk KH. Patient-reported adherence to adjuvant aromatase inhibitor therapy using the Morisky Medication Adherence Scale: an evaluation of baseline predictors. *Am J Clin Oncol* 2016 Jun 17.

Books:

Handbook of Breast Cancer and Related Breast Diseases; Created in conjunction with the breast multidisciplinary group and currently in the final editing stages. Served as one of the 3 editors with Kate Tkaczuk and Steve Feigenberg and wrote multiple sections with residents including those on DCIS, early stage breast cancer, breast cancer management after neoadjuvant systemic therapy and management of stage IV breast cancer.

Invited Talks:

1. "Management of Patients with BRCA 1 and 2 Mutations", Breast Health Symposium, Meritus Health, 2015.
2. "Update on Breast Cancer Screening and Management, Mini-Medical School, UMSOM, 2015.

Medical Student Talks:

1. Lecturer, Structure and Development Course, Breast and Axillary Anatomy, August 2015.
2. Lecturer, Structure and Development Course, Breast Cancer Clinical Correlates, November 2015.

Resident Teaching:

Lectures on Breast Cancer Management and Management of Melanoma, January 2016.

Media Presentations:

1. Direct Connection, "Breast Cancer", Maryland Public Television, October 2015.

Abstracts:

1. Lin JY, Bluebond-Langner R, Choi E, Cheston SB, Nichols EM, Cohen RJ, Bentzen S, Drogula C, **Kesmodel S**, Bellavance EC, Rosenblatt P, Tkaczuk KH, Slezak S, Feigenberg S. What is the impact of reduction mammoplasty for women undergoing breast conserving surgery for breast cancer? American Society of Clinical Oncology Breast Cancer Symposium, September 2015.
2. Nichols EM, Tkaczuk KH, Rosenblatt R, **Kesmodel S**, Bellavance E, Morgan M, Drogula C, Staats P, Citron W, Cohen RJ, Feigenberg SJ. Favorable proliferative response using Ki-67 in patients prospectively treated with preoperative accelerated partial-breast radiation therapy for early-stage breast cancer. American Society for Radiation Oncology Annual Meeting, October 2015.
3. Nichols E, Feigenberg SJ, Morgan M, Citron W, **Kesmodel S**, Bellavance E, Drogula C, Tkaczuk KH, Rosenblatt P, Georgiade GS, Hwang ES, Broadwater G, Duffy EA, Blitzblau R, Horton JK. Preoperative external beam APBI: Report of acute toxicities from 2 prospective clinical trials using two different fractionation schemes. American Society for Radiation Oncology Annual Meeting, October 2015.
4. Horton JK, Baker JA, Blitzblau R, Georgiade GS, Hwang ES, Duffy EA, Morgan M, Feigenberg SJ, Citron W, **Kesmodel S**, Bellavance E, Drogula C, Tkaczuk K, Galandak J, Nichols EM. Preoperative partial breast radiation therapy: Short-term imaging outcomes with two unique treatment regimens. American Society for Radiation Oncology Annual Meeting, October 2015.
5. Shea Kowalski ES, Lin JY, Chopra K, Slezak S, Bellavance E, Bluebond-Langner R, **Kesmodel S**, Tkaczuk K, Feigenberg SJ. Can altering the delivery technique of PMRT reduce complication rates for patients with staged reconstruction in an urban population? American Society for Radiation Oncology Annual Meeting, October 2015.
6. Lin JY, Bluebond-Langner R, Choi E, Cheston S, Nichols EM, Cohen RJ, Bentzen SM, Drogula C, **Kesmodel S**, Bellavance E, Rosenblatt R, Tkaczuk K, Slezak S, SJ Feigenberg. Radiation lumpectomy boost and acute treatment toxicities in patients with and without reduction mammoplasty as part of breast conservation treatment. American Society for Radiation Oncology Annual Meeting, October 2015.
7. Rosenblatt PY, **Kesmodel SB**, Bellavance EC, Nichols EM, Feigenberg SJ, Tait N, Lewis J, Sivasailam SS, Couzi R, Golubeva O, Tkaczuk KHR. Phase II study of trastuzumab and pertuzumab alone and in combination with hormonal therapy or chemotherapy with eribulin in women aged ≥ 60

with HER2/neu overexpressed locally advanced and/or metastatic breast cancer. San Antonio Breast Cancer Symposium, December 2015.

8. Hanna A, Goto D, **Kesmodel S**, Tkaczuk K, Feigenberg S, Mullins D, Hanna N, Bellavance E. Modern Trends of Paget Disease of the Breast: A report from the National Cancer Database. Academic Surgical Congress, February 2016.

9. Hanna A, Daisuke G, Feigenberg S, **Kesmodel S**, Tkaczuk K, Rosenblatt R, Nichols E, Mullins D, Hanna N, Bellavance E. Surgical Treatment of Paget Disease of the Breast. Society of Surgical Oncology, 69th Annual Cancer Symposium.

Clinical Trials:

A Prospective Study of Neoadjuvant Non-steroidal Aromatase Inhibitors in Postmenopausal Women with Operable Hormone Receptor-Positive Breast Cancer to Evaluate the Anti-Proliferative Response in Obese and Overweight Patients. Role: PI

Dr. John Olson:

Publications:

Single-cell functional analysis of parathyroid adenomas reveals distinct classes of calcium sensing behaviour in primary hyperparathyroidism. Koh J¹, Hogue JA¹, Wang Y^{2,3}, DiSalvo M^{2,3}, Allbritton NL^{2,3}, Shi Y⁴, Olson JA Jr^{4,5}, Sosa JA^{1,6}. J Cell Mol Med. 2016 Feb;20(2):351-9.

Prospective Validation of a 21-Gene Expression Assay in Breast Cancer.

Sparano JA¹, Gray RJ, Makower DF, Pritchard KI, Albain KS, Hayes DF, Geyer CE Jr, Dees EC, Perez EA, Olson JA Jr, Zujewski J, Lively T, Badve SS, Saphner TJ, Wagner LI, Whelan TJ, Ellis MJ, Paik S, Wood WC, Ravdin P, Keane MM, Gomez Moreno HL, Reddy PS, Goggins TF, Mayer IA, Brufsky AM, Toppmeyer DL, Kaklamani VG, Atkins JN, Berenberg JL, Sledge GW.

N Engl J Med. 2015 Nov 19;373(21):2005-14. doi: 10.1056/NEJMoa1510764. Epub 2015 Sep 27.

Invited lectures:

University of Miami

University of Alabama, Birmingham

Dr. Jonathan Pearl:

Publications:

Pearl J¹, Fellinger E², Dunkin B³, Pauli E⁴, Trus T⁵, Marks J⁶, Fanelli R⁷, Meara M⁸, Stefanidis D⁹, Richardson W¹⁰. Guidelines for privileging and credentialing physicians in gastrointestinal

endoscopy, Surg Endosc. 2016 Aug;30(8):3184-90. doi: 10.1007/s00464-016-5066-8. Epub 2016 Jun 28.

Pearl J. The power of collaboration between surgery and engineering. J Surg Res. 2015 Jul;197(1):65-6. doi: 10.1016/j.jss.2015.04.022. Epub 2015 Apr 10. No abstract available

Reviewer for Surgical Endoscopy: Reviewed 10 papers over 12 months

Chaired 2 sessions at SAGES

Named to 3 committees for SAGES

Upcoming R21 submission

Pediatric:

- The Division started new coverage contract St. Joseph Medical Center, January 2016
- The Division opened Columbia practice at Waterloo.
- The Division expanded Towson practice at Lutherville

Dr. Helene Crowley:

Joined the Division and is working in Dr. Jonathan Bromberg's research lab

Dr. Eric Strauch:

2016 Fellow of the Academy of Educational Excellence, Received the Pass & Susel Teaching Award

Dr. Kim Lumpkins:

Royal College of Surgeons(Eng) Gold Medal Winner for Pediatric Urology. Published 2 book chapters and one manuscript. Working to submit K08 grant with Marc Simard as mentor.

Plastic Surgery:

- The Plastic Surgery Division covers much of the state by going to Easton, Chester River, UM-BWMC, UMROI, UM-Midtown, UMSJ, and GBMC as well as the UMMC.
- We had a busy year with over 900 primary cases for four surgeons, and many more secondary cases as we reconstruct wounds for other services.
- We continue to train residents; this is the 27th year of our city wide Maryland/Hopkins plastic surgery training program.

