CHor at VCU is developing a strong sister hospital relationship with The Children’s Hospital of Shanghai. This major pediatric medical center is a very large and comprehensive clinical enterprise, with over 850 inpatient beds in two locations in Shanghai, and over 1,300,000 outpatient visits each year, and 22 specialties, from pediatric and neonatal intensive care to all surgical subspecialties and Traditional Chinese Medicine. The Hospital is a major training facility for medical students from Shanghai Jiaotong University. Its faculty are actively involved in research.

We hosted a delegation from Children’s Hospital of Shanghai in August, 2014, led by the President of the hospital, Dr. Yu Guangjun, accompanied by Dr. Lu Min, Director of Pediatric Pulmonology, Dr. Li Pin, Director of Pediatric Endocrinology and of their Clinical Research Office and Mr. Gao Chunhui, director of human resources. Our guests toured our inpatient and outpatient facilities, and met with members of MCVH and the faculty at CHoR. There were special visits to the simulation center and with representatives from the MCVH Office of Telemedicine. While we proudly shared our plans for the new Children’s Pavilion, they showed us details of a new 550 bed dedicated children’s hospital that was nearing completion.

At the conclusion of the visit, the two hospitals, CHoR and Children’s Hospital of Shanghai agreed to pursue several joint projects. These included plans for joint authorship on scientific papers, institution of electronic transmission of educational programs such as Grand Rounds and for exchanges of residents and fellows. Of primary importance were plans to develop a joint clinical research program. The combination of the experience and the infrastructure we have developed at CHoR through our Pediatric Research Office, together with the experience our faculty have as study - and site PIs, that has allowed us to grow our ability to serve our children and the pharmaceutical industry with ethical, efficient and cost-effective pediatric clinical trials, and the base experience and huge potential for subjects in Shanghai, this is an excellent opportunity for ChoR to expand into international cooperation and to increase the variety and volume of clinical research that we do.
In follow-up of this clinical research initiative, Henry Rozycki, MD, Vice-Chair for Research, and Melissa Yopp, MSHA, Administrator of the Pediatric Research Office visited Shanghai for a week in early April, 2015. They toured the new hospital in the Putuo District, as well as the original facility in the Jing’an neighborhood. Even though there are twenty times more outpatient visits in Shanghai, it was not overcrowded or filled with long lines. The new hospital is designed to be both child-friendly and efficient. Patients can check in at ATM-like kiosks, the public areas are spacious and the labs, pharmacy and therapy are separate from the doctors’ exam rooms.

Most of the attention during the visit was focused on research. Dr. Rozycki and Ms. Yopp met Dr. Yu, the President of the Hospital, who reiterated their commitment to cooperation with CHoR. They also met extensively with Dr. Xi Yiqun, Vice-President for Education and Research and Dr. Huang Min, Chief of Cardiology and the CPC Committee who are spearheading the increased focus on Chinese and international clinical trials. The Hospital has not only established ethics/IRB and pharmacy procedures that meet international GCP standards, they have become a regional training center for other Chinese institutions in these standards.

The ChoR delegation met with the leaders or representatives of most clinical departments to hear about currently active research at Children’s of Shanghai as well as what kind of cooperative initiatives they envisioned. There are a few industry-sponsored clinical trials underway in Shanghai. For example, there is a trial of caffeine for apnea of prematurity, sponsored by an Italian company. The Hospital has centers of excellence in biobanking DNA specimens, in Kawasaki’s Disease, fetal genetic studies, and in pediatric nephrology. In all clinical departments there are basic or clinical research projects and, in many cases, both.

Along with touring, Dr. Rozycki and Ms. Yopp gave presentations to their colleagues in Shanghai on “Why Do Pediatric Clinical Trials?” and “How to Organize a Pediatric Clinical Trials Office” which were well received.

As a result of these reciprocal visits, multiple cooperative initiatives have been launched. Dr. Rozycki at CHoR and Dr. Min Lu, Chief of Pulmonology at Children’s of Shanghai will exchange lists of experts and facilitate peer-to-peer contacts for both clinical and research projects. For example, Dr. Karen Hendricks-Munoz is working with colleagues in Shanghai to add sample from Chinese babies to her studies on longitudinal changes in the microbiome in babies, adding an important international/geographic perspective to these studies.

One major project is to develop and execute a joint pediatric drug clinical trial as a demonstration project. This investigator-initiated study would be conducted in both institutions. Regulatory functions will be specific to each center, but the design, conduct, data acquisition, analysis and manuscript preparation will be done jointly. There are several proposals at various stages of implementation, and the first project is slated to begin in the fall of 2015. Upon successful completion, the capacity of a CHoR-Children’s Hospital of Shanghai consortium to provide high-capacity accurate and ethical clinical trial opportunities for studying therapies in children will be promoted to pharmaceutical companies and clinical research organizations.

