

Research News

Newsletter of
The University of Kansas Medical Center
Department of Pediatrics



Division Highlights: Pediatric Nephrology

Each quarter the Research News highlights one division within the Department of Pediatrics to focus on their current research projects and future goals. This issue we have chosen Pediatric Nephrology to be the highlighted division. Dr. Jon Scheinman is the Chief of Pediatric Nephrology, with Genevieve DelRosario, P.A. helping out in the clinic and Carla Meister serving as secretary.

Dr. Scheinman has made significant research contributions to the field of pediatric nephrology and has several ongoing projects. His primary research interest is primary hyperoxaluria/kidney stone disease. His research work began at the University of Minnesota where he completed a fellowship and joined the faculty studying hyperoxaluria, and the molecular biology of the specialized collagens of the kidney basement membrane, with immunopathology and cell culture biology. From there he moved to Duke University and then the Medical College of Virginia where his research focused on the cells that produce the collagens of the kidney basement membrane, and continued clinical studies of hyperoxaluria, glycogen storage diseases and sickle cell nephropathy. His landmark study in 1984 involved the study of kidney and liver transplantation in hyperoxaluria. Since then Dr. Scheinman has extended his lab research into the clinical arena.

There are currently 4 major studies ongoing in the Division of Pediatric Nephrology. First, Dr. Scheinman is analyzing a global database looking at the process of treating patients with primary hyperoxaluria via different strategies to assess the effectiveness of each of these strategies on managing the disease. Second, another database study is ongoing, studying how patients with sickle cell disease and chronic nephropathy are managed. Third, due to his extensive background specialized collagen chemistry and immunopathology, Dr.

Scheinman and his team are studying specific kidney biopsies for specific markers of familial hyperoxaluria. Finally, Dr. Scheinman is part of a team who received the support of the National Institutes of Health (NIH) via

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a Small Business Technology Transfer (STTR) award. This grant mechanism is designed to partner an educational institution with a small business in the private sector in order to encourage the translation of basic science discoveries into commercial products. Specifically, Dr. Scheinman and his team are developing a specific metabolic treatment for primary hyperoxoluria.

In addition to continuing his many ongoing projects, Dr. Scheinman has several research goals for his division. First and foremost, he hopes to extend his STTR grant into a large, randomized clinical trial using their newly developed treatment with a large clinical population. He is on the international safety board of Novartis' clinical projects involving iron chelation in the treatment of sickle cell disease and Thalassermia. Also, Dr. Scheinman hopes to extend their current patient care database/electronic medical record into generalized patient management.

An Update: Project EAGLE

As you may remember, in the last volume of Research News, the highlighted division was Project EAGLE. Since that time, I have received more detailed information on their current grants and projects from Heather Schrotberger, the Project Development Coordinator for Project EAGLE. I have reprinted the information below. Please call Heather at (913) 281-2648 x 130 if you have any questions or would like to get involved in these interesting and worthwhile efforts.

Project EAGLE Community Programs – Grants 2003-2004

Project EAGLE is the umbrella name for multiple community based programs, including Project EAGLE Early Head Start, Project HOPE Teen Pregnancy Case Management Program, and Healthy Start. Project EAGLE currently serves over 300 eligible children, pregnant women, and/or families and employs 37 personnel. Project EAGLE has five major grants for 2003-2004: Federal Early Head Start, Kansas Early Head Start, Project HOPE, Healthy Start, and the Wyandotte County Children's Campus. Total funding for 2003-2004 is \$3.1 million.

Project EAGLE Early Head Start serves 200 infants, toddlers, and/or pregnant women and is funded through a Federal grant (\$1,921,000 through the Administration for Children and Families) and a Kansas Early Head Start grant (\$836,000 through the Kansas Department of Social and Rehabilitation Services). EAGLE is an acronym for "Early Action and Guidance Leading to Empowerment." In this program, both home based and center based services are available to enhance the growth and development of children and support family goals for parenting and self-sufficiency. The goals of the program are:

- ? To enhance the growth and development of infants, toddlers, and children.
- ? To support families as they achieve their personal goals for parenting and self-sufficiency.
- ? To collaborate with existing community agencies in supporting the comprehensive needs of families.
- ? To contribute to local, state, and national knowledge, policy, and practice.

Families who are eligible for Project EAGLE Early Head Start:

- ? Live in Wyandotte County, Kansas.