Dr. Sheri Slezak:

Completed her year as Chair of the American Board of Plastic Surgery
Elected to the RRC-Plastic Surgery for 2017
Headed a panel on Why Women should Embrace Leadership for the American Society of Plastic Surgery.
Named as a Baltimore Top Doc again in 2016
Continues as the Chair of the Medical School Advancement Committee and the second year Project Feast.

Dr. Nelson Goldberg:

Took Maryland medical students on two international surgical mission trips this year to South America.
Continues as chief of surgery at Chester River and chief of plastic surgery at BWMC.

Dr. Yvonne Rasko:

Research director for the division of plastic surgery
Supervises a research fellow as well as the Kristin Stueber summer scholar, a first year medical student who does a funded FRCT project.
Successfully obtained several small grants

Dr. Rachel Bluebond-Langner:

Successfully launched our transgender program, and coordinates the many specialists involved.
Travelled to Thailand this year to learn new surgical techniques first hand and bring them back to Maryland.
Completed several research papers on these techniques and is evolving as a national leader in transgender surgery.
Secured a grant to study resident operative entrustability assessments

Thoracic Surgery

Awards and Honors:

- **Dr. Whitney Burrows**-University of Maryland School of Medicine 2016 Leonard Tow Humanism in Medicine Award
- **Dr. Whitney Burrows**- University of Maryland School of Medicine 2016 faculty inductee into the Gold Humanism Honor Society
- **Dr. Joseph Friedberg** – Charles Reid Edwards, MD Professorship in Surgery, University of Maryland School of Medicine

Clinical:

- Approval for the second annual University of Maryland Thoracic Oncology CME program, November 11, 2016.
- Reorganization and restructuring the Thoracic Surgery Office to improve and streamline the patient experience, support growth of the division and support outreach clinics
- Developing Telemedicine Program at University of Maryland Medical Center
- Thoracic Outreach clinics started at Union Hospital and Waterloo
- Increased surgical volume by 127 compared to FY15.
- Monthly thoracic surgery nursing education program conducted on the Thoracic IMC unit by Whitney Burrows
- Monthly thoracic surgery SICU advanced practice providers education program conducted by Shamus Carr

Academic

Presentations

- **Dr. Joseph Friedberg**- Presenting Author - “A novel System for Identifying Pulmonary Air Leaks with an Inhaled Marker” 96th AATS Annual Meeting, Baltimore, Maryland
- **Dr. Joseph Friedberg**-Grand Rounds at Diagnostic Radiology and Nuclear Medicine, University of Maryland Medical Center, Baltimore, Maryland,
- **Dr. Joseph Friedberg**-Grand Rounds at Holy Cross Hospital, Silver Spring, Maryland
- **Dr. Joseph Friedberg**-Grand Rounds at Prince Georges’ Hospital Center, Lanham, Maryland
- **Dr. Joseph Friedberg**-Grand Rounds at Shady Grove Medical Center, Rockville, Maryland
- **Dr. Joseph Friedberg**- Grand Rounds 16th IASLC World Conference on Lung Cancer, Denver, CO
- **Melissa Culligan** - invited speaker at the International Mesothelioma Interest Group – International Conference, Birmingham, United Kingdom, May 2016; A Coordinated Approach to Starting and Managing a Comprehensive Mesothelioma Service.
- **Dr. Joseph Friedberg** - Oral Presentation at Society of Thoracic Surgery 52nd Annual Meeting, Phoenix, AZ, January 2016; **Friedberg JS**, Simone, II C, **Culligan M**, Barsky A, Alley E, Sterman D, Cengel K. An extended-pleurectomy decortication-based treatment for advanced stage, large tumor volume epithelial mesothelioma yielding a median survival of greater than 3 years
- **Dr. Whitney Burrows** - Poster Presentation at Society of Thoracic Surgery 52nd Annual Meeting, Phoenix, AZ, January 2016; **Burrows WM**, **Donahue JM**, Wilson MK, **Carr SR**. Open Repair is Ideal for Type III/IV Paraesophageal Hiatal Hernias: A Modern Series of 96 Consecutive Patients
- **Dr. James Donahue** - Presentation at AACR Noncoding RNAs and Cancer meeting in Boston, MA December 4-7, 2015; Phatak P, Byrnes KA, Rao JN, Turner DJ, Wang JY,

- Donahue JM.** Overexpression of microRNA (miR) 199a-3p reduces proliferation through the induction of G2/M arrest in esophageal cancer cells by targeting cyclin D1.
- **Dr. James Donahue** - Presentation at Lillehei Forum, AATS meeting, Baltimore, MD May 14-18, 2016; Mansour D, Byrnes KA, Phatak P, Turner DJ, Battafarano RJ, **Donahue JM.** Overexpression of the RNA-binding protein CUG-BP1 promotes esophageal cancer cell proliferation by enhancing mTOR expression.

Publications

- Phatak P, Byrnes KA, Mansour D, Liu L, Cao S, Li R, Rao JN, Turner DJ, Wang JY, **Donahue JM.** Overexpression of miR-214-3p in Esophageal Squamous Cancer Cells Enhances Sensitivity to Cisplatin by Targeting Survivin Directly and Indirectly Through CUG-BP.” *Oncogene* 2015 Aug 3, Epub ahead of print.
- Byrnes KA, Phatak P, Mansour D, Xiao L, Zou T, Rao JN, Turner DJ, Wang JY, and **Donahue JM .** Overexpression of miR-199a-5p decreases esophageal cancer cell proliferation through repression of mitogen-activated protein kinase kinase kinase-11 (MAP3K11). *Oncotarget* 2015 Dec 24, Epub ahead of print.
- **Carr SR,** Akerley W, Hashibe M, Cannon-Albright LA. Evidence for a Genetical Contribution to Non-Smoking-Related Lung Cancer. *Thorax* 2015; 70(11):1033-9.
- **Carr SR.** Lung. In *Metastatic Bone Disease: Essentials for the Orthopedic Surgeon.* Randall RL, ed. Springer, London, 2016.
- Huggins JT, **Carr SR.** Placement and Management of Thoracostomy Tubes. In: *UpToDate,* Ross ME (Ed), UpToDate, Waltham, MA, 2016.
- Stinchcombe TE, **Carr SR,** Loo BW. Multiple primary lung cancers. In: *UpToDate,* Ross ME (Ed), UpToDate, Waltham, MA, 2016.
- Paik T, Chacko AM, Mikitsh JL, **Friedberg JS,** Pryma DA, Murray CB. Shape-Controlled Synthesis of Isotopic Yttrium-90-Labeled Rare Earth Fluoride Nanocrystals for Multimodal Imaging. *ACS Nano* 2015; 9(9):8718-28
- Zhu TC, Liang X, Kim MM, Finlay JC, Dimofte A, Rodriguez C, Simone CB 2nd, **Friedberg JS,** Cengel KA. An IR Navigation System for Peural PDT. *Front Phys* 2015
- **Culligan M, Friedberg JS.** Conducting Surgery-based Clinical Trials for Malignant Pleural Mesothelioma; The Ethical, Scientific and Practical Challenges. Accepted for publication the *International Journal of Clinical Research and Trials*
- **Friedberg JS,** Simone, II C, **Culligan M,** Barsky A, Alley E, Sterman D, Cengel K. An extended-pleurectomy decortication-based treatment for advanced stage epithelial mesothelioma yielding a median survival of greater than 3 years. Accepted for publication in *Annals of Thoracic Surgery*
- Rusch VW, Gill RR, Mitchell A, Naidich D, Rice DC, Pass HI, Kindler HL, DePerrot M, **Friedberg JS.** A Multicenter Study of Volumetric Computed Tomography for Staging Malignant Pleural Mesothelioma. Accepted for publication in *Annals of Thoracic Surgery*

Abstracts Submitted

- Abstracts submitted by the **Division of Thoracic Surgery** for the IASLC 17th World Conference on Lung Cancer
 - WINNERS Study: Does a formal pre-operative/perioperative interactive patient education program positively impact patient outcomes and satisfaction following thoracic surgery
 - TeleNursing: A thoracic surgery nursing initiative aimed at decreasing hospital readmissions and increasing patient satisfaction

Research

The National Mesothelioma Virtual Bank (NMVB) Grant submission – PENDING approval

Launch of the Division of Thoracic Surgery Research Program in May 2016 with the following clinical trials under development:

- Multicenter, International Pilot Feasibility Study of Extended Pleurectomy-Decortication, **Hyperthermic Pleural Lavage** with Povidone-iodine in Patients with Stage IVa Thymic Malignancies
- Extended Pleurectomy-Decortication and **Hyperthermic Pleural Lavage** with Povidone-iodine in Patients with Pleural Malignancies
- **WINNERS Trial** – Walking **I**ntegrating **N**ursing and **R**espiratory **S**ervices
- **TeleNursing**: A thoracic surgery nursing initiative aimed at decreasing hospital readmissions and increasing patient satisfaction
- **CryoAnalgesia** Study for post-thoracotomy pain management
- A pilot study investigating intraoperative identification of parenchymal **air leaks with inhaled methylene blue**
- **VAST Trial** – Valves Against Standard Therapy for management of pulmonary air leaks.