Often, sister institution agreements turn out to be primarily photo opportunities. Both ChoR and Children’s Hospital of Shanghai are committed to developing important and tangible programs that are mutually beneficial to their shared missions – to improve care for their children and to advance health care for all children.
The number of publications listed in the National Library of Medicine’s database Pubmed which has a member of CHoR as a co-author reached a record of 104 in the most recent six month period January 1—June 30, 2015. That is more than double from the second half of 2013, and a 33% increase over the same period as last year. These publications reflect the increased impact CHoR is making on the care of all children.
<table>
<thead>
<tr>
<th>PI</th>
<th>Division</th>
<th>Title</th>
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<tr>
<td>Howard J. Schmidt</td>
<td>Pulmonology</td>
<td>UNC-Early Introduction of Palliative Care in Multidisciplinary Cystic Fibrosis Clinics: A Multi-Center Study of Program Development, Implementation and Dissemination</td>
<td>Cystic Fibrosis Foundation</td>
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<td>Anne-Marie A. Irani</td>
<td>Allergy/Immunology</td>
<td>Airway Redox Biochemistry as a Determinant of Asthma Phenotype During Adolescence</td>
<td>Case Western Reserve University</td>
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<td>Wally R. Smith</td>
<td>Heme/Onc</td>
<td>Sickle Cell Disease Treatment Demonstration Program</td>
<td>Johns Hopkins University</td>
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<td>Howard J. Schmidt</td>
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<td>Cystic Fibrosis Foundation</td>
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<td>Michael S. Schechter</td>
<td>Pulmonology</td>
<td>Multifaceted Program to improve CF Outcomes</td>
<td>Cystic Fibrosis Foundation</td>
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<td>Judith Voynow</td>
<td>Pulmonology</td>
<td>2-O, 3-O Desulfated Heparin Inhibits HMGB1 in the CF Airway</td>
<td>Cystic Fibrosis Foundation</td>
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<td>Suzanne Lavoie</td>
<td>Infectious Disease</td>
<td>VCU Family HIV/AIDS Program—Ryan White Part B</td>
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<td>Suzanne Lavoie</td>
<td>Infectious Disease</td>
<td>Peer Review Technical Assistance and Consultation</td>
<td>Virginia Department of Health</td>
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<td>William C. Koch</td>
<td>Infectious Disease</td>
<td>An Observational, Non-Interventional Study in the United States to Characterize Respiratory Syncytial Virus Hospitalizations among Infants Born at 29 to 35 Weeks Gestational Age Not Receiving Immunoprophylaxis</td>
<td>United BioSource Corporation</td>
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<td>Michael S. Schechter</td>
<td>Pulmonology</td>
<td>Project UPLIFT to Reduce Anxiety and Depression in CF Patients</td>
<td>Cystic Fibrosis Foundation</td>
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<td>Bruce K. Rubin</td>
<td>Pulmonology</td>
<td>The effect of dapsone aerosol in the inflamed ferret airway using a novel formulation and delivery device</td>
<td>InspiRx</td>
<td>199291</td>
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<td>Timothy E. Bunchman</td>
<td>Nephrology</td>
<td>A Randomized, Double-Blind, Efficacy and Safety Study of AR 14 (AZILSARTAN MEDOXOMIL) Treatment and Withdrawal, Followed by an Open-Label Extension, in Children 6 to Less Than 18 Years of Age With Hypertension</td>
<td>Arbor Pharma</td>
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<td>Michael McVoy</td>
<td>Infectious Disease</td>
<td>Viral immunomodulation and rational CMV vaccine design</td>
<td>University of Minnesota</td>
<td>90708</td>
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<td>Martin K. Safo</td>
<td>Infectious Disease</td>
<td>Structure of cytomegalovirus nuclease, UL98</td>
<td>National Institutes of Health</td>
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<td>Schmidt, Howard J.</td>
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<td>Therapeutics Development Spring Travel Grant</td>
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<td>Bitsko, Matthew J.</td>
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<td>Risk and Protective Factors for Immune Health in Pediatric Cancer</td>
<td>National Institutes of Health</td>
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Coelho DH, Edelmayer LW, Fenton JE. Citation analysis of otorhinolaryngology journals: follow-up study. J Laryngol Otol. 2015 May;129(5):489-93. doi: 10.1017/S002221511500050X.

