

Biobanking sample and data management: Automation and best practice

Tuesday, 18 February 2014
Cineworld: The O2, London, SE10 0DX, UK
www.regonline.co.uk/bankauto2014

This new event will discuss all aspects of sample and data management within the biobanking sector. Looking at automation protocols and equipment, use of IT and obtaining and maintaining ethical consent, this will bring together biomedical and biopharmaceutical researchers, regulators, biorepository managers, and practitioners to establish best methods for effective management of biospecimens. This event has **CPD accreditation** and is part of **BioBanking 2014** - www.biobanking2014.com

Who Should Attend

Academic and Research Institutes: Group and Lab Heads, Postdoctoral Scientists and Research Students, Technical staff

Biotech and Pharma Industry: CEOs, Chief Scientists, Group Heads, Senior and Junior Scientists

Research Biobank Staff and Managers from the following departments: Research & Development, Biobanking, Biorepository, Biological Sample Management, Biosample Management, Pharmacogenomics, Pathology, Genomics, Translational Medicine, Personalised Medicine, Lab Management, Inventory Management, Molecular Technologies, Biologics Research, Data Privacy/Protection/Security Officers and Quality Control and Quality Management.

Talk times include 5 – 10 minutes for questions

9:15 – 10:00 **Registration**

10:00– 10:15 **Introduction by the Chair:** *Dr Richard H Barton*, Research Fellow, Imperial College London, UK

10:00 – 10:40 **Mining Epidemiological Archives - Some Lessons from NMR-based Metabonomics**

Dr Richard H Barton, Research Fellow, Imperial College London, UK

Experiences in split sample analysis, and in mining of some established biosample archives has provided useful lessons and caveats with regard to sample integrity. Issues such as reliable sample ID, sample acquisition and handling practices prior to storage, and sample aliquoting and archiving practices are all shown to be important. The presence of drug metabolites can also introduce some challenges. The likelihood that archives currently being established will be later analysed by techniques which are not yet established, presents challenges for preserving sample integrity in the face of the unknown methods of the future.

10:40 – 11:20 **The potential impact of the proposed EU Data Protection Regulation on biobanking research**

Dr Linda Briceno Moraia, Researcher in Law and legal advisor, HeLEX, University of Oxford, UK

European data protection legislation is in a process of being amended, and the existing Data Protection Directive will be replaced by a new Regulation. The main purpose of the original proposed draft of the Regulation is to strengthen people's rights, but it also contains several changes that may have a negative impact on medical research, and in particular on biobanking research, reducing the economic benefits deriving from fostering investments in this sector. There are several grey areas, but the main concerns regard consent for processing

sensitive data and for research, as well as the relevant exceptions.

11:20 – 12:10 Speakers' photo then mid-morning break and poster exhibition and trade show

Please try to visit all the exhibition stands during your day at this event. Not only do our sponsors enable Euroscicon to keep the registration fees competitive, but they are also here specifically to talk to you.

12:10 – 13:10 Discussion Panel

This discussion session is an informal question and answer session. This is an ideal opportunity to get advice and opinion from experts in this area. This session is not for questions about specific talks, which can be asked after the speakers session, but for discussing either general topics or specific issues.

There are three ways you can ask questions:

1. Before the session you can *submit your question to Euroscicon staff* at the registration desk,
2. Before and during the session you can *submit a question or comments, by email*, which will be provided on the day of the event
3. During the session you can *put your hand up* and join in

13:10 - 14:10 Lunch, poster exhibition and trade show

Please try to visit all the exhibition stands during your day at this event. Not only do our sponsors enable Euroscicon to keep the registration fees competitive, but they are also here specifically to talk to you.

14:10 – 14:50 Freedom EVO HSM Workstation for Large Volume gDNA purification from Blood

Dr Amy Peters, Product Manager, Promega, UK

The Tecan Freedom EVO®-HSM Workstation automates the isolation of genomic DNA (gDNA) from various samples using the ReliaPrep™ Large Volume HT gDNA Isolation System chemistry. The automated protocol is pre-configured with the flexibility to meet the needs of high-throughput genomics workflows. The system processes any combination of sample volumes across the full input range of the chemistry, automatically metering reagents as appropriate for individual sample volumes. Users need only specify the number of samples to process and the desired elution volume. Additional options allow the users to tailor the DNA purification process to meet their downstream application needs.

14:50 – 15:30 Tissue and Data: Time for an argument?

[*Professor John Chelsom*](#), Centre for Health Informatics, Northampton Square, London

A Biobank can face numerous data challenges, whether it is the clinical annotation of samples, handling the return of researcher data or how to communicate back to the donor the outcome of the research. We will demonstrate some conventional approaches to these problems as well as examining a potential future use of a form of artificial intelligence to aid analysis and communication of research data.