Faculty

- Recruitment of **Dr. Shelby Stewart**, Fellow at Brigham and Women's hospital in Boston to fill open attending position

Administrative

- Initiation of negotiation with St. Agnes Hospital
- Initiation of weekly Thoracic IMC meetings with attendings and staff
- **Melissa Culligan** appointed to the International Association for the Study of Lung Cancer (IASLC), Nursing and Allied Health Committee
- **Melissa Culligan** appointed to the International Association for the Study of Lung Cancer, Nursing and Allied Health Committee's Research sub-committee

- **Melissa Culligan** appointed to the IASLC 17th World Conference on Lung Cancer planning committee
- **Melissa Culligan** appointed as a board member of the International Squamous Cell Lung Cancer Consortium
- **Melissa Culligan** appointed to the planning committee for the International Mesothelioma Scientific Symposium to be hosted by the NIH and the Mesothelioma Research Foundation in March 2017
- **Melissa Culligan** appointed to the editorial board of the International Journal of Clinical Research and Trials

Marketing

- Complete restructuring and updating of the Division of Thoracic Surgery and Thoracic Oncology website content
- Physician Liaison marketing initiative launch
- Filming of patient education video's by each thoracic surgeon for inclusion on the website
- Thoracic IMC webpage updated with Thoracic Surgery content and educational program materials
- Comprehensive Pleural-Peritoneal Mesothelioma Website went live February 2016
- **Dr. Joseph Friedberg** spotlighted in a social media video post on Facebook and UMGCC website discussing Lung cancer
- **Dr. Joseph Friedberg** interviewed regarding Mesothelioma for the Spring/Summer 2016 e-rounds newsletter. Article sent to surrounding physicians and MD offices
- Esophageal patient education handout completed and available for patients

Transplantation:

Dr. Jonathan Bromberg:

Grant Review Committees:

- 2015 NCI ZCA1 SRB-D (O1) Omnibus R03 & R21 SEP-7 Review
- 2015 Chair, ZAI1 PA-I (S1) 1 NIAID SBIR Phase II Clinical Trial Implementation Cooperative Agreement and Clinical Trial Planning Grants Review
- 2015 Dutch Kidney Foundation (Nierstichting Nederland), DKF Kolff Program for individual kidney research grants
- 2015 Chair, 2016/01 ZAI1 AWA-M (J1) 1 Investigator-initiated Clinical Trials (IICT)- PAR-13-151 and PAR-13-250
- 2015 Swiss National Science Foundation
- 2016 CDMRP Reconstructive Transplant Translational Research [Vascularized Composite Allotransplantation] Panel

- 2016 NIH ZRG1 DKUS-J(56)
- 2016 NIAID Clinical Trial Planning Grant (R34) and Implementation Cooperative Agreement (U01) Special Emphasis Panel ZAI1-BDP-I-S1, chair
- 2016 NIH 201610 ZRG1 IMM-C (02), co-chair

New Grants:

Induction and Migration of Regulatory T Cells: Role of Lymphotoxin, NIH 1R01AI062765, 8/1/15-1/31/20, \$1,125,000. (PI)

Harnessing intra-lymph node controlled release to promote myelin-specific tolerance, National Multiple Sclerosis Society, 10/1/15-9/30/18, \$150,000. (co-I)

The role of lymphotoxin in Treg migration and suppressor function, Living Legacy Foundation Transplantation Grant, 7/1/15-6/30/16, \$114,300. (co-PI and mentor for C. Colin Brinkman, CVID)

Microbiota Structure and Transplant Outcomes: Preclinical Studies, Living Legacy Foundation Transplantation Grant, 7/1/15-6/30/16, \$114,300. (co-PI with Emmanuel Mongodin, IGS)

Circulating Donor-Derived Cell-free DNA in Blood for Diagnosing Acute Rejection in Kidney Transplant Recipients, CareDx, Inc., 5/3/15-ongoing, \$329,787. (site PI)

A Multicenter, Prospective, Double-Blind, Randomized, Placebo-Controlled, Phase 3 Study of BB3 to Reduce the Severity of Delayed Graft Function in Recipients of a Deceased Donor Kidney, Angion Biomedica Corp, 10/5/15-12/31/18, \$143,040. (site PI)

A Phase 3, Randomized, Double-blind, Placebo Controlled Study to Evaluate the Efficacy and Safety of QPI-1002 for Prevention of Delayed Graft Function in Recipients of a Donation After Brain Death Older Donor Kidney Transplant (ReGIFT), QUARK Pharmaceuticals, Inc., 1/7/16-1/20/20, \$366,601. (site PI)

A 12-month randomized, multiple dose, open-label, study evaluating safety, tolerability, pharmacokinetics/pharmacodynamics (PK/PD) and efficacy of an anti-CD40 monoclonal antibody, CFZ533, in combination with mycophenolate mofetil (MMF) and corticosteroids (CS), with and without tacrolimus (Tac), in de novo renal transplant recipients (part 1), Novartis Institutes for BioMedical Research & Clinical Development, 11/6/2014- 7/31/16, \$406,195. (co-I)

A 12-month randomized, multiple dose, open-label, study evaluating safety, tolerability, pharmacokinetics/pharmacodynamics (PK/PD) and efficacy of an anti-CD40 monoclonal antibody, CFZ533, in combination with mycophenolate mofetil (MMF) and corticosteroids (CS), with and without tacrolimus (Tac), in de novo renal transplant recipients (part 2), Novartis Institutes for BioMedical Research & Clinical Development, 5/17/16-11/30/2018, \$271,813.40. (co-I)

Invited Lectures:

The Influence of the Microbiota in Immunity and Transplantation, Plenary Session, 36th ISHLT Annual Meeting, Washington, D.C., April 30, 2016.

Regulatory T Cell Trafficking, University of Virginia, Charlottesville, VA, May 19, 2016.

Top 10 Immunology Papers of the Year, Advanced Immunology Updates for Basic and Clinical Scientists, ATC Postgraduate Course, Boston, MA, June 11, 2016.

Analyzing Treg in Vivo, Immune Cell Trafficking In Vivo New Insights, ATC Miday Symposium, Boston, MA, June 13, 2016.

National and International Service:

Co-chair, Allograft Tolerance 1: Animal Models, ATC, Boston, MA, June 12, 2016.

Co-chair, Immune Cell Trafficking In Vivo New Insights, ATC, Boston, MA, June 13, 2016.

Chair, ASTS Grants Committee, 2013-2016

Executive Clinical Editor, *Transplantation*

Peer Reviewed Manuscripts:

Bromberg JS, Fricke WF, Brinkman CC, Simon T, Mongodin EF. Microbiota and Organ Transplantation. *Nat Rev Nephrol* 2015, 11:342-353.

Burrell BE, Warren KJ, Nakayama Y, Iwami, D, Brinkman, CC, Bromberg JS. The lymph node stromal fiber (ER-TR7) functions to modulate CD4+ T cell lymph node trafficking and transplant tolerance. *Transplantation* 2015, 99:1119-1125.

Nakayama Y, Brinkmann, CC, Bromberg JS. Fibroblastic reticular cells in lymph node regulate immune responses through CD40-CD40L interactions. *Transplantation* 2015; 99:1561–1567.

Lal G, Nakayama Y, Sethi A, Singh AK, Burrell BE, Kulkarni N, Brinkman CC, Iwami D, Hehlhans T, Bromberg JS. IL-10 from marginal zone precursor B cell subset is required for transplantation tolerance through regulation of Tfh induction of Th17. *Transplantation* 2015; 99:1817-1828.

Halloran PF, Chang J, Famulski K, Hidalgo LG, Salazar IDR, Lopez MM, Matas A, Picton M, de Freitas D, Bromberg J, Serón D, Sellarés J, Einecke G, Reeve J. Disappearance of T cell-mediated rejection despite continued antibody-mediated rejection in late kidney transplant recipients. *J Am Soc. Nephrol.* 2015; 26: 1711-1720.