Fahad Lodhi BS, Coelho DH. Non-tuberculous mycobacterial cochlear implant infection: An emerging pathogen. Cochlear Implants Int. 2015 Mar 6. [Epub ahead of print]


Schmidt RS, Dodson KM, Goldman RA. Prophylactic antibiotic therapy for fractures of the maxillary sinus. Ear Nose Throat J. 2015 Apr-May;94(4-5):170-7


Reddy ST, Zegarek MH, Fromme HB, Ryan MS, Schumann SA, Harris IB. Barriers and facilitators to effective feedback: a qualitative analysis of responses in focus groups of general surgery, emergency medicine, obstetrics & gynecology, and anesthesiology residents. J Grad Med Educ. 2015; March 26 [Epub ahead of print].


William Moskowitz, MD – Pediatric Cardiology

Second International Congress of Interventional Radiology, Lima, Peru May 15
Invited lecture - “Cardiac Catheterization interventions for congenital and Acquired right heart pathology.”
Invited lecture - “Cardiac Catheterization interventions for Congenital and Acquired left heart Obstructions.”
Invited lecture - “Device Closure of Septal Defects and Systemic to Pulmonary Shunts.”
Invited lecture - “A Brief History (300 Years) of Cardiac Catheterization.”

Workshop moderator and presentation at VCU Global Health Showcase – “Making it Work, Getting it Right”, April 20, 2015 - “How to make research a meaningful part of global health work: National Program for the Prevention and Control of Rheumatic Fever and Rheumatic Heart Disease in St. Vincent and the Grenadines (SVG) ”.

Tim Bunchman, MD – Pediatric Nephrology

World Congress of Nephrology in Cape Town SA March 13-17, 2015
Invited speaker
2nd international conference on Pediatric Nephrology in Delhi India , Feb 27- Mar 1, 2015
Invited speaker
American Soc of Pediatric Nephrology/PAS San Diego CA April 25- 28. 2015
Invited speaker

Elected to AOA as Faculty Member, April 2015
Appointed to Study Section, Multiorgan Dysfunction Syndrome (MODS) NIH

H. Joel Schmidt, MD – Division of Pediatric Pulmonology

Appointed to the National CF Foundation's Center Committee

Doug Willson, MD – Pediatric Critical Care

Optimizing Mechanical Ventilation Conference, Duke University Medical Center. April 20-211, 2015
Keynote Presentation : “Pediatric Acute Lung Injury: Do we have consensus?”
“Adjunctive Approaches to the Care of the Pediatric ARDS Patient

Appointed to Section on Pediatric Critical Care, American Board of Pediatrics

David Lanning, MD, Ph.D – Pediatric Surgery

“Bariatric Surgery in the Adolescent Patient”
“Innovations in Bariatric Surgery – Plication”


Outstanding Alumnus Award, Medical College of Virginia Hospitals, Virginia Commonwealth University, Richmond, Virginia, April 2015
Karen Hendricks-Munoz, MD, MPH – Neonatal Medicine

Invited EVMS Brock Institute Scholar, Eastern Virginia School of Medicine Feb 12, 2015
“Health Impact of the Infant Microbiome”

NIH Study Section Reviewer, PAR 14-264 Global ‘Omics applications. 3/2/2015.

Cliff Lee, MD – Pediatric Hospital Medicine


Siam F, Finch E, Magargal S, Lee C. Incidence of Refeeding Syndrome Is Rare in Children with Failure to Thrive.
AnwarH, Lee C, Helou M, Lamschroot D. Family Centered Rounds Simulation and Medical Students’ Perceptions.
Godbout E, Lee C. Teenagers: A Pain in the Neck?
Gupta A, Lee C. Hyponatremia… Can You Smell It? (Finalist Selection)
Klaiber N, Lee C. An Oddball Among Us.
Mallick N, Tseng A, Lee C. True Detective: Revealing the Uncommon Source Behind the Common Symptoms.
Smithhart W, Shodhan S, Lee C. Not Your Typical Case of Pharyngitis

Judy Voynow, MD – Pediatric Pulmonology

Invited Speaker and Course Co-Director, ATS Post-Graduate Course 25, Denver CO, May 2015
“Translational Biology of Human Airway Epithelium: A Big Lab Meeting,”

Ad hoc Reviewer, NHLBI Translational Programs in Lung Diseases, April 2015

Henry Rozycki, MD – Neonatal Medicine

Visiting Professor, Children’s Hospital of Shanghai, April, 2015
“Why Do Pediatric Clinical Trials?”
“Non-Invasive ventilation of Premature Newborns”
“The Type I Epithelial Cell and the Newborn Lung”

Melissa Yopp, MSHA – Pediatric Research Office

Visiting Scholar, Children’s Hospital of Shanghai, April 2015
“Organization and Management of Pediatric Clinical Trials”

Anne-Marie Irani, MD – Pediatric Allergy/Immunology

Appointed to Executive Committee, American Board Medical Specialities
Bruce K. Rubin, MEngr, MD, MBA - Chairman, Department of Pediatrics

