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Department of Pediatrics

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**PEDIATRIC FELLOWSHIP NEWSLETTER**

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**Spring 2016**

[pediatrics.urmc.edu/fellowships](http://pediatrics.urmc.edu/fellowships)  
[Facebook: Pediatric Fellowship Programs](#)

**Department of Pediatrics' Alumni Reunion**  
**Saturday, June 4, 2016**

[Register and learn more about the day's events!](#)

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## **The Right Mission at the Right Time**

### *Pediatric Critical Care Fellow's Journey to Honduras*

By: Rachel Bills, Fellowship Administrator



Over 60% of the population of San Pedro Sula, Honduras live in poverty and do not have access to medical care; if they do, care is limited and emergency services are basic. Diseases treatable in the United States often result in morbidity. During a dry, 88 degree week in January, families line hospital walls for hours in hope of receiving care for their chronically ill children. This is where Jennifer DeMichele, MD, third year critical care fellow, volunteered with the "Spine Brigade" to provide post-operative care and pain management to those children who may not have received care otherwise.

These patients suffered from scoliosis, spinal deformities, and bone cancers. As she circled the room with medication to relieve their pain, brave frail faces turned to thankful expressions. She discovered a new appreciation for all health professionals as she performed tasks normally

managed by an interdisciplinary team. Personal gratification was achieved at the bedside as Dr. DeMichele made appropriate decisions under difficult circumstances and was able to minimize adverse outcomes. Supplies were limited and her resourcefulness for even the smallest tasks seemed to add great comfort. There was a child who could not sleep because of the glare from lights and lack of curtains. Sifting through drawers to uncover useful materials, she made a sleep mask out of gauze, tape, and string to help the child rest. The child beamed with gratitude and appreciated Dr. DeMichele's urgency to help. Dr. DeMichele was overwhelmed with how patients and families embraced her. They effortlessly welcomed her clinical skills and they were uplifted by her small gestures to comfort their children. There were no doubts, only joy and kindness.



Dr. Jennifer DeMichele (far left) with members of the "Spine Brigade."

The one-week long mission with the "Spine Brigade," led by pediatric orthopedic surgeon, James Sanders, MD and his devoted team of health professionals, inspired Dr. DeMichele to dedicate more personal time to humanitarian efforts as she continues her career. *"Everyone was there to work together towards one common purpose; to care for children. This is why I went into pediatric medicine."* Her involvement in the mission bolstered her confidence at the right time as she begins her transition from a fellow to a pediatric intensivist, making independent decisions in critical demanding situations.

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## Fellow Awards and Honors

### **Katherine Ebsworth-Mojica, M.D. (3<sup>rd</sup> Year Pediatric Infectious Diseases Fellow)**

- Travel Award, St. Jude/PIDS Pediatric Infectious Diseases Transplant ID and Research Conference, March 2016

### **Marybeth Jones, M.D. (2<sup>nd</sup> Year General Pediatrics Fellow)**

- APA Region III Travel Award, "Transition Readiness in Youth With Asthma: Associations With Disease Self-Management," March 2016

### **Jayson Lingan, M.D. (3<sup>rd</sup> Year Neonatology Fellow)**

- Trainee Young Investigator Award, "Permeability Transition Pore Closure Increases Mitochondrial Maturation, Myocyte Differentiation and Cardiac Function in the Neonatal Mouse Heart." Eastern Society for Pediatric Research, March 2016
- Travel Award, Eastern Society for Pediatric Research, March 2016

### **Casey Rosen-Carole, M.D. (2<sup>nd</sup> Year General Pediatrics Fellow)**

- APA Region III Travel Award, "Mother's Concerns for Personal Safety/Vulnerability While Breastfeeding: An Unexplored Phenomenon," March 2016

### **Shanley Sifain, M.D. (2<sup>nd</sup> Year Neonatology Fellow)**

- Meritorious Poster Award, "Enhanced TNF-Alpha Expression in Preterm Infant Lymphocytes." Eastern Society for Pediatric Research, March 2016
- Travel Award, Eastern Society for Pediatric Research, March 2016