Human Subjects Committee Deadlines

| Deadline** | Meeting |
|-------------------|----------------|
| October 6 | October 14 |
| October 20 | October 28 |
| November 3 | November 11 |
| November 17 | November 25 |
| December 1 | December 9 |
| January 5 | January 13 |

all deadlines are at **noon**

**** For your information, HSC has moved to G006 Sudler.***

For more information, go to http://www2.kumc.edu/researchcompliance/forums/HSC_MeetingDates_2004.pdf or call 913-588-1240

- ? Have a total family income at or below the federal poverty guidelines.
- ? Have a pregnant women or a child less than one year of age living in the home.

Federal Early Head Start funding also supports the following initiatives:

- ? **Central Intake and Referral System:** This is a research and demonstration effort to study the feasibility of a Central Intake and Referral System for services for children zero to five years of age and their families. An intake coordinator visits families in their homes, completes an initial assessment of their needs, and refers them to the appropriate agencies in the community.
- ? **Fatherhood Initiative:** In collaboration with the Sumner High School Alumni Association, Project EAGLE is investigating new strategies and approaches for engaging fathers in the lives of their children.
- ? **Youth Initiative:** In collaboration with the Kansas City Youth Jazz Band, Inc., Project EAGLE supports instrumental jazz lessons for ten youth ages ten to thirteen. In return, these youth read and share their instruments with Early Head Start children at community childcare sites.

Project HOPE (Helping to Obtain Positive Environments) is the Wyandotte County Teen Pregnancy Case Management Program funded through the Kansas Department of Health and Environment (\$98,034). Project HOPE provides comprehensive case management services to 72 teen parents through biweekly home visits. Family Support Advocates provide information and referrals to community agencies to help teens achieve their educational, economic, vocational, health, and social goals. The goals of the program are:

- ? To reduce long-term welfare dependency by teen parents.
- ? To reduce the negative economic, health, educational, vocational, and social consequences for teens and their children.
- ? To increase levels of self-sufficiency and goal-directness of teens relevant to their own futures and that of their children.
- ? To delay the birth of the second child until completion of goals related to basic education/training.

Participants in Project HOPE must be:

- ? Under 21 years of age.
- ? Pregnant with their first child or a parent of one child.
- ? Medicaid or HealthWave eligible.
- ? A resident of Wyandotte County.

Project EAGLE's **Healthy Start** program is funded by the Maternal Child Health Coalition (\$150,000). The goal of Healthy Start is to lower maternal-infant mortality rates and improve the health of pregnant women and children by coordinating services across providers to meet mother's and babies' assessed needs and to develop an outreach program to recruit pregnant women and families into the program. The program staff delivers comprehensive education to 60 clients in the core areas of prenatal care, parenting education, and family literacy. To qualify for services, clients must:

- ? Live in Wyandotte County in zip codes 66101-66106.
- ? Be pregnant or have a child under one year of age.

In addition, Project EAGLE is leading the efforts of the **Children's Campus of Wyandotte County**. Current funding for this effort (\$148,000) comes from the Ewing Marion Kauffman Foundation and Susan A. Buffet foundation. The Children's Campus is a collaborative effort of over 50 agencies in Wyandotte County to build a seamless, integrated system of services to support the health and well-being of children zero to five years of age and their families.

A Grant Opportunity....

A grant opportunity has presented itself that needs an investigator to take the lead role in its implementation here at KUMC. We have the opportunity to apply for the Region VII Pediatric Environmental Health Specialty Unit. This "unit" serves the states of Kansas, Missouri, Iowa and Nebraska in the consultation and treatment of children with environmental exposures. The grant funding is \$128,000 per year and funds personnel, travel, and supplies. The unit would help with education in the region in the prevention of exposures, working with ATSDR and the EPA on projects for research and education, and consultation/evaluation of children with environmental exposures. Anyone interested should contact Dr. Jennifer Lowry (8-7109 or email: jlowry@kumc.edu) or Dr. Bill Barkman (8-1200 or email: wbarkman@kumc.edu). The deadline is soon (October 23rd) and needs to be in the grant's office by October 16th!

Research Tips: Internal Grants Currently Available

The KUMC Research Institute awards many internal grants each year. These grants come in many forms, and all receive excellent review by leaders in each field. The types of grants available and the basic information from the KUMC Research Institute web page (<http://www2.kumc.edu/researchinstitute/admin/summary.html>) is copied below for your review. Please contact Dr. Rapoff or Dr. McGrath or any other member of the Pediatric Department Research Committee if you would like help in preparing an application.