11th International Course on Pediatric Pulmonology. 10-12 April 2015; Guanacaste, Costa Rica.
   Magic workshop
   “Evidence based aerosol therapy for children”
   “Genetic pulmonary diseases and ethical considerations”

XX Vilnius International Paediatric Pulmonology & Allergology Conference - 23-24 April 2015, Vilnius Lithuania
   Workshop – “Dogma and great mistakes in respiratory medicine”
   Keynote Address - “Beyond the guidelines: fatal and near fatal asthma”
   Lectures: “Atelectasis, plastic bronchitis, and the middle lobe syndrome”
   “Cardiac asthma: new insights into an old disease”

   Opening keynote address - “Pediatric aerosol myths and future directions”

Virginia Society for Respiratory Care Spring Symposium by the Sea. 31 May 3, 2015 Virginia Beach, VA. Keynote address –
   “Pediatric bronchoscopy”

XIV International Congress on Pediatric Pulmonary (CIPP) Krakow, Poland 26-30 June 2015.
   “Myth and dogma and asthma”
   “Aerosol therapy: new drugs and devices”

Named to Castle Connolly Best Doctors, US Edition (13th year )

CHoR Presentation at PAS 2015, San Diego April/May 2015

Henry J. Rozycki, Jennifer L Bradley. Newborn and Adult Mouse Alveolar Type 1 (AT1) Cells Proliferate in Culture
Philip Kum-Nji, Linda Meloy, Lori Keyser-Marcus. Is Tobacco Smoke a Risk Factor for Human Papilloma Virus (HPV) Carriage Among Adolescents?
C. Kaspar, J. Hurley, T. Bunchman, N. Xiao. A Retrospective Analysis of the Type and Significance of Renal Complications in Pediatric and Young Adult Patients with Sickle Cell Anemia
Mark R. Schleiss, Craig J. Bierle, Michael A. McVoy, Jian Ben Wang, Zainab K.A. Almahdi, Adam P. Geballe. Turning the Tables on Virus-Mediated Inhibition of Protein Kinase R (PKR): A Recombinant Approach To Engineering a Protective Live, Attenuated Vaccine Against Congenital Cytomegalovirus Infection by Deletion of the CMV PKR Inhibitory Gene, GP145
Donald Zimmerman, and Gary L. Francis, Case Discussions with the Experts: Management of Differentiated Thyroid Cancer in the Pediatric Patient, Highlighting the New Pediatric Thyroid Cancer Guidelines

CHoR Presentations at Eastern SPR 2015 – Philadelphia, March 2015

Margaret M. Pulju, Tazuddin A. Mohammed, Timothy Bunchman, Gail Barker, Leroy Thacker, Karen D. Hendricks-Munoz.
   Post-NICU Discharge Hypertension (HTN) Risk and Previous Neonatal Acute Kidney Injury
**CHoR Presentations at ATS 2015, Denver, CO May 2015**

J.A. Voynow. Airway Epithelium, Inflammation, and Oxidative Stress

J.A. Voynow, MD, R.C. Boucher, MD, D.E. Davies, PhD, H.W. Chu, MD, U. Sajjan, PhD, A. Haczku, MD, PhD, D.A. Schwartz, MD. Lab Meeting "Airway Host Defense, Inflammation and Disease"


S. Kawano, MD, T. Tanabe, MD, PhD, B.K. Rubin, MD. Interleukin-13 Increases Toll Like Receptor 4 Expression in Differentiated Human Airway Epithelial Cells.

I. Suzuki, MD, PhD, S. Kawano, MD, T. Tanabe, MD, PhD, B.K. Rubin, MD. Airway Periostin Expression is Induced by IL-13, and Periostin Increases Mucin Production.

J.T. Ma, MD, J.L. Bradley, BA, B.K. Rubin, MEngr, MD, MBA. Developing a Prognostic Tool for Cystic Fibrosis Using a Longitudinal Analysis of Sputa.

T. Tanabe, MD, PhD, B.K. Rubin, MEngr, MD, MBA. Airway Cells Exposed to IL-17 Develop Altered MMP-TIMP Expression and Squamous Phenotype.

H.J. Rozycki, M.D., J.L. Bradely, BA. Anti-RAGE Antibodies Increase Chemokine Release from Freshly Isolated Murine Type I Alveolar Epithelial Cells.

**Jennifer Rhodes, MD— Pediatric Facial and Plastic Surgery**

Craniofacial Association Annual Meeting, Palm Springs, CA—April 2015


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**Extramural Faculty Salary Support**

For the last fiscal year, extramural salary support for Pediatric faculty was 13.6% higher than for FY14 and 53% above what it was in FY 2013. Overall extramural income was $4,473,312, a 1.4% increase over FY14 and.