Report of Research Accomplishments

2019

Beaumont HEALTH
Report of Research Accomplishments
Beaumont Health Research Institute

For more than 45 years, researchers at Beaumont have helped to bring new technologies, new treatments, and new medications into the practice of medicine, and have helped to move the standard of care forward to improve the safety and quality of medical care for patients locally, nationally, and internationally. The greatest reward from these achievements is the realization that patients’ lives are improved and enriched because of the outstanding research carried out by Beaumont physicians, scientists and staff.

Outstanding biomedical research is a major component of the excellent reputation of Beaumont Health as an academic health system. The Board of Directors at Beaumont made a commitment several decades ago to strengthen Beaumont as an academic institution through growth and support of graduate medical education, the hiring of physicians and scientists with a history of excellence in research and committed support of ongoing research activities of key programs. This commitment has helped to forge the reputation of Beaumont Health as a leading academic health system, with recognition by U.S. News and World Report, a distinction which places Beaumont in the forefront of medicine in the U.S.

With Beaumont Health’s role as the health care affiliate of the Oakland University William Beaumont School of Medicine, our research activities, graduate medical education, and scholarly endeavors are even more important. Our Board of Directors and senior leadership have reaffirmed their commitment to this ongoing academic mission. Strong undergraduate medical education requires faculty committed to research and a broad, excellent program of graduate medical education. The ACGME (Accreditation Council on Graduate Medical Education) is steadily increasing the requirements for excellence in both faculty research achievement and resident/fellow research training in order to maintain full accreditation for residency and fellowship programs. The Board for Accrediting Level 1 Trauma Center status, presently achieved by Beaumont Royal Oak, now requires productivity of peer-reviewed publications in recognized journals by participating faculty. The LCME (Liaison Committee on Medical Education), the accrediting organization for medical schools in the U.S. and Canada, requires the presence of biomedical research activities that can provide basic, translational and population research opportunities for medical students. The OUWB medical school provides further impetus to enhance biomedical research at both Beaumont and Oakland University, to integrate research activities between the two institutions, and to initiate new programs, centers, and collaborative projects shared by both institutions. Beaumont and Oakland University already have several areas of long-standing ongoing research collaboration.

Beaumont research is heavily oriented towards translational research, investigating new treatments, pharmaceuticals, medical devices, and scientific approaches aimed at enhancing the excellence and safety of patient care. Beaumont has a robust program of clinical research, with over 1,200 trials. Beaumont’s clinical services are superb, providing the standard upon which new and innovative research is built. The volume of patients served at Beaumont, combined with the excellence of clinical care, provides a striking opportunity to develop new treatments. Moving forward, Beaumont Health and OUWB will build upon existing research strengths in nationally recognized clinical and translational programs, including Cardiovascular Medicine, Oncology, Radiation Oncology, Urology, Orthopaedics, OB/GYN, Ophthalmology, Emergency Medicine and many others, to establish a new emphasis in population/community health and learning health system initiatives that will focus on improving health and healthcare delivery for our patients and communities.

We are proud to present this Report of Research Accomplishments. It highlights the depth and breadth of Beaumont’s academic excellence, including our affiliation with OUWB. We extend our congratulations and appreciation to the many investigators who have contributed these extraordinary achievements.
Beaumont Health, serving southern Michigan and beyond, recognizes the inherent value of research as a major contributing factor to future improvements in health care delivery and the health of our local and global communities. The Beaumont Research Institute (RI), established by the Board of Trustees in 1966, strengthens Beaumont’s ability to conduct medical research and to provide research training for allied health and medical staff and students in undergraduate and graduate medical education programs. Beaumont Health is a major teaching facility, with 78 accredited residency and fellowship programs involving 799 residents and 109 fellows, and 159 research staff.

**Funding**
Research Institute actual operations $34.0M

**External Sources of Research Funding**
- Non-Federal sponsors 29 %
- Federal sponsors 24 %
- Philanthropic sponsors 11 %
- Intellectual Property 36 %

**Types of Research at Beaumont Health**
Percentage of expenses
- Clinical Research 42 %
- Pre-Clinical Research 58 %

**External Research Funding by Service Line**
- Radiation Oncology 27 %
- Urology 8 %
- Orthopedics 6 %
- Emergency Medicine 6 %
- Cardiology 6 %
- Hematology/Oncology 5 %
- Infectious Disease 5 %
- Ob/Gyn 3 %
- Other (Various, Admin/Inv. IP Share) 34 %

**Clinical Research**
- 1,612 clinical studies
- 405 interventional studies
- 1,207 non-interventional studies
- 505 active principal investigators
- 3,900 registered research participants

**Educational Opportunities for Research Staff**
- 2-day orientation for new clinical research staff
- Animal use training
- On-line CITI human subjects protection training
- Online guidance/modules on initiating research
- Seminar series and workshops

