

TERA Monthly Seminar in Medical AI

Sunday 6.8

Gredinger Hall, The Ruth Rappaport Children's Hospital at Rambam Health Care Campus

13:00 - 13:30: Refreshments & Networking**13:30 - 14:15:** Rafael Beyar, MD, DSc, MPH**14:15 - 15:00:** Oren Salzman, PhD

Innovations in Medicine: The Clinical, Academic and Industrial circles

Innovation in medicine go hand in hand with technological advancement, and requires tight collaboration between the clinician, the scientist and the engineer. The innovation cycle typically starts with an unmet need that leads to the idea, and goes through the long process of optimization, followed by human experimentations and regulatory approval. Case example of historic disruptive innovation in cardiology will be discussed. The way Rambam Health Care Campus is becoming a leader in innovation both historically, and in the future are discussed.

Professor Rafael (Rafi) Beyar, is an interventional cardiologist, a biomedical engineer and an innovator, former director of Rambam Health Care Campus (2006-2019), Professor Emeritus of Medicine and Biomedical Engineering at the Technion and former Dean of the Faculty of Medicine (1999-2004). Beyar received an MD from Tel Aviv University, DSc in Biomedical Engineering from the Technion, and MPH from the Bloomberg School of Public Health, Johns Hopkins University. Beyar Research interests are cardiovascular simulations, coronary stents and cardiovascular robotics. Beyar co-founded Intent, the first-in-the-world robotic coronary intervention, which was acquired by Siemens Healthineers. He currently serves as director of Rambam Med-Tech and is serving as director or advisor in several start-up companies.



Rafael Beyar, MD, DSc, MPH
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Oren Salzman, PhD
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Algorithmic motion planning meets minimally-invasive robotic surgery

Robots have the potential to alter the way common medical procedures are performed by decreasing patient-recovery time, speeding healing and reducing scarring. However, manually controlling such devices is highly un-intuitive and automatic planning methods are in need. In this talk, Oren will survey some of the recent work he has been involved in where, together with colleagues at UNC, UW and UoU, they developed efficient and effective planning capabilities for medical robots that provide provable guarantees on various planner attributes.

Oren Salzman is an Assistant Professor at the Computer Science department at the Technion. His research focuses on revisiting classical computer science algorithms, tools and paradigms to address the computational challenges that arise when planning motions for robots. Oren completed a PhD in the School of Computer Science at Tel Aviv University and a postdoctoral researcher at Carnegie Mellon University, a research scientist at the National Robotics Engineering Center (NREC).

[Click to confirm your participation](#) (limited places)

The seminar will be delivered in English

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