British Office
英國在台辦事處

工業技術研究院
Industial Technology Research Institute

UK INNOVATION MEDTECH WORKSHOP 2019
英國新興醫療科技合作暨商機說明會

SPEAKERS' PROFILES

Dr. Darren Lin

Director
Sales Research Services - Taipei
www.yourgene-health.com

Yourgene Health

Title: Sage™ QS 32plex workflow for high-quality high throughput NIPT

Abstract

A reliable method widely used for detecting fetal trisomy 13, 18 and 21 and sex chromosome aneuploidies (SCAs), the market of Non-Invasive Prenatal Testing (NIPT) is growing due to the increasing preference to non-invasive methods. For the method based on massively parallel sequencing, the average read numbers per sample could be decreased to make it more efficient, but the accuracy is inevitably affected by the insufficient reads.

To achieve the goal to get high-quality data with reduced sequencing counts, we developed a method called 'Sage™ QS 32plex workflow' on Ion Torrent system. This workflow allowed us to run maximum 32 samples on one chip compared with only 12 samples for a regular run by improving the efficiency of library multiplexing and purification plus advanced analysis algorithm.

A total of 233 blood samples from pregnant women, including 34 aneuploid and 199 normal samples, were processed by our new workflow. The final results revealed 100% sensitivity and 99.5% specificity on identification of T13, T18, T21, and SCAs. Moreover, the tests on fetal sex determination, repeatability and reproducibility all demonstrate that this novel workflow is reliable. These results highly recommend the application for end-users who run high throughput sample volumes and need their workflow to be more efficient and save hands on time whilst delivering high quality and reliable screening results.

Opportunities: Looking for potential buyers, business/R&D partners

BIOGRAPHY

Darren got his PhD in Bioinformatics at the National Chiao Tung University of Taiwan. Dr.Lin joined Yourgene Bioscience in 2010 as Director of the Bioinformatics division and is now Vice General Manager. He has been instrumental in developing bioinformatics and Next Generation Sequencing related services and business. Darren enjoys good relationships with other top-rated biotechnology companies and institutes in Taiwan which has helped create long-term corporate alliances.

In addition to establishing strong associations with clients through delivered professional consulting and tailoring experimental design, Darren has experience in analysing Taiwan Biobank NGS data with both of Illumina and Ion Proton platforms. He has presented at multiple seminars and universities on behalf of Yourgene Health which has helped extend reach.

PROFILE

Yourgene Health is an international molecular diagnostics group which develop and commercialises simple and accurate molecular diagnostic solutions, primarily for reproductive health. The Group's products include non-invasive prenatal tests (NIPT) for Down's Syndrome and other genetic disorders, Cystic Fibrosis screening tests, invasive rapid aneuploidy tests, male infertility tests and genetic disease tests. Yourgene's commercial footprint is already established in the UK, Europe, the Midddle East, Africa, Canada and APAC.

Yourgene Health is headquartered in Manchester, UK with offices in Taipei and Singapore, and is listed on the London Stock Exchange's AIM market under the ticker "YGEN".

Dr Annie Ng

Compliance and Clinical Ops Lead
Kheiron Medical Technologies Ltd
www.kheironmed.com

Title: Deep Learning in Breast Cancer Screening

Abstract:
Kheiron is at the cutting edge of developing deep learning technology for breast cancer screening, and leading the way for healthcare and industry collaborations in real-world deployment of deep learning technologies.

Annie is a Biomedical Engineer (Oxford University, PhD and Johns Hopkins University, BS) with extensive product and usability experience in health tech, teleradiology, and tech startups in Europe and the US. Annie now leads Kheiron Medical in quality and regulatory, scaling processes for global expansion, and strategic directions for product in complex regulatory environments. Annie led Kheiron through ISO 13485 and CE certification in a very short timeframe, making Kheiron the first UK company to receive the CE mark for deep learning software in radiology. Annie also leads Kheiron Medical's clinical trials from end-to-end, starting with the multi-disciplinary efforts of building data partnerships for AI development, to protocol development, through to regulatory submission.

Opportunities: Looking for potential buyers, business/R&D partners

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PROFILE

Kheiron Medical is a medical imaging company that uses advanced machine learning technologies to develop and provide intelligent tools for radiologists, radiology departments, imaging centers and hospitals to improve efficiency, consistency and accuracy of radiology reporting.