1. Bridging

- ✍ Purpose: To provide interim support to those who have submitted grants to national organizations but were not funded. This support should assist in providing the data needed to improve a previous proposal and enhance the success of the application which will resubmitted to the external agency.
- ✍ For: Faculty members from the KUMC (Kansas City and Wichita campus and VA affiliates) who meet certain criteria.
- ✍ Evaluated on: Priority score, percentile ranking, scale used by the funding agency, proposal describing how the original application will be improved.
- ✍ Maximum: \$25,000 for 1 year.
- ✍ RFPs sent out:
 - ✍ Fall Bridging: September 2003
 - ✍ Winter Bridging: January 2004
 - ✍ Spring Bridging: April 2004

2. Lied Endowed Basic Science Pilot Research

- ✍ Purpose: To develop new and innovative ideas that have a high probability of leading to the submission of a new application for national peer-reviewed funding.
- ✍ For: Full-time faculty at KUMC.
- ✍ Evaluated on: Proposals will be sent out for peer review and evaluated on new and innovative ideas; fostering development of research activity in 3 specific areas in which there is a critical need at KUMC.
- ✍ Maximum: \$35,000 for 1 year; competitive process for possible second year of funding.
- ✍ RFP sent out: September 2003.
- ✍ Proposals due: October 20, 2003.
- ✍ Awards made: January 2004.

3. Mentored Clinician Scientist

- ✍ Purposes: To provide partial salary and discretionary support for young clinician investigators with some previous research experience, who provide evidence of future scientific commitment. To provide enough

funding so that the young scientist collects data and has grant writing experience to be successful in receiving an NIH mentored career award (individual K award).

- ✍ For: Clinician investigators who, upon receiving this grant, will increase their research load by at least 50%. Team must consist of clinical scientist, veteran research mentor and chair of the department.
- ✍ Evaluated on: Career plan; research plan.
- ✍ Maximum: \$50,000 per year for 2 years.
- ✍ RFP sent out: September 2003.
- ✍ Proposals due: October 20, 2003.
- ✍ Awards made: January 2004.

4. Clinical Research

Program A—Clinical Pilot

✍ Purposes: To promote research development in a high-priority area for funding nationally. To stimulate multidisciplinary teams with broad internal support.

✍ For: Faculty members from KUMC (Kansas City and Wichita campuses and VA affiliates) proposing to conduct pilot research utilizing human populations, specimens or subjects.

✍ Evaluated on: Proposals will be sent out for peer review and evaluated on originality, design and potential for future external funding possibilities. Proposals including interdisciplinary teams and department/division support will receive priority.

✍ Maximum: \$25,000 for 1 year.

✍ RFP sent out: September 2003.

✍ Proposals due: October 20, 2003.

✍ Awards made: January 2004.

Program B—Clinical Program Enhancement

✍ Purposes: To stimulate new clinical research. To promote research development in a high-priority area for funding nationally. To stimulate multidisciplinary pilot or preliminary studies for future applications for research funding through governmental and private agencies.

✍ For: Clinical faculty members at KUMC (Kansas City) have a strong current track record of clinical trials research.

✍ Evaluated on: Proposals will be sent out for peer review and evaluated on innovative ideas and potential to be funded by external agencies such as NIH, DOD and ACS. Priority will be given to proposals with financial and/or endorsement support from the department/division/school.

✍ Maximum: \$35,000 for 1 year.

✍ RFP sent out: September 2003.

✍ Proposals due: October 20, 2003.

✍ Awards made: January 2004.

5. Start PO1 or Research Center

✍ Purpose: To develop a grant proposal to a major federal source to establish a PO1 or Research Center.

✍ For: Collaborating faculty groups.

✍ Evaluated on: Total team strength.

✍ Maximum: \$25,000.

✍ RFP sent out: Call the Research Institute Executive Director at x8-1492 for details and to request forms.

Student Research Volunteer

I am a foreign medical graduate, and am ECFMG certified. While my main aim is to do residency, I am very interested in learning about clinical research while I am waiting to get into a residency program. I have already volunteered 8 months to lab research at the Infectious Diseases Division of Internal Medicine at UMKC, School of Medicine. I am also familiar with the system of patient management, through a 3 month observership at St. Luke's Hospital (North).

If you have an opening for a research assistant, for an ongoing or an upcoming project, I would be very obliged if you give me the opportunity to be a part of that research team.

My contact information is listed below, please feel free to contact me, if there is anything on which I can be of any help,

Thanking you in anticipation,

Tahira Zufer MD.

Halitidos@hotmail.com

Ph: (913) 814 9935

- ✍ Proposals due: Requests can be made anytime during the year.
- ✍ Awards made: As submitted.

6. Nurse/Study Coordinator for Clinical Trials

- ✍ Purpose: To assist clinician(s) who is/are attempting to develop a clinical trials/clinical research program.
- ✍ For: Any clinician(s) at KUMC who has/have a strong interest and commitment to start a clinical trials program and who has/have a substantial number of contracts that are submitted or are already signed.
- ✍ Evaluated on: request's strength and commitments by the clinician and the department chair.
- ✍ Maximum: \$50,000 per year for one year, with funding for a second year possible.
- ✍ RFP sent out: September 2003.
- ✍ Proposals due: October 10, 2003.
- ✍ Awards made: By the end of October 2003.

