Colleagues,

On behalf of Michigan Medicine, let me extend a warm welcome to our visitors from Chang Gung Memorial Hospital. This marks the third official meeting between our esteemed organizations, and the first meeting since our institutional partnership was formalized last summer. The 2017 delegation includes several new Chang Gung visitors to Ann Arbor as well as a few familiar faces. We are delighted to welcome each of them.

Chang Gung Memorial Hospital and UMMS share a common interest in groundbreaking clinical and translational research, with each organization bringing complementary strengths to the partnership. In order to explore those strengths and the best path forward, we have arranged a full schedule that includes Michigan Medicine research facility tours; individual presentations on subjects of mutual interest; and ample time for researchers to meet one-on-one – all in the name of further developing collaborations that improve health across both our of unique populations.

Whether you traveled across campus or around the world to be here, thank you for your willingness to share your time, talents, and expertise. I look forward to a productive symposium and meaningful, continuing partnership between our institutions.

Respectfully,

Joseph C. Kolars, MD
Senior Associate Dean for Education and Global Initiatives
Josiah Macy, Jr., Professor of Health Professions Education
Professor of Internal Medicine and Learning Health Sciences
University of Michigan Medical School
About Michigan Medicine

Twenty years after establishing its Medical School, the University of Michigan opened the first university-owned hospital in the United States in 1869. Today, Michigan Medicine comprises three hospitals, more than 150 clinics across 40 locations, and an extensive home care operations network. It is a nationally recognized leader in patient care, research that improves human health, and medical education for the next generation of physicians, nurses, and scientists.

A dedicated team of more than 26,000 faculty, staff, students, trainees, and volunteers treat patients from across the state of Michigan, the United States, and around the world. In 2015, Michigan Medicine handled more than 100,000 surgical cases and 50,000 emergency room/urgent care visits, in addition to 2.1 million outpatient visits. It consistently receives high marks in the annual *US News and World Report* ranking of America’s best hospitals, having made the publication’s list for 24 consecutive years and counting.

The University of Michigan is the top public university in the United States in research expenditures and Michigan Medicine accounts for the lion’s share, spending more than half billion dollars a year on groundbreaking research.

About Chang Gung Memorial Hospital

Chang Gung Memorial Hospital offers the largest and most comprehensive healthcare services in Taiwan and has been recognized internationally as a pioneer in innovation, research and teaching. The system comprises seven hospitals and 10,050 beds, the largest academic medical center ever to be accredited by the Joint Commission International. It averages more than 8 million outpatient visits, 2.4 million hospitalizations, and 160,000-plus surgeries each year. About one third of the entire Taiwanese population has sought care with Chang Gung.

With nearly 4,000 beds and 29 specialty centers, the main Chang Gung branch at Linkou has trained more than 1,700 practicing physicians from 75 different countries in the last decade. Not only does the hospital account for almost 10,000 outpatients a day, it also receives the highest number of international patients in Taiwan, treating over 10,000 patients a year.
### Thursday Schedule

**October 26, 2017**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:45 a.m.</td>
<td>Transportation to Michigan Medicine</td>
<td></td>
</tr>
<tr>
<td>8:30-9:30 a.m.</td>
<td><strong>Anna Lok, MD</strong>&lt;br&gt;Assistant Dean for Clinical Research, Michigan Medicine</td>
<td>3912A Taubman Center</td>
</tr>
<tr>
<td>10 a.m.-noon</td>
<td><strong>Steve Kunkel, PhD</strong>&lt;br&gt;Senior Associate Dean for Research, Michigan Medicine&lt;br&gt;<strong>Teri Grieb, PhD</strong>&lt;br&gt;Sr. Director for Research, Office of Research&lt;br&gt;Managing Director, Michigan Institute for Clinical &amp; Health Research, Michigan Medicine</td>
<td>Taubman Health Sciences Library (THSL) 5360</td>
</tr>
<tr>
<td>noon-1 p.m.</td>
<td>Lunch</td>
<td>THSL 5360</td>
</tr>
<tr>
<td>1:15-2 p.m.</td>
<td><strong>Carol Bradford, MD</strong>&lt;br&gt;Executive Vice Dean for Academic Affairs, Michigan Medicine&lt;br&gt;<strong>Joe Kolars, MD</strong>&lt;br&gt;Senior Associate Dean for Education &amp; Global Initiatives&lt;br&gt;Michigan Medicine&lt;br&gt;<strong>Amy Huang, MD</strong>&lt;br&gt;Director for China Programs, Michigan Medicine</td>
<td>5107 MS-I</td>
</tr>
<tr>
<td>2-2:30 p.m.</td>
<td>Tour: Cardiovascular Center Clinical Research Unit</td>
<td>CVC</td>
</tr>
<tr>
<td>2:30-3:30 p.m.</td>
<td>Tour: Biomedical Sciences Research Facilities</td>
<td>BSRB</td>
</tr>
<tr>
<td>3:30-4 p.m.</td>
<td>Transportation to North Campus</td>
<td></td>
</tr>
<tr>
<td>4-5 p.m.</td>
<td>Tour: Biorepository</td>
<td>NCRC</td>
</tr>
<tr>
<td>5 p.m.</td>
<td>Shuttle to Hotel</td>
<td></td>
</tr>
<tr>
<td>5:15-5:45 p.m.</td>
<td>Break</td>
<td></td>
</tr>
<tr>
<td>5:45 p.m.</td>
<td>Transportation to dinner</td>
<td></td>
</tr>
<tr>
<td>6-8:30 p.m.</td>
<td>Dinner</td>
<td>Gandy Dancer</td>
</tr>
<tr>
<td>8:30 p.m.</td>
<td>Transportation to hotel</td>
<td></td>
</tr>
</tbody>
</table>
## Friday Schedule

