

# Training Surgeons while Maintaining Patient Safety



**Aziz Merchant**  
Assistant Professor, Department of Surgery

## CURRENT RESEARCH

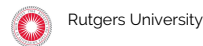
Simulated surgeries are improving patient safety in all areas of medicine

The majority of current surgical training still involves introducing novice trainees to patient care and surgery within the real hospital and operating room environment. Over time, we have learned that novices in training are significantly more likely to encounter complications, cause patient discomfort, and have longer procedure times than experienced surgeons for diagnostic and therapeutic procedures, all of which can lead to patient complications. Because patient safety, patient comfort, and patient outcomes must be prioritized, with increasing demands on surgical resident education, early procedural learning must occur in adjunctive environments away from real patients, such as in a well-equipped simulation lab with a mix of high- and low-fidelity training systems. Dr. Aziz Merchant, Assistant Professor of Surgery at Rutgers University's Medical School, is working to establish an evidence-based program of simulation education for surgical and medical trainees towards improving training and improving patient safety. In short, his research is focused on creating programs that allow residents and students to train to proficiency on a simulated inanimate training model, before treating actual patients.

Day to day investigations involve creating better simulation models for procedures such as laparoscopic surgery (surgery using small incisions) and colonoscopy, as well as team training and interdisciplinary learning in medicine and surgery. Dr. Merchant's unique approach focuses on improvements in patient safety by establishing a better process for training the medical professionals that take care of these patients, and addresses part of the core problems of patient safety, which is provider education and...

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## AFFILIATION



Rutgers University

## EDUCATION

- B.S., 1996, University of Chicago
- M.D., 2000, Jefferson Medical College

## AWARDS

- 2003-2005, NIH-National Research Service Award: (F32 HD043583-01) Manipulation of Prenatal Stem Cell Transplant Biology, Children's Hospital of Philadelphia, Children's Institute for Surgical Science.
- 2015-2017, SAGES Fundamentals of Endoscopic Surgery Teaching Plan Project, SAGES Foundation, \$20,000.
- 2004, Fellow Travel Award
- International Fetal Medicine and Surgery Society, Annual Meeting, Charleston, SC
- 2003 and 2005, Hufnagel Research Award Georgetown University Hospital, Department of Surgery
- and 2 more...

## RESEARCH AREAS

Life Science, Health IT, IOT, Devices, Data, Veteran's Causes

## FUNDING REQUEST

Your donations will support the continued research of Dr. Aziz Merchant, of Rutgers University-New Jersey Medical School, as he works towards improving patient safety through the effective training of surgical residents and providers using simulation technology. Donations will fund the necessary \$150K for simulator modules and research, \$8K/per trainer box, and an additional \$80-120K for motivated and intelligent personnel. Join research that creates cost-effective methods towards simulation education; fund Dr. Merchant's research.