

## **Toumazou Wins 2014 European Inventor Award**



Imperial College London Professor Christofer Toumazou has been awarded the prestigious European Inventor Award 2014 for his contribution to innovative scientific research. Toumazou developed a rapid DNA test that decodes an individual's DNA within minutes, independent of any laboratory setting, using a chip that can be implanted in a simple USB stick. The awards were distributed by the European Patent Office (EPO) in a gala ceremony that was held in Berlin in June. Each year, the EPO recognises innovation in the fields of business, culture, politics and science.

## Instant DNA Decoding

Toumazos's invention is a milestone in preventive healthcare; a microchip picks human genome deviations, and results are directly available on a computer thanks to the chip's compatibility with USB sticks. Results are made available on a computer screen rather than having to be sent to laboratories for processing. This should make it possible for pharmacies to offer personal DNA tests in a kind of "pocket lab", to test things such as skin hydration for optimal matching of skin care products.

The award-winning device, developed by Imperial College London together with Toumazou's DNA Electronics Ltd., represents an important breakthrough in personalised medical diagnostics. Genetic disorders and predisposition to hereditary diseases can be instantly identified, and doctors can know within minutes if patients will be capable of breaking down prescribed drugs.

## Pride in Britain and Beyond

Tournazou competed with 300 inventors and teams of inventors, with 15 finalists in five categories ultimately selected by a multinational jury. The research-category award was presented to him by the UK Minister for Intellectual Property, Lord Younger. He emphasised that Tournazou's invention highlights the role of Britain as entrepreneurial and innovative. "Our businesses and inventors, like Professor Tournazou, bring a creative and innovative approach to their work and it is right that they are recognised in this way. I congratulate him on his award."

The EPO hopes that patents will enable inventions like Toumazou's to spread for the practical and economic benefits of millions of people across the world. When he accepted the award, Toumazou told the audience: "The future has already arrived. It's just not evenly distributed yet." Toumazou has previously been recognised for his method of rapid DNA testing, which was patented in 2001 and which will play a part in a new product line of devices for DNA testing. He holds more than 50 patents.

## Christofer Toumazou Biography

Christofer Toumazou is Imperial College London's Regius Professor of Engineering. He is also the university's Winston Wong Chair in Biomedical Circuit Design, Director of the Centre for Bio-Inspired Technology and Chief Scientist for the Institute of Biomedical Engineering. Toumazou is known for his pioneering advances in silicon technology and for designing an integrated circuit for medical diagnostic and therapeutic devices. He has worked on cochlear implants for children born deaf, wireless heart monitors, an artificial pancreas for Type 1 diabetics and an intelligent neural stimulator for obesity.

Outside of the university, Toumazou is the founding Chairman and CEO of medical device companies Toumaz Technology and DNA Electronics, and the Chief Scientific Advisor to GENEU. He has received dozens of prestigious awards, including the highest honour in UK science: a 2008 appointment to the Fellowship of the Royal Society. Last year during the Queen's Diamond Jubilee, he became the first Regius Professor of Engineering conferred to Imperial College London. The same year, he was also appointed a fellow of the Academy of Medical Sciences.

Source: European Patent Office, Gov.uk, Imperial College London

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