### October 27, 2017

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:45 a.m.</td>
<td>Transportation to Michigan Medicine</td>
<td></td>
</tr>
<tr>
<td>8:20 a.m.</td>
<td>Group Picture</td>
<td>THSL Entrance</td>
</tr>
</tbody>
</table>
| 8:30-8:45 a.m. | Welcome  
Marschall Runge, MD, PhD  
Dean, University of Michigan Medical School  
Executive Vice President for Medical Affairs  
CEO of Michigan Medicine  | 2903 THSL  
*Host, Introduction of Speakers: Kevin C. Chung, MD* |
| 8:45-9 a.m. | Introduction to Chang Gung Memorial Hospital  
See-Tong Pang, MD, PhD  
Vice Superintendent, Chief of Uro-oncology  
Chang Gung Memorial Hospital |                        |
| 9-9:15 a.m. | Introduction to Michigan Medicine Research  
Bishr Omary, MD, PhD  
Chief Scientific Officer, Michigan Medicine  
Professor of Molecular & Integrative Physiology |                        |
| 9:15-9:35 a.m. | Prostate Cancer Screening using CTC Technology  
See-Tong Pang, MD, PhD  
Vice Superintendent, Chief of Uro-oncology  
Chang Gung Memorial Hospital |                        |
| 9:35-9:55 a.m. | Measuring and Improving Statewide Outcomes with Robotic Prostatectomy  
David Miller, MD  
Professor of Urology  
Chief, Dow Health Services Research  
Michigan Medicine |                        |
| 9:55-10:15 a.m. | Precision Medicine to Prevent Severe Adverse Drug Reactions: Experience from Taiwan  
Wen-Hung Chung, MD, PhD  
Associate Professor of Dermatology  
Director of Drug Hypersensitivity Clinical and Research Center  
Chang Gung Memorial Hospital |                        |
| 10:15-10:35 a.m. | Sites of High-risk HPV Integration into the Cancer Cell Genome: Another Factor in Oropharynx Cancer Behavior?  
Thomas Carey, PhD  
Professor of Otolaryngology, Michigan Medicine |                        |
| 10:35-10:45 a.m. | Break | }
### Friday Schedule (cont.)

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
</table>
| 10:45-11:05 a.m. | **PATCH School Children Cohort: Where We've Been & Where We May Go**  
Tsung-Chieh Yao, MD, PhD  
Professor of Pediatrics  
Deputy Director of Medical Research and Development  
Chang Gung Memorial Hospital  
*Host, Introduction of Speakers: Kevin C. Chung, MD* | 2903 THSL         |
| 11:05-11:25 a.m. | **Traumatic Brain Injury in India: The Michigan Medicine - AIIMS Collaboration**  
Krishnan Raghavendran, MD  
Professor of Surgery, Michigan Medicine |                   |
| 11:25-11:45 a.m. | **Post-marketing Surveillance of Drug-Drug Interaction Using Routinely Collected Health Data**  
Chang-Fu Kuo, MD, PhD  
Professor of Gout and Rheumatoid Arthritis  
Department of Allergy-Immunology-Rheumatology  
Chang Gung Memorial Hospital |                   |
| 11:45 a.m.-12:05 p.m. | **Intestinal Duox2 as a Marker of Gut Dysbiosis**  
John Kao, MD  
Associate Professor of Gastroenterology & Internal Medicine, Michigan Medicine |                   |
| 12:05-12:30 p.m. | **Discussion for Future Collaboration**  
Kevin Chung, MD  
Professor of Surgery  
Chief of Hand Surgery, Michigan Medicine |                   |
| 12:30 - 1:30 p.m. | Lunch |                                                     |
| 1:30 p.m. | Transportation to Detroit Institute of Art |                           |
| 2:30-6 p.m. | Tour: Detroit Institute of Art | DIA                       |
| 6 p.m. | Transportation to Dinner |                                                |
| 6:30-9 p.m. | Dinner | Rattlesnake Club                                  |
| 9 p.m. | Transportation to hotel |                                                  |
Chang Gung Participants

See-Tong Pang, MD, PhD
Vice Superintendent
Chief, Department of Uro-oncology
Chang Gung Memorial Hospital
jacobpang@cgmh.org.tw

See-Tong Pang is a graduate of Chung-Shan Medical University and completed his urology resident training at Chang Gung Memorial Hospital in 1998. Driven by his strong interest in medical research, after one year of urology practice he pursued his PhD study at the Karolinska Institute, Sweden and obtained his degree in 2003. Dr. Pang is an expert in urological cancer therapy and a pioneer in robotic surgery; he completed the first robotic surgery at Chang Gung Memorial Hospital in September 2006. He has since completed more than 400 robotic surgeries including prostatectomy, partial nephrectomy, cystectomy and nephroureterectomy procedures. He was the director of the Chang Gung Robotic Center and Department of uro-oncology. As a member of the Taiwan Urology Association and American Urology Association, Dr. Pang is also actively involved in clinical research. His interests include finding novel ways to improve urological cancer treatments. Thus far, Dr. Pang has published more than 90 peer-reviewed papers in many renowned medical journals such as Science Translation Medicine, Advanced Materials, Nucleic Acid Research, and Oncogene. Currently, he is the Vice Superintendent of Chang Gung Memorial Hospital, Linkou. He is also President of the Taiwan Urological Oncology Association.

Kai-Ping Chang, MD, PhD
Director, Head & Neck Surgery
Department of Otolaryngology
Professor of Medicine, Chang Gung University
Deputy Director, Department of Medical Research & Development
Linkou Chang Gung Memorial Hospital
dr.kpchang@gmail.com

Dr. Kai-Ping Chang obtained his MD and PhD degree from Chang Gung University in 1986 and 2008, respectively. He finished his residency in 2002 at the Department of Otolaryngology- Head & Neck Surgery, Linkou Medical Center of Chang Gung Medical Foundation and has been an attending physician ever since. In the summer of 2013, he was a visiting scholar at MD Anderson Cancer Center, Houston, Texas, specifically for head and neck surgery and related translational basic research. He is currently the Director of
the Division of Head & Neck Surgery of Department of Otolaryngology and the Deputy Director of Department of Medical Research & Development of Chang Gung Memorial Hospital. He is also an Adjunct Professor of College of Medicine, Chang Gung University.