Harris AD, Fleming B, Bromberg JS, Rock P, Nkonge G, Emerick M, Harris-Williams M, Thom KA. Surgical Site Infection after Renal Transplantation. *Infect Control Hosp Epidemiol* 2015; 36: 417-423.
Bromberg JS. WTC Clinical Papers. *Transplantation* 2015; 99:275-277.

Ahmad S, Inouye B, Sulek J, Phelan MS, Kramer AC, Weir MR, Barth RN, LaMattina JC, Schweitzer EJ, Leeser DB, Niederhaus SV, Bartlett ST, Bromberg JS. Live Donor Renal Transplant with Simultaneous Bilateral Nephrectomy for APKD: 10-year experience. *Transplantation* 2016; 100:407-415.

Xiong Y, Ahmad S, Iwami D, Brinkman CC, Bromberg JS. T-bet regulates natural Treg afferent lymphatic migration and suppressive function. *J. Immunol.* 2016; 196:2526-2540.

Articles Accepted for Publication:

Scalea JR, Bromberg J, Bartlett ST, Scalea TM. Mechanistic Similarities between Trauma, Atherosclerosis, and other Inflammatory Processes. *J. Critical Care*

Lal G, Kulkarni N, Nakayama Y, Singh AK, Sethi A, Burrell BE, Brinkman CC, Iwami D, Zhang T, Hehlhans T, Bromberg JS. IL-10 from marginal zone precursor B cells controls the differentiation of Th17, Tfh and Tfr cells during costimulatory blockade induced tolerization. *Immunology Letters*
Brinkman CC, Iwami D, Hritzko MK, Xiong, Y Ahmad, Bromberg JS. Treg engage lymphotoxin beta receptor for afferent lymphatic transendothelial migration. *Nature Communications*

Husson J, Sparkes T, Stafford K, Haririan A, Bromberg JS, Redfield R, Davis, C, Amoroso A. Association between Duration of HIV-1 Viral Suppression Prior to Renal Transplantation and Acute Cellular Rejection. *Am. J. Transplant.*

Chapters and Reviews:

Bromberg JS. Islet implanatation in a pocket. *Nature Biotech*, 2015, 33:493-494.

Pierson RN, Bromberg JS. Alloantibodies and Allograft Arteriosclerosis: Accelerated Adversity Ahead? *Circ Res*, 2015, 117: 398-400.

Report of IPITA-TTS Opinion Leaders on the Future of Beta Cell Replacement. Bartlett ST, Markmann JF, Johnson P, Korsgren O, Hering BJ, Scharp D, Kay TWH, Bromberg J, Odorico JS, Weir GS, Bridges N, Kandaswamy R, Stock P, Friend P, Gotoh M, Cooper DKC, Park C-G, O'Connell P, Stabler C, Matsumoto S, Ludwig B, Choudhary P, Khovatchev B, Rickels MR, Sykes M, Wood K, Kraemer K, Hwa A, Stanley E, Ricordi C, Zimmerman M, Greenstein J, Montanya E, Otonkoski T. *Transplantation*, 2016, in press.

Brinkman CC, Bromberg JS. Biological sensors shed light on ligand geography. *Nature Immunol*, 2015, 16:1209-1211.

Lees JR, Azimzadeh AM, Ding Y, Webb TJ, Bromberg JS. Cells of the Immune System, Chapter 2 in *Transplant Immunology*, edited by XC Li and AM Jevnikar, Wiley Blackwell 2016.

Abstracts:

L.E. Hittle, C.C. Brinkman, W.F. Fricke, J. Bromberg, E.F. Mongodin. The Gut Microbiota Regulates Murine Cardiac Transplant Outcome. 3rd International Society of Microbiota (ISM) World Congress on Targeting Microbiota, Paris - Pasteur Institute, October 21-23, 2015.

Xiong Y, Brinkman C, Hippen K, Blazar B, Bromberg J. A Unique In Vitro Migration Model for Leukocyte Trans-Lymphatic Endothelial Migration. *Am J Transplant.* 2016;16 (suppl 3).

Xiong Y, Ahmad S, Iwami D, Brinkman C, Bromberg J. T-Bet Regulates nTreg Stability and Suppression in an Islet Allograft Model. *Am J Transplant.* 2016;16 (suppl 3).

Brinkman C, Hippen K, Blazar B, Bromberg J. Human and Mouse Treg Use Lymphotoxin for Migration Across Lymphatic Endothelium. *Am J Transplant.* 2016;16 (suppl 3).

Famulski K, Reeve J, Aubert O, Loupy A, Niderhaus S, Bromberg J, Halloran P. Many Discarded Kidneys Are Similar to Kidneys Accepted for Transplantation as Judged by Their Histologic Lesions and Molecular AKI Scores. *Am J Transplant.* 2016;16 (suppl 3).

Brinkman C, Hittle L, Fricke W, Mongodin E, Bromberg J. Fecal Microbiota Transplant Results in Durable Changes to Host Microbiota That Correlate with Allograft Outcome. *Am J Transplant.* 2016;16 (suppl 3).

Simon T, Bromberg J. Lymph Node Stromal Laminins Differentially Regulate T Cell Immunity and Tolerance. *Am J Transplant.* 2016;16 (suppl 3).

Xiong Y, Brinkman C, Hippen K, Blazar B, Bromberg J. Sphingosine 1-Phosphate (S1P) Receptors Differentially Regulate Murine and Human CD4 T Cell Migration Across Lymphatic Endothelium. *Am J Transplant.* 2016;16 (suppl 3).

Halloran P, Reeve J, INTERCOMEX Study Group Real Time Assessment of Kidney Transplant Indication Biopsies by Microarrays: First Results of the INTERCOMEX Study. *Am J Transplant.* 2016;16 (suppl 3).

Madariaga H, Ugarte R, Drachenberg C, Costa N, Thomas B, Bromberg J, Weir M, Haririan A. Surveillance Biopsy Findings with Alemtuzumab (ALZ) Induction in Kidney Transplantation. *Am J Transplant.* 2016;16 (suppl 3).

Dr. John LaMattina:

Major Committee Assignments:

American Society of Transplant Surgeons, Legislative Committee

Awards and Honors:

Poster of Distinction, 2016 American Transplant Congress

New Grants:

5/1/16-5/1/17 (PI)

“Molecular mechanisms responsible for the resolution of donor fatty liver disease following liver transplantation”

Living Legacy Foundation of Maryland, Inc.

Annual Direct Costs: \$50,000

Peer Reviewed Manuscripts:

LaMattina JC, Kelly PJ, Hanish SI, Ottmann SE, Powell JM, Hutson WR, Sivaraman V, Udekwu O, Barth RN. Intraoperative continuous veno-venous hemofiltration facilitates surgery in liver transplant patients with acute renal failure. *Transplant Proc.* 2015 Jul-Aug;47(6):1901-4.

Ahmad S, Inouye B, Sulek J, Phelan MS, Kramer AC, Weir MR, Barth RN, **LaMattina JC**, Schweitzer EJ, Leaser DB, Niederhaus SV, Bartlett ST, Bromberg JS. Live Donor Renal Transplant with Simultaneous Bilateral Nephrectomy for APKD: 10-year experience. *Transplantation* 2016; 100:407-415.

Mindikoglu AL, Dowling TC, Schaub DJ, Hutson WR, Potosky DR, Christenson RH, Barth RN, **LaMattina JC**, Hanish SI, Weir MR, Raufman JP. Pharmacokinetics and tolerability of intravenous sildenafil in two subjects with Child-Turcotte-Pugh class C cirrhosis and renal dysfunction. *Dig Dis Sci.* 2015. In press.

Ahmad SA, Miller M, Hanish SI, Bartlett ST, Hutson WR, Barth RN, **LaMattina JC**. Sequential kidney-liver transplantation from the same living donor as a cure for lecithin cholesterol acyl transferase (LCAT) deficiency. *Clinical Transplantation.* In press.

Abstracts:

Masters B, Sparkes T, Hanish S, Potosky D, Hutson W, Barth R, **LaMattina J**. Belatacept Immunosuppression in High Risk Liver Transplant Recipients. International Liver Transplant Society 21st International Congress. 2015 July 8-11; Chicago, IL, USA.

