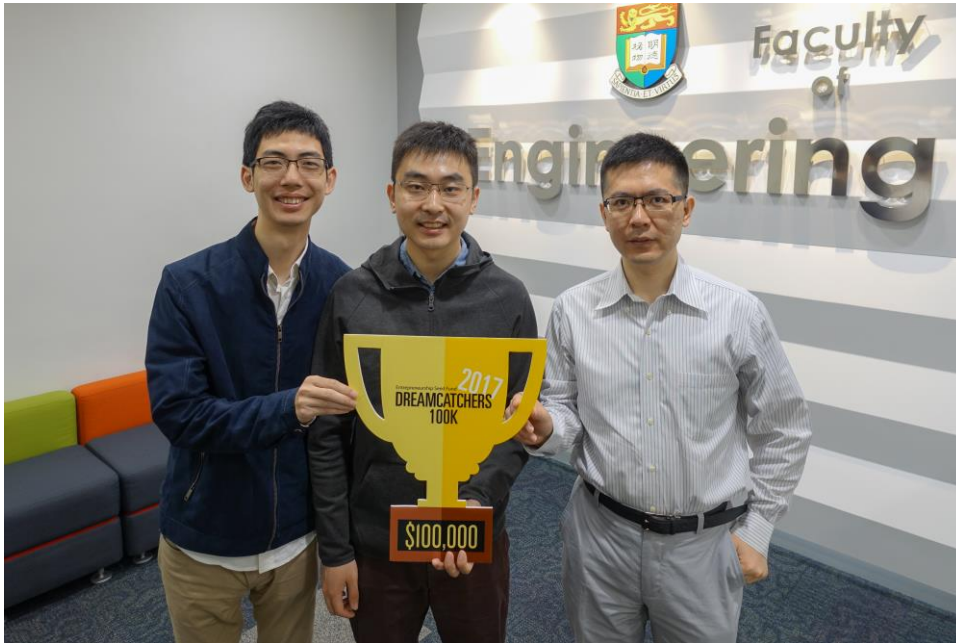


BioCap: Real-time influenza indicator



BioCap is a portable and inexpensive chip that provides an easy and real-time detection of diseases including influenza. The chip is installed with billions of nanostructures and an image recognition technology for detection purposes. The analysed results are shown by capturing colour information on the chip. It can be used for conducting quick test on influenza, and for monitoring the spread of communicable diseases. The device attains a high level of accuracy and is cost effective. The team has been planning clinical trial for the device.

The team plans to first apply the device in tracking influenza, test results can be shown in just a few minutes. People just exhale onto the indicator and a smartphone is used to capture and analyse its image. The presence of influenza virus will be captured by the indicator to show a different color pattern. The software in a smartphone will analyse the color pattern to tell if it is a positive influenza case. The device can also be used to other airborne diseases and test blood and body fluid to identify related diseases. The team hopes to obtain feasible experiment result in six months.

About the team

LI Shijie (middle in photo) is a PhD candidate at the Department of Mechanical Engineering, HKU. Before joining HKU, he had worked in a number of industrial and research institutions. Dr ZHU Zhouyang (left) graduated from the HKU Department of Mechanical Engineering. He earlier worked with HuaWei to help developing the company's optical devices. Li and Zhu were inventors of another sunscreen detection product under a Cyberport program. Dr LI Wen-Di (right) is an assistant professor at HKU. He graduated from Princeton University and has rich experience in the field of nanotechnology and has successfully transferred his research work into industrial technologies.