Dr. Chang’s academic interests focus on the surgical oncology and translational research on head and neck cancers, including oral cavity cancers and nasopharyngeal carcinoma. He has published more than 150 articles in SCI journals, including several articles published in some renowned journals such as *Nature Communications* and *Clinical Cancer Research*. He serves as the editor and reviewer of several international peer-review journals. Now he is one of the directors of the Taiwan Head & Neck Society and the associate editor of *Head & Neck*, a leading otolaryngology journal.

**Wen-Hung Chung, MD, PhD**  
Director of Drug Hypersensitivity Clinical and Research Center  
Associate Professor of Dermatology  
Chang Gung Memorial Hospital  
chung1@cgmh.org.tw

Dr. Chung is a physician of dermatology and a specialist in severe cutaneous adverse drug reactions and cutaneous immunologic disorders. He currently serves as Director of the Department of Dermatology and the Drug Hypersensitivity Clinical and Research Center at Taipei & Linkou Chang Gung Memorial Hospital. Dr. Chung has devoted himself to the investigation of severe adverse drug reactions (SCARs) for more than a decade, and his findings have made great clinical impacts. Dr. Chung and his team have identified genetic and bio-markers for SCARs, including a strong genetic association of HLA-B*1502 with carbamazepine-induced Stevens-Johnson syndrome (SJS) or toxic epidermal necrolysis (TEN) and HLA-B*5801 with allopurinol-SCARs. In addition, he discovered granulysin as the major mediator for the extensive keratinocytedeath in SJS or TEN. These important breakthroughs had been published in *Nature* and *Nature Medicine* in 2004 and 2008, respectively. These markers have been used in clinic before prescription of carbamazepine and allopurinol to prevent patients in many countries from developing SCARs. More recently, Dr. Chung identified CYP2C variants, including CYP2C9*3, which may reduce drug clearance and be an important genetic factor in phenytoin-related SCARs. The issue of drug metabolism or clearance has become an important risk factor for SCAR development. This important finding was published in *JAMA* in 2014. For these and other contributions, Dr. Chung had received awards, including the 47th Ten Outstanding Young Persons in Taiwan (2009), the International League of Dermatological Societies Young Dermatologist International Achievement Award (2011), and the Outstanding Research Award of Ministry of Science and Technology (2014).
Dah-Chuan Gong, PhD
Professor of Industrial and Business Management
College of Management
Chang Gung University
gongdc@mail.cgu.edu.tw

Dah-Chuan Gong is a Professor of Industrial and Business Management at Chang Gung University, Taiwan. He has previously served at University of Wisconsin-Milwaukee (2014-15), National University of Singapore (2011-13), and Asian Institute of Technology, Thailand (2007-09). Gong received his PhD in 1991 from Georgia Institute of Technology in Industrial and Systems Engineering, as well as a certificate in Computer Integrated Manufacturing. In 2007, he joined the PCMPCL program to learn how to teach and write practical cases at Harvard Business School. He is a co-author of the book, Operation Management Cases of Taiwan, published by China Renmin University Press. From 1997 to 2011, he was involved in Taiwan’s effort to become more competitive with BPR and IT-oriented commercial applications. He had advised, reviewed, or monitored 100-plus large-scale sponsored projects in industries, including computer, telecommunication, electronics, automobile, mechanical and machine tools, among others. His teaching and research interests include the production-inventory system analysis, applied operations research, manufacturing system development, global logistics, green supply chain network design, and green product management system.

Chang-Fu Kuo, MD, PhD
Professional of Gout and Rheumatoid Arthritis
Department of Allergy-Immunology-Rheumatology
Chang Gung Memorial Hospital
zandis@gmail.com

Dr. Kuo is a senior rheumatologist and currently holds the posts of Director of Medical Research and Development, and Director of the Division of Rheumatology, Allergy and Immunology. He received his MD and master’s degree in Chang Gung University, and PhD at the University of Nottingham, UK, where he is also an honorary associate professor. His research interests involve epidemiology of rheumatic diseases, genetic epidemiology of common complex diseases and pharmacoepidemiology. His research emphasizes on gout and he has published papers ranging from epidemiology parameters, treatment, prognosis, comorbidities, genetics and risk factors. Recently, he designed several new models to assess the drug-drug interaction using routinely collected data. He has authored more than 50 scientific papers in high-impact journals such as JAMA and JAMA Internal Medicine.
Yu-Ling Kuo
Administrator
Department of Medical Research & Development
Linkou Chang Gung Memorial Hospital
karen547@cgmh.org.tw

Yu-ling Kuo graduated from the National Institute of Clinical Nursing, Yang-Ming University, and is working in the Department of Medical Research Development as an administrator. She served from 1996 to 2012 in the Chang Gung Memorial Hospital nursing department and implemented clinical care work through the pediatric and neonatal moderate wards and the neonatal intensive care unit. She also served as pediatric ward head nurse. In the course of serving as a clinical registered nurse, she researched on the issues related to care and child development in premature infants, including the effect of changing position on oxygenation and hemodynamic in premature babies, and the relationship between the temperament and the physical stress of the asthmatic children – research that has impacted clinical care.

In 2012, she transferred to the Department of Medical Research and Development as an administrator responsible for: laboratory management, promotion of research cooperation projects, planning the space use of new research building and purchasing of equipment, and the laboratory relocation planning.