Woodall JD, Langford J, Klassen C, Harrison J, Parsell D, Dhru U, Hanish SI, Barth RN, **LaMattina JC**. Bioengineering liver allografts through organ scaffold recellularization. International Liver Transplant Society 21st International Congress. 2015 July 8-11; Chicago, IL, USA.

Lu I, Powell J, Alvarez-Casas J, Phelan MS, **LaMattina JC**, Barth RN. Robotic single-port donor nephrectomy using da Vinci Single-Site platform. Clinical Robotic Surgery Association 7th CRSA Worldwide Congress 2015 Oct 2-3; Chicago, IL, USA.

Cheng X, Schwartz EA, Burdorf L, Parsell D, Zhang T, Kang E, Uluer M, **LaMattina JC**, Ayares D, Azimzadeh AM, Pierson RN. Regulation of coagulation and fibrinolysis during liver perfusion ex vivo. 2015 IPITA-IXA-CTS Joint Congress 2015 Nov 15-19; Melbourne, Australia.

Uluer MC, Burdorf L, Parsell D, Sievert E, Chang X, Chang N, Azimzadeh AM, Pierson RN, Barth RN, **LaMattina JC**. Transgenic porcine livers preserve platelet counts during extra-corporeal perfusion with human blood. 2015 IPITA-IXA-CTS Joint Congress 2015 Nov 15-19; Melbourne, Australia.

Parsell DM, Uluer MC, Burdorf L, Sievert E, Schwartz E, Cheng N, Cheng X, Azimzadeh AM, Rees MA, Pierson RN, Barth RN, **LaMattina JC**. Development of a novel circuit for physiologic xeno perfusion of porcine livers with fresh whole human blood. 2015 IPITA-IXA-CTS Joint Congress 2015 Nov 15-19; Melbourne, Australia.

Cimeno A, Parsell DM, Uluer MC, Burdorf L, Ayares D, Azimzadeh AM, Pierson RN, Barth RN, **LaMattina JC**. hEPCR.hTBM and hEPCR.hTFPI prolong survival of galTKO.hCPRP porcine livers perfused with human blood. American Society of Transplant Surgeons 16th Annual State of the Art Winter Symposium. 2016 January 14-17; Miami, FL, USA.

Masoumi A, Hanish SI, **LaMattina JC**, Bruno DA, McGuire T, Kornak J, Zubrow M, Ostovitz S, Barth RN. E-visits to multiple list. American Society of Transplant Surgeons 16th Annual State of the Art Winter Symposium. 2016 January 14-17; Miami, FL, USA.

Masoumi A, Barth RN, **LaMattina JC**, Bruno DA, Hebert L, Ostovitz S, Hanish SI. Risk assessment tool and readmissions among liver transplant patient populations. American Society of Transplant Surgeons 16th Annual State of the Art Winter Symposium. 2016 January 14-17; Miami, FL, USA.

Cimeno A, Parsell DM, Uluer MC, Burdorf L, Ayares D, Azimzadeh AM, Pierson III RN, Barth RN, **LaMattina JC**. hEPCR.hTBM and hEPCR.hTFPI prolong survival of GalTKO.hCPRP porcine livers perfused with human blood. 22nd International Liver Transplant Society Annual International Congress. 2016 May 4-7; Seoul, South Korea.

Uluer MC, Parsell DM, Cimeno A, Burdorf L, Ramsoondar J, Sievert EP, Schwartz E, Cheng X, Chang N, Ayares D, Phelps C, Rees MA, Azimzadeh AM, Pierson III RN, Barth RN, **LaMattina JC**. Transgenic porcine livers preserve platelet counts during extra-corporeal perfusion with human blood. 22nd International Liver Transplant Society Annual International Congress. 2016 May 4-7; Seoul, South Korea.

LaMattina JC, Siskind E, Barth RN, Bruno DA, Hebert L, Hanish SI. Open or not open - perioperative elevated RIs do not predict hepatic artery thrombosis. 22nd International Liver Transplant Society Annual International Congress. 2016 May 4-7; Seoul, South Korea.

LaMattina JC, Siskind E, Barth RN, Bruno DA, McDonald T, Hanish SI. Traditionally unacceptable organs for use in patients with hepatocellular carcinoma before and after the implementation of Share 35. 22nd International Liver Transplant Society Annual International Congress. 2016 May 4-7; Seoul, South Korea.

LaMattina JC, Masoumi A, Barth RN, Bruno DA, Hebert L, Schulterman N, Hanish SI. LACE index risk assessment tool predicts liver transplant readmissions. 22nd International Liver Transplant Society Annual International Congress. 2016 May 4-7; Seoul, South Korea.

Hassanein WA, Dhru U, Woodall JD, Uluer MC, Cimeno A, Parsell D, Rivera C, Klepfer S, Drachenberg CB, Barth RN, **LaMattina JC**. Decellularized rat liver scaffolds support multilineage xenogenic and heterogenic cell growth. American Transplant Congress. 2016 June 11-15; Boston, MA, USA.

Posner A, Twadell WS, Hanish SI, Bruno DA, Hebert L, Barth RN, **LaMattina JC**, Resolution of donor non-alcoholic fatty liver disease following liver transplantation. American Transplant Congress. 2016 June 11-15; Boston, MA, USA

Hassanein WA, Dhru U, Woodall JD, Uluer MC, Cimeno A, Parsell D, Klepfer S, Rivera C, Harrison J, Langford J, Drachenberg CB, Barth RN, **LaMattina JC**. Bio-artificial liver generation using multilineage xenogenic and heterogenic cells. American College of Surgeons 2016 Clinical Congress. 2016 October 16 – 20; Washington, DC, USA.

Dr. Silke Niederhaus:

Major Committee Assignments:

Member, UNOS Pancreas Transplant Committee, At-Large Member, and Subcommittee Chair (Pancreas Underutilization and Facilitated Pancreas Allocation)

Abstracts:

Famulski KS, **Niederhaus S**, Reeve J, Bromberg JS and Halloran PF. “Molecular Score of Acute Kidney Injury Identifies Discarded Kidneys That Are Potentially Transplantable” , 2015 ASN, San Diego, CA).

Famulski KS, **Niederhaus S**, Reeve J, Bromberg JS and Halloran PF. “Many Discarded Kidneys Are Similar to Kidneys Accepted for Transplantation as Judged by Their Histologic Lesions and Molecular AKI Scores”, 2016 American Transplant Congress, Boston, MA.

Carrico R, Fridell J, Odorico JS, **Niederhaus S**, MD. “Is facilitated pancreas allocation effective?”, 2016 American Transplant Congress, Boston, MA).

Peer Reviewed Publications:

Greenean G, Ahmad SB, Anders MG, Leeser A, Bromberg JS, **Niederhaus SV**. Recreational Marijuana Use is Not Associated with Worse Outcomes After Renal Transplantation, in revision, Clinical Transplantation.

Dr. David Leeser:

Peer Reviewed Manuscripts:

Flechner SM, **Leeser D**, Pelletier R, Morgieovich M, Miller K, Thompson L, McGuire S, Sinacore J, Hil G. "Do the Right Thing. It Will Gratify Some People and Astonish the Rest."--M. Twain. *Am J Transplant*. 2016 Mar;16(3):1039-40. doi: 10.1111/ajt.13640. Epub 2016 Feb 1

Flechner SM, **Leeser D**, Pelletier R, Morgieovich M, Miller K, Thompson L, McGuire S, Sinacore J, Hil G. The Incorporation of an Advanced Donation Program Into Kidney Paired Exchange: Initial Experience of the National Kidney Registry. *Am J Transplant*. 2015 Oct;15(10):2712-7. doi: 10.1111/ajt.13339. Epub 2015 May 26.

Yi S, Rosenberry P, **Leeser DB**. Treating Disadvantaged Venous Anatomy with the GORE® Hybrid Vascular Graft: How the stent-driven venous anastomosis can be used to create and maintain vascular access in challenging dialysis patients. *Endovascular Today Supplement*, 2016 June; 16(6):17-19.

Chapter:

Yi S, Shaw K, Costa N, Leeser DB. “Pancreas Transplant at the University of Maryland”, in *Clinical Transplants*, 2015, Ed: Mathew J. Everly.

Awards:

Outstanding Ambassador of the Year 2104-2015, National Kidney Foundation of Maryland

Abstract Presentations:

Hybrid Vascular Grafts for Vascular Access Salvage and Creation in Patients with Challenging Anatomy. *Vascular Access Society of the Americas* May 2016.

