Eric Topol

Leading authority on COVID-19 and the future of medicine
Founder and Director, Scripps Research Translational Institute (SRTI)
Author, *Deep Medicine: How Artificial Intelligence Can Make Healthcare Human Again*

The leading authority of AI and medicine.

Biography

Dr. Eric Topol is one of the leading innovators in medicine today, specializing in the use of artificial intelligence, "deep" data, and smart technology in the practice of individualized medicine. Also called precision medicine, individualized medicine tailors diagnosis, prevention, and treatment to the full biological and social profile of the individual, rather than the "average" human of traditional medical science. Dr. Eric Topol is the Founder and Director of the Scripps Research Translational Institute (SRTI). He also is Executive Vice President of Scripps Research and Professor of Molecular Medicine.

Britain's National Health Service has called on Dr. Topol to lead a review into how the NHS can pioneer new treatments and technologies to transform healthcare. Dr. Topol will look at technologies such as artificial intelligence (including robotics), genomics and digital medicine and how to train tens of thousands of staff at the NHS.
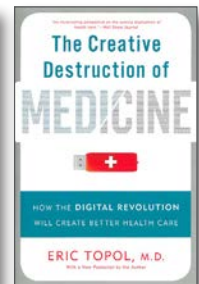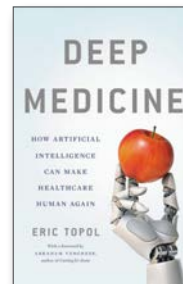
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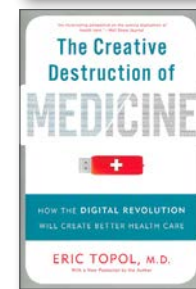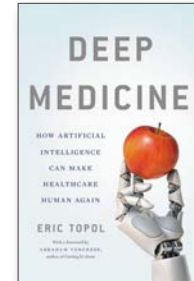
Eric Topol
Author, *Deep Medicine*

Individualized medicine. Individualized medicine empowers the individual in the management of their care and uses their unique biology to guide that care. For the average human being does not exist and our current generalized approach to medicine is failing us in many important ways. Dr. Topol has led the effort to use the unique genetic makeup of patients to inform their treatment. He has led several groundbreaking research studies and innovations in individualized clinical practice.

Technology and wireless medicine. Technologically, individualized medicine goes well beyond personal genetics. We now have sensors that can track basically every physiologic system in a human being. Many of these technologies are wearable, inexpensive, and capable of being integrated with your smart phone. Dr. Topol uses these digital technologies and genomics to understand each person; the goal is to practice high-definition medicine.

Deep Medicine: Using Big — and Deep — data. Deep-learning uses artificial intelligence to analyze huge quantities of data to inform "deep medicine." These algorithms are becoming as good at diagnosis as doctors in a field; they don't get tired, don't have bad days, are really cheap and fast. To advance this work, Dr. Topol is leading the largest aspect of the All of Us Precision Medicine Initiative begun by President Obama, the most ambitious medical research project in history. The Precision Medicine Initiative will track the medical profiles of one million Americans. The grant to Dr. Topol and Scripps Research is one of the largest grants in NIH history, and will use all the tools — genomics, sensors, smartphones — that Topol's work has spearheaded and enhance the capabilities of individualized medicine. Dr. Topol's new book on the subject is titled *Deep Medicine: How Artificial Intelligence Can Make Healthcare Human Again*.

Credentials. Before coming to Scripps to create its individualized medicine initiatives, Dr. Topol led the Cleveland Clinic to become the #1 center for heart care in the country and founded its medical school. He is one of the top ten cited researchers in medicine and a *Modern Healthcare* magazine poll voted him the most influential physician leader in the US. He has published several textbooks and is the author of two bestsellers on the future of healthcare, *The Creative Destruction of Medicine* and *The Patient Will See You Now*.