15:30 - 16:00 Chairmans summing up

16:00 Afternoon Tea

Registration Website: www.regonline.co.uk/bankauto2014

A meeting report from this event will be published by *The Biomedical Scientist*

Keywords: public good; health; innovation, blood, Stem cells, Cord, biobank, DNA, biomarkers, cells, B cell, cell

lines, tissue, cord blood, tissue, Biodiversity, taxonomy, biorepository, umbilical cord; cord blood; mesenchymal; biobanking; cell therapy, Biobanking, genetics, feedback, consent, anonymity, cardiovascular magnetic resonance, population based cohort studies, surrogate endpoint, Cryopreservation, freezing, storage, biobank, automation, liquid handling, storage, male infertility, testicular biopsy, testicular sperm extraction (TESE), sperm freezing, biobank, Epidemiology; Archives; Biobanks; Metabonomics; NMR, gDNA, purification, blood, buffy coat, saliva, European data protection, biobanking research, consent

About the Chair

Richard H Barton: Following the PhD which identified 3 enzymes and characterized their catalytic properties using quantitative ¹³C NMR spectroscopy, Richard worked in the UK Biotech industry, before freelancing in France. Subsequently he took a position in the (now) Computational and Systems Medicine division of the Faculty of Medicine at Imperial College London, where he is a Research Fellow. He has been involved in the development of spectral editing and data filtering techniques to enhance information recovery from high-field NMR data from biofluids. These metabonomic techniques have been applied to "fingerprinting" the repertoire of metabolic markers associated with the pathogenesis of type II diabetes, models of aging, microbial metabonomics, human disease processes, and the molecular epidemiology of human populations. He is also associated with the Centre for Integrated Systems Biology Imperial College (CISBIC), and is involved in a major EU FP7 initiative on the role of the microbiome in fatty liver disease.

About the Speakers

John Chelsom is a Visiting Professor at the Centre for Health Informatics, City University, London. He is the architect of the cityEHR open source health records system which has been created using the principles of Open Health Informatics

Amy Peters has almost 20 years of lab and field-based experience in the Life Sciences Industry. In her role at Promega, she looks after the Genomics Portfolio of products including the Tecan Evo HSM platform. Her in depth knowledge of not only research applications but also clinical diagnostics makes her well suited to provide the support and technical expertise at a local level.

Linda Briceno Moraia is a researcher in law and legal advisor at the Centre for Health, Law and Emerging Technologies (HeLEX) at the University of Oxford since October 2012. She has a Ph.D in Patent Law and she is a lawyer (Bar of Milan, 2011). Her main areas of practice and expertise are data protection, intellectual property, competition law, pharmaceutical and health law. Her previous experience include also a stage at the European Commission (DG Enterprise, 2008) and researching at the Max Planck Institute for Intellectual Property and Competition Law in Munich (2011) and at the University of California, Berkeley (2007).

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.

PRESENTATIONS

BIOGEN – A GENETIC BIOBANK FOR HEREDITARY SKELETAL DYSPLASIAS

E. Abelli, M. Mordenti, M. Locatelli, L. Battistelli, L. Sangiorgi

Medical Genetic Department, Istituto Ortopedico Rizzoli, Via di Barbiano 1/10, 40136 Bologna, Italy

The Medical Genetic Department (MGD) of Rizzoli Orthopaedic Institute, certified since 2008 according to the UNI EN ISO 9001:2008 of Quality Management System and accredited for the Emilia-Romagna region, is active since 2003 acting as coordination centre (Hub) for the Regional Network of Rare Skeletal Diseases. Rare Skeletal Diseases represent an heterogeneous group of connective tissue hereditary diseases where proper diagnosis is difficult and efficient treatments are a concrete challenge for the current healthcare systems. In order to improve diagnosis and to develop innovative and personalized treatments for patients affected by rare diseases, MGD created BIOGEN (BIObank of GENetic Sample) a collection of high quality biological materials of patients affected by skeletal dysplasias. Currently BIOGEN stores about 5500 samples including 2100 DNA, 1550 blood samples, 800 tissues, 200 cell lines, 100 serum specimens, 600 lymphocytes and 100 RNA samples. In order to valorise the biospecimens collection to a real biobank and to pursue a patient-centric approach, clinical, genetic and imaging data of all samples are collected. Moreover MGD institutionalized two registries for rare skeletal diseases, identifying standard terminology reference and collecting clinical, genetic and genealogical data on a HL7 compliant dedicated platform, named GePhCARD. This IT instrument simplifies data sharing and interoperability among institutions. Moreover GePhCARD selects sub-cohorts of patients to perform research on skeletal dysplasias natural history and pathogenic mechanisms. BIOGEN operates according to current legislation of patients privacy and in agreement with current legal and ethical data protection. To guarantee a long term sustainability we are elaborating a business model based on Total Life Cycle Cost of Ownership to estimate all costs arising from owing, operating and maintaining our Biobank. This approach will allow us to better understand biobank's variable and fixed costs and aid us to build an appropriate recovery costs program based on Services for third users.

Frequently asked questions about our events

Is the delegate list available?

Yes this is available to everyone who attends the event and our sponsors. It is available in real time. To access the list please just log into your registration details or use the QR code on right of the agenda card which is provided on the day of the event. You will not be included in this list if you have opted out and you can do this by logging into your registration details. This list will not be sold or ever give out to third parties.

Can I have the speakers slides?

We cannot give out the slides from our speaker's presentations as they are deleted immediately after each event. If you require a particular set of slides please approach the speaker. We will however have a meeting report and you will be emailed when this report is published.

Can I have a notepad?

Notepads and pens are provided in the delegate bags and at the registration desk.

How can I keep up to date with Euroscicon Events?

To keep updated on our events and other Life Science News, please sign up for our newsletter at www.eurosciconnews.com

I don't want my photograph on any Euroscicon promotional material

Please let our tech person know.

Is there WIFI?

Yes, please ask registration for log in details.

Can I have a CPD certificate?

Please leave your name with registration before the end of lunch a certificate will be created for you and available in the afternoon.

Please remember that EuroSciCon is a small independent company with no subsidies from society memberships or academic

rates for venues. We try to be as reasonably priced as possible and our delegate rates are substantially lower than comparable commercial meeting organisations.