

ACADEMIC YEAR 2015-2016



Distinction Track Program
UNDERGRADUATE MEDICAL EDUCATION OFFICE
UNIVERSITY OF LOUISVILLE SCHOOL OF MEDICINE

The Distinction Track Program provides students the opportunity for academic exploration and scholarly productivity in an area of medicine for which they have a passion.

Business & Leadership

Global Health

Medical Education

Research

This program is designed to increase the number of students choosing careers in academic medicine.

**UNDERGRADUATE MEDICAL EDUCATION
DISTINCTION TRACK PROGRAM
ANNUAL REPORT**

UNDERGRADUATE MEDICAL EDUCATION, SCHOOL OF MEDICINE

M. ANN SHAW, MD, MA, FACP

VICE DEAN FOR UNDERGRADUATE MEDICAL EDUCATION
CHAIR, DISTINCTION TRACK ADVISORY COMMITTEE

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INTRODUCTION

The Undergraduate Medical Education Distinction Track (DT) Program experienced a tremendous amount of growth during AY 2015-2016. Under the leadership of Dr. Ann Shaw, Vice Dean for Undergraduate Medical Education; and working closely with Shelley Gibson, Director of the DT Program; Susan Sawning, Undergraduate Medical Education Research Director; and Dr. Mary Carter, Co-Director of the Global Health Distinction Track; applications, student acceptances, scholarship and research increased.

DISTINCTION TRACK PROGRAM

Distinction Track Advisory Committee (DTAC) Members

DTAC meets quarterly to discuss issues pertinent to the DT Program and to share updates on individual tracks and research results.

- | | |
|--------------------------------------|--|
| • M. Ann Shaw, MD, MA, FACP (Chair) | • Toni Ganzel, MD, MBA, FACS |
| • Robert C.G. Martin, MD, PhD | • Sam Miller, PhD, MEd |
| • Michael Ostapchuk, MD, MEd | • Russell A. Prough, PhD |
| • John Roth, MD | • Susan Sawning, MSSW |
| • Mary Jo White | • Leland Woodmansee, CAE (GLMS) |
| • Shelley Gibson, MA | • Michael Keibler, MS |
| • Anne Noe | • Jhalak Dholakia, DIGH, Class of 2016 |
| • Elayna Dush, DIME, Class of 2017 | • Anna N. Thamann, DIR, Class of 2017 |
| • Kate Williams, DIBL, Class of 2016 | |

Individual Distinction Track Directors*

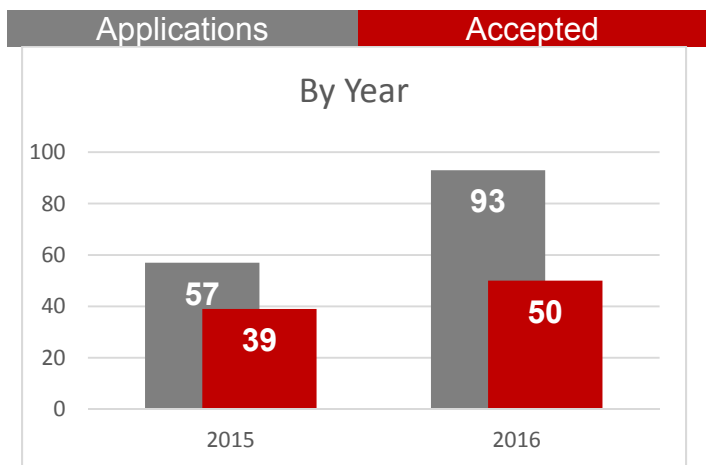
**Also members of Distinction Track Advisory Committee*

- | | |
|---|-------------------------------------|
| Distinction in Business and Leadership (DIBL) | Distinction in Global Health (DIGH) |
| • Brad Sutton, MD, MBA | • Bethany Hodge, MD, MPH |
| • In K. Kim, MD, MBA | • Mary Carter, MD, PhD |

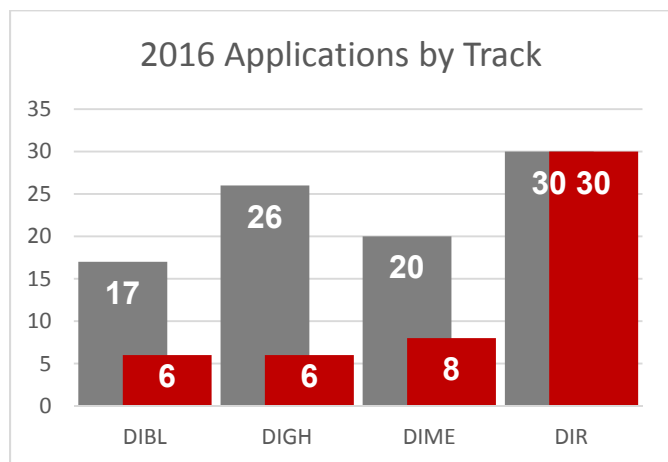
- | | |
|---|-------------------------------|
| Distinction in Medical Education (DIME) | Distinction in Research (DIR) |
| • Jennifer Bruckner-Collins, PhD | • Dale Schuschke, PhD |
| • Charles M. Kodner, MD | • Russ Prough, PhD |
| • Pradip Patel, MD | |

STUDENT PARTICIPANTS

Applications and Accepted Students



Applications increased 63.2%
Accepted students increased 28.2%



13 students applied to more than one track.
1 student had offers from two separate tracks:
DIGH and DIME.

M1 = Class of 2019, M2 = Class of 2018, M3 = Class of 2017, M4 = Class of 2016

Graduates

	<i>Class of 2013</i>	<i>Class of 2014</i>	<i>Class of 2015</i>	<i>Class of 2016</i>
<i>DIBL</i>	-	-	4	5
<i>DIGH</i>	-	-	4	4
<i>DIME</i>	-	-	-	5
<i>DIR</i>	16	19	22	32
<i>Total</i>	16	19	30	46

The Class of 2016 was the first UofL SOM class to have graduates from each of the Distinction Tracks.

Students in the DT Program for AY 2015-16

	<i>M1 (N=156)</i>	<i>M2 (N=152)</i>	<i>M3 (N=155)</i>	<i>M4 (N=155)</i>	<i>Total</i>
<i>DIBL</i>	6	6	4	5	21
<i>DIGH</i>	6	6	9	4	25
<i>DIME</i>	8	6	5	5	24
<i>DIR</i>	0*	20	25	32	77
<i>Total</i>	20	38	41	46	145


Abbreviations: M1 = Class of 2019, M2 = Class of 2018, M3 = Class of 2017, M4 = Class of 2016.
N = number of students in entire class.

**DIR does not accept students until beginning of M2 after Summer Research Scholar Program*

ACHIEVEMENTS

The following DT Program outcomes were achieved during AY 2015-16:

- 2016 Graduates
 - **46 students graduated with a certificate from the program:**
 - 5 from DIBL, 4 from DIGH, 5 from DIME, and 32 from DIR
- Recognition of DT Program Students
 - Two DIGH students were awarded Fulbright-Fogarty Fellowships
 - Jessica Eaton and Mackenzie Flynn will be doing research in sub-Saharan Africa
 - Both students will delay their fourth year of medical school in order to spend nine months conducting their research
 - More information about these two scholars can be found at the following link:
<http://uoflnews.com/releases/two-uofl-medical-students-receive-fulbright-fogarty-fellowships-for-research-in-sub-saharan-africa/>
 - **UofL is the first medical school with two awardees in the same year**
 - Eaton will research the causes and assess the outcomes of brain and spinal cord injuries in Lilongwe, Malawi
 - Flynn will work with pregnant HIV-positive women in Nairobi, Kenya to determine whether text messaging can increase compliance with treatments to prevent HIV transmission to their infants
 - DIGH director Bethany Hodge, MD, MPH, and McNore Lake (Class of 2017) were featured in the University of Louisville Magazine, Summer 2016 issue
 - The issue can be viewed at the following address:
<http://louisville.epubxp.com/i/705015-summer-2016>
- DTAC Presentations
 - University of Louisville School of Medicine DT Program: Results of the 2014-2015 Academic Year. Shaw, M.A., Gibson, S., Carter, M.B., Carr, E., Sawning, S. Research!Louisville, October 2015.
 - Encouraging Students' Interests: The Undergraduate Medical Education DT Program at the University of Louisville School of Medicine. Shaw, M.A., Sawning, S., Gibson, S., Carr, E., Carter, M. Southern Group on Educational Affairs, April 2016.
- DT Program Website Development
 - Year 2 of the centralized application process continues to yield benefits
 - Students may use an online form to submit:
 - Publications
 - Presentations
 - Awards
 - Projects specific to their track
 - Mentee/mentor changes
 - Open response (track specific achievements, travel, etc.)

