nature publishing group

Early career investigator highlight

Adam Frymoyer[1]

I grew up in Harrisburg, Pennsylvania, and attended Pennsylvania State University for undergraduate school. I received my medical degree from the University of Pittsburgh and completed my residency in pediatrics at the University of California San Francisco (UCSF).

As a pediatric resident, I encountered an area of clinical knowledge where the need for scientific investigation is critical and urgent: pediatric therapeutics. Most medicines have not been rigorously tested in children, and pediatricians routinely prescribe drugs without FDA labeling or evidence-based guidelines. Given the lack of formally trained clinical pharmacologists who address the specific needs of children, I chose to focus my research career in pediatric clinical pharmacology. Following my residency, I participated in post-doctoral research fellowships at UCSF that combined training in clinical pharmacology, mathematical modeling and simulation, and clinical research. These experiences solidified my passion for translational research and helped develop my niche in pediatric clinical pharmacology and therapeutics research. I am now a faculty member in the Department of Pediatrics at Stanford University.

My focus on neonates with hypoxic ischemic encephalopathy (HIE) grew out of my work with this population as a neonatal hospitalist. With so little known about the clinical pharmacology of drugs used in this population, neonates with HIE are at high risk for therapeutic misadventure. To help advance our therapeutic approach, I have applied population pharmacokinetic modeling and simulation to help develop customized dosing strategies for specific medications used in this population. Currently, I am part of a multidisciplinary team focused on the development of erythropoietin as an innovative treatment strategy. As highlighted in our article in the current issue of *Pediatric Research*, a thorough understanding of the dose–exposure relationship of erythropoietin provided a concrete dosing strategy for the clinical efficacy trial that is currently underway.

Along my career path, I have received guidance from many dedicated mentors. They have inspired me not only because they demonstrate academic integrity and rigor, but also because they have helped me to explore my own goals and meet my own challenges. There is much room for advancement of pediatric therapeutics, and I aim to increase the visibility of this field and its accessibility to all pediatric practitioners. I also hope to attract other young clinical investigators to translational research careers where theoretical knowledge can be made truly useful in the clinical setting.

Disclosure: The author declares no conflict of interest.

[1]Department of Pediatrics, Stanford University, Palo Alto, California.
Correspondence: Adam Frymoyer (frymoyer@stanford.edu)

Received 28 February 2017; accepted 1 March 2017; advance online publication 10 May 2017. doi:10.1038/pr.2017.60