**PhD in Chemical Engineering**

The Department of Chemical Engineering at Imperial College London is seeking to recruit a PhD student to carry out research with Dr. Ali Yetisen in collaboration with the Defence Science and Technology Laboratory in the exciting area of wearable devices and sensors. The student will be based at Imperial College London.

Wearables as medical technologies are becoming an integral part of personal analytics, measuring individual’s physical status, recording physiological parameters, and informing schedule for medication. These new technology platforms promise to help people pursue a healthier life style, but also provide continuous medical data for actively tracking metabolic status, diagnosis, and treatment. Advances in the miniaturisation of flexible electronics, electrochemical biosensors, microfluidics, and artificial intelligence algorithms have led to wearable devices that can provide real-time medical data.

The aim of this project will be to develop wearable devices for continuous monitoring of metabolites in the body. Optical materials and methods including chromogenic dyes, fluorescence, and diffraction will be used to create highly-sensitive and selective sensors that can be reversibly detect biomarkers in real-time. A smartphone camera interface will be developed to read the sensors quantitatively.

Applicants should also be able to demonstrate excellent written and oral communication skills, which will be essential in collaborating with industrial partners, and disseminating the results via journal publications. Applicants are expected to have obtained (or be heading for) a first or upper-second degree at master’s level (or equivalent) in Chemical Engineering, Chemistry or Physics and be highly motivated.

**Funding:**

This post is financially supported by the Department of Chemical Engineering at Imperial College London.

The successful candidate will receive the following financial support for tuition fees and stipend for 3 years.

Start date: 2019

Applications should be made through the College’s online application system. Important information about the College’s PhD application process can be found on the following page:

http://www3.imperial.ac.uk/pgprospectus/applicationforms

For further details please contact Dr. Ali K. Yetisen: a.yetisen@imperial.ac.uk