Li-Fu Li, MD, PhD
Laboratory Animal Center Director
Chang Gung Memorial Hospital
Professor of Pulmonary and Critical Care Medicine
Chang Gung Memorial Hospital and Chang Gung University
lfp3434@cgmh.org.tw

Dr. Li-Fu Li is Director of the Laboratory Animal Center at Chang Gung Memorial Hospital. He received his MD from Taipei Medical University and a PhD in Medicine from Chang Gung University. Dr. Li completed his residency in internal medicine and fellowship training in pulmonary and critical care medicine at Chang Gung Memorial Hospital before being appointed a Professor of Pulmonary Medicine at Chang Gung Memorial Hospital and Chang Gung University. He is a member of the Taiwan Society of Internal Medicine, the Taiwan Society of Critical Care Medicine, and the Asian Pacific Society of Respirology. He also joined Massachusetts General Hospital and Harvard Medical School in 2001 as a Research Fellow. Dr. Li is a distinguished investigator in the study of Critical Care Medicine, with research focused on the inflammatory cytokines and signaling pathways involved in acute and fibroproliferative
phases of acute respiratory distress syndrome, lung fibrosis, and ventilator-induced diaphragm dysfunction. The author of more than 50 original scientific papers, he has served as an editor of the Journal of the Formosan Medical Association. He is also Chair of the Institutional Animal Care and Use Committee of Chang Gung Memorial Hospital.

Tsung-Chieh Yao, MD, PhD
Deputy Director of Medical Research and Development
Professor of Pediatrics
Chang Gung Memorial Hospital
yao@cgmh.org.tw

Tsung-Chieh Yao, MD, PhD, is a Professor of Pediatrics at the Chang Gung Memorial Hospital and Chang Gung University. Dr. Yao completed his residency and fellowship training at Chang Gung Memorial Hospital and earned his PhD in clinical medical science from Chang Gung University. He provides clinical care in pediatric allergy, immunology, and rheumatology. He serves as the Deputy Director for the Department of Pediatrics and the Deputy Director for the Department of Medical Research and Development, Chang Gung Memorial Hospital. He also serves as an executive committee member of the Taiwan Academy of Pediatric Allergy, Asthma and Immunology.

Dr. Yao is a leading principle investigator in two prospective population-based cohort studies – the PATCH Schoolchildren cohort and the LIGHTS cohort – with research focused on investigating the epidemiology and predictive factors of asthma and allergies in children. He is currently the Executive Editor of the Journal of Microbiology, Immunology and Infection, and the Managing Editor of Pediatrics and Neonatology. He has published more than 80 peer-reviewed scientific papers. In 2004, Dr. Yao received the Outstanding Social Youth Award of the Year. In 2007, he received the Award for Outstanding Contributions to Pediatric Medicine from the Raising Children Medical Foundation. In 2014, Dr. Yao received the Best Teacher of the Year Award from the Chang Gung Memorial Hospital. He is also the recipient of 10 awards recognizing outstanding research accomplishments from the Taiwan Academy of Pediatric Allergy, Asthma, and Immunology.
Huang-Ping Yu, MD, PhD
Professor and Chair
Department of Anesthesiology
Vice Chairman
Committee of Medical Research Evaluation
Chang Gung Memorial Hospital
yuhp2001@adm.cgmh.org.tw

Huang-Ping Yu, MD, PhD, is the Professor and Chair of the
Department of Anesthesiology and Vice Chairman of Committee of Medical Research
Evaluation at Chang Gung Medical Center with its 3,700 ward beds. In addition, Professor
Yu is a member of the Editorial Board of the journal SHOCK - Injury, Inflammation, and
Sepsis: Laboratory and Clinical Approaches. He has authored more than 110 publications
including book chapters, original articles, and review papers in English peer-reviewed
journals. He is an invited reviewer for Critical Care Medicine, PLoS ONE, Journal of
Surgical Research, World Journal of Gastroenterology, Pharmacological Research,
Mediators of Inflammation, and other journals. Professor Yu’s research fields include
Anesthesiology, Critical Care Medicine, Hemorrhagic Shock, Sepsis, and Inflammation.
His focus is on investigating the mechanism of therapeutic reagents-induced improvement
of organ function, and the potential use of therapeutic reagents after trauma/sepsis to
prevent organ dysfunction – a novel approach for maintaining organ function under those
conditions.
Michigan Medicine Participants

Marschall S. Runge, MD, PhD
Dean, University of Michigan Medical School
Executive Vice President for Medical Affairs
CEO of Michigan Medicine
mrunge@umich.edu

The University of Michigan Board of Regents appointed Marschall S. Runge Executive Vice President for Medical Affairs and CEO of Michigan Medicine effective March 2015 and Dean of the Medical School effective January 2016. Before coming to Michigan, Dr. Runge was executive dean for the University of North Carolina (UNC) School of Medicine, the Charles Addison and Elizabeth Ann Sanders Distinguished Professor of Medicine at UNC-Chapel Hill (UNC-CH), chair of the UNC-CH Department of Medicine, and principal investigator and director of the NIH-funded North Carolina Translational and Clinical Sciences (NC TraCS) Institute, one of 55 medical research institutions working together as a national consortium to improve the way biomedical research is conducted across the country. An honors graduate of Vanderbilt University with a B.A. in Biology and a PhD in Molecular Biology, Dr. Runge earned his MD from the Johns Hopkins School of Medicine, where he was an intern and resident in internal medicine. He then completed a cardiology fellowship at Harvard’s Massachusetts General Hospital and was a faculty member at Harvard prior to subsequent career moves. Dr. Runge has been a physician-scientist for his entire career, combining basic and translational research with the care of patients with cardiovascular diseases and education. He is the author of over 200 publications in the field and holds five patents for novel approaches in healthcare.