**Support Staff Available**
- Accounting / Contracting / Administrative
- Biostatistics/Informatics
- Commercialization Center
- Compliance Office
- Research Data Management and Computing
- Grant Development
- Human Resources
- Institutional Animal Care and Use Committee
- Institutional Biosafety Committee
- Institutional Review Board
- Outcomes Research Group
- Research Education

**Support for the Research Institute**
- AAALAC accredited animal facility
- AAHRPP accredited human research protection program
- Beaumont Research Coordinating Center for multicenter clinical trials
- BioBank/Erb Family Core Molecular Lab
- Flash CT scanner
- Fully equipped bench laboratories
- National Cancer Institute Cooperative Group Trials Site
- Partnership with OUWB School of Medicine
- Proton Beam
- PET-CT and Biotracer
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BEAUMONT HOSPITAL – DEARBORN, TAYLOR, TRENTON and WAYNE

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BEAUMONT HOSPITAL
Royal Oak, Troy, Grosse Pointe
Peer-Reviewed Articles:


Abstracts with Associated Research Presentations:


ANESTHESIOLOGY AND PERIOPERATIVE MEDICINE

Abstracts with Associated Research Presentations continued:


**Burandt D, Banooni A.** Inappropriate firing of implantable cardioverter-defibrillator in an emergent craniectomy. ASA Meeting, Orlando, FL, October 2019.

**Burandt D, Ohanian S.** Cardiac tamponade during pulmonary vein isolation ablation. ASA Meeting, Orlando, FL, October 2019.

**Chokr M, Vahabzadeh C.** Infective endocarditis in healthy pediatric patient. ASA Meeting, Orlando, FL, October 2019.

**Chokr M, Yaldou B.** Differential diagnosis of hypoxemia following right femur fracture open reduction internal fixation. ASA Meeting, Orlando, FL, October 2019.

**Chokr M, Mastromonaco M, Asbahi M.** Management of tracheal stenosis and efficacy of heliox for tracheal obstruction. ASA Meeting, Orlando, FL, October 2019.


**Daklallah Y, Nowak Z, Asbahi M.** To dialyze or not to dialyze, A challenging case report. ASA Meeting, Orlando, FL, October 2019.

**Daklallah Y, Nowak Z, Asbahi M.** A case report of respiratory failure secondary to respiratory infection with multiple organisms. ASA Meeting, Orlando, FL, October 2019.


**Katz E, Soto R.** Complexities in anesthetic management of peripartum cardiomyopathy. ASA Meeting, Orlando, FL, October 2019.
ANESTHESIOLOGY AND PERIOPERATIVE MEDICINE

Abstracts with Associated Research Presentations continued:


**Khan H, Soto R.** Sedation wean with ketamine. ASA Meeting, Orlando, FL, October 2019.


**Kraemer J, Toma B, Vahabzadeh C.** Placenta percreta: Preparing for the worst to provide the best care. ASA Meeting, Orlando, FL, October 2019.


**Larson B, McDavid M, Burandt D, Hussein I, Tadros, Soto R.** Analysis of opioid use following implementation of a colorectal enhanced recovery after surgery program. ASA Meeting Abstracts, Orlando, FL, October 2019.

**Larson B, McDavid M, Kouatli Y.** Debriefing after traumatic interoperative events. ASA Meeting, Orlando, FL, October 2019.

**Larson B, Lepczyk L, Kouatli Y.** Anticipated blood loss minimal...famous last words. ASA Meeting, Orlando, FL, October 2019.


**Lepczyk L, Asbahi M, Villalba P.** ARDS secondary to severe chorioamnionitis requiring VV-ECMO. ASA Meeting, Orlando, FL, October 2019.

ANESTHESIOLOGY AND PERIOPERATIVE MEDICINE

Abstracts with Associated Research Presentations continued:


Mastromonaco M, Tobes, D, Soto R. Medical vs surgical management of acute hemothorax due to metastatic pulmonary disease. ASA Meeting, Orlando, FL, October 2019.


McDavid M, Collier P. The dangers of non-operating room anesthesia. ASA Meeting, Orlando, FL, October 2019.


McDavid M, Collier P. The dangers of non-operating room anesthesia. ASA Meeting, Orlando, FL, October 2019.


ANESTHESIOLOGY AND PERIOPERATIVE MEDICINE

Abstracts with Associated Research Presentations continued:


Saager L, Soto R. Respiratory depression on general care floors increases cost of care: Results from the prodigy trial. ASA Meeting Abstracts, Orlando, FL, October 2019.


Tobes D, Soto, R. Should we even care about myasthenia gravis in the era of sugammadex. ASA Meeting, Orlando, FL. October 2019.

Toma B, Lepczyk L, Soto R. Delayed epidural abscess diagnosis following the percutaneous discectomy. ASA Meeting, Orlando, FL, October 2019.