Changing Paradigms in Health Care Delivery: Moving from Multidisciplinary to Multi-Organizational Based Care. Vascular Access Society of the Americas 2016.

New Research Grants:

Humacyte, An Assessment of Humacyte's Human Acellular Vessel in Patients Needing Renal Replacement Therapy: A Comparison with ePTFE Grafts as Conduits for Hemodialysis (HUMANITY). GORE, Evaluation of anti-platelet factor 4/heparin antibodies in hemodialysis patients implanted with the GORE® Hybrid Vascular Graft versus non-heparin bonded synthetic vascular grafts.

Programmatic Development:

Queenstown Surgical Center initiated as a site for access creation.

Waterloo Surgical Center initiated as a location for access evaluation and in process to begin access surgeries at Waterloo

Dr. Steven Hanish:

Abstract Presentation:

Oral abstract at ATC, use of traditionally discarded livers for the patients with hepatocellular cancer

National Committees and Service:

ASTS Winter Meeting Planning Committee

ASTS Fellowship Committee

Editorial Board, *Transplantation Reviews*

Organox National Warm Liver Perfusion Trial, Clinical events oversight board

Peer Reviewed Manuscripts:

LaMattina JC, Kelly PJ, **Hanish SI**, Ottmann SE, Powell JM, Hutson WR, Sivaraman V, Udekwu O, Barth RN. Intraoperative continuous veno-venous hemofiltration facilitates surgery in liver transplant patients with acute renal failure. *Transplant Proc.* 2015 Jul-Aug;47(6):1901-4.

Mindikoglu AL, Dowling TC, Schaub DJ, Hutson WR, Potosky DR, Christenson RH, Barth RN, LaMattina JC, **Hanish SI**, Weir MR, Raufman JP. Pharmacokinetics and tolerability of intravenous sildenafil in two subjects with Child-Turcotte-Pugh class C cirrhosis and renal dysfunction. *Dig Dis Sci.* 2015. In press.

Ahmad SA, Miller M, **Hanish SI**, Bartlett ST, Hutson WR, Barth RN, LaMattina JC. Sequential kidney-liver transplantation from the same living donor as a cure for lecithin cholesterol acyl transferase (LCAT) deficiency. *Clinical Transplantation.* In press.

Abstracts:

Woodall JD, Langford J, Klassen C, Harrison J, Parsell D, Dhru U, **Hanish SI**, Barth RN, LaMattina JC. Bioengineering liver allografts through organ scaffold recellularization. International Liver Transplant Society 21st International Congress. 2015 July 8-11; Chicago, IL, USA.

Masoumi A, **Hanish SI**, LaMattina JC, Bruno DA, McGuire T, Kornak J, Zubrow M, Ostovitz S, Barth RN. E-visits to multiple list. American Society of Transplant Surgeons 16th Annual State of the Art Winter Symposium. 2016 January 14-17; Miami, FL, USA.

Masoumi A, Barth RN, LaMattina JC, Bruno DA, Hebert L, Ostovitz S, **Hanish SI**. Risk assessment tool and readmissions among liver transplant patient populations. American Society of Transplant Surgeons 16th Annual State of the Art Winter Symposium. 2016 January 14-17; Miami, FL, USA.

LaMattina JC, Siskind E, Barth RN, Bruno DA, Hebert L, **Hanish SI**. Open or not open - perioperative elevated RIs do not predict hepatic artery thrombosis. 22nd International Liver Transplant Society Annual International Congress. 2016 May 4-7; Seoul, South Korea.

LaMattina JC, Siskind E, Barth RN, Bruno DA, McDonald T, **Hanish SI**. Traditionally unacceptable organs for use in patients with hepatocellular carcinoma before and after the implementation of Share 35. 22nd International Liver Transplant Society Annual International Congress. 2016 May 4-7; Seoul, South Korea.

LaMattina JC, Masoumi A, Barth RN, Bruno DA, Hebert L, Schulterman N, **Hanish SI**. LACE index risk assessment tool predicts liver transplant readmissions. 22nd International Liver Transplant Society Annual International Congress. 2016 May 4-7; Seoul, South Korea.

Posner A, Twadell WS, **Hanish SI**, Bruno DA, Hebert L, Barth RN, LaMattina JC, Resolution of donor non-alcoholic fatty liver disease following liver transplantation. American Transplant Congress. 2016 June 11-15; Boston, MA, USA

Dr. Soo Yi:

Peer Reviewed Manuscripts:

Yi, Soo Youn, Patricia Rosenberry, David B. Leeser. "Treating Disadvantaged Venous Anatomy with the GORE Hybrid Vascular Graft." *Endovascular Today*. 2016; 16: 17-19.

Yi, Soo Youn, Katie Shaw, Nadiesda Costa, David B. Leeser. "*Pancreas Transplant at the University of Maryland.*" In *Clinical Transplants 2015*. Matthew J. Everly. 2016.

Dr. David Bruno:

Peer Reviewed Manuscripts:

Miceli MH, Gonulalan M, Perri MB, Samuel L, Al Fares MA, Brown K, **Bruno DA**, Zervos M, Ramesh M, Alangaden G. Transmission of infection to liver transplant recipients from donors with infective endocarditis: lessons learned. *Transpl Infect Dis.* 2015 Feb;17(1):140-6. doi: 10.1111/tid.12330. Epub 2015 Jan 14. PMID: 25586791.

Takahashi K, Obeid J, Burmeister CS, **Bruno DA**, Kazimi MM, Yoshida A, Abouljoud MS, Schnickel GT. Intrahepatic Cholangiocarcinoma in the Liver Explant After Liver Transplantation: Histological Differentiation and Prognosis. *Ann Transplant.* 2016 Apr 12;21:208-15.

Abouljoud M, Malinzak L, **Bruno D**. Surgical Options for the Management of Portal Hypertension. *Curr Hepatology Rep* (2015) 14:225–233.

Dr. Rolf Barth:

Published Peer Reviewed Papers:

Brazio PS, Woodall J, Panda A, Brown EN, Ha JS, Azimzadeh AM, Rodriguez ED, Bartlett ST, Bojovic B, Barth RN. Infused bone marrow fails to prevent vascularized composite allograft rejection in nonhuman primates. *Am J Transplant.* 2015 Jul;15(7):2011-2.

Schultz BD, Woodall J, Brazio PS, Uluer MC, Kukuruga DL, Azimzadeh AA, Bojovic B, Rodriguez ED, Bartlett ST, Barth RN. Early Microchimerism after Face Transplantation Detected by Quantitative Real-Time Polymerase Chain Reaction of Insertion/Deletion Polymorphisms. *Transplantation.* 2015 Jul;99(7):e44-5.

Ahmad SB, Inouye B, Phelan MS, Kramer AC, Sulek J, Weir MR, Barth RN, LaMattina JC, Schweitzer EJ, Leeser DB, Niederhaus SV, Bartlett ST, Bromberg JS. Live Donor Renal Transplant with Simultaneous Bilateral Nephrectomy for Autosomal Dominant Polycystic Kidney Disease (APKD) is Feasible and Satisfactory At Long Term Follow-up. *Transplantation.* 2016 Feb;100(2):407-15.

Mindikoglu AL, Dowling TC, Schaub DJ, Hutson WR, Potosky DR, Christenson RH, Barth RN, LaMattina JC, Hanish SI, Weir MR, Raufman JP. Pharmacokinetics and Tolerability of Intravenous Sildenafil in Two Subjects with Child-Turcotte-Pugh Class C Cirrhosis and Renal Dysfunction. *Dig Dis Sci.* 2015 Nov;60(11):3491-4.

Azimzadeh AM, Kelishadi SS, Ezzelarab MB, Singh AK, Stoddard T, Iwase H, Zhang T, Burdorf L, Sievert E, Avon C, Cheng X, Ayares D, Horvath KA, Corcoran PC, Mohiuddin MM, Barth RN, Cooper DK, Pierson RN 3rd. Early graft failure of GalTKO pig organs in baboons is reduced by expression of a human complement pathway-regulatory protein. *Xenotransplantation.* 2015 Jul-Aug;22(4):310-6.

LaMattina JC, Kelly PJ, Hanish SI, Ottmann SE, Powell JM, Hutson WR, Sivaraman V, Udekwu O, Barth RN. Intraoperative Continuous Veno-Venous Hemofiltration Facilitates Surgery in Liver Transplant Patients with Acute Renal Failure. *Transplant Proc.* 2015 Jul-Aug;47(6):1901-4.

Book Chapters:

Siskind E and Barth RN. Alcoholic Cirrhosis, Transplantation, and Recurrence of Disease. In Thuluvath PJ, editor. *Disease Recurrence After Liver Transplantation: Natural History, Treatment, and Survival.* New York: Springer 2016, pp. 105-120.

Brazio PS, Rodriguez ED, Bartlett ST, and Barth RN. Reconstructive Transplantation: What Can We Learn from Solid Organ Transplantation? In Brandacher G, editor. *The Science of Reconstructive Transplantation.* New York: Springer, 2015. p. 33-44.

Abstracts:

Masters BM, Sparkes TM, Hanish SI, Potosky DR, Hutson WR, Barth RN, LaMattina JC. Belatacept Immunosuppression in High Risk Liver Transplant Recipients. Presentation at 21st Annual International Congress of the International-Liver-Transplant-Society (ILTS), July 8-11, 2015; Chicago, USA. *Transplantation*, Vol 99(S1): 275-276.

Hanish SI, Masoumi A, LaMattina JC, Njoka C, Hutson WR, Potosky D, Barth RN. Financial Impact of an Advanced Liver Disease Service On a Tertiary Health System. Presentation at 21st Annual International Congress of the International-Liver-Transplant-Society (ILTS), July 8-11, 2015; Chicago, USA. *Transplantation*, Vol 99(S1): 294.

Lu I, Powell JM, Alvarez-Casas J, Phelan MS, LaMattina JC, Barth RN. Robotic Single-Port Donor Nephrectomy using da Vinci Single-Site Platform. Oral Presentation, Clinical Robotic Surgical Association Worldwide Congress, October 3, 2015; Chicago, USA.

Uluer MC, Burdorf L, Parsell D, Sievert E, Chang X, Chang N, Azimzadeh AM, Pierson RN, Barth RN, LaMattina JC. Transgenic porcine livers preserve platelet counts during extra-corporeal perfusion with human blood. 2015 IPITA-IXA-CTS Joint Congress 2015 Nov 15-19; Melbourne, Australia.

Parsell DM, Uluer MC, Burdorf L, Sievert E, Schwartz E, Cheng N, Cheng X, Azimzadeh AM, Rees MA, Pierson RN, Barth RN, LaMattina JC. Development of a novel circuit for physiologic xeno perfusion of porcine livers with fresh whole human blood. 2015 IPITA-IXA-CTS Joint Congress 2015 Nov 15-19; Melbourne, Australia.

Cimeno A, Parsell DM, Uluer MC, Burdorf L, Ayares D, Azimzadeh AM, Pierson RN, Barth RN, LaMattina JC. hEPCR.hTBM and hEPCR.hTFPI prolong survival of galTKO.hCPRP porcine livers perfused with human blood. American Society of Transplant Surgeons 16th Annual State of the Art Winter Symposium. 2016 January 14-17; Miami, FL, USA.

Masoumi A, Hanish SI, LaMattina JC, Bruno DA, McGuire T, Kornak J, Zubrow M, Ostovitz S, Barth RN. E-visits to multiple list. American Society of Transplant Surgeons 16th Annual State of the Art Winter Symposium. 2016 January 14-17; Miami, FL, USA. Am J Transplant; 16(S1):XX.

Masoumi A, Barth RN, LaMattina JC, Bruno DA, Hebert L, Ostovitz S, Hanish SI. Risk assessment tool and readmissions among liver transplant patient populations. American Society of Transplant Surgeons 16th Annual State of the Art Winter Symposium. 2016 January 14-17; Miami, FL, USA. Am J Transplant; 16(S1):XX.

Cimeno A, Parsell DM, Uluer MC, Burdorf L, Ayares D, Azimzadeh AM, Pierson III RN, Barth RN, LaMattina JC. hEPCR.hTBM and hEPCR.hTFPI prolong survival of GalTKO.hCPRP porcine livers perfused with human blood. 22nd International Liver Transplant Society Annual International Congress. 2016 May 4-7; Seoul, South Korea. Transplantation, Volume: 100 Supplement: 5 Pages: S97-S97 Meeting Abstract: O-54 Published: MAY 2016

Uluer MC, Parsell DM, Cimeno A, Burdorf L, Ramsoondar J, Sievert EP, Schwartz E, Cheng X, Chang N, Ayares D, Phelps C, Rees MA, Azimzadeh AM, Pierson III RN, Barth RN, LaMattina JC. Transgenic porcine livers preserve platelet counts during extra-corporeal perfusion with human blood. 22nd International Liver Transplant Society Annual International Congress. 2016 May 4-7; Seoul, South Korea. Transplantation Volume: 100 Supplement: 5 Pages: S221-S221 Meeting Abstract: P-265 Published: MAY 2016

LaMattina JC, Siskind E, Barth RN, Bruno DA, Hebert L, Hanish SI. Open or not open - perioperative elevated RIs do not predict hepatic artery thrombosis. 22nd International Liver Transplant Society Annual International Congress. 2016 May 4-7; Seoul, South Korea. Transplantation, Volume: 100 Supplement: 5 Pages: S114-S115 Meeting Abstract: O-108 Published: MAY 2016

LaMattina JC, Siskind E, Barth RN, Bruno DA, McDonald T, Hanish SI. Traditionally unacceptable organs for use in patients with hepatocellular carcinoma before and after the implementation of Share 35. 22nd International Liver Transplant Society Annual International Congress. 2016 May 4-7; Seoul, South Korea. Transplantation, Volume: 100 Supplement: 5 Pages: S234-S234 Meeting Abstract: P-309 Published: MAY 2016

LaMattina JC, Masoumi A, Barth RN, Bruno DA, Hebert L, Schulterman N, Hanish SI. LACE index risk assessment tool predicts liver transplant readmissions. 22nd International Liver Transplant Society Annual International Congress. 2016 May 4-7; Seoul, South Korea. Transplantation, Volume: 100 Supplement: 5 Pages: S221-S221 Meeting Abstract: P-265 Published: MAY 2016

Presentations:

Barth RN. University of Maryland: Studies in Vascularized Composite Allografts. 12th Congress of the International Hand and Composite Allotransplantation Society. April 16, 2015: Philadelphia, PA.

Barth RN and Drachenberg C. Facial Vascularized Composite Allograft with Large Volume Vascularized Bone Marrow. International Workshop on Vascularized Composite Allotransplantation Histopathology; May 21, 2016; Durham, NC.

Barth RN. Clinical Management of Nonhuman Primates Enrolled in Transplant Studies: Translational Studies in Face Transplantation. American Association of Laboratory Animal Sciences 66th National Meeting, November 4, 2015; Phoenix, AZ.

Barth RN. CTA-10: Vascularized Bone Marrow Regulates Alloresponses to Vascularized Composite Allografts. Armed Forces Institute of Regenerative Medicine II Investigators Meeting. January 12, 2016: Bethesda, MD.

Barth RN. Vascularized Composite Allotransplantation: Chapter 2 – Risks and Benefits. Invited Oral Presentation at 16th Annual State of the Art Winter Symposium of the American-Society-of-Transplant-Surgeons, January 14 2016; Miami, FL. Am J Transplant; 16(S1):12.

Barth RN. E-Visits Facilitate Multiple Listing for Liver Transplantation. Lead Presenter, Mid-Atlantic Telehealth Resource Center Telehealth Summit. April 11, 2016: Cambridge, MD.

Barth RN. Paradigm Shifts in Liver Transplantation. York Hospital Grand Rounds, July 30, 2015: York, PA.

Barth RN. Introduction to Transplantation. Day of Discovery, School of the Cathedral of Mary Our Queen, February 4, 2016: Baltimore, MD.

Barth RN, Herzog J, Williams L, Funk J, Steiner M. Boundaries of the Body, Limits of Love. The World of the Play Inspired by Under the Skin – A Panel Discussion Series, Everyman Theater. February 6, 2016: Baltimore, MD.

Barth RN. Liver Transplantation. Association of Surgical Technologists, Maryland State Assembly, 2016 Spring Workshop, University of Maryland Medical Center, March 19, 2016: Baltimore, MD.

Grants Awarded:

2016-2018 Barth, R.N. (PI) Elster, E (Project PI at WRNMMC)
Adult Tissue-Derived Stem Cells and Tolerance Induction in Nonhuman Primates
for Vascularized Composite Allograft Transplantation
Congressionally Directed Medical Research Programs (CDMRP)
Total Direct + Indirect Costs: \$448,415

2015-2020 Barth, R.N. (Co-Investigator 7.5%; Pierson III, Richard N. PI)
Genetically-engineered pig organ transplantation into nonhuman primates
National Institutes of Health - 2U19AI090959-06

Total Direct Costs: \$473,458

Coagulation Control to Protect GaITKO Lung and Liver Xenografts

Media Coverage:

National Kidney Exchange. Nightline, ABC News. National Broadcast. April 14, 2015.

<http://abcnews.go.com/Health/donating-kidney-complete-stranger-order-save-loved/story?id=30288400>

The State of Transplants. Chesapeake Physician. July 1, 2015. <http://chesphysician.com/2015/07/01/the-state-of-transplants/>

Media Planet. Online published September 2015. <http://www.futureofpersonalhealth.com/education-and-research/double-listing-a-promising-option-for-patients-on-liver-transplant-list>

Outside the Lines, ESPN2, September 27, 2015. <http://espn.go.com/video/clip?id=13779593>

Everyman Theatre's World Of The Play: Under The Skin, The Mark Steiner Show, WEEA 88.9 FM Baltimore. February 12, 2016. <http://www.steinershow.org/podcasts/community-event/everyman-theater-under-the-skin-panel-discussion/>

Editorial Board:

2014 - Vascularized Composite Allotransplantation

2016 - Current Transplantation Reports, Section Editor Vascularized Composite Allografts

Study Sections:

2016 Grant Reviewer, Clinical Rehabilitative Medicine (CRM), United States Army Medical Research and Material Command (MRMC) Broad Agency Announcement (BAA) Extramural Medical Research (EMR) Program

Recognitions:

2015-6 Certificate of Appreciation for Mentorship (Irene Lu) in Gifted & Talented Education Program, Atholton High School, Columbia, MD

2015 Inducted into Society of Clinical Surgery (Elected 2014)

New Clinical Initiatives:

E-Visits for Liver Transplant Consultations

Liver Transplant Collaboration with George Washington University and possible integration of GI fellow into liver transplant service

Inova Fairfax Liver Transplant Evaluation Clinic

Trauma:

- Brandon Bruns, MD – Promoted to Associate Professor
- David Gens, MD – Received the Golden Apple Teaching Award

Urology:

- Dr. Andrew Kramer continues to have the third largest penile implant practice in the world. He was featured on the Jenny McCarthy show, aired live in February 2016 and was on the Dr. Oz show for the second time in March 2016. He has seven peer reviewed manuscripts.
- Dr. Siddiqui has developed the largest robotic cystectomy practice in the State of Maryland

Vascular Surgery:

Promotions:

- Robert Crawford, MD – Promoted to Associate Professor
- Brajesh Lal, MD – Promoted to Professor, with tenure

Clinical:

- Establishment of the first University of Maryland faculty practice in Hanover, PA with Dr. Daniel Neuzil. He performed more vascular surgery in the month of March 2016 than the hospital did in the past three years.
- Establishment of specialty multi-disciplinary clinics:
 - Limb Preservation Program
 - Thoracic Outlet Clinic
- Recruitment of new faculty member (Sira Duson) and preparation for new vascular surgery practice at Prince Georges Hospital Center.
- Establishment of outreach clinical programs at Charles Regional Medical Center (Drs. Lilly and Flohr)
- Re-accreditation of the Vascular Laboratory by the IAC.

Educational:

- Record attendance at our annual CME course “Advances in Vascular Surgery and Endovascular Therapy” May 2016
- For the fourth year in a row, a graduating vascular surgery fellow has been appointed to a full-time academic position (Adriana Laser, Albany Medical Center)
- 100% pass rate on American Board of Surgery Vascular Qualifying Examination for our fellowship graduates

Research:

- Seven presentations including three plenary oral at the Society for Vascular Surgery Annual Meeting June 2016.
- Department of Defense research grant awarded (PI: Robert Crawford) for study of ethyl pyruvate for prevention of limb ischemia-reperfusion

Baltimore 2015 Best Doctors:

Cardiac:

Kaushal, Sunjay - Pediatric

General:

Kavic, Stephen – Minimally Invasive

Kligman, Mark - Bariatric

Pediatric Surgery:

Strauch, Eric

Voigt, Roger - Urology

Plastic Surgery:

Slezak, Sheri - Breast

Surgical Oncology:

Hanna, Nada

Transplant: Kidney, Pancreas, Liver:

Bartlett, Stephen

Trauma:

Scalea, Thomas

Stein, Deborah

Urology:

Kramer, Andrew

The Department of Surgery enters FY 2017 with a strong, efficient and expanding faculty, demonstrated excellence in educational, research and clinical arenas, and with solid partnerships with our School, our Campus and a rapidly expanding Medical System. We have added four promising faculty for FY2017:

Vascular Surgeon - Dr. Sira Duson –

Dr. Duson received her MD from Temple University. She completed her residency in general surgery from the Union Memorial Hospital, here in Baltimore and her vascular fellowship from Georgetown University Hospital and the Washington Hospital Center.

Transplant Surgeon – Dr. Joseph Scalea –

Dr. Scalea received his MD from the University of Maryland, School of Medicine. He completed his residency in general surgery at the University of Maryland and was the executive administrative chief resident at the University of Maryland and the Shock Trauma Center. He completed his research fellowship in transplant biology from the Harvard Medical School, Transplantation Biology Research Center and his clinical fellowship in transplant surgery from the University of Wisconsin.

Thoracic Surgeon – Dr. Shelby Stewart –

Dr. Stewart received her MD from the University of Michigan. She completed her residency in general surgery from the Albert Einstein Medical Center and her cardiothoracic surgery residency from Beth Israel Deaconess Medical Center, Department of Surgery. She completed her clinical fellowship in invasive thoracic surgery from the Brigham and Women's Hospital, Department of Surgery.

Surgical Oncologist - Dr. Richelle Williams -

Dr. Williams received her MD from the Harvard Medical School. She completed her residency in general surgery from the University of Chicago and her clinical fellowship in complex surgical oncology at Dana Farber Cancer Institute, Brigham and Women's Hospital and Massachusetts General Hospital. She was successful in securing a K12 award through the BIRWCH.

FY2017 will continue to be a challenging year, but we are optimistic that we will have a successful year. Our Strategic Plan for FY2017 is as follows:

- Align with UMMC on hospital intensive programs; Cardiac, Transplant, Thoracic, Vascular & Oncologic Surgery to increase market share
- Align with the system for outpatient based programs
- Continue to expand service locations throughout Maryland, PA, DC, VA & West Virginia
- Rollout of new Department of Surgery Incentive Plan
- Continue with Cost Saving Initiative (CSI) Plans

In addition we have revised our faculty incentive plan. Currently the plan is based 100% on wRVUs. In FY2017, wRVUs will still be a large portion of the calculation, but will drop to 75%. The balance will be based on financial stewardship, research and academic productivity, quality indicators, citizenship, and divisional and individual profitability.

News Articles

Several news stories featured the Department of Surgery during fiscal year 2016. Inserted below are a sample of some prominent articles.

FISCAL YEAR 2016 SURGERY FACULTY MENTIONS

Dr. Rachel Bluebond-Langner; UMMC: Local doctor performs gender reassignment surgery >WMAR-TV - Apr 25 VIDEO <http://umm.gd/1qO6PpQ>
See Also: Transgender soldier serves as an advocate for others <http://umm.gd/1SKEfCt>

Dr. Rachel Bluebond-Langner; UMMC: Healthcare practitioners slowly becoming more sensitive to transgendered patients >Baltimore Sun - Mar 31 <http://umm.gd/1RsJRPf>

SOM, **Dr. Richard Pierson**: How This Pig Heart in a Baboon Body Could Save Your Life >Science.Mic - Apr 7 <http://umm.gd/1YiyHgs>

Dr. David Leeser, UMMC: Mom gives son the gift of life before Mother's Day >WBAL-TV - May 6 <http://umm.gd/1QUro9q>

Dr. Jonathan Bromberg; UMMC: University of Maryland Medical Center leads in kidney transplants for blacks >Baltimore Times - Mar 25 <http://umm.gd/22NzNEq>

Dr. Mohummad Minhaj Siddiqui; Prostate cancer and testicular cancer: Is there a hidden link? >NewsMax - Mar30 <http://www.newsmax.com/FastFeatures/prostate-cancer-testicular-cancer-link/2016/03/30/id/721407/>