Carol Rossier Bradford, MD
Executive Vice Dean for Academic Affairs
Charles J Krause, M.D. Collegiate Professor of Otolaryngology
Head and Neck Surgery
cbradfor@med.umich.edu

Dr. Bradford has served as the Medical School's executive vice dean for academic affairs (EVDAA) since July 2016. She also holds the Charles J. Krause, MD, Collegiate Professorship in Otolaryngology, and is a professor of otolaryngology-head and neck surgery. She earned her BS (cellular and molecular biology), M.S. (microbiology/immunology) and MD degrees at the University of Michigan. After completing an otolaryngology-head and neck surgery residency here, she
joined the faculty in 1992. She became chair of the Department of Otolaryngology-Head and Neck Surgery in 2009, a position she held until she was appointed EVDAA. Dr. Bradford specializes in head and neck cancer surgery, focusing her research on identifying and evaluating biomarkers that can predict outcomes. She works to develop therapies to combat certain types of head and neck cancer that are resistant to traditional forms of treatment. She also pioneered the use of sentinel lymph node biopsy as a safe and reliable tool to stage patients with melanoma of the head and neck. Dr. Bradford serves on the board of directors of the American Academy of Otolaryngology-Head and Neck Surgery and as president of the Society of University Otolaryngologists. In 2015, she was inducted into the prestigious National Academy of Medicine (formerly the Institute of Medicine).

Joseph C. Kolars, MD
Senior Associate Dean for Education and Global Initiatives
Josiah Macy, Jr., Professor of Health Professions Education
Professor of Internal Medicine and Learning Health Sciences
jckolars@umich.edu

Dr. Kolars has served as co-director for the University of Michigan Medical School – Peking University Health Science Center Joint Institute for Clinical and Translational Research since it was established in 2010. He obtained his MD degree in 1982 from the University of Minnesota Medical School, pursued internal medicine training in Minneapolis, and completed his post-graduate training gastroenterology at the University of Michigan in 1989. After serving as Associate Chair for Medicine and Residency Program Director, Dr. Kolars left the University of Michigan to establish a western based health care system in China in conjunction with Shanghai Second Medical University. In 1999, he joined the faculty at Mayo Clinic in Rochester, Minnesota where he served in numerous leadership roles related to education and global initiatives. In June of 2009, he moved to the University of Michigan where he oversees the Senior Associate Deans responsible for the education programs as well as global health initiatives for the medical school. Between 2007-2011, he worked closely with the Bill and Melinda Gates Foundation to partner medical schools in the U.S. with those in sub-Saharan Africa. He currently serves on the Advisory Council for NIH’s Fogarty International Center. In 2016, he was voted on to the Board of the Consortium of Universities for Global Health. Dr. Kolars has funding from the Fogarty Center for Global Health Research Fellow training. His current interests in medical education focus on innovations and the transformation of learning systems to more explicitly align with better health.
Bishr Omary, PhD
Chief Scientific Officer
Professor, Molecular & Integrative Physiology
H. Marvin Pollard Professor of Gastroenterology
Professor, Internal Medicine
mbishr@umich.edu

Bishr Omary is the Executive Vice Dean for Research in the University of Michigan Medical School and was named Chief Scientific Officer for Michigan Medicine in May, 2017. Since 2008, Omary has served as chair of the Department of Molecular and Integrative Physiology in the Medical School, where he led the department to become the highest-ranked National Institute of Health-funded physiology department in the nation. He also helped the department grow its educational and training platforms and was instrumental in recruiting half of the department's current faculty. Omary earned his PhD from the University of California, San Diego, and his medical degree from the University of Miami. He completed his residency in internal medicine at the University of California, Irvine Medical Center, and a fellowship in gastroenterology at the University of California, San Diego. He is board certified in internal medicine and gastroenterology and has published 170 original papers and nearly 40 reviews and commentaries.

Steven L. Kunkel, PhD
Senior Associate Dean for Research
Endowed Professor in Pathology Research
slkunkel@umich.edu

Dr. Kunkel’s areas of research have centered on assessing molecular mechanisms of lung inflammation by investigating cytokine directed cell-to-cell communication circuits. A significant amount of this work helped to launch and define the field of chemokine biology. In addition, he has been involved in assessing epigenetic regulation of immune cell phenotypes that dictate the expression pattern of inflammatory mediators. His studies in cytokine and chemokine biology are internationally recognized and have provided a clearer understanding of how these proteins are regulated and participate in the initiation, maintenance, and resolution of acute and chronic lung disease. He has co-authored over 600 peer reviewed manuscripts, has been granted 14 United States patents, an H-Index of greater than 100, presented over 150 lectures as a visiting professor/lecturer in the past 10 years, and maintained continuous funding of major National Institute of Health grants for a number of years.
Kevin C. Chung, MD, MS
Charles B. G. De Nancrede Professor of Surgery, Plastic Surgery, and Orthopaedic Surgery
kecchung@umich.edu