Yuan J, Tobes D, Soto R. Speaking up in the operating room as the medical student. ASA Meeting, Orlando, FL, October 2019.

Abstracts with Associated Research Presentations continued:


Zhang L, Gill S. IVC thrombectomy. ASA Meeting, Orlando, FL, October 2019

Non Peer-Reviewed Research Publications:


Toma B. Driving after anesthesia. MSA Newsletter, Spring/Summer 2019.
Peer-Reviewed Articles:


Abstracts with Associated Research Presentation


Peer-Reviewed Articles:


CARDIOVASCULAR MEDICINE

Peer-Reviewed Articles continued:


Haines DE. Can an expanding lattice electrode catheter expand our success in catheter ablation? Circ Arrhythm Electrophysiol, 2019 April;12(4).


CARDIOVASCULAR MEDICINE

Peer-Reviewed Articles continued:


Book Chapter or Full Book Publications:


CARDIOVASCULAR MEDICINE

Abstracts with Associated Research Presentations:


Non Peer-Reviewed Research Publications:


Franklin BA. Little-known heart attack and stroke triggers…can increase your risk by up to 50%. Bottomline Health, Vol 33/No 12, December 2019.
Peer-Reviewed Articles:


Abstracts with Associated Research Presentation:


Peer-Reviewed Articles:


DIAGNOSTIC RADIOLOGY and MOLECULAR IMAGING

Peer-Reviewed Articles continued:


Book Chapter or Full Book Publications:


Abstracts with Associated Research Presentations:


*Bhatt M, Krishnan A. Getting the most from your multiple sclerosis MRI protocol: A sequence-based approach. 4th Annual Americas Committee for Treatment and Research in Multiple Sclerosis (ACTRIMS), Dallas TX, February 28-March 2, 2019.


Abstracts with Associated Research Presentations continued:


Friedman BJ, Savin JH, Savin M. Irreversible electroporation of an internal iliac lymph node. Symposium on Clinical Interventional Radiology (CIO), Miami Beach, FL, October 11-13, 2019.


*Grushky A, Marcantonio D, Im J. Musculoskeletal manifestations of diabetes mellitus. Society of Skeletal Radiology Annual Meeting (SSR); American College of Radiology Education Center, Scottsdale, AZ, March 2019. Award for Best Educational Exhibit.


Abstracts with Associated Research Presentations continued:


Zintsmaster S, Yadavalli S. Cyst-like lesions around the hip: Imaging and intervention to assess the good, the bad and the ugly. 46th Annual Interventional Skeletal Society Meeting, Vancouver, BC, September 11-13, 2019.


Invited Research Presentations:


**Peer-Reviewed Articles:**


Peer-Reviewed Articles continued:


**EMERGENCY MEDICINE**

**Abstracts with Associated Research Presentations:**


**Clark CL.** Efficacy and Safety with Andexanet alfa in traumatic intracranial hemorrhage: An ANNEXA-4 substudy. SAEM regional meeting, Southfield, MI, 2019; ANNEXA study group ACEP Scientific Assembly, Denver, CO, October 2019.


**Epley CT, Purekar M, Chen NW, Sawyer KN, Burla MJ, Berger DA.** Change in resuscitation-specific confidence and anxiety levels in emergency medicine residents from a novel resuscitation and research rotation. SAEM Midwest Regional Meeting, Southfield, MI, September 2019.


**Hamera J, Talia N, Sawyer KN, Berger DA.** Performance of the simplified pulmonary embolism severity index at predicting thrombolysis for PE. SAEM Midwest Regional Meeting, Southfield, MI, September 2019.


EMERGENCY MEDICINE

Abstracts with Associated Research Presentations continued:

Mroue KM. Which patients presenting to the emergency department in atrial fibrillation with rapid ventricular response require a chest X-ray? SAEM regional meeting, Southfield, MI, September, 2019.


Shinthia N. The impact of electronic medical record alerts on emergency physician workflow and clinical decision making. SAEM regional meeting, Southfield, MI, 2019.


Non Peer-Reviewed Research Publications:


Peer-Reviewed Articles:


LePlatte D, Marasco S, Denke DE, Warnick SJ. Diagnosis of neurosyphilis in a collaborative care (CoCM) setting. Prim Care Companion CNS Discord, August 1, 2019;21(4).


Invited Research Presentations:


Gallimore C, Kline E. Pursuit of the triple aim through interprofessional collaboration with pharmacists as practitioners and educators: Lessons learned from a national survey. 2\textsuperscript{nd} Annual Conference of the Society for Teachers of Family Medicine, Toronto, ON, April 2019.


Kowalkowski J, Bognanno E, McClowry R, Jafry S. Implementation of an integrative medicine-based resident wellness curriculum in a community focused family medicine residency. 52\textsuperscript{nd} Annual Conference of the Society for Teachers of Family Medicine, Toronto, ON, April 2019.


