What if your smartphone could help identify cancer cells in your blood or warn that you're at risk of an impending heart attack? That's one of the questions raised by Dr. Eric Topol, director of the Scripps Translational Science Institute and keynote speaker at the upcoming Semiconductor Industry Association Award Dinner, in his book, *The Creative Destruction of Medicine: How the Digital Revolution Will Create Better Health Care*.

It might sound like the plot of a science fiction movie, but life-saving medical breakthroughs like these are becoming a reality, thanks largely to advances in semiconductor technology. In the coming years, this digital revolution in medicine could have far-reaching and dramatic implications, changing the face of healthcare around the world.

Mobile sensors and advanced processors are also enhancing doctors' understanding of their patients, leading to more personalized and effective ways to maintain health, detect problems, and treat illness. In our increasingly connected world, where about 6 billion people have access to mobile phones, this individualized healthcare data has the potential to be collected and distributed nearly instantly, resulting in improved care for people of all ages, in every area of the world, who suffer from virtually any disease, from diabetes to Alzheimer's to breast cancer.

This super-convergence of semiconductor technology and medicine will be one of the key areas of focus during the annual SIA Award Dinner, which will take place on Thursday, Nov. 7, at the Fairmont Hotel in San Jose, Calif. At the dinner, Dr. Topol -- a practicing cardiologist and one of the top 10 most cited researchers in medicine -- will explore how digital innovations are set to catalyze one of the biggest and most important shakeups in the history of medicine.

Additionally, Applied Materials executive chairman Mike Splinter will receive the 2013 Robert N. Noyce Award, presented annually in recognition of outstanding achievement and leadership in support of the US semiconductor industry. And as always, SIA's Award Dinner will provide unrivaled opportunities to network and collaborate with colleagues and peers from the leading semiconductor manufacturers and designers, suppliers, and service providers, as well as insights into the future of the industry.

The night begins with a welcome reception at 5:30 p.m., followed by dinner at 6:30 and the after-party at 9:00. For more information and to register, please visit the SIA event page.

In his book, Dr. Topol quotes Voltaire in reference to the old-fashioned system of healthcare: "Doctors prescribe medicine of which they know little, to cure disease of which they know less, in human beings of which they know nothing."

Thanks to modern technology enabled by semiconductors, the old healthcare paradigm is changing, and what was once reserved for science fiction movies could soon be reality.
This blog originally appeared on EE\(\text{\textregistered}\)Times

Also see:

- [The science fiction future of medical implants is here](#)
- [3D-printed microbatteries to power your next medical design](#)
- [Top 10 medical breakthroughs of 2012 from TIME Health & Family](#)
- [IBM’s Watson to get a medical degree](#)