BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors.
Follow this format for each person. **DO NOT EXCEED FIVE PAGES.**

NAME: Karen A. Diefenbach, MD

eRA COMMONS USER NAME (credential, e.g., agency login):

POSITION TITLE:

Director of Pediatric Minimally Invasive Surgery, Nationwide Children's Hospital, Columbus, OH

Associate Professor of Surgery, The Ohio State University College of Medicine, Columbus, OH

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	Completion Date MM/YYYY	FIELD OF STUDY
Southern Illinois University, Carbondale, IL	B.A.	05/1992	Biological Sciences
University of Illinois College of Medicine, Peoria, IL	M.D.	05/1996	Medicine
University of Illinois College of Medicine, Peoria, IL OSF St. Francis Hospital, Department of Surgery	Board Certification	06/2001	Surgical Residency
Yale University School of Medicine	Board Certification	06/2009	Pediatric Surgery

A. Personal Statement

Throughout my career as a surgeon, I have felt a need to help those around me understand why we do what we do. It is also a way in which I can pay it forward for the phenomenal support and mentorship I have received over the years. My teaching philosophy is "Aspire to Inspire" and I take it to heart. I want to help inspire undergraduates to become doctors, medical students to become surgeons, and surgical residents to become pediatric surgeons. I feel so privileged to be able to do what I do—I love my job…everyday—and I want the next generation of surgeons to have that same fulfillment. Even more so, I want to help surgeons continue to grow as clinicians and become master technical surgeons regardless of their specialty. My passion for minimally invasive surgery was the foundation for my work in surgical simulation as a mode of surgical education. In 2006, I developed the first scaled, neonatal MIS models to help pediatric surgeons develop core MIS skills. These were incorporated into national and international courses and set off an international movement to promote MIS skills acquisition. I have developed a set of models for MIS core skills which was produced by Karl Storz Endoscopy. I have also developed models for the MIS repair of many congenital anomalies. This approach to surgical training allows the surgeon to acquire these skills in a safe environment with no penalty for mistakes, allows repeated practice to reach proficiency prior to entering the OR, and allows the surgeon multiple opportunities to perform surgery for what are otherwise rare congenital anomalies. I am the program director for a fellowship in Pediatric Minimally Invasive Surgery at Nationwide Children's Hospital. For the last twelve years I have been faculty for the national Pediatric Surgery Fellows Minimally Invasive Surgery course held annually. Since 2011, I have been faculty for the International Pediatric Endosurgery Group (IPEG) annual courses in which minimally invasive surgery techniques are taught to practicing pediatric surgeons and surgeons in-training, serving as co-chair or chair for 5 of those years. I am frequently asked by peer reviewed journals to review article submissions on surgical simulation and minimally invasive surgery education including the Journal of Pediatric Surgery and the Journal of Laparoscopy and Advanced Surgical Techniques.

B. Positions and Honors

Teaching Award from General Surgery Residents. The Ohio State University College of Medicine, Teaching Award from Medical Students, The Ohio State University College of Medicine, Sam Harvey Award, for the Ideal Surgeon/Physician, Yale University School of Medicine, Department of Surgery

C. Contributions to Science

I developed scaled neonatal minimally invasive surgery trainers to teach the core skills required for minimally invasive repair of congenital anomalies in neonates which have been used in annual hands-on courses for IPEG as well as for the IPEG "Mastery Learning Series Course" in which they are used for baseline core skills assessment. Addition models were developed in my lab including duodenal atresia, jejunal atresia, esophageal atresia, congenital diaphragmatic hernia, and choledochal cyst.

D. Additional Information: Research Support and/or Scholastic Performance

I have received a $100,000 grant for the development of a model for a thoracoscopic