We are militant about putting the needs of the radiologists and clinicians first, believing that only through empowering them can we improve patient outcomes.

Kheiron develops and builds deep learning powered tools to help radiologists, radiology departments, imaging centers, and hospitals to improve efficiency, consistency, and accuracy of radiology reporting. The company was founded in 2016 and is based in London, United Kingdom.

🗐 UK's NHS Trials AI Software to Diagnose Breast Cancer with Kheiron Medical……(Read)

Dr Ryan Cawood

CEO & Founder
Oxford Genetics
www.oxfordgenetics.com

OXFORD GENETICS

Title: Scalable Technologies for Gene Therapy Manufacture and CRISPR Engineering

Abstract

The success of gene therapy and CRISPR technologies is revolutionizing biomedicine. However, the high cost of manufacturing of gene therapy products is a major limitation to their broad market adoption. One of the main limitations is the use of non-scalable adherent cell systems that require plasmid transfection. We have developed the next generation of stable cell line systems for the scalable production of both lentiviral and AAV vectors, including packaging and producer cell line approaches. To achieve this objective, Oxford Genetics has been developing automated cell line engineering robotics. These platforms have recently been improved to allow the high-throughput engineering of cell lines using CRISPR. This platform allows the production of more than 500 clonal CRISPR modified cell lines per year and can be partnered with automated CRISPR screening for lead hit identification. Combined, these technologies and platforms allow complex mammalian cell line engineering at unparalleled scale.

Opportunities: Looking for potential buyers, business/R&D partners and investors

BIOGRAPHY

Ryan founded Oxford Genetics in 2011 to develop technologies that streamline the discovery, development and manufacture of complex biologics, including cell, gene and protein therapies. He has led the company as CEO for the last 8 years and is passionate about technologies that

enable more targeted and cost-effective treatments. Ryan has a first-class degree in Genetics and a Ph.D. from Oxford University.

PROFILE

Oxford Genetics is a leading synthetic biology company providing mammalian cell line engineering solutions through state-of-the-art automation, bioinformatics, and fully integrated laboratory systems. Our technologies enable the scalable manufacture of gene therapies and high-throughput CRISPR gene editing, allowing us to engineer hundreds of CRISPR edited clonal cell lines at unparalleled quality, and provide transient, packaging and producer cell lines for both AAV and lentiviral manufacture.

Mark Brewer

Operation Director
Life Science Group Ltd
http://lifesciencegroup.co.uk/

Title: NPD in Asia

Abstract:

Life Science Group Ltd. is an independent UK SME founded in 2008 under the name Antibody Production Services. We have two divisions; Antibody Production Services and Life Science Production, which provide quality custom biological and in vitro products and services to Pharma, Biotech, CRO and Universities worldwide.

In addition to our current portfolio, we are particularly excited about product development. Using established AQIX technology, we are developing a fully defined transport medium, designed to ship cells at ambient temperatures. We envisage that this will address many of the issues associated with shipping cells for both research and clinical purposes.

LSG feel privileged to be part of this exciting initiative and are looking forward to developing new partnerships

Opportunities: Looking for potential buyers, business/R&D partners

BIOGRAPHY

Skilled Operations Director with 15+ years' success developing Project Management solutions across Biotechnology and Medical Device sectors. I possess the collaborative talent necessary to expertly launch infrastructure development, staff training, management development initiatives, and procurement functions for optimal efficiency.

I thrive in a fast paced change and growth driven environment and am passionate about excellence in Customer Service.

Specialties: Customer Service Management, Operations Management, Forecast and Demand Planning

PROFILE

Experience in the Life Science industry for over 30 years, specifically in the production of polyclonal and monoclonal antibodies and the collection, manufacture and handing of cell culture sera and reagents. The company provides quality Cell Culture products ad contract services to the Life Science industry including, Foetal Bovine Serum, Human AB Serum, Human Platelet Lysate, AQIX Cell and Tissue support medium, CellStore storage medium and blocking sera.

http://www.lifescienceproduction.co.uk/
http://www.antibodyproduction.co.uk/