McClowry R, Kowalkowski J, Bognanno E, Shajahan A, Tucker P. Transforming a traditional suburban family medicine residency into a community medicine program with an urban underserved focus. 52nd Annual Conference of the Society of Teachers of Family Medicine, Toronto, ON, April 2019.


FAMILY MEDICINE

Invited Research Presentations continued:


Non Peer-Reviewed Research Publications:

Mulhem E. What are the benefits and harms of perioperative local anesthetic application via a nasal pack for reducing pain following septal surgery? Cochrane Clinical Answers, 2019.

Mulhem E. How does combined aclidinium/formoterol compare with aclidinium or formoterol monotherapy for people with chronic obstructive pulmonary disease (COPD)? Cochrane Clinical Answers, 2019.

Mulhem E. What are the benefits and harms of hearing aids for adults with mild to moderate hearing loss? Cochrane Clinical Answers, 2019.

Mulhem E. What are the effects of interventions to improve inhaler technique in children with asthma? Cochrane Clinical Answers, 2019.

Mulhem E. What are the effects of prophylactic antibiotics for people with chronic obstructive pulmonary disease (COPD)? Cochrane Clinical Answers, 2019.

Mulhem E. For adults with asthma who are taking inhaled steroids, what serious adverse events are associated with formoterol? Cochrane Clinical Answers, 2019.

Mulhem E. For children and adolescents with mild to moderate asthma who are taking inhaled steroids, what serious adverse events are associated with formoterol? Cochrane Clinical Answers, 2019.

Mulhem E. How do buffered solutions compare with 0.9% saline for critically ill people requiring intravenous fluid therapy? Cochrane Clinical Answers, 2019.

Mulhem E. How does a combined inhaler with once-daily long-acting beta2-agonist (LABA) plus a long-acting muscarinic antagonist (LAMA) compare with placebo for adults with chronic obstructive pulmonary disease (COPD)? Cochrane Clinical Answers, 2019.

Mulhem E. What are the effects of interventions to improve inhaler technique for adults with asthma? Cochrane Clinical Answers, 2019.
Non Peer-Reviewed Research Publications continued:

**Mulhem E.** What are the effects of pharmacological agents for adults with acute respiratory distress syndrome (ARDS)? Cochrane Clinical Answers, 2019.

SUBSPECIALITY DIVISIONS OF INTERNAL MEDICINE

ALLERGY and IMMUNOLOGY
DERMATOLOGY
ENDOCRINOLOGY
GASTROENTEROLOGY and HEPATOLOGY
GENERAL INTERNAL MEDICINE
GERIATRICS
HEMATOLOGY / ONCOLOGY
INFECTIOUS DISEASES
NEPHROLOGY
NEUROLOGY
NUTRITION and PREVENTIVE MEDICINE
PULMONARY and CRITICAL CARE MEDICINE
Abstracts with Associated Research Presentations:


Invited Research Presentations:

Peer-Reviewed Articles:

Peer-Reviewed Articles:


Šoupal J, Petruzalkova L, Grunberger G, Haskova A, Flekac M, Matoulek M, et al. Glycemic outcomes in adults with T1D are impacted more by continuous glucose monitoring than by insulin delivery method: 3 years of follow-up from the COMISAIR study, Diabetes Care, 2019 September 17.
GASTROENTEROLOGY and HEPATOLOGY

Peer Reviewed Articles:


Cappell MS, Stavropoulos SN, Friedel DM. Updated systematic review of achalasia, with a focus on POEM therapy. Dig Dis Sci, 2019 August 27.

Cappell MS, Gjeorgjievski M, Orosey M. Case report of novel endoscopic findings in SMA syndrome demonstrated by video endoscopy: Visibly pulsating, band-like, compression in third portion of duodenum, with the pulsations corresponding one-for-one with the radial pulse & EKG cycle. Dig Dis Sci, 2019 June; 64(6):1715-1718.

Cappell MS, Gjeorgjievski M. Gastroenterologist successfully extracting at EGD a blunt, semi-rigid foreign body impacted at the UES. Minerva Gastroenterol Dietol, 2019 September;65(3):239-241.


Peer-Reviewed Articles:

Shams C, Cappell MS. Lymphocytic esophagitis: A single tertiary center’s experience describing incidence, presentation and pathology of this emerging clinical entity. Digestive Disease Week 2019.

Shams C, Cappell MS. Dysphagia after anterior cervical spine fusion from migration of orthopedic metal hardware: Three cases among 84,500 EGDs during 12 years at a large university hospital. Digestive Disease Week 2019.
Peer-Reviewed Articles:


Aneese A, Nasr J, Halalau A. A prospective mixed-methods study evaluating the integration of an evidence based medicine curriculum into an internal medicine residency program. Advances in Medical Education and Practice, 2019 July 22;10:533-546.