- Branding
 - Logo for the DT Program was designed and approved
- 
- DT Program Newsletter
 - A newsletter was designed to inform DT Program students of events, ask for feedback, serve as a cross-track communication tool
 - 3 issues published in AY 2015-2016
 - DTAC meetings
 - DTAC met four times in AY 2015-2016
 - September 1, 2015; December 8, 2015; March 1, 2016; June 7, 2016
 - Lunch and Learn for 1st Year Medical Students
 - 98 students were in attendance on January 5, 2016 (20% increase from 2015)

PROGRAMMATIC EVALUATION

The following evaluation DT Program outcomes are in progress for AY 2015-16:

- DT Program Graduating Students Survey (4th year students)
 - 42 (91%) of 46 graduating DT Program students completed an exit survey in May, 2016
 - A summary of 4th year DT student exit survey data will be presented at the December 6, 2016 DTAC meeting
- Faculty/Mentor Survey on DT Program Graduating Students
 - 67 (64%) of 104 faculty/mentors of graduating DT Program students completed an exit survey June – August, 2016
 - A summary of faculty/mentor survey data will be presented at the December 6, 2016 DTAC meeting
- End of Year Evaluation Survey (2nd and 3rd year students)
 - 34 (89%) of 38 2nd year and 38 of 43 (88%) 3rd year DT Program students completed an end of year evaluation survey in May, 2016
 - A summary of 2nd and 3rd year DT student survey data will be presented at the December 6, 2016 DTAC meeting
- IRB approval was obtained for a Longitudinal DT Program Evaluation/Research Study
 - To explore DT Program student outcomes in greater depth
 - To compare DT Program student outcomes (match results and scholarship) to non-DT student outcomes using MCAT, class rank, and Step scores as covariates

Abbreviations: M2 = Class of 2018, M3 = Class of 2017, M4 = Class of 2016.
n = number of students in each DT year.

- Student Scholarship as a direct result of DT Program participation:

	<i>M2 (n = 38)</i>	<i>M3 (n = 43)</i>	<i>M4 (n = 46)</i>
<i>Posters</i>	0.7	1.4	2.4
<i>Podium presentations</i>	0.2	0.4	0.7
<i>Manuscripts submitted</i>	0.2	0.7	1.9
<i>Manuscripts accepted</i>	0.1	0.3	1.2
<i>Conferences attended</i>	0.4	0.9	1.5

Data collected from end of year surveys and expressed as mean scholarship/productivity per DT student.

- Hours per month DT Program students reported spending on DT Program activities over and above normal medical school work load:

	<i>M2 (n = 38)</i>	<i>M3 (n = 43)</i>	<i>M4 (n = 46)</i>	OVERALL MEAN
<i>Second Year</i>	11.8	9.3	16.0	12.4
<i>Third Year</i>		10.3	18.1	14.2
<i>Fourth Year</i>			14.0	14.0

Data collected from end of year surveys and expressed as mean hours/month per DT student.

STUDENT SCHOLARSHIP

Student names in **bold**. Mentor names in **red** for AY 2015-16.

	DIBL	DIGH	DIME	DIR	TOTAL
Manuscripts	5	4	0	59	68
<i>Accepted</i>	1	2	0	28	31
<i>Under Review</i>	2	1	0	28	31
<i>In Progress</i>	2	1	0	3	6
Presentations	3	17*	2*	54	76

*Students from each track worked cooperatively on the same presentation. Marked below by a gray box.

Manuscripts

Distinction in Business and Leadership (5 Manuscripts)

Published/Accepted

1. **Sutton, E.**, Walling, S., Kimbrough, C., **Borkheteria, N.**, Jones, W., **Sutton, B.** Cost-Analysis of Free Colonoscopies in an Uninsured Population Enriched for Colorectal Cancer. Journal of the American College of Surgeons, 2016 Jul;223(1):129-32.

Under Review

2. **Keskey, R.**, Lajoie, S., Frick, K., **Sutton, B.**, **Kim, I.**, Ajkay, N. Cost Effectiveness Analysis of Contralateral Prophylactic Mastectomy Compared to Unilateral Mastectomy with Routine Surveillance for Unilateral, Sporadic Breast Cancer. Journal of American College of Surgeons. (Under Review)
3. **Thai, A.**, Cross, K., Warkentine, F., McLario, D., Kessler, D., Abo, A., Cohen, J., **Wiedemann, N.**, Foster, B., **Sutton, B.**, Southard, G., **Kim, I.** Financial Model for a Point-of-Care Ultrasound Program in a Pediatric Emergency Department. Pediatric Emergency Care. (Under Review)

In Progress

4. **Spaulding, T.**, Tomchek, S., Southard, G., **Sutton, B.**, **Godby, J.**, **Kim, I.** Implementation of 4 Disciplines of Execution™ on Wait Times and Collected Revenue for an Academic Pediatric Development Office. (In Progress)
5. Hancock, M., **Spiller, N.**, **Kim, I.**, **Liu, G.** Strategy to Increase Throughput in a Large Urban Academic General Pediatrics Teaching Practice. (In Progress)

Distinction in Global Health (4 Manuscripts)

Published/Accepted

6. **Eid, R.**, Sharma, D., **Smock, W.** Podoconiosis in Rural Tanzania. American Journal Tropical Medicine and Hygiene. 2016 vol. 95(1), 1.
7. **Kingery, F.**, **Naanyu, V.**, **Allen, W.**, **Patel, P.** Photovoice in Kenya: Using a Community Based Participatory Research Method to Identify Health Needs. Qualitative Health Research. 2016 Jan;26(1):92-104.

Under Review

8. **Eid, R.**, Knittle, E., Belknap, B., **Carter, M.** HIV Medication Adherence in Rural Southern Tanzania. Tanzania Journal of Health Research, June 2016. (Under Review)

In Progress

9. **Lake M. Vidwan, J.** Medical Students Serve Refugees at First Global Health Fair. UofL HSC Office of Diversity and Inclusion, Diversity Committees, and Commission on Diversity and Racial Equality Newsletter, April 2016. (In Progress)

Distinction in Research (59 Manuscripts)

