

Biomarker discovery: Driving technologies

17th May 2012

The Penridge Suite, 470 Bowes Road, London N11 1NL

Biomarkers identifying biological and physiological entities associated with disease are taking an increasingly important place at the tables of drug discovery and personalised medicine. Their discovery in biosamples requires the combined use of genomics, proteomics and bioinformatics platforms. Whilst for their application, robust techniques combining exquisite sensitivity and specificity must be developed. This conference is focused on technologies that are driving advances in this area and their application at gene and expression level in solid and fluid biosamples. As such this conference is targeted to provide leading edge information to researchers within the academic, biotechnology and pharmaceutical sectors.

We include a panel session in this event, so that delegates can discuss their work directly with a panel of experts.

This event has CPD accreditation

Meeting Chair: *Dr Tony Warford*, Warford Technology Ltd, Newmarket, Suffolk, UK

- 9:00 – 9:45 **Registration**
- 9:45 – 10:00 **Introduction by the Chair:** *Dr Tony Warford*, Warford Technology Ltd, Newmarket, Suffolk, UK
- 10:00 – 10:30 **Begin with biomarkers**
Dr Peter H Bach, Director: BioPharmaLogic LLC, Cambridge.
Biomarkers are key to drug development and personalised medicine. The identification of the “right” fit-for-purpose biomarker is complex and resource intensive. Small companies have modest potentials to implement a biomarker strategy, but can still ensure that they build their development programmes around potential biomarkers. A biomarkers strategy should be a core to the development of each molecule, and not a bolt on addition to clinical development. If undertaken as part of discovery-development transition there is a potential to help shape the assessment of possible biomarkers as part of nonclinical development so that they are credible when needed.
- 10:30 – 10:45 **Talk to be confirmed**
- 10:45 – 11:15 **Talk to be confirmed**
- 11:15 – 11:45 **Speakers’ photo then mid-morning break and trade show**
- 11:45 – 12:00 **Talk to be confirmed**
- 12:00 – 12:30 **DNA and RNA biomarker demonstration in solid tissues**
Dr Tony Warford, Warford Technology Ltd, Newmarket, Suffolk, UK
Tissue donated from surgical procedures represents an important resource for biomarker identification. In ideal circumstances ‘fresh’ or frozen tissue will provide high quality DNA and RNA for analysis in situ or after extraction. However, most samples are held in the vast repositories of formalin fixed paraffin wax embedded (FFPE) tissues. In these preparations nucleic acids are degraded, principally through the fixation process. Practically this means that extraction methods have to be refined, amplicons are size limited and the possibility of the generation of spurious gene signatures needs to be considered. However, in spite of these limitations FFPE preparations provide very valuable information for the development and assessment of nucleic acid based biomarkers.
- 12:30– 13:30 **Lunch and trade show**
- 13:30 – 14:30 **Question and Answer Session**
Delegates will be asked to submit questions to a panel of experts. Questions can be submitted before the event or on the day
- 14:30 – 14:45 **Talk to be confirmed**
- 14:45 – 15:15 **The Development Of Robust Technically Qualified Immunohistochemistry based Feasibility Assays**
Neil Gray, Team Leader, Molecular Pathology group, AstraZeneca R&D Oncology iMed
- 15:15– 15:45 **Afternoon Tea/Coffee and trade show**

15:45 – 16:00 **Talk to be confirmed**

16:00 – 16:30 **Identification and quantification of cancer biomarkers using liquid chromatography-mass spectrometry**

Dr David J. Britton, Proteome Sciences plc, Institute of Psychiatry, London

Liquid chromatography-mass spectrometry based proteomics can identify and quantify a multitude of proteins and post translational modifications from many different sample types (cell culture, tissue, plasma, etc). We have used this technology to identify new biomarkers and developed quantitative assays to measure the abundance of known biomarkers.

16:30 - 17:00 **Chairman's summing up**

Dont forget to sign up to Euroscicon's e-newsletter at www.euroscicon.com/signup.htm to keep up to date with European Life Science news and events and to be notified of the follow up to this event

*This meeting was **organised by Euroscicon** (www.euroscicon.com), a team of dedicated professionals working for the continuous improvement of technical knowledge transfer to all scientists. Euroscicon believe that they can make a positive difference to the quality of science by providing cutting edge information on new technological advancements to the scientific community. This is provided via our exceptional services to individual scientists, research institutions and industry.*

Connect with us on



- <http://www.linkedin.com/groups?gid=1939569>



- <http://www.facebook.com/group.php?gid=70847076549>



- <http://twitter.com/Euroscicon/>

Media Partners



Sponsors

About the Chair

Anthony Warford DPhil, CSci, FIMLS

Warford Technology Ltd, Newmarket, Suffolk, UK

Anthony (Tony) Warford expertise is in molecular histopathology. He has set up and managed laboratories in the UK health service, academic institutions, biotechnology and Pharmaceutical companies. Technology developments he has spearheaded include the introduction of diagnostic immunohistochemical methods, validation of antibodies for use as biomarkers, production of probes and methods for in situ hybridisation and supervision and interpretation of GLP tissue based safety studies of potential therapeutic antibodies. Concurrently he has championed quality assurance programmes in histopathology and automation of immunohistochemistry coupled with image capture and analysis. He has also run laboratory safety and human bio-banking programmes. He has published in these fields and shared experience with fellow scientists by organising wet workshops, chairing symposia and lecturing in many countries.

About the Speakers

Peter Bach has worked in Academia, for National and International Medicine Safety Agencies, and Biotech companies on a spectrum of novel small molecules to third generation biologicals. Peter has a specialist interest in mechanistic pathology and toxicology, which allows a deeper understanding of the processes associated with disease and intervention, and identifying biomarkers that help establish efficacy and safety. This helps better match individual patients to maximised treatment.

David J. Britton Degree; Pharmacology, University of Bristol (1998-2001). PhD; Cancer Pharmacology, Tenovus labs, Pharmacy Dept, Cardiff University (2001-2005). Post Doc; Cancer Proteomics, Benz/Gibson Lab, Buck Institute, California (2005-2008). Training Instructor; Proteomics, Thermo Fisher Scientific (2008-2010). Senior Research Scientist; Cancer Proteomics, Proteome Sciences plc, UK (2010-current).

Key words: , immunohistochemistry, biomarkers, personalised health care, oncology, drug development, mass spectroscopy, proteomics, bioinformatics, DNA, RNA, Biorepositories, biomarkers, drug discovery, Histochemistry, Metabolism, Biologicals, Safety, Efficacy, predictive PharmDx, pharmacodiagnosics, Oncology, biomarker identification/quantification

Registration Web Site:

www.regonline.co.uk/Biomarker20 **12**