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CUE 1K£ Competition Winners and Finalists 2013-2014

Technology & Life Sciences Winners

Camses (Giorgio Divitini & Caterina Ducati)

We developed a catalyst based on TiO2, a standard industrial material, that can exploit both natural and artificial light for degrading pollutants in air while also killing pathogens. The efficiency is much higher (at least 10x) compared to pristine TiO2 and other catalysts on the market or in the scientific literature. A team of 7 people is working on commercialising the IP, conducting R&D until a licensing agreement can be achieved with a major international company. This will constitute a "low hanging fruit", which will be leveraged to further R&D and novel applications.

Sensor Hut (Tanya Hutter & Marc Stettler)

There is a growing demand for robust sensor technologies to be used in chemical process control, mining and homeland security. In addition, increased awareness of the toxicity of volatile organic compounds (VOCs) has led to lowered exposure limits and increased requirements for direct measurement. SensorHut Ltd is an early-stage start-up aiming to develop innovative sensor technologies for the measurement of VOCs. Our patent pending platform technology is based on a low-cost nano-structured optical element and fast optical detection. The technology can be easily adapted to detect certain compound of interest and thus can be used in various markets and applications.

Elves (Daniel Zheng, Ziyi Yu, Hongyu Zhang, Martin Banjo, Doris Zhang)

ELVES stands for “Embolization of LiVer cancer by Endovascular Sphere”. Embolization therapy, which blocks one or more blood vessels of a tumor, is a minimally invasive treatment that is safe for patients with liver cancer. The treatment involves injecting a series of proprietary microspheres into the hepatic artery, where they release medication to treat the cancer and simultaneously starve the flow of blood to the cancer. ELVES is a two-stage procedure, during which two embolic materials are injected into selected vessels to block the blood flow feeding the liver cancer tumour.

Radial Genomics (Alasdair Thong, Hind Kraytem, Grecia Gonzalez, Nikolaus Wenzl, Tim Xu)

Radial Genomics Ltd. is a cancer diagnostics company. We strive to improve patient quality of life and outcome by giving physicians the best tools to most effectively tailor the treatment plan according to the patient's personal oncological needs. Our product is an integrated image collection and analysis software used with fluorescence in situ hybridization (FISH) gene visualisation that aims to offer diagnostic, prognostic and predictive capabilities in the treatment of cancer through a novel, quantitative method of assessing changes in a patient's genetic material in response to cancer

Social Enterprise Winners

Hands On (Benedikt von Thuengen, Erela Dana, Cassi Henderson)

HandsOn is a social enterprise aiming to facilitate the delivery of low-cost, fully-functional 3D-printed prosthetic hands to amputees in developing countries. The enterprise will create a programme for existing volunteering organisations with an established presence in target locations. The programme will enable the organisations and their volunteers to print, assemble and fit personalised hand prosthetics by providing training and user manuals, leasing 3D-printers and selling pre-packaged material kits. It will also help arrange micro-finance schemes to achieve repayment for the prosthetic.

Sim Prints (Alexandra Grigore , Andrew Quan, Daniel Storisteanu, Elizabeth Dzeng, Toby Norman)

Providing adequate healthcare in the developing world is a daunting task as patient records are often paper-based, difficult to transport, and few patients have formal ID. Building on the wide use of mobile phones in these regions and the uniqueness of a fingerprint, SimPrints is developing mobile phone software and a hand-held scanner that frees biometric identification from computers, helping link patients to their medical records anytime, anywhere.

DNA Digest (Jelena Aleksic, Fiona Nielsen)

DNAdigest was founded as a charity for promoting and enabling better and easier sharing of genomics data for research. We engage our community to deal with the current hurdles from the perspective of stakeholders in academia, industry and patient communities. We are working with our community and supporters to prototype new mechanisms and concepts for data sharing and data access. Our social enterprise objective is to implement and bring to market new mechanisms for data discovery and data access for genetics research. Our first prototype technology platform is based on a patented mechanism for secure querying of sensitive data.

Software Winners

Network Translating (David Greatrex & Anna Bluj)

Multiculturalism, international relations and the European language industry is booming with a forecasted value of €16 billion by 2016 with over 10% annual growth rate. Translation agencies have the market share yet the majority severely underutilise technology and outsourcing resulting in sluggish, non-specific and overpriced agency interfaces resting upon a vibrant market of human communication. Network Translating is an attractive communicative online platform that automates quotes, data handling and links UK businesses with a network of specialised technical translators throughout Europe. It avoids middleman tactics, gains on exchange rates and uses technological applications to update an out of date industry.