Published/Accepted

1. **Bruenderman, E., Martin II, R.** A cost analysis of a pancreatic cancer screening protocol in high-risk populations. The American Journal of Surgery, 2015; 409-416.
2. Ramakrishnan, V., Yang, J., Tien, K., McKinley, T., Bocard, B., Majub, J., **Burchell, P.**, Williams, S., Morris, M., Hoying, J., Wade-Martins, R., West, F., and **Boyd, N.** Restoration of Physiologically Responsive Low-Density Lipoprotein Receptor-Mediated Endocytosis in Genetically Deficient Induced Pluripotent Stem Cells. Nature Scientific Reports, 2015; 5:13231.
3. Fassbender, J., Ozkok, A., **Canter, H.** A Comparison of Immediate and Delayed Vitrectomy for the Management of Vitreous Hemorrhage due to Proliferative Diabetic Retinopathy. Ophthalmic Surgery. Lasers and Imaging Retina, 2016; 47(1):35-41.
4. Evans, S., Maglinger, G., **Fletcher, A.**, Johnson, S. Benzonatate Inhibition of Voltage-Gated Sodium Currents. Neuropharmacology, February 2016;101:179-87.
5. **Fletcher, A.**, Sims-Williams, H., Wabulya, A., and Boling, W. Stigma and Quality of Life at Long Term Follow-Up After Surgery for Epilepsy in Uganda. Epilepsy and Behavior, November 2015; 52:123-31.
6. Reyes-Reyes, E., Salipur, F., Shams, M., **Forsthoefel, M., Bates, P.** Mechanistic studies of Anticancer Aptamer AS1411 Reveal a Novel Role for Nucleolin in Regulating Rac1 Activation. Journal of Molecular Oncology, August 2015; 9(7): 1392-405.
7. Kimbrough, C., **McMasters, K.**, Canary, J., Jackson, L., Farah, I., Boswell, M., **Kim, D., Scoggins, C.** Improved Operating Room Efficiency via Constraint Management: Experience of a Tertiary-Care Academic Medical Center. Journal of the American College of Surgeons, July 2015; 221(1): 154-162.
8. **Mariella, M.**, Kimbrough, C., **McMasters, K., Ajkay, N.** Longer Time Intervals from Diagnosis to Surgical Treatment in Breast Cancer: Associated Factors and Survival Impact, 2016.
9. **Gomez-Gutierrez, J., Nitz, J.,** Sharma, R., Wechman, S., Riedinger, E., Martinez-Jaramillo, E., Zhou, H., **McMasters, K.** Combined therapy of oncolytic adenovirus and temozolomide enhances lung cancer virotherapy in vitro and in vivo. Virology, 2016; 487, 249-259.
10. Philips, P., **North, D., Scoggins, C.,** Schlegel, M., **Martin, R.** Gastric-Esophageal Stenting for Malignant Dysphagia: Results of Prospective Clinical Trial Evaluation of Long-Term Gastroesophageal Reflux and Quality of Life-Related Symptoms. Journal of the American College of Surgery, July 2015; 221(1):165-73.
11. **Martin, R., North, D.** Enhanced Ultrasound With Navigation Leads to Improved Liver Lesion Identification and Needle Placement. The Journal of Surgical Research, February 2016; 200(2):420-6.

12. **Page, P.**, Cambon, A., **James, R.** E-127 Intra-arterial Thrombolysis for Central Retinal Artery Occlusion: A Systematic Review and Meta-analysis. *Journal of NeuroInterventional Surgery*, July 2015; 7(Supplement 1): A99.
13. **Page, P.**, Cambon, A., **James, R.** P-017 Time to Treatment Effect on Visual Recovery after Intra-arterial Thrombolysis for Acute Central Retinal Artery Occlusion. *Journal of NeuroInterventional Surgery*, July 2015; 7(Supplemental 1): A31.
14. **Page, P.**, Nazar, R., Park, M., **James, R.** Copper Deficiency Myelopathy in the Setting of Advanced Degenerative Cervical Spondylosis. *British journal of neurosurgery*, September 2015; 1-3.
15. **James, R.**, Kramer, D., **Page, P.**, Gaughen, J., Martin, L., Wainwright, K., Mack, W. Strategic and Technical Considerations for the Endovascular Embolization of Intracranial Meningiomas. *Neurosurgery Clinics of North America*, July 2015; 27(2):155-66.
16. **Page, P.**, Kim, D., Hall, G., **Koutourosiou, M.** Cerebral Vasospasms Following Endoscopic Endonasal Surgery for Pituitary Adenoma Resection in the Absence of Post-Operative Subarachnoid Hemorrhage. *J Neurol Stroke*, 2016; 4(3): 00130.
17. Barnett, R., Conklin, D., Ryan, L., Keskey, R., **Ramjee, V.**, Sepulveda, E., **Cheadle, W.** Anti-inflammatory effects of miR-21 in the macrophage response to peritonitis. *Journal of Leukocyte Biology*, 2016; 99(2), 361-371.
18. Weaver, J., Barnett, R., Patterson, D., **Ramjee, V.**, Riedinger, E., Younga, J., **Cheadle, W.** Large-bowel disease presenting as small-bowel obstruction is associated with a poor prognosis. *American Journal of Emergency Medicine*, 2016; 34(3), 477-479.
19. Schumer, E., Black, M., **Rogers, M.**, Trivedi, J., Birks, E., Lenneman, A., Cheng, A., **Slaughter, M.** Donor Undersizing Results in Worse Post-Transplantation Survival in Left Ventricular Assist Device Patients: A UNOS Database Analysis. *ASAIO Journal*. August 2016; 62(5), 571-577.
20. Black, M., Schumer, E., **Rogers, M.**, Trivedi, J., **Slaughter, M.** Sunshine Heart C-Pulse: Device for NYHA Class III Heart Failure. *Future Cardiology*. July 2016; 12(5):521-31.
21. **Shutt, T.**, Philips, P., Scoggins, C., **McMasters, K.**, **Martin, R.** Permanent Loss of Preoperative Independence in Elderly Patients Undergoing Hepatectomy: Key Factor in the Informed Consent Process. *Journal of Gastrointestinal Surgery*, 2016; 20(5), 936-944.
22. **Owen, C.**, **Wall, W.** Vitiligo. In F.J. Domino (Ed.), *The 5 Minute Clinical Consult*. Indianapolis: Wolters Kluwer Health, 2015; 1282-1283.
23. **Wall, W.**, Campbell, C., Bahrami, S., **Owen, C.** Striking Cutaneous Presentation of MRSA Sepsis in a Healthy Child. *JAMA Dermatology*, November 2015; 152(5), 580-582.
24. **Wehry, J.**, Agle, S., Philips, P., Cannon, R., **Scoggins, C.**, Puffer, L., **McMasters, K.**, **Martin, R.** Restrictive Blood Transfusion Protocol in Malignant Upper Gastrointestinal and Pancreatic Resections Patients Reduces Blood Transfusions with No Increase in Patient Morbidity. *Am J Surgery*, 2015; 210(6):1197-204.
25. Rogers, T., **Whaley, R.**, Monroe, E., **Nyland, J.** Structured Rehabilitation Model for Patients with Patellofemoral Pain Syndrome. *Sports Injuries: Prevention, Diagnosis, Treatment and Rehabilitation*, 2nd edition; 1605-1616.
26. Kimbrough, C., Khanal, A., **Zeiderman, M.**, Khanal, B., Burton, N., **McMasters, K.**, Vickers, S., Grizzle, W., **McNally, L.** Targeting Acidity in Pancreatic Adenocarcinoma: Multispectral Optoacoustic Tomography Detects Ph-Low Insertion Peptide Probes in Vivo. *Clinical Cancer Research*, October 2015; 21(20): 4502-4504.
27. Riccio, C., **Zeiderman, M.**, Chowdhry, S., Brooks, R., Kelishadi, S., Tutela, J., Choo, J., Yonick, D., Wilhelmi, B. Plastic Surgery of the Breast: Keeping the Nipple Sensitive. *ePlasty*, July 2015; 15(e28).

28. Kelishadi, S., **Zeiderman, M.**, Freeman, D., Tutela, J., Wilhelmi, B. The Double Opposing Semiocclusive Drain Dressing. *Aesthetic Surgery Journal*, September 2015; 36(2): NP71–NP73.