Farshad S, Halalau A, Al-Katib S, George J, Schiopu E. Evaluation of subclinical coronary atherosclerosis in ANCA-associated small vessel vasculitides (AAVs) compared to matched controls through visual assessment of coronary arterial calcium (CAC) score using non-gated chest computed tomography (CT). Arthritis & Rheumatology, 2019 November;71(10).


Figueroa Rodriguez F, Uddin A, Nasr J. Primary pulmonary malignant melanoma found while evaluation new onset cough: A case presentation and literature review. Case Rep Pulmonol, 2019 April 10;3867831.


Peer-Reviewed Articles continued:


Abstracts with Associated Research Presentations:


GENERAL INTERNAL MEDICINE

Abstracts with Associated Research Presentations continued:


Bushman J. A quality improvement project to increase compliance with diabetes measures in an academic outpatient setting. Society of General Internal Medicine, Washington, DC, May 8-11, 2019.


LOCAL INTERNAL MEDICINE

Abstracts with Associated Research Presentations continued:


Halalau A, Aneese A, Nasr J. A prospective mixed methods study evaluating the integration of an evidence based medicine curriculum into an internal medicine residency program. Alliance for Academic Internal Medicine, Philadelphia, PA, April 14-17, 2019.


*Iftikhar H, *Meka S, Kaur M, Khasawneh M, Dalal B. Leimierre’s syndrome (LS) is a life threatening condition with mortality reported between 5%-18% even with appropriate antibiotics. LS, the forgotten syndrome, can be elusive on initial presentation. Society of Critical Care Medicine Meeting, San Diego, CA, February 17-20, 2019.


GENERAL INTERNAL MEDICINE

Abstracts with Associated Research Presentations continued:


GENERAL INTERNAL MEDICINE

Abstracts with Associated Research Presentations continued:


HEMATOLOGY / ONCOLOGY

Peer-Reviewed Articles:


Abstracts with Associated Research Presentations:


HEMATOLOGY / ONCOLOGY

Abstracts with Associated Research Presentations continued:


Peer-Reviewed Articles:


Invited Research Presentations:


Lim JRM, Boyanton BL, George J, Sims MD. Epidemiology of groups A, C, and G beta-hemolytic streptococcal pharyngitis. ID Week, Washington, DC, October 2019.


Sims MD. Identification of genetic markers linked to recurrent methicillin resistant staphylococcus aureus skin and soft tissue infections. ID Week, Washington, DC, October 2019.

Szela J, Venkatappa N, **Sims MD**. Risk and timing of _Clostridium difficile_ infection relapse after antibiotic exposure. Michigan Infectious Diseases Society Annual Scientific Meeting, Ann Arbor, MI, October 2019.

Szela J, Hanna A, **Sims MD**. Timing of secondary prophylaxis against _Clostridium difficile_ infection after antibiotic exposure. ID Week, Washington, DC, October 2019.
Peer-Reviewed Articles:


Book Chapter or Full Book Publications:

Kellerman PS. IgA Nephropathy. Ferri's Clinical Advisor, 2019;p766-768.

Abstracts with Associated Research Presentations:


Peer-Reviewed Articles:


Loeffler DA, Aasly JO, LeWitt PA, Coffey MP. What have we learned from cerebrospinal fluid studies about biomarkers for detecting LRRK2 Parkinson’s disease patients and healthy subjects with Parkinson's-associated LRRK2 mutations? J Parkinsons Dis, 2019 July 12.


Peer-Reviewed Articles:

Peer-Reviewed Articles:


Peer-Reviewed Articles:


**Golinski M.** Improving mortality in trauma laparotomy through the evolution of damage control resuscitation: Analysis of 1,030 consecutive trauma laparotomies. Anesthesia Abstracts, December 2019;p8-10.


Abstracts with Associated Research Presentations:


Couture E, **Hranchook A**, Dunn K. CRNA attitudes and beliefs toward the use of the 2017 ACC/AHA clinical practice guidelines for management of hypertension in the perioperative setting; AANA Foundation Abstracts, American Association of Nurse Anesthetists, Annual Congress, Chicago, IL; August 2019; AANA Foundation State of the Science at the AANA Annual Congress, Chicago, IL; August 2019; Michigan Association of Nurse Anesthetists Fall Meeting, Grand Rapids, MI, October 2019.


NURSING

Abstracts with Associated Research Presentations continued:


Invited Research Presentations:

Peer-Reviewed Articles:


Book Chapter or Full Book Publications:


Abstracts with Associated Research Presentations:


Peer-Reviewed Articles:


Peer-Reviewed Articles continued:


OPHTHALMOLOGY

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ORTHOPAEDIC SURGERY

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Abstracts with Associated Research Presentations continued:


ORTHOPAEDIC SURGERY

Abstracts with Associated Research Presentations continued:


ORTHOPAEDIC SURGERY

Abstracts with Associated Research Presentations continued:


Invited Research Presentations:


Peer-Reviewed Articles:


Chaib O, Lai Z, Yu L. Glial heterotopia, a rare entity of developmental abnormality: Possible pitfalls in differential diagnosis. 31st Congress of the International Academy of Pathology, Arab division, Hurgahda, Egypt, October 24-26, 2019.


