At its December, 2013 meeting, the Children’s Hospital Foundation Board approved the allocation of $100,000 over two years to establish a Research Fund to support one of CHoR’s main missions, the development of new knowledge for the benefit of children’s health.

CHoR ranks 59th out of the 82 full service children’s hospitals ranked by US News and World Report in 2013 in NIH dollars, a marker of overall research funding. The challenge is how to climb that ranking to where we deserve to be. Several elements together make an institution more competitive for external research grants. One is the quality of the people applying. Our faculty has many successful and eager researchers. The second are great, cutting edge ideas. The third is sufficient preliminary data to demonstrate that the project is likely to bear fruit and the fourth is institutional reputation.

The purpose of the CHF Research Fund is to address two of those elements; to support the development of critical preliminary data and to support the presentation and publication of pediatric faculty research, thereby increasing the visibility of our researchers and our name. These two go hand in hand.

The grant application as well as instructions are available from Henry Rozycki at hrozycki@mcvh-vcu.edu. Most importantly, the 5 page application asks for the background/rationale for the project, a well-formed hypothesis that derives from the background, a plan for acquiring and analyzing data to try and answer the hypothesis and, uniquely but importantly, how the project will further the research success of the investigator and CHoR. Each application needs to have a member of the Department faculty as an investigator, co-investigator or mentor and the last section on research plan context should refer to that person. Note that preliminary data are not required.

The applications will be scored on an NIH scale of 1 (perfect) to 10 (major problems). Those scoring an average of 3 or better will be eligible for funding. There will be one award at the $10,000 level with others at $5,000 and $2,500. Travel and publication costs are fundable, but not permanent employee or faculty salaries. Note that in the second year, there will be a separate application/award for travel/publication costs.

More information, and preliminary review of applications are available from Henry Rozycki. Completed applications are due by 5 PM on Friday, February 28, 2014 and are to be sent as a .pdf file to Liz Fredericksen-Trent at efredericksen-trent@MCVH-VCU.EDU.
In 2013, CHoR was listed among the Best Children’s Hospitals in the United States by the US News and World Report. There is a strong correlation between these rankings and research. The top eleven Children’s Hospitals on this ranking list included seven of the top 10 in NIH funding for 2013 and, more significantly, the top ten hospitals (12%) received 47% of the total NIH dollars awarded to Children’s Hospitals and/or their affiliated pediatric departments.

The graph above shows the NIH awards (y axis) by Children’s Hospital in descending order of research dollars. There are 83 hospitals on the X-axis. CHoR is currently 59th. By quartiles, CHoR is in the second quartile. An increase in NIH funding to $7,500,000 would place CHoR in the third quartile.

Note that NIH funding is not the only way to support research. It was used in this analysis because of it is publicly available. Foundations, industry, consortia, patents and licenses and other sponsors can and do support pediatric research.
Congratulations to the Principal Investigators who were awarded grants and contracts in the 2nd Half of 2013!