Under Review

29. **Ahmad, S.** The Short Form of the Serotonin Transporter and Response to an Antipsychotic Used as an Antidepressant. *Mood Disorders Research Program*. (Under Review)
30. **Baker, J.**, **Seligson, D.**, Kasdan, M. Meta-analysis of Diagnostic Imaging Modalities for the Diagnosis of Complex Regional Pain Syndrome Type I of the Lower Extremity. *Journal of Orthopaedic Trauma*. (Under Review)
31. **Baker, J.** Analysis of Radiopaque Polymer Perfused Rodent Hindlimbs. *Journal of Visualized Experiments*. (Under Review)
32. Zhang, M., Hellman, J., **Baker, J.**, Conklin, D., Bhatnagar, A., Spite, M. Inflammation-resolving Lipid Mediators, Resolvin D1 and D2, Enhance Postischemic Revascularization. (Under Review)
33. Egger, M., Xiao, D., **Barry, S.**, Kmetz, D., Pan, J., Rai, S., **Hao, H.**, **McMasters, K.** Melanoma Cell-Derived Exosomes Promote Epithelial-Mesenchymal Transition in Primary Melanocytes Through Paracrine/Autocrine Signaling in the Tumor Microenvironment. *Molecular Cancer Research*. (Under Review)
34. **Martin II, R.**, **Bruenderman, E.**, et al. Sorafenib use for Recurrent Hepatocellular Cancer after Resection or Transplantation: Observations from a US Regional Analysis of the GIDEON Registry. *Annals of Surgery*. (Under Review)
35. Robinson, L., **Burchell, P.**, **Riehl, J.** The Efficacy of Arthroscopic Teaching Methods: A Prospective Randomized Controlled Study, 2015. (Under Review)
36. **Crigger, M.**, Duran, S., Gevedon, M., Kim, E., **Pantalos, G.** Determination of Critical Atrial Septal Defect Size to Relieve Left Atrial Hypertension by Atrial Septostomy. *Pediatric Critical Care Medicine*, May 2016. (Under Review)
37. **Crigger, M.**, Heidrich, S., Rostas, J., **McMasters, K.**, **Martin, R.**, Crawford, S., **Ajkay, N.** Calculation of Breast Volumes from Mammogram: Comparison of Four Separate Equations Relative to Mastectomy Specimen Volumes. *Annals of Surgical Oncology*, May 2016. (Under Review)
38. **Caperell, K.**, **Gerughty, A.**, Pettigrew, J., **Stevenson, M.** Provider Prediction of Disposition for Children With an Acute Exacerbation of Asthma Presenting to the Pediatric Emergency Department. *Pediatric Emergency Care*, 2016. (Under Review)
39. **Kim, D.**, Page, P., Hall, G., Koutourousiou M. Case Report: Cerebral Vasospasms Following Transsphenoidal Resection of a Pituitary Macroadenoma in Absence of Radiological Evidence of Post-Operative Subarachnoid Hemorrhage. *Manuscript Journal of Neurology, Neurosurgery, and Psychiatry*. (Under Review)
40. Harrison, B., Venkat, G., **Lamb, J.** The Adaptor Protein CD2AP is a Coordinator of Neurotrophin Signaling-Mediated Axon Arbor Plasticity. *Journal of Neuroscience*. (Under Review)
41. Spears, R., **Lamb, J.**, Rau, K., Koenig, H., **Petruska, J.** Analysis of the Expression of Sodium Channel Subunit Beta-3 in Sensory Neurons. *Molecular Pain*. (Under Review)
42. **Lamb, J.**, Lonnie, D., **Seligson, D.**, Seid, W., and **Voor, M.** Anatomy of the Sternum: A Micro-CT Study to Guide the Fixation of Sternal Fractures. (Under Review)

43. **Martin, R., North, D.**, Besselink, M., Ianitti, D., Weiss, M., Wolfgang, C., Huang, K. Irreversible Electroporation: A Call for Standardization of Energy Delivery. Publication to the American Journal of Surgery. (Under Review)
44. **Page, P.**, Cambon, A., **James, R.** Visual Improvement after Intra-arterial Thrombolysis for Central Retinal Artery Occlusion does Not Correlate with Time to Treatment. British Journal of Neurosurgery, July 2015. (Under Review)
45. **James, R., Page, P.**, Cambon, A., Brock, G., Rai, S. Intra-Arterial Thrombolysis for Acute Central Retinal Artery Occlusion: A Systematic Review and Meta-Analysis. Stroke, September 2015. (Under Review)
46. **Song, D.**, Amraotkar, A., Ismail, I., Kothari, V., Trainor, P., Singh, A., Rai, S., **DeFilippis, A.** Role of Mean Platelet Volume and Platelet Count to Differentiate Between Atherothrombotic and Non-Atherothrombotic Myocardial Infarction. Texas Heart Journal. (Under Review)
47. Webb, B., **Spears, J., Smith, L., Malkani, A.** Peri-Articular Injection Using Liposomal Bupivacaine in Total Knee Arthroplasty. Arthroplasty. (Under Review)
48. Liao, J., Khoury, L., **Spears, R.**, and North, W. The Use of Integra in the Closure of a Large Myelomeningocele. Journal of Neurosurgery: Pediatrics. (Under Review)
49. **Spears, R.**, Lamb, J., Rau, K., Koenig, H., and **Petruska, J.** Analysis of the Expression of Sodium Channel Subunit Beta-3 in Sensory Neurons. Molecular Pain. (Under Review)
50. **Zeiderman, M.**, Kimbrough, C., Khanal, A., Yen, W., **McMasters, K., McNally, L.** Acidic Ph-Targeted Chitosan Coated Mesoporous Silica Coated Gold Nanorods Facilitate Detection of Orthotopic Pancreatic Tumors via Multispectral Optoacoustic Tomography. ACS Nano. (Under Review)
51. **Zeiderman, M.**, Riccio, C., Nguyen, J., Schulz, S., Wilhelmi, B. Pseudoptosis Correction with 270 Degree Pedicle Reduction Mammoplasty: An Anatomic and Clinical Study. Aesthetic Surgery Journal. (Under Review)
52. Ghazi, C., **Whaley, R., Nyland, J.**, Rogers, T., Wera, J., Henzman, C. Social Cognitive Theory Use in Musculoskeletal Rehabilitation: A Systematic Review. Physiotherapy Theory and Practice. (Under Review)
53. **Jung, K.**, Wellman, B., **Williams, M.** Inconsistent Association of Breast Tumor with Wash-in and Wash-out Kinetics in Dynamic Contrast Enhanced Breast MRI. Magnetic Resonance in Medicine. (Under Review)
54. **Jung, K., Williams, M.**, Nonlinear Geometric Distortion of Dynamic Contrast Enhanced Breast MRI. Magnetic Resonance in Medicine. (Under Review)
55. Himschoot, K., **Williams, M., Zou, J.** Unilateral Digital Artery Based Modified Reverse Sural Nerve Flap for Soft Tissue Coverage in Anterior Tibia and Foot/Ankle Region Defects. Journal of Reconstructive Microsurgery Open Access. (Under Review)
56. **El-Mallakh, R., Yff, T.**, Gao, Y. Ion Dysregulation in the Pathogenesis of Bipolar Illness. Manuscript. (Under Review)

In Progress

57. **Smith, L., El-Mallakh, R.** Tardive Psychosis. Target Journal: Current Psychiatry, or possibly Harvard Review of Psychiatry. (In Progress)
58. **Spears, R.**, Page, P., Nazar, R., Wilder, M., Downs, R., and **James, R.** Middle Cerebral Artery Branch Stenosis Mimicking Cerebral Aneurysm. (In Progress)
59. **James, R.**, Page, P., **Spears, R.**, Kiser, R., and Wilder, M. Prehospital Stroke Scales Predicting Persisting Large Vessel Occlusions. (In Progress)

Poster and Oral Presentations

Distinction in Business and Leadership (3 Presentations)

1. **Keskey, R.**, Lajoie, S., Frick, K., **Sutton, B.**, **Kim, I.**, Ajkay, N. Cost Effectiveness Analysis of Contralateral Prophylactic Mastectomy Compared to Unilateral Mastectomy with Routine Surveillance for Unilateral, Sporadic Breast Cancer. Oral presentation at the Scientific Forum program at the American College of Surgeons, Clinical Congress, Chicago, IL, October 2015.
2. **Linares, C.**, Steiner, A., Nosova, K., Davis, E., **Dunlap, N.**, **Kim, I.**, **Sutton, B.** Retrospective Cost-Utility Analysis of Stereotactic Body Radiotherapy versus Transarterial Chemoembolization for Unresectable Hepatocellular Carcinoma: An Economic Evaluation from a Payer's Perspective. Presented to the Department of Radiation Oncology, University of Louisville School of Medicine, Louisville, KY, August 2015.
3. **Spaulding, T.**, Tomcheck, S.D., Southard, G., **Sutton, B.**, Godby, J., **Kim, I.K.** Impact of Implementation of 4 Disciplines of Execution™ on Wait Times and Collected Revenue for an Academic Pediatric Development Office. Oral presentation at American Academy of Pediatrics, Council on Quality Improvement and Patient Safety, October 2015.

