# Duke University Department of Pediatrics Your Pediatrics Alumni Community

#### **SPRING 2018**

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In the fall of 2018, we will begin sending this publication via e-newsletter. If you would like to continue receiving Duke Pediatrics Alumni News, please submit your email using our online newsletter request form at **pediatrics.duke.edu/about-us/alumni.** 

### MESSAGE FROM THE CHAIR

Greetings from the Duke University Department of Pediatrics. During the period since our last newsletter, we have continued to experience significant success in our clinical, educational, research, and advocacy initiatives. This success is a direct reflection of our dedicated and collegial faculty who work hard to support all aspects of our mission. In addition, we continue to recruit bright and motivated residents and subspecialty fellows who add impressive diversity and talent to our community.

A number of our faculty have received new independent investigator awards from the National Institutes of Health and other federal agencies, and I am especially pleased to share the news that the department has been ranked second nationally on the list of NIH funding for pediatrics clinical science departments. Other members of the faculty have been recognized for their outstanding contributions to medicine with honorary awards and election to national academic societies, resulting in increasing national recognition of our faculty, staff, and programs.

I would also like to thank all who attended and participated in this year's Pediatrics Research Retreat, which was held on April 9 and featured keynote speaker L. Ebony Boulware, MD, MPH, Vice Dean for Translational Science and Associate Vice Chancellor for Translational Research in the Duke School of Medicine. It was another outstanding year showcasing the science and discovery accomplished by our talented faculty, trainees, and staff with a record number of abstracts submitted on a broad range of topics.

With the goal of keeping you connected with friends and colleagues, I invite you to join us at the Duke Pediatrics Alumni Reception that is scheduled for the evening of May 6, 2018, at the International Toronto Centre during the Pediatric Academic Societies meeting in Ontario, Canada.

I hope you enjoy reading about the continued progress of Duke Pediatrics, and I look forward to sharing more news with you throughout the year.



### New leadership roles announced for Medicine-Pediatrics Residency

Jane Trinh, MD, associate professor of pediatrics and medicine and associate program director of the combined Medicine-Pediatrics Residency Program, has been



named program director of the Duke Medicine-Pediatrics Residency, effective December 2017. In addition, **Colby Feeney**, **MD**, medical instructor in the Departments of Medicine and Pediatrics

has been named associate program director.

Trinh takes over from previous program director **Suzanne Woods, MD,** who left Duke to become the American Board of Pediatrics Vice President for Examination Administration and



Credentialing, effective January 1, 2018. In addition to her faculty positions as an associate professor in pediatrics and medicine, Woods served as director of



the Medicine-Pediatrics Residency Program and chief of the Section of Medicine-Pediatrics since 2002.

Trinh has served as associate program director since 2008 and has made

significant contributions to the Medicine-Pediatrics Residency Program, including development of the quality improvement curriculum and oversight of Med-Peds resident QI projects, among many other initiatives. She also holds the national role of chair of the Accreditation Committee for the Medicne-Pediatrics Program Directors Association (MPPDA).

"I have known Jane since she was a chief resident in the Duke Internal Medicine Program and have had the pleasure of working with her in her role as the associate program director for the outstanding Duke Medicine-Pediatrics Program," said Aimee Zaas, MD, MHS, program director, Duke Internal Medicine Residency. "She leads by example and is an important part of the educational fabric here at Duke. I have no doubt that she will continue the tradition of excellence that was established by Sue during her incredible tenure in the role."

# Benjamin and Fox assume new leadership roles

Robert Benjamin, MD, assistant professor of pediatrics, and James Fox, MD, associate professor of pediatrics, have been selected for the role of associate program director for the Pediatric Residency

Program, effective July 2017 and March 2017 respectively.

As a faculty member at Duke for over ten years, Benjamin has demonstrated a long-term commitment to educational scholarship and teaching. Notably, he participated in research investigating the use of iPad tablets to enhance learning in the clinical setting and investigated the effect of the electronic health system on graduate medical education. On a national level, he has been a member of the Pediatrics Review and Education Program (PREP) editorial board for eight years and was subsequently promoted to deputy editor.

Fox has also been involved in numerous



aspects of medical education during his more than 10 years as a faculty member at Duke. He has been a successful mentor for many trainees, particularly in the area of quality

improvement scholarship. Nationally, he has participated in the Council on Medical Student Education in Pediatrics (COMSEP) Curriculum Task Force since 2008, with substantive contributions to the creation of the pediatric sub-internship curriculum and development of illness scripts and diagnostic algorithms for enhanced student learning. Fox was awarded the Duke School of Medicine's Master Clinician/Teacher Award in 2014.