<table>
<thead>
<tr>
<th>Principal Investigator</th>
<th>Division</th>
<th>Title</th>
<th>Sponsor</th>
<th>Total Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lee, Clifton C.</td>
<td>Hospital Medicine</td>
<td>A Multicenter, Open-Label, Safety and Pharmacokinetic Study of Oral Codeine Sulfate Administration in Pediatric Subjects 2 years old through 17 years old With Post-procedural Pain</td>
<td>Quintiles</td>
<td>48,447</td>
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<tr>
<td>Schechter, Michael S</td>
<td>Pulmonology</td>
<td>National Spina Bifida Patient Registry</td>
<td>US Dept HHS</td>
<td>66,150</td>
</tr>
<tr>
<td>Schmidt, Howard J</td>
<td>Pulmonology</td>
<td>Participation in the Cystic Fibrosis Registry 2013-14</td>
<td>Cystic Fibrosis Foundation</td>
<td>60,730</td>
</tr>
<tr>
<td>McVoy, Michael</td>
<td>ID</td>
<td>CMV-Neutralizing Activity of PC-Based Vaccines</td>
<td>Hookipa Biotech AG</td>
<td>9,999</td>
</tr>
<tr>
<td>Schmidt, Howard</td>
<td>Pulmonology</td>
<td>Study of Ivacaftor in Cystic Fibrosis Subjects 2 Through 5 Years of Age With a CTFR Gating Mutation (Part B)</td>
<td>Vertex Pharmaceuticals</td>
<td>108,159</td>
</tr>
<tr>
<td>Sisler, India</td>
<td>Heme/Onc</td>
<td>A Phase 3, Double-Blind, Randomized, Efficacy and Safety Comparison of Prasugrel and Placebo in Pediatric Patients with Sickle Cell Disease</td>
<td>Quintiles</td>
<td>286,175</td>
</tr>
<tr>
<td>Francis, Gary</td>
<td>Endocrinology</td>
<td>Feasibility Study of Closed Loop Control in Adolescents with Type 1 Diabetes Mellitus (T1DM) Using Heart Rate Monitoring as an Exercise Indicator</td>
<td>Juvenile Diabetes Research Foundation</td>
<td>268,980</td>
</tr>
<tr>
<td>Sisler, India</td>
<td>Heme/Onc</td>
<td>A Randomized, Placebo Controlled Multi Center Study of the Efficacy PK and PD of IV Acetaminophen For the Treatment of Acute Pain in Pediatric Patients</td>
<td>Mast Therapeutics</td>
<td>217,396</td>
</tr>
<tr>
<td>Schmidt, Howard</td>
<td>Pulmonology</td>
<td>A Phase 3 Randomized, Double-Blinded, Controlled, Multicenter Study of Aztreonam for Inhalation Solution (AZLI) in a Continuous Alternating Therapy (CAT) Regimen of Inhaled Antibiotics for the Treatment of Chronic Pulmonary Pseudomonas Aeruginosa Infection in Subjects with Cystic Fibrosis</td>
<td>Gilead Sciences</td>
<td>77,460</td>
</tr>
<tr>
<td>Schmidt, Howard</td>
<td>Pulmonology</td>
<td>A Phase 3, Randomized, Double Blind, Placebo Controlled, Parallel Group Study to Evaluate the Efficacy and Safety of Lumacaftor in Combination With Ivacaftor in Subjects Aged 12 Years and Older With Cystic Fibrosis, Homozygous for the F508del CFTR Mutation</td>
<td>Vertex Pharmaceuticals</td>
<td>110,814</td>
</tr>
<tr>
<td>Rubin, Bruce</td>
<td>Pulmonology</td>
<td>High Flow Humidification Therapy in Cystic Fibrosis</td>
<td>Fisher &amp; Paykal</td>
<td>100,916</td>
</tr>
</tbody>
</table>
New Grants & Contracts Awarded

<table>
<thead>
<tr>
<th>Principal Investigator</th>
<th>Division</th>
<th>Title</th>
<th>Sponsor</th>
<th>Total Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sisler, India</td>
<td>Heme/Onc</td>
<td>Evaluation of Purified Poloxamer 188 in Children in Crisis (EPIC): A Phase 3 Randomized, Double-Blind, Placebo-Controlled, Multicenter Clinical Trial of MST-188 (Purified Poloxamer 188) Injection in Children with Sickle Cell Disease Experiencing Vaso-occlusive Crisis</td>
<td>Mast</td>
<td>217,395</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>1,572,651</strong></td>
</tr>
</tbody>
</table>

This is almost three times the dollar value of grants awarded in the last newsletter. Congratulations!

Anyone with a grant application, or an inquiry or an idea is encouraged to call the Pediatric Research Office. We can help with regulatory document review and preparation (OSP, IRB, WIRB, IACUC), with budget preparation, with getting signatures or with finding resources within the University to help you accomplish your research goals. Call or email Melissa Yopp or Henry Rozycki.
Publications Second Half 2013

Papers listed in PubMed authored by CHoR Faculty listed in Meet the Team on the CHoR website, www.cchrichmond.org


Chadwick KA, Moore J, Tye GW, Coelho DH. Management of patients with cochlear implants and ventriculoperitoneal shunts. Cochlear Implants Int. 2013 Oct 18. [Epub ahead of print]


Throckmorton, AL, Lopez-Isaza, S, Downs,EA, Chopski, SG, Gangemi, JJ, Moskowitz, WB. A viable therapeutic option: mechanical circulatory support of the failing Fontan physiology.” Pediatric Cardiology 2013; 34:1357–1365


Bhave S, Elford H, McVoy MA. Ribonucleotide reductase inhibitors hydroxyurea, didox, and trimidox inhibit human cytomegalovirus replication in vitro and synergize with ganciclovir. Antiviral Res. 2013 Oct;100(1):151-8


Hoffer-Schaefer A, Rozycki HJ, Yopp MA, Rubin BK. Guaifenesin has no effect on sputum volume or sputum properties in adolescents and adults with an acute respiratory tract infection. Respir Care. 2013 Sep 3. [Epub ahead of print].