Kevin C. Chung, MD, MS, the Charles B. G. De Nancrede (Chair of the Department of Surgery at University of Michigan, 1847-1921) Professor of Surgery, Plastic Surgery, and Orthopaedic Surgery, received his health services research training as a Robert Wood Johnson Clinical Scholar from the University of Michigan. He obtained his general surgery training from the University of Texas in San Antonio, his plastic surgery training from the University of Michigan and his hand surgery training from the Curtis National Hand Center in Baltimore. At the University of Michigan Medical School, he serves as the Assistant Dean for Faculty Affairs in charge of Tenure and Promotion, and is the Associate Director for Global REACH, the global health program of the Medical School. Dr Chung is Chief of Hand Surgery for Michigan Medicine and Director of the Multidisciplinary Hand Center. Dr. Chung was a Director for the American Board of Plastic Surgery and the American Board of Surgery, and served as the Treasurer/Secretary for the American Board of Plastic Surgery. He has published over 500 peer-reviewed manuscripts, over 300 book chapters, and 20 textbooks. He is the Editor-in-Chief of the legacy textbook in the field of Plastic Surgery, Grabb and Smith’s Plastic Surgery, 8th Edition, which is the standard textbook for the field in the US and around the world. He is a National Institutes of Health funded researcher who is the principal investigator of an R01 grant for a multicenter clinical study on the rheumatoid hand that has received a competitive renewal, and another R01 grant on a 20 center clinical trial for the treatment of distal radius fracture in the elderly. He also holds a K24 Midcareer Investigator Grant in Patient-Oriented Research that received a second competitive renewal, and is a co-principal investigator of a T32 training grant in health services research. He also holds a U34 grant from the National Institutes of Health in planning a 15 center clinical trial in treating ulnar neuropathy at the elbow, and has received in the past a R34 Clinical Trial Planning grant and a R21 Exploratory/Developmental Research Grant Award also from the National Institutes of Health. He is the first recipient of the Weiland Medal from the American Society for Surgery of the Hand to honor a hand surgeon whose research work advanced the specialty. He was the 2011 Researcher of the Year for the American Association of Plastic Surgeons. In 2008, Dr. Chung received the Dean’s award from the University of Michigan Medical School for Clinical and Health Services Research that is bestowed on one faculty member for outstanding research accomplishments. In 2016, Dr Chung again received the Dean’s award for Outstanding Clinician Award recognizing the exemplary performance of a practicing clinician. Dr. Chung is the past Deputy Editor for the Journal of Hand Surgery (American) and current Associate Editor, the Editor for Hand Clinics and Associate Editor for Journal of Hand Surgery (European). He is the Outcomes Section Editor for Plastic and Reconstructive Surgery.
Thomas Carey, PhD
Professor of Otolaryngology-Head and Neck Surgery
Professor of Pharmacology
University of Michigan Distinguished Research Scientist
Co-Director, Head and Neck Oncology Program, Cancer Center
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Dr. Carey is a Professor of Cancer Biology and Distinguished Research Scientist in the Department of Otolaryngology-Head and Neck Surgery, and Professor of Pharmacology in the Department of Pharmacology at the University of Michigan. He is the Co-Director of the Head and Neck Oncology Program at the University of Michigan Comprehensive Cancer Center and Co-directed the Head and Neck Cancer SPORE for 12 years. He earned his PhD in Biochemical Pharmacology from State University of New York at Buffalo, and completed a postdoctoral fellowship focusing on melanoma immunology and serology at Sloan-Kettering Institute, New York, NY in 1977. After active duty for training in the Army Medical Service Corps from 1977-78, he joined the University of Michigan in 1978. He held the position of Associate Chair and Director of Research in the Department of Otolaryngology from 2000-14. He served a five year term as the Chair of the Department of Oral Medicine, Pathology and Oncology in the School of Dentistry. His current research interests are defining and understanding the molecular mechanisms of treatment resistance in head and neck cancer, including the dual role of p53 and Bcl-xL in cisplatin resistance; the role of HPV, EGFR, smoking and gender in response to therapy and survival; and the role of the G-protein coupled receptors GALR1, 2 and 3 and the neuropeptide galanin in tumor progression. Dr. Carey has authored or co-authored more than 230 peer reviewed articles, 370 abstracts, 22 book chapters, and one book. He also sits on the editorial board of seven journals.

Teri A. Grieb, PhD
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As the Chief Business and Administrative Officer for the research mission, Dr. Grieb is responsible for the operational and fiscal management of the Office of Research and its reporting units. She assists with devising and deploying strategic research initiatives; continuous improvement and change management; and advising on policy, procedural, and operational issues for the
research enterprise. Dr. Grieb also serves as the lead administrative liaison and primary staff interface between the Medical School research enterprise and the institution. Dr. Grieb holds a PhD from the Genetics Program at George Washington University. After receiving her doctorate, she joined an early stage, life sciences start-up company. She was the Director of Tissue Biologics and lead scientist responsible for developing the company’s licensed technology for sterilizing allograft tissues. Dr. Grieb then joined MedImmune, Inc., as a project manager, where she oversaw commercial and university in-licensed technologies. Prior to her current roles at the University, Dr. Grieb was the Industry Research Liaison and was responsible for planning and implementing outreach activities to increase participation in technology transfer, grow partnerships with industry, and foster entrepreneurship.

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Dr. Huang is the Director for the China Programs at the University of Michigan Medical School. She serves as the Program Director for the University of Michigan Medical School - Peking University Health Science Center Joint Institute for Translational and Clinical Research. Dr. Huang obtained her MD degree from the Harbin Medical University and completed her post-graduate training in Cardiology at the Peking University Health Science Center. She then went to the University of Michigan for her post-doctoral training in cardiovascular biology. Dr. Huang furthered her academic training at University of Michigan School of Public Health and obtained her Master degree in Healthcare Service Administration. After completion of the Administrative Fellowship with the University of Michigan Health System, she joined the UMMS Dean’s office to establish and manage the China platform. Dr. Huang’s research interests include healthcare management and international collaboration.
John Y. Kao, MD  
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Dr. Kao is received his MD degree from University of Southern California School of Medicine in 1996 and completed his Internal Medicine Residency at UC Davis Medical Center in California. He completed a combined clinical/basic research GI Fellowship at the University of Michigan. His research interest is understanding the mechanism of GI immune homeostasis. As an active National Institute of Health investigator, his current research focuses on the role of gut microbiota in diseases of the GI tract including infection (e.g., H. pylori, C. difficile) and Inflammatory Bowel Disease. He was inducted into the honorary society of the American Society of Clinical Investigation (ASCI). Dr. Kao is also passionate about resident and fellow research training and currently serves as the Associate Director of Research for the GI Fellowship Training Program at the University of Michigan overseeing the research progress of 21 GI/hepatology fellows. He also participates as a grant reviewer for National Institute of Health and Department of Defense as well as several international grant programs. He is the current Chair of the EGD section of the American Gastroenterological Association (AGA). Dr. Kao is also a practicing gastroenterologist with clinical interests including H. pylori, IBD, Celiac disease, and C. difficile colitis. He has established several clinical protocols at University of Michigan Health System including management of refractory H. pylori infection and the use of fecal microbiota transplantation for recurrent C. difficile colitis. He has several active collaborative research programs in Taiwan including an active project funded by CGMH studying the role of microbial metabolite and fecal transplantation in C. difficile infection with Dr. Sen-yung Hsieh.