Current Pediatric Grants

| | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| Ahluwalia, J. (PI), & Ahluwalia, H. (Co-PI) "Helping African-American Light Smokers Quit" NIH/ NCI - Total direct costs: \$1,604,016 | 08/01 - 06/05 |
| Casey, J. (PI), Delrosario, G. (Co-PI) "Endocrinology Metabology" Genet-Internal | 02/21/02-12/31/05 |
| Cocjin, J. (PI) "The use of Amitriptyline in Children" KU Pediatric Foundation - Total direct costs: \$10,000 | 7/1/03-6/30/04 |
| Greiner, A. & Ahluwalia, H. (Co-PI) "Assessing Obesity In Rural Kansas Primary Care Practices" Sunflower Foundation - Total direct costs: \$137,958 | 06/03 - 05/04 |
| Hyman, P.E. (PI), Danda, C., Cocjin, J., Comminellis, T. "Improving treatment for functional fecal retention" KUMC Research Institute - Direct Costs \$25,000 | 03/03-02/04 |
| Johnson, C. (PI), Richman, D. "Leadership education in neurodevelopmental disabilities." Maternal and Child Health Bureau - Total Costs \$2,675,000 | 07/00 – 06/05 |
| Lowry, J. (PI), Shaw, P. (Co-PI) "Lead and its effects of clytochrome P450" Hall Family Foundation - Direct Costs \$75,000 | 2001-2003 |
| McGrath, A. (PI) "Development of a Videotape Coding Scheme for Evaluation of Pediatric Residents in Cardiology" KU Pediatric Foundation - Total direct costs: \$10,000 | 7/1/03-6/30/04 |

- McGrath, A. (PI)** 07/02 - 06/04
 "Obesity among school age children in the state of Kansas"
 Sunflower Foundation - Direct Costs \$137,383
- Nelson, E. (PI)** 09/03-08/04
 "Development of an eHealth Provider-Patient Communication Measure"
 Robert Wood Johnson Foundation - Total costs: \$95,538
- Perry, G. (PI)** 2002 - 2003
 "Epidemiologic study of cystic fibrosis: A multicenter, longitudinal follow-up study of patients with cystic fibrosis for monitoring pulmonary function, pulmonary exacerbations and the safety of long-term treatment with pulmozyme (dornase alfa)"
 Genetec
- Poston, C. (PI), **Ahluwalia, H. (Co-PI)** 06/03 - 05/08
 "An Analysis of Environmental Risk Factors for Obesity"
 NIH/ NIDDK - Total direct costs: \$2,489,343
- Raghuveer, G. (PI) Mattioli, L (Co-PI)** 07/02 - 12/03
 "Effect of statin therapy on vascular function in children"
 American Society of Echocardiography - Direct Costs \$75,000
- Rapoff, M. (PI)** 10/02 - 12/03
 "Headstrong: A novel minimal contact behavioral intervention for recurrent pediatric headache"
 AstraZeneca Pharmaceutical Company - Direct Costs \$50,000
- Sahgal, N. (PI)** 04/02- 03/07
 "Fetal Regulation of Placental Biology"
 NICHD : KO8 HD 42171
- Voziyian, P. (PI), **Scheinman, J.** 08/02 -07/04
 "A new rx of hyperoxaluria"
 NIH - STTR Grant - Direct Costs \$100,000

July - September, 2003 Pediatric Publications

Raghuveer G, Caldarone CA, Hills CB, Atkins DL, **Belmont JM**, Moller JH. Predictors of prosthesis survival, growth, and functional status following mechanical mitral valve replacement in children aged <5 years, a multi-institutional study. *Circulation*. 2003 Sep 9;108 (10 Suppl 1):II174-9.

Rapoff, M.A., McGrath, A.M., & Lindsley, C.B. (2003). Medical and psychosocial aspects of juvenile rheumatoid arthritis. In Roberts, M.C. (ed.). *Handbook of pediatric psychology, 3rd edition* (pp. 392-408). New York: Guilford.

Zangen, T., Ciarla, C., Zangen, S., Di Lorenzo, C., Flores, A.F., Cocjin, J., Reddy, S.N., Rowhani, A., Schwankovsky, L. & **Hyman, P.E.** (2003). Gastrointestinal Motility and Sensory Abnormalities May Contribute to Food Refusal in Medically Fragile Toddlers. *Journal of Pediatric Gastroenterology and Nutrition*, 37, pp. 287-293.