Nicola ML, Carvalho HB, Yoshida CT, Anjos FD, Nakao M, de Paula Santos U, Morais Cardozo KH, Carvalho VM, Pinto E, Poliselli Farsky SH, Nascimento Saldiva PH, Rubin BK, Nakagawa NK. Young "healthy" smokers have functional and inflammatory changes in the nasal and the lower airways. Chest. 2013 Dec 5. doi: 10.1378/chest.13-1355


Dr. Syndi Seinfeld, Assistant Professor of Child Neurology had the following presentations:


Invited Speaker: Special Interest Group Session: Pediatric Epilepsy Diagnosis and Treatment Opportunities –Case-Based Discussion, 67th American Epilepsy Society Meeting, Washington DC; 12/2013

Dr. Michael Schechter, Chair of Pediatric Pulmonology had the following presentations:

Schechter MS, VanDevanter DR, Pasta DJ, Short SA, Morgan WJ, Konstan MW. The Impact of Inpatient Treatment on Outcomes of CF Pulmonary Exacerbations. 2013 North American CF Conference. Salt Lake City UT; 10/2013


Dr. Timothy Bunchman, Chair of Pediatric Nephrology had the following presentations:

AKI therapies in Children at International Pediatric Nephrology Association, Shanghai China.; 09/2013

Nutrition in AKI and Critical Illness at Pediatric Grand Rounds at Univ. of North Carolina, Chapel Hill, NC

Renal Replacement Therapy in Children as Invited Speaker at Kings College in London UK

Outcome of children with AKI as Invited Speaker at the Pediatric Intensive Care Congress, London UK; 09/2103
Dr. Melanie Bean from the Comprehensive Pediatric Obesity and Research Treatment Program had the following presentations:

Bean MK, Powell P, Quinoy A, Ingersoll K, Mazzeo S. Motivational interviewing and adherence to pediatric obesity treatment: Results from the MI Values randomized controlled trial. The Obesity Society, Atlanta GA; 11/2013

Vanguri P, Lanning D, Wickham E, Anbazhagan A, Bean MK. Healthcare Provider Opinions Regarding Weight Loss Surgery in Adolescents. The Obesity Society, Atlanta GA; 11/2013

Dr. Rajanya Peterssson, Assistant Professor of Pediatric Otolaryngology had the following presentation:


Dr. Michael McVoy, Professor of Pediatrics in the Division of Pediatric Infectious Diseases had the following presentations:


Dr. Henry Rozycki, Vice-Chair for Research was appointed Associate Editor, Frontiers in Neonatology

The following were presented at American Association for Respiratory Care Annual Congress, Anaheim CA; 11/2013 by members of the Rubin Lab:

Rozycki, SK, Bradley, JL, Yopp, MA, Rubin, BK. THE EFFECT OF HUMIDITY ON THE BIOPHYSICAL PROPERTIES OF CYSTIC FIBROSIS SPUTUM. Presented by Jennifer Bradley

Rozycki, SK, Maxvold, NJ, Yopp, MA, Longest, PW, Walenga, RL, Rubin, BK. AN IN VITRO EVALUATION OF ENDOTRACHEAL TUBE CUFF LEAK AND SUCTION PERFORMANCE USING A BIO-REALISTIC MODEL. Presented by Sarah Rozycki
**Dr. Bruce Rubin**, Jesse Ball Dupont Distinguished Professor and Chair, Department of Pediatrics, has the following presentations:

**Aerosol therapy - Myths, dogma, and legends.** 12th International Congress on Pediatric Pulmonary, Valencia, Spain; 07-08/2013

Chaired a plenary session, taught a magic workshop, 12th International Congress on Pediatric Pulmonary, Valencia, Spain; 07-08/2013

Therapy for mucus clearance disorders, Pulmonary Research Group; Yokohama, Japan; 08/2013

Air and soul: The science and practice of aerosol therapy. Pulmonary Research Group; Yokohama, Japan; 08/2013

Immune modulation by macrolide antibiotics. More than killing bugs
How to publish your research.
Therapy for mucus clearance disorders and the role of mucolytics.
At Yokohama City University Hospital, Yokohama, Japan; 08/2013

New Developments in Rhinology.
Drugs and devices for airway clearance.
Honor lecture: Novel actions of macrolides and macrolide therapy
At 16th Asian Research Symposium in Rhinology Breakthroughs and New Developments in Rhinology, Tokyo, Japan; 08/2013.

Plenary lecture: New insights into mucus properties, structure and removal in CF. European Respiratory Society 2013 Annual Congress, Barcelona, Spain; 09/2013


Plenary talk Controversies in chronic childhood cough”
Keynote address Facts about aerosol therapy in children.
At 2nd Oriental Congress of Pediatrics, Shanghai, China; 09/2013

Chronic cough in children
How to get your research published
Mucus secretion and clearance in chronic lung disease
Session Chairman
All at 9th International Symposium on Respiratory Diseases (ISRD) & ATS Forum, Shanghai, China; 11/2013

Measuring exhaled nitric oxide (FENO) – A hammer looking for nails
Aerosol therapy: Past, Present, and Future
Chair of Open Forum sessions
At American Association for Respiratory Care Annual Congress, Anaheim CA; 11/2013