Serve (Sebastian Salek & Alex Horkan)

Serve is an integrated software and hardware portal to pre order and collection services at sports venues. We allow customers to order goods from their seats on their smartphones and then process these for our varying business partners who are then able to fulfil these orders for collection at a predetermined time. Serve increases efficiency, productivity and profitability for businesses, creating a greater turnover of customers, attracting users who avoid outlets due to long queues and increasing the ease of customer profiling to greater understand what is popular when, and to whom.

CryptoRaptor (Raphael Scheps & Gideon Farrell)

CryptoRaptor uses advanced algorithmic techniques to identify potential investment opportunities in new financial markets developped in the past few years. Technological growth has outpaced that of financial tools. Our innovative technology will revolutionize parts of that market.

Technology & Life Sciences Runner-ups

Orphidia (Aron Rachamim, Luis Garcia-Gancedo, Krisztina Kovacs-Schreiner, David Gordon, Ron Oren)

Tomorrow, instead of going to the hospital to take a test, you will be able to test yourself more accurately than any hospital or lab can today and know without waiting, without delay, without uncertainty both if you need treatment and what treatment is personally the best for you. Diagnostics is becoming ever more complicated measuring more biomarkers more accurately, but also ever more mobile, smaller and automated. The question already being asked today is why any medical testing should be done in a lab when there is potential to do it by the nurse or doctor right at the point-of-care so that treatment decision can be made immediately? The gain for patients, doctors and the health system (better treatment at reduced cost) will be immense.

Hydrogen Sponge (Enass Abo-Hamed, Jonathon Blackburn, Shin Nikkuni, Pu Zhao, Selina Wang, Luke Sperrin)

Hydrogen gas for use as a clean fuel is a multi-billion dollar market. The hydrogen economy has been a part of an envisioned clean energy future for decades, yet significant hurdles remain in seeing that vision become reality, due in part to difficulties in storing hydrogen. We have developed a novel "sponge-like" material that catalytically produces and stores hydrogen gas at room temperature, and on heating releases the hydrogen in a safe and on-demand manner. The material is recyclable numerous times; furthermore, the gas release temperature can be modulated, giving the flexibility needed to suit various applications in different industries.

Social Enterprise Runner-ups

Nusa Terang (Jason Hardjosoekatmo, Eumir Bethbeder)

Nusa Terang will deliver cooperative-owned and operated, renewable energy solutions to rural villages while putting electricity to productive use with. Once electrified Nusa Terang will focus on delivering high margin Information Computing Technology (ICT) solutions to these communities in the education, mobile banking and healthcare space.

Silver Oak (Andrew Bertolina)

SilverOak is a crowdfunding lending platform that allows individuals to lend capital to small to medium size enterprises in the emerging markets at a market-based rate of return. SilverOak serves as an online portal for lenders, a database of borrowers, and a mobile delivery system. The growth of crowdfunding (especially social lending), the proliferation of mobile phones and mobile banking make this possible. SilverOak is structured as a for-profit entity for scalability and longevity, with revenue generated through fees on transactions. The model offers dual incentives for lenders: 'do good' while earning a return.

Software Runner-ups

TravelFit (Stephen Upton)

Millions of business travellers a year cram into their day a workout in an empty, bare hotel gym. Hotels under 5 stars, will often not even have one, so either no exercise or it's pounding the streets or room yoga! I believe there is an opportunity via a mobile app, to match up 3-4star hotels with high business traveller populations, together with local gyms, who would be able to supplement and avoid abuse of their desired contract-period business model, through selling single use visits through the app, tailored for those who are actual travellers, needing a good workout.

SEQure (Agnieszka Wabik, Claudia-Gabriela Mitrofan, Jelena Aleksic, Martyna Popis, Rodrigo Santos)

Rare diseases present a particular diagnostic challenge. We understand the genetic causes of 50% of rare diseases but despite this, it takes approximately 6 years and visits to 8 doctors to get an accurate diagnosis. SEQure aims to create a database of currently diagnosable genetic rare diseases and an analysis pipeline for analysing sequencing data directly, allowing fast patient diagnosis from a blood sample only. This technology promises to improve diagnostics speed for genetic disorders, saving the health care providers time and money, thus enabling patients to access the right treatments faster.

Silver Oak (Andrew Bertolina)

See Social Runner-ups, above