Distinction in Global Health (17 Presentations)

4. **Brown, E.**, **Carter, M.**, Robertson, S., Conners, K. HealthCare Concerns of Undocumented Latin American Immigrant Backstretch Workers: A Literature Review. Poster presentation at Research!Louisville, October 2015.
5. **Calderon, C.**, Jain, A., Abuzar, M., Peyrani, P., Truelove, D., Bishop, M., **Raghuram, A.** Characteristics of HIV-Positive Patients Co-Infected with Syphilis at the 550 Clinic in the University of Louisville. Poster presentation at the 2016 New England Science Symposium, Harvard University, April 2016.
6. Spensley, C., **Dholakia, J.**, **Kingery, F.**, **Hodge, B.**, **Brothers, K.** Establishing Trends in Adolescent STI and Contraception Counseling by Pediatricians. Presented at Research!Louisville, October 2015.
7. **Eaton, J.**, **Murrell, Z.**, James, S., Cornwall, G. The International OR: The Impact of Kenya Relief on the Surgical Burden of Disease in Migori, Kenya. Poster presentation at Research!Louisville, October 2015.
8. **Eaton, J.**, **Murrell, Z.**, James, S., Cornwall, G. The Impact of a Rotating Short-Term Partnership Model on Burden of Surgical Disease in Migori, Kenya. Poster presentation at the Annual Consortium of Universities for Global Health Conference, San Francisco, CA, April 2016.
9. Knittle, E., **Eid, R.**, Belknap, B., **Carter, M.B.** Evaluating HIV Medication Adherence in Tanzania, Africa. Poster presentation at at Research!Louisville, October 2015.
10. Knittle, E., **Eid, R.**, Belknap, B., **Carter, M.B.** Evaluating HIV Medication Adherence in Tanzania, Africa. Poster presentation at the American College of Physicians Kentucky Chapter Scientific Meeting, Lexington, KY, November 2015.
11. Sharma, D., **Eid, R.**, Smock, W. Initiating a Community-Based Intervention against Podoconiosis in the Highlands of Southwestern Tanzania. Poster presentation at American College of Physicians Kentucky Chapter Scientific Meeting, Lexington, KY, November 2015.

12. **Flynn, M., Carter, M.** What Can the Literature Reveal About Birthing Practices in Mufindi, Tanzania? Poster presentation at Research!Louisville, October 2015.
13. **Haffler, T.,** Freeman, C., Smock, W., **Carter, M.** Presentation of Pterygium in Mufindi, Tanzania, Africa. Poster presentation at Research!Louisville, October 2015.
14. **Kaufman, R., Brothers, K.** Providing Aid: A Proof for Global Utilitarianism. Poster presentation at University of Texas Medical Branch National Student Research Foundation conference, Galveston, TX, April 2016.
15. **Lake, M., Means, M.,** Okafor, K. Kentucky Refugee Outreach Program: Program Plan for Refugee Health Education. Poster presentation at Research!Louisville, October 2015.
16. **Lake, M., Means, M.,** Okafor, K. Kentucky Refugee Outreach Program: Program Plan for Refugee Health Education. Oral presentation at the North American Refugee Health Conference, Niagara Falls, NY, June 2016.
17. **Lake, M.,** Vidwan, N. Assessing the Three Delays in Maternal Health Care: A Comparison of Sierra Leone and Bangladesh in the MDG Era. Poster presentation at Annual National Association for Minority Medical Education National Conference, Louisville, KY, September 2015.
18. Van Heiden, S., Johnson, W., Just, E., **Lake, M.,** Carrico, R., Ramirez, J. Global Health Center: Implementation of a Community Health Interdisciplinary Collaboration Serious Newly Arriving Refugees in Louisville, KY. Poster presentation at the North American Refugee Health Conference, Niagara Falls, NY, June 2016.
19. **Lyle, A., Hodge, B.,** and **Stewart, D.** Ethical Considerations in Pre-Departure Training of Western Pediatricians Performing New Baby Discharge in Low-Resource Settings: A Literature Review. Poster presentation at University of Texas Medical Branch National Student Research Foundation conference, Galveston, TX, April 2016.
20. **Keibler, M.,** Couch, S., **Means, M., Carter, M., Hodge, B.** Improving Global Health Education through Pre-Departure Training (PDT) curriculum. Poster presentation at Southern Group on Educational Affairs Conference, April 2016.

Distinction in Medical Education (2 Presentations)

21. **O'Brien, C., Kodner, C.** Service Learning at the University of Louisville: Domestic and International Experiences. Poster presentation at Annual Midwest Global Health Conference, Louisville, KY, 2015.
22. **Keibler, M., Couch, S.,** Means, M., **Carter, M., Hodge, B.** Improving Global Health education through Pre-Departure Training (PDT) curriculum. Poster presentation at Southern Group on Educational Affairs Conference, April 2016.

Distinction in Research (54 Presentations)

Presentations

23. **Akers, B.,** Krupp, S., Gao, Y., Roberts, M.B., **El-Mallakh, R.** Does Sleep Deprivation Lower Corticosterone Levels in Mice? Presented at International Society for Bipolar Disorders, 2015.
24. **Akers, B.,** Krupp, S., Gao, Y., Roberts, M., **El-Mallakh, R.** Corticosterone Response in Mice Undergoing Sleep Deprivation and Sleep Fragmentation. Research!Louisville, October 2015.
25. **Brooke, E., Polikva, B.,** Folz, R. The Concordance Between SPT and IgEs in Older Adults with Asthma. Poster presentation at Research!Louisville, October 2015.

26. **Canter, H.**, Palacio, A., Lu, H., Borghuis, B., **Schaal, S.** A Novel Experimental Model to Investigate the Role of Microglial Cells In Retinal Edema. Oral presentation at The Association for Research in Vision and Ophthalmology Annual Meeting, May 2016.
27. **Canter, H.**, Palacio, A., Lu, H., Borghuis, B., **Schaal, S.** A Novel Experimental Model to Investigate the Role of Microglial Cells In Retinal Edema. Poster presentation at Research!Louisville, October 2015.
28. **Clarke, A.**, **Matheson, P.**, Stamper, E., Smith, J., Garrison, R., Downard, C. Relaxin Supplementation Affects Vascular Endothelial Growth Factor Expression in Experimental NEC. Oral presentation at Academic Surgical Congress. Las Vegas, NV. February 2015.
29. Stamper, E., **Matheson, P.**, **Clarke, A.**, Smith, J., Garrison, R., Downard, C. Oral Relaxin Alters Platelet-Derived Growth Factor Expression in NEC in Rats. Oral presentation at Academic Surgical Congress. Las Vegas, NV. February 2015.
30. Sophie, R., Jusufbegovic, D., **Clarke, A.**, Sigford, D. Evaluating Changes in Non-Perfused Areas (NPAs) Compared to Perfused Areas (PAs) in Patients with Retinal Vein Occlusion (RVO) using Spectral Domain Optical Coherence Tomography (SD-OCT). Poster presentation at Resident's Day. Louisville, KY. June 2016.
31. **Connolly, K.** Ileal CCL-3 and IL-12 Expression in Inflammatory Events Associated with Necrotizing Enterocolitis. Oral presentation at the American Surgical Congress. February 2016.
32. **Crigger, M.**, Kennedy, T., Joseph, E., Jain, I., **Pantalos, G.** Parabolic Flight Evaluation of Endoscopic Surgical Procedures in Reduced Gravity. Poster presentation at Research!Louisville, October 2015.
33. Joseph, E., Jain, I., **Crigger, M.**, Kennedy, T., Shields, G., Snider, J., Roussel, T., **Pantalos, G.** Management and Processing of Surgical Fluids in Reduced Gravity. Research!Louisville, October 2015.
34. **Pantalos, G.**, **Crigger, M.**, Kennedy, T., Joseph, E., Snider, J., Montidoro, T., Burgess, J., Antaki, J. Parabolic Flight Evaluation of a Hermetic Surgical System for Reduced Gravity – Annual Update. NASA Human Research Program Investigators Workshop, 2015.
35. **Pantalos, G.**, **Crigger, M.**, Kennedy, T., Joseph, E., Jain, I., Roussel, T., Shields, G., Ayvali, E., Meyer, A., Morales, C., Choset, H., Burgess, J., Antaki, J.. Parabolic Flight Evaluation of a Hermetic Surgical System for Reduced Gravity – Annual Update. NASA Human Research Program Investigators Workshop, 2016.
36. **Crigger, M.**, Heidrich, S., Rostas, J., **McMasters, K.**, **Martin, R.**, Crawford, S., **Ajkay, N.** Calculation of Breast Volumes from Mammogram: Comparison of Four Separate Equations Relative to Mastectomy Specimen Volumes. American Society of Breast Surgeons 17th Annual Meeting, 2016.
37. Roberts, D., McGill, S., Strickland, Z., Landi, A., **Fletcher, A.**, Thompson, R., Schack, J. Growth of a Peer-Assisted Learning Program: Modifications over a three-year period. Society for Teachers in Family Medicine Annual Conference, 2016.
38. **Fletcher, A.**, Nye, H., Mayeku, J., **Boling, W.** Evaluation of Stigmatization and Quality of Life at Long Term Follow-Up in Patients with Surgery for Epilepsy in Uganda. 6th Annual Global Health Conference, 2015.
39. **Fletcher, A.**, Nye, H., Mayeku, J., **Boling, W.** Evaluation of Stigmatization and Quality of Life at Long Term Follow-Up in Patients with Surgery for Epilepsy in Uganda. 68th Annual American Epilepsy Society Conference, 2015.
40. Bertke, M., Shaughnessy, J., **Forsthoefel, M.**, Cash, E., Silverman, C., Amsbaugh, M., Bumpous, J., Potts, J., Redman, R., Perez, C., **Dunlap, N.** HPV Status May Have Limited Value as a Prognostic Factor in Post-Operative Squamous Cell Carcinoma of the Head and