Kumar T, Li W, Kanaan HD, Zhang PL. High Kidney Injury Moelcule-1 (KIM-1) staining/serum creatinine (sCr) ratio is associated with better renal functional recovery after acute tubule injury in native kidneys. USCAP Annual Meeting, National Harbor, MD, March 16-21, 2019.


Mallika S, Huang W, Qu Z. Absence of insulin-like growth factor II messenger ribonucleic acid binding protein-3 (IMP3) immunostain is characteristic of mammary carcinomas. Archives of Pathology & Laboratory Medicine, Orlando, FL, September 2019;143(9):150.
**PATHOLOGY and LABORATORY MEDICINE**

Abstracts with Associated Research Presentations continued:

*Kumar T*, Chang A, Zhang PL. Glomerular endothelial injury can be identified by myeloperoxidase immuno-staining in various renal disorders related to complement activation. USCAP Annual Meeting, National Harbor, MD, March 16-21, 2019.


**Invited Research Presentations continued:**

Peer-Reviewed Articles:


Khandhar P, Rajannna V, Chan J, Novotny N. Intrapleural administration of tPA and Dornase Alfa in pediatric patients with empyema Critical Care Medicine, January 2019;47(1):320.


**PEDIATRIC SERVICES**

**Peer-Reviewed Articles continued:**


**Noorulla F**, **Dedon R**, **Maisels MJ**. Association of early direct bilirubin levels and biliary atresia among neonates. JAMA Network Open, October 2019;2(10).


**Book Chapter or Full Book Publications:**


PEDIATRIC SERVICES

Abstracts with Associated Research Presentations:

Ahn TS, Freij BJ. Missed opportunities and fatal outcome for an infant with delayed-onset adenosine deaminase deficiency. Annual Scientific Meeting of the American College of Asthma, Allergy & Immunology, Houston, TX, November 2019.


Bregenzer JK, McCormick ME. Quality of life in pediatric patients with neuromuscular disorders. MWSPR Annual Conference, Chicago IL, October 2019.


Goyal A, Laskowski EP. When it's not just the flu. MWSPR Annual Conference, Chicago IL, October 2019.
PEDIATRIC SERVICES

Abstracts with Associated Research Presentations continued:


Lim JR, Boyanton B Jr, George J, Sims M. Epidemiology of Groups A, C, and G beta-hemolytic streptococcal pharyngitis. ID Week, October 2-6, 2019, Washington, DC.


Shah P, Nguyen D, Berman BW. A 2-year-old male with altered mental status and vomiting. MWSPR Annual Conference, Chicago, IL, October 2019.


Zakaria A, Hassan H. Norrie Disease and its rarity, cataplexy. MWSPR Annual Conference, Chicago, IL, October 2019.

Peer-Reviewed Articles:


Abstracts with Associated Research Presentations:


Invited Research Presentations:

Ziske, M. Acute inflammatory demyelinating polyradiculopathy in the setting of newly diagnosed HIV infection: A case report. AAPM&R Annual Assembly, San Antonio, TX, November 14-17, 2019.
Peer-Reviewed Articles:


Peer-Reviewed Articles continued:


RADIATION ONCOLOGY

Peer-Reviewed Articles continued:


McDermott P. Surface dose and acute skin reactions in external beam breast radiotherapy. Med Phys, 46(6), 2019 June.


RADIATION ONCOLOGY

Peer-Reviewed Articles continued:


RADIATION ONCOLOGY

Peer-Reviewed Articles continued:


Abstracts with Associated Research Presentations:


Castillo E. Image processing-based pulmonary functional imaging from non-contrast computed tomography. 15th U.S. Congress on Computational Mechanics. Austin, TX, July 2019.

Chen S, Krauss D, Yan D. Predictive Capability of $^{18}$F-FDG PET/CT imaging on tumor voxel dose response. AAPM, San Antonio, TX, July 2019.


Kant S, Kesarwani P, *Prabhu A, Chinnaiyan P. Integrative tumor profiling following a ketogenic diet offers a window into the interplay between metabolic vulnerabilities and radiation sensitization in glioblastoma. Annual Meeting of the American Society for Radiation Oncology (ASTRO), Chicago, IL, September 15-18, 2019.


Liu G, Li X, Qin A, Grills IS, Stevens CW, Yan D, et al, [Kabolizadeh P, Ding X]. Effectiveness of using spot-scanning proton arc (SPArc) therapy to mitigate the motion interplay effect in lung stereotactic body radiotherapy (SBRT): A quantitative comparison study between IMPT vs SPArc based a digital phantom. AAPM, San Antonio, TX, July 2019.