Anna Suk-Fong Lok, MD  
Assistant Dean for Clinical Research  
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Anna Suk-Fong Lok was named Assistant Dean for Clinical Research in March 2016. In this role, Dr. Lok is responsible for leading, championing, and implementing recommendations from the research board of directors to transform the clinical trials enterprise of the academic medical center. She is responsible for the overall leadership and direction, management, and oversight of the network of clinical trials nodes. Dr. Lok is also the Alice Lohrman Andrews Research
Professor in Hepatology and Director of Clinical Hepatology. She earned her medical degree from the University of Hong Kong and advanced her hepatology training under Sheila Sherlock at the Royal Free Hospital in London. She was on the faculty at the University of Hong Kong until she moved to the United States in 1992. She joined the U-M faculty in 1995 as a Professor of Internal Medicine. Her research, which is funded by the National Institutes of Health, federal and private foundations, and various pharmaceutical companies, focuses on the natural history and treatment of hepatitis B and C, and the prevention of liver cancer. She has published more than 400 papers on viral hepatitis and liver diseases and was recognized by Thomson Reuters as a top 1% most-cited researcher from 2002-12. Among many other accolades, Dr. Lok garnered a Distinguished Scientist Award from the Hepatitis B Foundation (2008); a Distinguished Service Award from the American Association for the Study of Liver Diseases (2011); and a Distinguished Achievement Award from the American Liver Foundation (2015). She served as associate editor of Hepatology (2001-06) and senior associate editor of Gastroenterology (2011-12). She is currently the president-elect of the American Association for the Study of Liver Diseases.

David C. Miller, MD
Professor of Urology
Chief, Dow Health Services Research
Medical Director for Strategic Planning & Business Development

David Miller is Professor and Chief of the Dow Division of Health Services Research in the Department of Urology at the University of Michigan. He also serves as Medical Director for Strategy and Business Development, University of Michigan Health System. After graduating from Washington University School of Medicine, Dr. Miller completed his general surgery internship and urology residency training at the University of Michigan Medical Center. He then undertook fellowship training in urological oncology at the David Geffen School of Medicine at UCLA. His clinical practice focuses on the diagnosis and management of patients with prostate and kidney cancer. In addition to his clinical practice, Dr. Miller serves as Director of the Michigan Urological Surgery Improvement Collaborative (MUSIC). Funded by Blue Cross Blue Shield of Michigan (BCBSM), MUSIC is a consortium of more than 40 urology practices aiming to improve the quality and cost-efficiency of prostate cancer care in the state of Michigan. Dr. Miller has a broad background in health services research, including substantial experience using claims data and formal training in the advanced statistical methods used in observational data analyses. Dr. Miller’s research training includes both a Masters in Public Health (MPH) in...
Epidemiology, and completion of health services research fellowships at the University of Michigan and University of California, Los Angeles/RAND Corporation. With longitudinal funding from the Agency for Healthcare Research & Quality and the National Cancer Institute, Dr. Miller’s empirical research agenda focuses on comparative effectiveness research, physician-led collaborative quality improvement, and understanding the relationship between physician organizations, integrated delivery systems, and the quality and cost of specialty care.

Krishnan Raghavendran, MD
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Dr. Raghavendran is Professor of Surgery in the Division of Acute Care Surgery, Section of General Surgery. Dr. Raghavendran has been continuously funded by the National Institutes of Health (NIH) from both NIGMS and NHLBI for the past 13 years. The current R-01 is on the study of Hypoxia-inducible factor 1 α in the pathogenesis of acute inflammatory response following lung contusion. The focus of his clinical interest is with ARDS and ventilator-associated pneumonia. He currently serves as the director of the newly formed Michigan Center for global surgery. Additionally, he serves as the lead physician for the University of Michigan India collaborative. He has also received funding from the NIH US/India collaborative with an R-03 award examining the role of ultrasound and measurement of optic nerve sheath diameter as a surrogate marker for traumatic brain injury.
Funded by Chang Gung Memorial Hospital and co-led by investigators from both the University of Michigan Medical School (UMMS) and Chang Gung, the first joint projects between the two institutions tackle an array of subjects, from better understanding individual diseases like respiratory distress syndrome, to leveraging Taiwan’s comprehensive national health insurance database to study factors involved in surgical outcome variation and preventable hospitalizations. Each of these first seven projects has been awarded $100,000, and a second round of projects is pending.

**Frequency and cost of preventable hospitalization among patients with multiple chronic conditions**

**UMMS PI:** Elham Mohmoudi, PhD, MS, MBA, Asst. Research Professor of Surgery  
**Chang Gung PI:** Chang-Fu Kuo, MD, PhD, Assoc. Professor of Rheumatology

The number of people with multiple chronic conditions (MCC) is growing worldwide, with a large portion of healthcare costs attributed to treating and managing them, particularly among the elderly population. Understanding the prevalence and health challenges of MCC is an important health policy initiative. Using nationally representative claims data from Taiwan’s National Health Insurance Research database as well as Medicare Claims Data from the United States, we will conduct a comparative study of potentially preventable use of health services and their corresponding costs associated with MCC among older populations. This work will not only determine factors that are associated with preventable hospitalization, but also will provide a strong foundation for future interventions to streamline care for patients with MCC.
The effect of fecal metabolites and racial factors in the development of recurrent C. difficile infection

**UMMS PI:** John Kao, MD, Associate Professor of Internal Medicine

**Chang Gung PI:** Sen-Yung Hsieh, MD, PhD, Professor of Gastroenterology

Clostridium difficile infection (CDI) is a healthcare problem with significant morbidity and mortality in the US and most of the Western world. Although CDI is responsive to treatment with metronidazole, vancomycin, or fidaxomicin, approximately 25 percent of the patients will develop recurrent C. difficile diarrhea. While C. difficile is common in the US, it is relatively uncommon in Asian-Pacific regions including Taiwan. There are growing concerns in Taiwan that CDI may be an emerging healthcare issue given a rising incidence of inflammatory bowel disease, since these individuals are more susceptible to CDI. Our study will investigate microbiota and racial factors that may account for the polarized incidences of CDI between Taiwan and the US. We hypothesize that the composition of gut microbiota and the concentration of bile acids are different between the two countries, contributing to the different CDI incidence rates observed.

Human Papillomavirus and oropharyngeal squamous cell carcinoma in Taiwan: Association of viral mechanisms and risk factors with outcome

**UMMS Co-PI:** Thomas Carey, PhD, Professor of Otolaryngology

**UMMS Co-PI:** Heather Walline, PhD, Research Assistant Professor

**Collaborator:** Kai-Ping Chang, PhD, Professor of Otolaryngology

Researchers aim to characterize oropharyngeal cancers in Taiwan. While clinicopathologic features of human papillomavirus (HPV) related oropharyngeal squamous cell carcinoma (OPSCC) have been examined in the United States, this is lacking in head and neck cancer patients in Taiwan, where smoking is known to be an important factor. It is yet unknown whether HPV is a significant causal factor in development and progression of OPSCC in Taiwanese head and neck cancer patients. We plan to investigate the frequency of HPV in OPSCC in this unstudied population, focusing on prevalence of HPV positive tumors, identification of the HPV types involved, evidence of HPV-driven disease by examining p16ink4a expression, clinical and behavioral factors contributing to outcome, and viral mechanisms associated with survival. If we are able to determine that HPV is implicated in OPSCC in this population, detection and identification of HPV can help guide the most appropriate patient treatment, which could decrease morbidity of treatment and possibly reduce mortality.
Effectiveness of VLNT Surgery on Fat and Muscle Tissue Components Per Analytic Morphomics

UMMS Co-PI: Stewart Wang, MD, PhD, Professor of Surgery
UMMS Co-PI: Paul Caderna, MD, Professor of Surgery
Chang Gung Co-PI: Ming Huei Cheng, MD, Sr. Prof., Plastic & Recon. Surgery
Chang Gung Co-PI: Sung-Yu Chu, MD, Lecturer, Medical Imaging and Intervention

Lymphedema, a swelling in the arms or legs often caused by the removal of lymph nodes as part of cancer treatment, is widely understood to impact the layer of subcutaneous fat just beneath the skin. However, changes and impact to the deeper muscles have not been studied. Pilot studies between UMMS and CGMH showed substantial changes to intra-compartmental muscle volumes as well subcutaneous fat in lymphedematous limbs. If confirmed, these findings would lead to new and greater understandings of the pathophysiologic processes underlying extremity lymphedema, as well as vascularized lymph node transfer (VLNT) treatment measures.

A National Comparative Study of Replantation and Revision Amputation Treatment for Digit Amputations

UMMS PI: Kevin Chung, MD, MS, Professor of Surgery
Chang Gung PI: Chung-Chen Hsu, MD, Assistant Professor of Surgery

Traumatic digit amputations account for up to 90% of all amputations in the United States. Though not fatal, these injuries occur commonly in the young and working age people and have substantial social and economic consequences. Replantation of the amputated digit or revision of the amputation stump is the treatment for such injuries. However, variations exist in the frequency with which the two treatment options are performed. The researchers propose a study using National Health Insurance Research Database from Taiwan to: (a) compare the characteristics of high- and low-volume providers (hospitals and surgeons) that perform replantation and revision amputation procedures for digit amputations; (b) examine the characteristics of patients who underwent digit replantation or revision amputation treatment; and (c) investigate the cost variations for replantation and revision amputation procedures for a digit amputation between high-volume and low-volume hospitals. The findings could be applied to facilitate effective patient triage between hospitals for efficient and economical care delivery in amputation cases.
Application of analytics morphomics in acute respiratory distress syndrome (ARDS)

**UMMS PI:** Stewart Wang, MD, PhD, Professor of Surgery

**Chang Gung PI:** Kuo-Chin Kao, MD, Assoc. Professor of Pulmonary & Critical Care

Mortality rates for patients with acute respiratory distress syndrome (ARDS) have remained stubbornly consistent since the disease was first described in the 1960s. Researchers plan to use powerful analytic morphomic research techniques developed at U-M to assess risk factors in thoracic surgery patients to examine CT scans in a large registry of Chang Gung ARDS patients. Their precise approach, using a number of extracted biomarkers, will help identify lung and non-lung factors that predict progressive pulmonary failure. Results could help inform future ARDS treatment regimens and significantly improve patient outcomes.

Overall medical standards of care and institution-wide surgical outcomes

**UMMS PI:** Kevin Chung, MD, MS, Professor of Surgery

**Chang Gung PI:** Fu-Kuo Chang, MD, PhD, Associate Professor of Rheumatology

Over one million surgical procedures are performed in Taiwan each year, but the variation in surgical outcomes hints at economic or administrative inefficiencies. The magnitude of and potential contributors to such variation has been infrequently investigated. Past research has focused on surgical volumes by institutions or surgeons as a pivotal factor for surgical outcome variation. Other factors, such as the quality of care of chronic illness may also have an impact on surgical outcome variation. We plan to use the Taiwan National Health Insurance Database to estimate the variation of surgical outcomes of joint replacement, coronary bypass, appendectomy, obstetric procedures and solid organ transplantation to evaluate the contribution of patient-, institution-, and region-level factors. We will develop chronic illness quality of care indicators, such as complication rates for diabetes patients, to measure institutional performance on the care of patients with chronic illnesses. We hypothesize that quality of chronic illness care directly relates to surgical outcomes in the same institution. We plan to develop a multi-level prediction model by incorporating layers of factors to explain the surgical outcome variation. Our unique approach considers the complex data structure of real-world data and will shed light on the causes of surgical outcome variation. We plan to further implement our methodology to the US and other countries by applying suitable data sources.
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