# Duke Children's wins top awards at Duke Quality and Safety meeting

Enhancing workforce resiliency and redefining patient safety and quality were keynote topics on March 22, as Duke Health hosted its 13th annual Patient Safety and Quality Conference. More than 600 people turned out, marking the fourth consecutive year of record attendance.

Notably, all three of the top awards presented — selected from over 150

abstracts submitted from across the health system — were from the Duke Children's team, including the Learner Award for "Systematic Analysis of Epic Best Practice Advisory Leads to a Dramatic Reduction in Firing with No Clinical Harm," the Karcher Patient Safety Award for "Pressure Injury Reduction at Duke Children's Hospital," and the Rebecca Kirkland Award for "Eliminating Surgical Site Infections at Duke Children's Hospital." In addition, there were multiple other outstanding Duke Children's posters among the 80 chosen for presentation at the conference.

"These awards clearly demonstrate our overall multidisciplinary approach to patient safety and clinical quality," said Ann Reed, MD, chair of the Department of Pediatrics and physician-in-chief of Duke Children's. "All of our abstract winners and presenters are highly deserving of this recognition."



# Wagner named chief of Division of Hematology-Oncology

Lars M. Wagner, MD, was recently named chief of the Division of Hematology-Oncology in the Department of Pediatrics, effective July 8, 2018.

Wagner's clinical and translational research is primarily focused on solid tumors and pediatric brain tumors. He has led national phase I and II trials through the Children's Oncology Group as well as the New Approaches to Neuroblastoma Therapy Consortium and the National Pediatric Cancer Foundation. Specifically, he is interested in the development of combination therapies for sarcoma.

Wagner has spent the last five years as



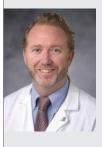
professor of pediatrics and chief of the Division of Pediatric Hematology/ Oncology, and Children's Miracle Network Research Chair in Pediatrics at the University of Kentucky.

### NOTEWORTHY

# How fever in early pregnancy causes heart, facial birth defects

Researchers have known for decades that fevers in the first trimester of pregnancy increase risk for some heart defects and facial deformities such as cleft lip or palate. Exactly how this happens is unclear. Scientists have debated whether a virus or other infection source causes the defects, or if fever alone is the underlying problem.

Duke researchers now have evidence to suggest the fever itself, not its root source, could interfere with the development of the heart and jaw during the first three to eight weeks of pregnancy. Their findings, demonstrated in animal embryos, was published Oct. 10 in the journal Science Signaling. The results provide new leads as scientists continue investigating heart defects, which affect 1 percent of live births in the U.S., and cleft lip or palate, affecting about 4,000 infants per year.



The animal models suggest a portion of congenital birth defects in humans might be prevented if fevers are treated through means including the judicious use of acetaminophen during the first trimester, said senior author, Eric Benner, MD, PhD, a neonatologist and assistant professor of pediatrics at Duke.

"My hope is that right now, as women are planning to become pregnant and their doctors

advise them to start taking prenatal vitamins and folic acid, their doctor also informs them if they get a fever, they should not hesitate to call and consider taking a fever reducer, specifically acetaminophen (Tylenol), which has been studied extensively and determined to be safe during the first trimester," Benner said.

To observe how fever impacts a developing fetus, the researchers engineered a noninvasive magnet-based technology in zebrafish and chicken embryos to create fever-like conditions in two specific temperature-sensitive ion channels called TRPV1 and TRPV4 in the neural crest cells involved in developing the heart and face. When those neural crest cells were subjected to conditions mimicking a transient fever, the embryos developed craniofacial irregularities and heart defects, including double outlet right ventricle, Tetralogy of Fallot and other outflow obstructions.

The type of defect depends on whether the fever occurs during heart development or head and face development in the embryo. What researchers still do not know is whether or how the severity or duration of a fever impacts development, Benner said.

#### DCRI and partners awarded grant to create Global Pediatric Clinical Trials Network

The Duke Clinical Research Institute (DCRI) and its strategic partners have been awarded a grant from the U.S. Food and Drug Administration (FDA) to establish a coordinating center for a Global Pediatric Clinical Trials Network (G-PCTN). The G-PCTN will support efficient pediatric clinical trials worldwide by developing



scientific and operational infrastructure, fostering collaborative networks, sharing knowledge, and engaging stakeholders. The principal investigators for this program will be pediatric infectious diseases specialists Daniel Benjamin, Jr., MD, MPH, PhD, and Michael (Micky) Cohen-Wolkowiez, MD, PhD.

#### **Residents Announcements**

Welcome to the newest residents in the Department of Pediatrics!

#### Pediatrics Residency Medicine-Pediatrics Residency

Allison Berryhill Chicago College of Osteopathy

Adam Blatt The University of Toledo

Kathryn Blew University of North Carolina

**Annalicia Burns** University of Florida

Mariah Cicioni Sidney Kimmel Medical College at Thomas Jefferson University

**Danielle Clark** Baylor College of Medicine

Dana Coccola Medical University of South Carolina

Rahul R. Gentyala University of Vermont

**Shant Keskinyan** Wake Forest University

Nikki Lawing East Carolina University

**Amy Moon** Medical University of South Carolina

Hugh Quach East Carolina University

Ashely Stark Georgetown University

**Cory C. Templeton** Sidney Kimmel Medical College at Thomas Jefferson University

Samantha Dizon University of Maryland

**Erin Frost** University of Buffalo

Grace Lee University of Maryland

**Kevin Prier** University of Texas Southwestern

Zachary Sutton East Carolina University

**Christopher Zheng** The Ohio State University

#### **Child Neurology Residency**

Lauren Chamberlain Philadelphia College of Osteopathic Medicine

**Kayli Kishel** Florida State University – Sarasota

#### Pediatric Research Scholars Program

**Derek Zachman** Oregon Health & Science University

For additional details about our new residents, please visit: pediatrics.duke.edu.

"Although we've made a lot of progress in recent years, pediatric trials are still hard to complete successfully. There are perennial challenges that affect everyone working to advance pediatric research, but they can be especially challenging for research sites that don't have access to resources or experience," said Benjamin. "We need to work through some of the challenges that people have had in meeting the requirements outlined by the Pediatric Research Equity Act. It's crucial to have success across new therapeutics for children."

Although the Pediatric Research Equity Act (PREA) and the Best Pharmaceuticals for Children Act (BPCA) were both implemented to encourage research sponsors to conduct more pediatric clinical (continued, page 4)



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NOTEWORTHY

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trials, many drugs used in children lack sufficient information to guide their safe and effective dosing. Further, 42 percent of pediatric trials conducted under BPCA have not successfully supported pediatric indications.

"Despite how vital it is for children's health, proper dosing information is still sorely lacking for many important therapies used in children and infants," Cohen-Wolkowiez said, noting that the relatively small numbers of patients eligible to enroll in pediatric trials of therapies for rare diseases adds an additional layer of difficulty. "The G-PCTN will provide a key opportunity to address inefficiencies and build capacity across the globe for conducting more effective pediatric clinical trials, which will help inform the decisions parents and healthcare providers make when caring for our youngest patients."

The grant will specifically facilitate the creation of a coordinating center comprising three cores for network operations, patient engagement, and scientific oversight and five clinical study groups devoted to study design, dosing, regulatory/pharmacy, network partnerships, and rare diseases.

#### UPCOMING EVENTS

# **Duke Pediatrics Alumni Reception**

Sunday, May 6, 2018 8:00 - 10:00 PM

Intercontinental Toronto Centre 225 Front Street West • Niagra Room Toronto, ON M5V2X3 Canada

This reception is scheduled in conjunction with the Pediatric Academic Societies (PAS) annual meeting, May 5 – 8, 2018. We hope you'll join us.

RSVP to Diane Crayton at diane.crayton@duke.edu.



#### 2017 NIH rankings announced

The Duke Department of Pediatrics ranked second nationally on the list of NIH research grant funding for pediatrics clinical science departments with a total of \$44,160,504 for 2017. Notably, a number of the department's investigators ranked among the top 50 recipients of FY 2017 research grants.

"Success in securing NIH funding is considered a strong indicator of the quality of an institution's research," says Ann M. Reed, MD, chair of the Department of Pediatrics and physician-in-chief of Duke Children's. "Our strong performance and rise in rankings reflect the groundbreaking work of our remarkably creative and insightful faculty and dedicated research, grants management and IRB staff."

#### MAKE A GIFT

# Deborah Kredich Pediatric Education Fund

The Deborah Kredich Pediatric Education Fund provides support for a variety of educational experiences for residents and subspecialty fellows at Duke, including participation in research projects, attendance at national meetings, involvement in community outreach programs, and hosting of a special Grand Rounds.

## **Pediatrics Excellence Fund**

The Pediatrics Excellence Fund provides support for the most immediate needs of the Department of Pediatrics.

You can make your gift quickly and securely online by visiting: SupportMedTraining.duke.edu.