Neck Compared to Extranodal Extension and Lymphovascular Space Invasion. Multidisciplinary Head and Neck Cancer Symposium, 2016.

41. **Jones, V.**, Chen, E., Raque, J., **Sutton, E.** Using Surgical Bootcamp to Teach Core Entrustable Professional Activities for Entering Residency. American College of Surgeons Clinical Congress, 2015.
42. **Joseph, E.**, Snider, J., **Pantalos, G.** Development of a Closed Loop Fluid Reclamation System for Surgery During Space Flight. Poster presentation at Research!Louisville, October 2015.
43. Jain, I., **Crigger, M.**, Kennedy, T., Shields, G., Snider, J., Roussel, T., **Pantalos, G.**, **Joseph, E.** Management and Processing of Surgical Fluids in Reduced Gravity. Poster presentation at Research!Louisville, October 2015.
44. **Kim, D.**, Meyer, K., **Boling, W.** Amantadine for Severe Traumatic Brain Injury: Impact on Pre-Rehabilitation Acute Hospitalization Recovery. A Retrospective Analysis. Neuroscience Society Louisville Chapter 25th Annual Neuroscience Day, 2015.
45. **Kim, D.**, Meyer, K., **Boling, W.** Amantadine for Severe Traumatic Brain Injury: Impact on Pre-Rehabilitation Acute Hospitalization Recovery. A Retrospective Analysis. Congress of Neurological Surgeons Annual Meeting, 2015.
46. **Kim, D.**, Nosova, K., Nazar, R., **Boakye, M.** Computed Tomography (CT) and Magnetic Resonance Imaging (MRI) Findings in Operatively and Non-Operatively Managed Unilateral Cervical Facet Fractures. Congress of Neurological Surgeons Annual Meeting, 2015.
47. Kinsman, M., Ball, T., Nazar, R., **Kim, D.**, Page, P., Nauta, H., **Boakye, M.**, **James, R.** Rapid High Fidelity Contour Shaping of a Titanium Mesh Implant for a Large Cranioplasty Defect using a Patient Specific Mold Created with Low-Cost 3D Printing. Congress of Neurological Surgeons Annual Meeting, 2015.
48. Kinsman, M., Ball, T., Nazar, R., **Kim, D.**, Page, P., Nauta, H., **Boakye, M.**, **James, R.** Rapid High Fidelity Contour Shaping of a Titanium Mesh Implant for a Large Cranioplasty Defect using a Patient Specific Mold Created with Low-Cost 3D Printing. Neuroscience Society Louisville Chapter 25th Annual Neuroscience Day, 2015.
49. Kinsman, M., Ball, T., Page, P., Nazar, R., **Kim, D.**, **Boakye, M.**, **James, R.** Low-Cost 3D Desktop Printing in Neurosurgery: Current Applications and Future Capabilities: Neuroscience Society Louisville Chapter 25th Annual Neuroscience Day, 2015.
50. Kinsman, M., Ball, T., Page, P., Nazar, R., **Kim, D.**, **Boakye, M.**, **James, R.** Low-Cost 3D Desktop Printing in Neurosurgery: Current Applications and Future Capabilities. Congress of Neurological Surgeons Annual Meeting, 2015.
51. **Kim, W.**, **Stevenson, M.** Temporal trends in testing for respiratory pathogens among infants \leq 60 days of age who undergo lumbar puncture in the emergency department. Poster presentation at American Academy of Pediatrics National Conference and Exhibition, 2016.
52. **Mariella, M.**, Kimbrough, C., **McMasters, K.**, **Ajkay, N.** Longer Time Intervals from Diagnosis to Surgical Treatment in Breast Cancer: Associated Factors and Survival Impact. Society of Surgical Oncology Annual Cancer Symposium, 2016.
53. **Nelson, B.**, **Galakdiuk, S.** Genetic Polymorphisms in 5-Fluorouracil-Related Enzymes Predict Pathologic Response after Neoadjuvant Chemoradiation for Rectal Cancer. Oral presentation at 11th Annual Academic Surgical Congress. January 2016.
54. **Nelson, B.** Genetic Polymorphisms associated with 5-Fluorouracil Metabolism and its Efficacy in Predicting Rectal Cancer Response to Treatment. Oral presentation at American Surgical Conference, August 2015.

55. **Nelson, B., Galandiuk, S.** Genetic Polymorphisms in 5-Fluorouracil-Related Enzymes Predict Pathologic Response after Neoadjuvant Chemoradiation for Rectal Cancer. Research!Louisville, October 2015.
56. **Nitz, J.,** Wechman, S., Riedinger, E., Sharma, R., Zhou, S., **McMasters, K., Gomez-Gutierrez, J.** Combined Therapy of Oncolytic Adenovirus and Temozolomide Enhances Lung Cancer Virotherapy In Vitro and In Vivo. Research!Louisville, October 2015.
57. Kinsman, M., Ball, T.J., Nazar, R., Kim, D., **Page, P.,** Nauta, H., **Boakye, M., James, R.** Rapid High Fidelity Contour Shaping of a Titanium Mesh Implant for a Large Cranioplasty Defect Using a Patient Specific Mold Created with Low-Cost 3D Printing. The Congress of Neurological Surgeons Annual Meeting, 2015.
58. **James, R.,** Shao, E., Nazar, R., **Page, P.,** Martin, L., Dvorak, J., Craycroft, J., Daniels, M., Rai, S., Kanaan, H., Everhart, D., Simard, J. Continuous Low-dose IV Heparin Infusion Preserves Cognitive Function after Aneurysmal Subarachnoid Hemorrhage. Neurosurgical Society of Kentucky, 2015.
59. **Page, P.,** Cambon, A., **James, R.** Intra-Arterial Thrombolysis for Central Retinal Artery Occlusion: A Systematic Review and Meta-Analysis. Society of NeuroInterventional Surgery 12th Annual Meeting, 2015.
60. **Page, P.,** Cambon, A., **James, R.** Time to Treatment Effect on Visual Recovery after Intra-Arterial Thrombolysis for Acute Central Retinal Artery Occlusion. Society of NeuroInterventional Surgery 12th Annual Meeting, 2015.
61. **James, R., Page, P.,** Shao, E., Nazar, R., Martin, L., Dvorak, J., Craycroft, J., Daniels, M., Rai, S., Kanaan, H., Everhart, D., Simard, J. Low-dose IV Heparin Preserves Cognitive Function in aSAH Patients when Controlling for Covariates that Negatively Influence Cognition. 25th Annual Neuroscience Day, 2015.
62. Kinsman, M., Ball, T., Nazar, R., Kim, D., **Page, P.,** Nauta, H., **Boakye, M., James, R.** Rapid High Fidelity Contour Shaping of a Titanium Mesh Implant for a Large Cranioplasty Defect using a Patient Specific Mold Created with Low-Cost 3D Printing. 25th Annual Neuroscience Day, 2015.
63. Kinsman, M., Ball, T., **Page, P.,** Nazar, R., Kim, D., **Boakye, M., James, R.** Low-Cost 3D Desktop Printing in Neurosurgery: Current Applications and Future Capabilities. 25th Annual Neuroscience Day, 2015.
64. **Page, P.,** Cambon, A., **James, R.** Intra-Arterial Thrombolysis for Central Retinal Artery Occlusion: A Systematic Review and Meta-analysis. 25th Annual Neuroscience Day, 2015.
65. **Page, P.,** Cambon, A., **James, R.** Time to Treatment Effect on Visual Recovery after Intra-Arterial Thrombolysis for Acute Central Retinal Artery Occlusion. 25th Annual Neuroscience Day, 2015.
66. **Rogers, M.,** Sobieski, M., **Slaughter, M.,** Lederer, E. Persistently Impaired Magnesium Handling in Patients Supported on Continuous Flow Left Ventricular Assist Device Despite Improved Kidney Function. Poster presentation at Research!Louisville, October 2015.
67. **Rogers, M.,** Sobieski, M., Lederer, E., **Slaughter, M.** Magnesium Handling in Patients with Impaired Renal Function Supported with a Continuous Flow Left Ventricular Assist Device. Poster presentation at American Society of Artificial Internal Organs Annual Meeting, Chicago, IL.
68. Huang, J., Trivedi, J., **Rogers, M.,** Cheng, A., **Slaughter, M.** Impact of Left Ventricular Assist Device Support on Regional Cerebral Oxygen Saturation. Poster presentation at American Society of Artificial Internal Organs Annual Meeting, Chicago, IL.

69. **Song, D.**, Amraotkar, A., Ismail, I., Kothari, V., Trainor, P., Singh, A., Rai, S., **DeFilippis, A.** Mean Platelet Volume in Acute Myocardial Infarction (Atherothrombotic and non-Atherothrombotic) and Stable Coronary Artery Disease. Research!Louisville, October 2015.
70. Griffin, W., Bell, G., Novak, A., **Spears, J.**, Middaugh, L., Patrick, K. Effects of Ethanol, Methylphenidate and the Combination on Conditioned Reinforcement and Ataxia. Alcoholism: Clinical and Experimental Research, 2015.
71. Himschoot, K., **Williams, M.**, **Zou, J.** Unilateral Digital Artery Based Extended Lateral V-Y Advancement Flap for Covering Fingertip Wounds. Poster presentation Residents and Fellows Conference/American Society for Surgery of the Hand National Meeting, September 2015
72. Matthew, A., **Wilson, B.**, Samuel, A., Matheson, B., **Matheson, P.**, **Downard, C.**, Garrison, R., Smith, J. DPR Up-regulates VEGF-A and Reduces Edema and Acute Lung Injury in Resuscitated Hemorrhagic Shock. Oral presentation at Academic Surgical Congress; Las Vegas, NV, USA, February 2015.
73. Falls, T., **Yerrapragada, A.**, **Smith, L.**, Graham, A., Pomeroy, D., **Malkani, A.** Total Hip Arthroplasty in Morbidly Obese Patients. American Association of Hip and Knee Surgeons, 2015.
74. Schulz, S., Chowdhry, S., Gunn, J., Choo, J., Yonick, D., **Zeiderman, M.**, Wilhelmi, B. Applied Anatomy to Safe Surgery of the Breast for Preservation of Nipple Innervation. Kentucky Medical Association Annual Meeting, 2015.
75. **Zeiderman, M.**, Anil-Khanal, A., Kimbrough, C., Gomez, J., Grizzle, W., **McMasters, K.**, **McNally, L.** Detection of Pancreatic Cancer Using Acidic PH Targeted Probes Detected Using Multispectral Optoacoustic Tomography. American Association of Cancer Research Annual Meeting, 2015.

Under Review

76. Collis, P., **Spears, J.**, Greene, J. Quadriceps versus Hamstring Tendon Autograft in Anterior Cruciate Ligament Reconstruction: A Meta-Analysis. Mid-America Orthopaedic Association Annual Meeting, 2016. (Under Review)

DT PROGRAM STUDENT PROJECTS

These are the longitudinal projects students in DIBL, DIGH, and DIME work on over the length of their DT Program experience.

Student names in **bold**. Mentor names in red.

Distinction in Business and Leadership

Class of 2016

1. Integration of Business of Medicine into a Medical School Curriculum. **Don Herdt**, Brad Sutton, MD.
2. Cost-Utility Analysis of Stereotactic Body Radiotherapy versus Transarterial Chemoembolization for Hepatocellular Carcinoma: An Economic Evaluation of the Current Standard of Care. **Christian A. Linares**, Alexander D. Steiner, Kristin Nosova, Eric G. Davis, Neal E. Dunlap, In K. Kim MD, MBA, Brad Sutton, MD, MBA.
3. Cost Analysis of Contralateral Mastectomy for Unilateral Breast Cancer. **Bobby Keskey**, Chuck Scoggins, MD, MBA, Brad Sutton, MD, MBA, Guy Brock PhD, In K. Kim MD, MBA.
4. Cost Effectiveness Analysis of Bedside Ultrasound Implementation in the Pediatric ED. **Alex Thai**, Adam Sivitz, MD, Alyssa Abo, MD, Joanna Cohen, MD, David Kessler, MD, Brad Sutton, MD, MBA, Dave McLario, MD, Fred Warkentine, MD, Keith Cross, MD, MSc, MS, Sidney Baxendale, PhD, In K. Kim MD, MBA.
5. Consulting for Sage Growth Partners. Defining Patient Portals, Researching Population Health Vendors, Competitive Analysis, and Research Patient Engagement. **Katelyn Williams**, Chris DeMarco, Brad Sutton, MD, MBA.

Class of 2017

1. Deploying Mobile Check-In to Optimize Outpatient Clinic Workflow. **Sarah Tariq**, Brad Sutton, MD, MBA.
2. Effectiveness of Bariatric Surgery Referrals to Centers of Excellence. **Ashley Lee**, Bob Johnson MD, Laura Happe, PharmD, MPH, Brad Sutton, MD, MBA.
3. Cost Effectiveness Analysis of Point of Care Ultrasound Implementation in the Pediatric ICU. **Nathan Wiedemann**, **Alex Thai**, Russ Horowitz, MD, Leah Zena, MD, Michael Ruppe, MD, Brad Sutton, MD, MBA, Dave McLario, MD, Fred Warkentine, MD, Keith Cross, MD, MSc, MS, Ben Foster, PhD, In K. Kim MD, MBA.
4. Cost Effectiveness Analysis of Implementation a Satellite office for Learning Disability Evaluations. **Travis Spaulding**, **Alex Thai**, Scott Tomchek, PhD, Brad Sutton, MD, MBA, In K. Kim MD, MBA.

Class of 2018

1. Cost Modeling of MRSA precautions for Inpatient Pediatric Surgery Patients. **Taylor Hodge**, Zaria Murriell, MD, Mary Fallat, MD.