Qin A, Lachaine M, Yan D. Real-time prediction of patient respiration-induced target motion with using recurrent neural network (RNN) and online training: Feasibility study for MRI guided tumor-tracking radiotherapy. AAPM, San Antonio, TX, July 2019.
RADIATION ONCOLOGY

Abstracts with Associated Research Presentations continued:


Invited Research Presentations:


Invited Research Presentations continued:


Hamstra DA. Proton therapy: Beyond the DVH. The Department of Radiation Oncology, Washington University, St Louis, MO, June 2019.


**RADIATION ONCOLOGY**

**Invited Research Presentations continued:**

**Xuanfeng D.** In vivo imaging in particle therapy. Ideal ion imaging workshop. ASTRO, Chicago, IL, September 2019.

**Xuanfeng D.** Clinical operation of a ProteusONE proton therapy center and the future proton therapy technique development. Japan Annual Meeting of Society of Radiation Oncology, Nagoya, Japan, November 2019.


**Xuanfeng D.** A journey to SPArc - Spot-scanning proton arc therapy. University of Maryland, Baltimore, MD, July 2019.

**Xuanfeng D.** In the novel technique breakthrough in particle therapy, spot-scanning proton arc therapy: From a concept to reality. AAPM Annual Meeting, San Antonio, TX, July 2019.

**Xuanfeng D.** In particle therapy, clinical commission and quality assurance of a compact PBS gantry – IBA ProteusONE. Chinese Association of Biomedical Engineering Annual Meeting, Chengdu, China, September 2019.

**Xuanfeng D.** Clinical commission and operation of a proton system and the development of proton arc therapy. Shenzhen Cancer Center, Shenzhen, China, September 2019.


**Xuanfeng D.** Introduction to the proton beam therapy and its application in stereotactic radiosurgery and stereotactic body radiation therapy. AAPM sponsored Shenzhen winter school, Shenzhen, China, January 2019.

**Xuanfeng D.** Radiobiology in the era of stereotactic radiosurgery and stereotactic body radiation therapy. AAPM sponsored Shenzhen winter school, Shenzhen, China, January 2019.

**Xuanfeng D.** Proton stereotactic radiosurgery. No. 6. People’s hospital, Shanghai, China, July 2019.

**Yan D.** Current treatment technology, opportunity and challenges. CATRO, April 2019, Shenzhen, China.

**Yan D.** Metabolic imaging-based tumor dose response assessment and treatment adaptation. GFRO, Guanzhou, China, October 2019.

**Non Peer-Reviewed Publications:**

RADIATION ONCOLOGY

Non Peer-Reviewed Publications continued:


RESEARCH INSTITUTE
Peer-Reviewed Articles:


Kolderman NC, Cheti DR, Hasbrook CD, Forsyth AJ, **Coffey MP**, Nair GB, et al. CT-guided lung biopsies: 18 gauge vs 20 gauge needle size on rates of pneumothorax and sample adequacy. ATS International Conference, Dallas, TX, May 2019.
SUBSPECIALTY DIVISIONS OF SURGICAL SERVICES

BREAST CARE CENTER
GENERAL SURGERY
NEUROSURGERY
OTOLARYNGOLOGY
PEDIATRIC SURGERY
PLASTIC SURGERY
THORACIC SURGERY
VASCULAR SURGERY
Peer-Reviewed Articles:


Abstracts with Associated Research Presentations:


BREAST CARE CENTER

Invited Research Presentations:


Peer-Reviewed Articles:


*DeMare AM, Halka JT, Vasylok A, Iacco A, Janczyk R. Hybrid robotic transversus abdominus release has shorter length of stay compared to open transversus abdominus release: An AHSQC analysis. Hernia, 2019 March;23(1):S42–S43.


Abstracts with Associated Research Presentations:


GENERAL SURGERY

Abstracts with Associated Research Presentations continued:


*DeMare AM, Halka JT, Vasyluk A, Iacco A, Janczyk R. Hybrid robotic transversus abdominus release has shorter length of stay compared to open transversus abdominus release: An AHSQC analysis. Americas Hernia Society Annual meeting, Las Vegas, NV, March 11-14, 2019.


Halka JT, *DeMare AM, Vasyluk A, Iacco A, Janczyk R. Robotic-assisted rives ventral hernia repair versus open rives ventral hernia repair. Americas Hernia Society Annual meeting, March 11-14, 2019, Las Vegas, NV.


Peer-Reviewed Articles:


Peer-Reviewed Articles:


OTOLARYNGOLOGY

Peer-Reviewed Articles continued:


Spolyar JL. Nasoalveolar molding (NAM), Latham treatment or other: Controlling the narrative. Cleft Palate Craniofac J, November 2019;5.