### **Christina Sollinger, M.D. (3<sup>rd</sup> Year Neonatology Fellow)**

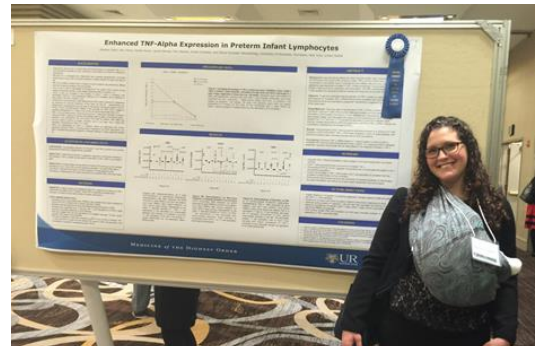
- Travel Award, Eastern Society for Pediatric Research, March 2016

### **Sana Usmani, D.O. (3<sup>rd</sup> Year Pediatric Hematology/Oncology Fellow)**

- Oral Presentation, "RNAseq Gene Expression Analysis Identifies Molecular Pathways in Non-Malignant Stromal Cells and Acute Lymphoblastic Leukemia Cells Related to Leukemia Cell Survival," American Society of Pediatric Hematology Oncology Annual Meeting, May 2016



Dr. Katherine Ebsworth-Mojica at the 2016 St. Jude/PIDS Transplant ID and Research Conference.



Dr. Shanley Sifain presents her research at the 2016 Eastern Society for Pediatric Research.

## 2016-2018 Dean's Fellows

Each year, the Department of Pediatrics awards first year fellows the Dean's Fellowship in recognition of their research pursuits. Congratulations to this year's Dean's Fellows!



**Akua Asante, M.D.**  
Pediatric Hematology/Oncology  
"Platelet Ontogeny"



**Laura Price, M.D.**  
Neonatology  
"Brain Development in Infants of Diabetic Mothers as Measured by Neonatal EEG"



## Fellow Research Spotlight

*Mariana Middelhof, M.D., Third Year Pediatric Gastroenterology/Nutrition Fellow*  
"Omegaven™ Demonstrated to be an Effective Treatment for Parenteral Nutrition Associated Liver Disease"

By: Rachel Bills, Fellowship Administrator

Parenteral nutrition (PN) is a life-saving therapy oftentimes for premature infants. Although PN is crucial in providing nutrition, its prolonged use often results in parenteral nutrition associated liver disease (PNALD) in 30 to 60 percent of patients (*J Pediatr Gastroenterol Nutr* 2009). Soybean lipid emulsions are the most common form of lipids used for PN. According to *The American Journal of Clinical Nutrition*, evidence suggests that soybean emulsions may be contributing to the development of cholestasis. Omegaven™, an intravenous omega-3 fatty acid with fish-oil based emulsion, has been demonstrated to be an effective treatment of PNALD, but data on long-term outcome is limited.

Mariana Middelhof, MD, third year gastroenterology fellow, developed a study with Marilyn Brown, MD, and Patricia Chess, MD, to investigate the outcomes of Omegaven™ in infants with cholestasis. Dr. Middelhof retrospectively studied 36 infants who developed cholestasis while receiving PN soybean lipid emulsions that afterward received Omegaven™. Cholestasis and transaminitis was reversed for all 36 infants. Furthermore they found that Omega-3 Fatty Acid emulsion does not appear to impact the neurodevelopment of infants adversely. The incidence and resolution of retinopathy of prematurity (ROP) was similar in the group who received Omega-3 Fatty Acid Emulsion and the age matched cohort. Furthermore no subjects required liver transplantation for PNALD over the last 8 years since the introduction of Omega-3 Fatty Acid Emulsion.

Dr. Middelhof has concluded that Omegaven™ may be safe and effective in treating PNALD in infants. She recently submitted her work to the *American Journal of Clinic Nutrition* and will continue to obtain more data through future studies of Omegaven™ as she continues her career at URM as an Assistant Professor of Pediatrics.

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## Did You Know?

The ABP publishes a Fellows' Newsletter several times a year. Check out the [latest edition](#) to learn more about the ABP guidelines for scholarly activity, as well as the 2015-2016 ABP Workforce Data.

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**Current and Graduated Fellows – Please send us your news!**  
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