2. Effects of PMandR Physician Involvement in a Bundled Payment Plan for Total Joint Replacement. **Ishita Jain**, Brad Sutton, MD, MBA, Darryl Kaelin, MD.
3. Medtronic SEEQ Mobile Cardiac Telemetry Economic Analysis. **Kristin Nosova**, Jessica Lopatto, John Orozco, MD, Brad Sutton, MD, MBA.
4. Cost Effectiveness Analysis of Point of Care Ultrasound to Reduce Ionizing Radiation Exposure from CT Scans in Pediatric Trauma Patients. **Michael Parsons**, Katy Flynn, MD, Mary Fallat, MD.
5. Cost Effectiveness Analysis of Establishing a Statewide Telemedicine Network. **Shelbye Schweinhart**, Brad Sutton, MD, MBA, In Kim, MD, MBA, Smitha Bulloch MD, MBA.
6. Strategy to Increase Patient Throughput in a Large Urban Academic General Pediatrics Teaching Practice. **Natalie Spiller**, Melissa Hancock, MD, Brad Sutton, MD, MBA, In Kim, MD, MBA, Gil Liu MD.

Distinction in Global Health

Class of 2016

1. Assessing the Effects of Safe Water and Hygiene Education on the Community Health and Health Literacy of Communities in the Amazon Basin of Ecuador. **Tim Dawson**, David Taylor, Samantha Sutkamp, Sean Maloney, BS, Anne Banks, PhD, Stephen Wheeler, MD.
2. Demographics, Drinking Water Sources and Sanitation Practices of 5 Communities in the Napo Province of Ecuador. **Tim Dawson**, David Taylor, Samantha Sutkamp, Sean Maloney, BS, Anne Banks, PhD, Stephen Wheeler, MD.
3. Healthcare Experiences of Latino Families of Children with Special Healthcare Needs. **Jhalak Dholakia**, Fernanda Nota, MD.
4. Healthcare for the Undocumented Immigrant with Kidney Disease After the Enactment of the Affordable Care Act. **Kathriena Greenwell**, William J. Crump, MD.
5. Photovoice in Kenya: Using a Community Based Participatory Research Method to Identify Health Needs. **Francesca Kingery**, Pradip Patel, MD.
6. Establishing Trends in Adolescent Sexual and Reproductive Health Counseling by Area Pediatricians. **Francesca Kingery**, Courtney Spensley, Jhalak Dholakia, Kyle Brothers, MD.

Class of 2017

1. Use of a Mobile Decision Support Software Tool vs Other Information Sources by Pre-clinical Medical Students in a Low-resource Setting. **Marlowe Dieckmann**, Bethany Hodge MD MPH, Michael Keibler.
2. CTC Mdasho: A Retrospective Analysis of Pre-Existing Quality Evaluation Survey Data of HIV Medication Adherence in a Highly Endemic District of Rural Tanzania. **Ryan Eid**, Emily M. Knittle, Benjamin Belknap, Mary Carter MD PhD.
3. Patient Health Literacy and Use of Various Health Care Services. **Tyler Haffler**, Clifford Freeman, Melissa Platt, MD, Mary Carter MD PhD.
4. Global Utilitarianism: A Different Way of Looking at the Same Information. **Ryan Kaufman**, Kyle Brothers, MD, Jack Furlong, PhD.

5. Assessing the Three Delays in Maternal Health Care: A Comparison of Sierra Leone and Bangladesh in the MDG Era. **MeNore G. Lake**, Navjyot K. Vidwan, MD.
6. What Do We Need to Unlearn: Western Pediatricians Teaching Newborn Discharge in Low-Resource Settings. **Allison Lyle**, Bethany Hodge MD MPH, Dan Stewart, MD
7. Ethical Considerations in Pre-Departure Training of Western Pediatricians Performing New Baby Discharge in Low-Resource Settings: A Literature Review. **Allison Lyle**, Bethany Hodge MD MPH, Dan Stewart, MD
8. Establishing Trends in Adolescent Sexual and Reproductive Health Counseling by Outpatient Pediatric Providers: Results of a Cross-Sectional Survey. **Courtney Spensley**, Jhalak Dholakia, Francesca Kingery, Kyle Brothers, MD, Pradip Patel, MD, Mary Carter, MD.

Class of 2018

1. Quality of Life of the Undocumented Hispanic Women Immigrant Workers of the Churchill Downs Backstretch. **Elena Brown**, Sara Robertson DNP, APRN, FNP, Kristen Connors BA, Mary Carter MD., PhD.
2. The International Operating Room: Models of Surgery in Low Income Countries. **Jessica Eaton**, Zaria Murrell, MD.
3. Born in Africa: A Descriptive Expose of Birthing Practices in Mufindi, Tanzania. **Mackenzie Flynn**, Mary Carter MD., PhD.
4. Evaluation of Quality of Life and Stigma in Patients with Epilepsy at Beijing Children's Hospital. **Margaret Means**, Warren Boling, MD.
5. **Katherine O'Leary** (No confirmed project)
6. Retrospective Evaluation of CD4 Counts and Changes in ART Regimen at the Mdabulo CTC in Mufindi, Tanzania. **Lucy Schuhmann**, Bethany Hodge MD MPH, Mary Carter MD., PhD.

Distinction in Medical Education

Class of 2016

1. The Impact of Integrative Teaching on Retention of Human Embryology Material at the University of Louisville. **Rachel Bartsch**, Jennifer Brueckner-Collins, PhD, Rodica Turcu, MD.
2. Access to Digital Technology among Hispanic Families Coming To Urban Pediatric Primary Care Clinics. **Sarah Couch**, Jennifer Thompson, Fernanda Nota, Pradip Patel, MD, Gil Liu, MD.
3. EMS management Curriculum for Emergency Medicine Residents. **Catherine Anne Hayes**, Charles Kodner, MD.
4. LGBT and Core Curriculum Content for Student-Run Clinics. **Celia Johns**, Charles Kodner, MD.
5. Ethical Considerations for Students in Overseas Service Learning Experiences. **Celia Johns**, Charles Kodner, MD.
6. Use of a Live Lecture Broadcast System with Integrated Audience Response System in Clinical Education of Medical Students. **Jimmy Jones**, Pradip Patel, MD, Mona Tailor, MD, and Craig Ziegler, PhD.

Class of 2017

1. Active Learning: A Human Embryology Question Bank and Practice Exam Constructed By First Year Medical Students. **Diane Carden**, **Rodica Turcu, MD**.
2. Survey of the Referencing Habits of Third Year Medical Students Before and After Exposure to a Novel Pediatric Decision Support Software Mobile Application (PEMSoft™). **Elayna Dush**, Marlowe Diekmann, **Bethany Hodge, MD**.
3. Surgical Skills Self-Study Online Module. **Brandon McGeorge**, **Charles Kodner, MD**.
4. Tutoring Via Clinical Cases in MS2 Pharmacology. **Kim Staudt**, **Charles Kodner, MD**.
5. A Replicable Model for Online, Case-Based Learning in Medical Anatomy and Physical Exam Education. **Sam Walling**, **Pradip Patel, MD**, **Jennifer Brueckner, MD**, Craig Ziegler, PhD.
6. Surgery on Sundays. **Sam Walling**, Erica Sutton, **Pradip Patel**.

Class of 2018

1. Identifying and Addressing Knowledge Gaps with Medical Students on Managing Non-Critically Ill Patients with Impatient Hyperglycemia. **Wade Barton**, **Gerald Lee, MD**.
2. Evaluation of a New Teaching Strategy for CSE-3 History, Physical Exam, and Note Writing Skills. **Alissa Doll**, **Katherine Yared**, **Mary Carter, MD, PhD**, **Charles Kodner, MD**, **Rodica Turcu, MD**.
3. Beyond the Problems: Educating Medical Students in LGBT Inclusive Human Sexuality and Lifespan Development. *Part of the eQuality project*. **Rhiannon Ledgerwood**, **Pradip Patel, MD**, **Stacie Steinbock, MEd**.
4. Human Sexuality across the Lifespan. **Rhiannon Ledgerwood** and **Adam Neff**, **Stacie Steinbock, MEd**.
5. Evaluation of First Year Medical Students' Knowledge and Attitudes Regarding Differences in Sexual Development Using a Problem-Based Learning Case on Complete Androgen Insensitivity Syndrome. **Adam Neff**, **Stacie Steinbock, MEd**, **Susan Sawning, MSSW**.