Peer-Reviewed Articles:


**Cirino J,** Luehmann NC, Pastewski JM, Al-Hadidi A, Riggs TW, **Novotny NM,** et al, **[Akay B].** Implementation of a pediatric trauma cervical spine clearance pathway. ACS Quality and Safety Case studies: Bulletin of the American College of Surgeons May 1, 2019;Vol 104(5).


**Leumann NC,** Pastewski JM, Cirino JA, Al-Hadidi A, **DeMare AM,** Riggs TW, **Novotny NM,** **Akay B.** Implementation of a pediatric trauma cervical spine clearance pathway. Pediatr Surg Int, August 21, 2019.


PEDIATRIC SURGERY

Abstracts with Associated Research Presentations:


Elton T, Studzinski D, Morden RS, Brahmandam P. Outcomes after minimally invasive repair of pectus excavatum. 4th Annual Robert J. Lucas Surgical Symposium, March 5, 2019, Royal Oak MI.


Abstracts with Associated Research Presentations continued:


Peer-Reviewed Articles:


Peer-Reviewed Articles:


Abstracts with Associated Research Presentations:


Peer-Reviewed Articles:


UROLOGY

Peer-Reviewed Articles continued:


Janicki JJ, Semba RD, Chancellor MB, Lamb LE. Association of urinary leakage with decreased testosterone in older women: Results from the health, aging, and body composition study (Health ABC). American Urological Association (AUA) Annual Meeting, Chicago, IL, May 3-6, 2019.
Abstracts with Associated Research Presentations continued:


Abstracts with Associated Research Presentations continued:


Abstracts with Associated Research Presentations continued:

**Watson B, Shetty S.** Prostate-"eye"-tis: Disseminated pseudomonas aeruginosa infection from prostatic abscess presenting with vision loss. North Central Section of the American Urological Association (AUA) Annual Meeting, Chicago, IL, September 11-14, 2019. **Best Presentation Award in the Bizarre and Interesting Case category.**


**Invited Research Presentations:**


**Non Peer-Reviewed Research Publications:**

DERMATOLOGY

Peer-Reviewed Articles:


Peer-Reviewed Articles:


Taylor GM, Erlich AH. Perianal abscess in a 2-year-old presenting with a febrile seizure and swelling of the perineum. Oxf Med Case Reports, 2019 January 24;2019(1).

Peer-Reviewed Articles:

NURSING

Peer-Reviewed Articles:

Peer-Reviewed Articles:


Peer-Reviewed Articles:

Peer-Reviewed Articles:
ABCA12 homozygous mutation in harlequin ichthyosis: Survival without systemic retinoids.
Peer-Reviewed Articles:

Peer-Reviewed Articles:

CARDIOVASCULAR DISEASE

Peer-Reviewed Articles:


Peer-Reviewed Articles:

Meza JP. Confirmation bias by consumers of clinical research demonstrates the need for implementation science. Clinical Research in Practice: The Journal of Team Hippocrates, February 2019;5(1).
Peer-Reviewed Articles:

Sengstock D, Zimmerman J. Faculty and resident knowledge of research and statistics in a community hospital. Annual Meeting of the Accreditation Council for Graduate Medical Education, Orlando, FL, March 9, 2019.


Peer-Reviewed Articles:


Invited Research Presentations:


Mariona F. The NTSV challenge; they are not all created equal. 68th Annual Clinical and Scientific Meeting of the American College of Obstetricians and Gynecologists, Nashville, TN, May 3-6, 2019; Obstetrics & Gynecology, 133(Suppl 1):218S.

Peer-Reviewed Articles:


**ORTHOPAEDIC SURGERY**

**Peer-Reviewed Articles:**


Gemayel A, **Yousif MJ**, Padget W, **Finch J**. Distal femoral replacement following an intraoperative periprosthetic fracture in a patient with prior bone mulch ACL reconstruction. Case Reports in Orthopedics, 2019; Article 6213807,p5.


Mariona F. The NTSV challenge; they are not all created equal. Obstetrics & Gynecology, 133(Suppl 1):218S.


Osborne, JD, Luczak SB, **Acker WB**, Bicos J. Patellofemoral joint contact pressures: Current concepts and use in patellar instability studies. Orthopedics, 2019;42(2).


Peer-Reviewed Articles


Abstracts with Associated Research Presentations:


Hsaiky L, *Duong A, Addo H, Wallace L. Evaluating the rate of appropriate vaccine selection of a nursing-pharmacy led pneumococcal vaccine standing order. 54th ASHP Midyear Clinical Meeting and Expedition, Las Vegas, NV, December 2019


Abstracts with Associated Research Presentations:

*Shammout L, Martirosov D, McConachie S. Comparison of dose recommendations in commonly used medications based on multiple renal function estimation equations. ASHP Midyear Clinical Meeting & Exhibition, Las Vegas, NV, December 2019.


Peer-Reviewed Articles:

Peer-Reviewed Articles:


Peer-Reviewed Articles:


Surgery / Vascular Surgery

Peer-Reviewed Articles:
