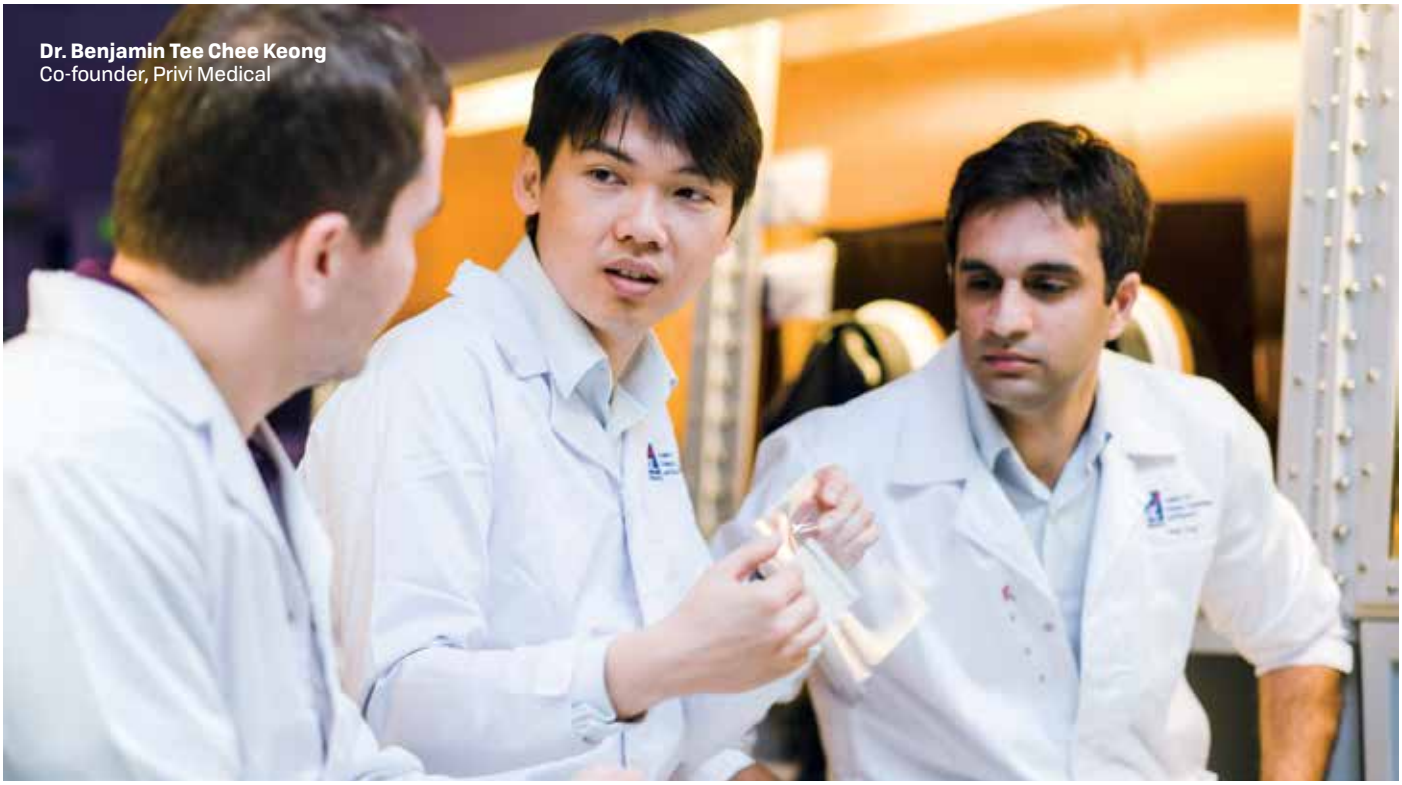


Dr. Benjamin Tee Chee Keong
Co-founder, Privi Medical

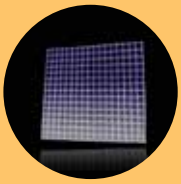
Dr. Benjamin Tee Chee Keong

Turning Fiction into Fact

Growing up, Dr. Benjamin Tee was a huge Star Wars fan. "I was fascinated by the scene where Luke Skywalker received a prosthetic arm that's almost as functional as his real one. It could feel the prick of a needle."

The research that Benjamin undertook in Stanford University, California, USA, took a page from the epic space opera franchise. Working with a team of material scientists, engineers, physicists and biologists, he turned self-healing electronic skin (e-skin) into a reality. The e-skin is made with inexpensive plastics covered with tiny micro-particles. The atoms in the material are loosely bound. As a result, these particles adapt to mechanical damage; and they can re-associate just as easily with one another.

ARTIFICIAL SKIN THAT HEALS IN JUST 15 SECONDS



Cut into the e-skin with a scalpel, and it will regain 90% of its conductivity within seconds and 75% of its mechanical strength within minutes. Benjamin has also developed other skin-like sensors that can detect minute changes in pressure. It can be used to detect pulse on the radial artery, measure brain pressure or increase a smartphone's screen sensitivity.

Benjamin's research has given rise to conversations on how to make artificial limbs more responsive. Eventually, they may even be able to communicate with the central nervous system and function organically like natural limbs.

See Benjamin's invention on A*STAR TV – an info-documentary series that sheds light on how A*STAR's research impacts society.

Watch his interview on the e-skin here:

"I hope to create a new generation of prosthetics that can mimic the capability of real skin. We can then bring renewed hope to those who have lost their limbs."

- Dr. Benjamin Tee

This invention earned Benjamin industry recognition. In 2015, he was featured in MIT Technology Review's 35 Innovators Under 35 list.

Becoming an Entrepreneur

Benjamin has added the title "entrepreneur" to his credentials. Besides being a Scientist at the Institute of Materials Research and Engineering (IMRE), he also co-founded Privi Medical, a local medtech start-up that focuses on gastro-intestinal medical innovations. Together with his team, he invented Privi, a device that can alleviate pain, stop internal bleeding and help patients manage haemorrhoids.

Benjamin credits teamwork as a key ingredient for his success. "Without a great team, you're likely to develop tunnel vision. It's also a lot less fun starting a business alone." Benjamin's advice to budding entrepreneurs is to get connected with the local start-up community. "Find mentors from whom you can seek advice. Be open to failures, but do everything you can to avoid them."

DID YOU KNOW

Privi's technology helps to manage haemorrhoids, a medical condition that affects millions of people.

Haemorrhoids
- **Grade 1:** Small swellings on the anal canal's inside lining
- **Grade 2:** During bowel movement, the swellings may slide out of the anal canal

300 million patients suffer from haemorrhoids globally

80% of all pregnant women experience symptoms of Grade 1 and 2 haemorrhoids

There are no effective solutions yet for Grade 1 and Grade 2 haemorrhoids

Sources: Haemorrhoids (Piles). Patient Information. *Wrightington, Wigan and Leigh NHS Foundation Trust.*

Privi Medical - Helping You Manage Haemorrhoids at Home. *Biotechin.Asia.*

DR. BENJAMIN'S WORDS OF BUSINESS WISDOM

Execution is your lifeblood

"You cannot make any progress if your idea remains a drawing on paper. Develop prototypes, and start collecting feedback from actual users."

Iterations are important

"At Privi, we have had over 100 iterations of our product designs and business models. Always be open to new ideas."

Persistence as a corporate value

"Be patient when looking for investors and securing funding. It took us six months before we managed to close our first seed funding."