Pathology Transformation Event: Digital Pathology

4th September 2018
Lecture Theatre 2, Medical School, Sheffield University,
Beech Hill Rd, Sheffield, S10 2RX

Programme

	Registration and Refreshment
9:00-9:30	
9:30-9:45	**Welcome and Introduction** *Dr Branko Perunovic, Clinical Director of Pathology Transformation Programme*
9:45-10:25	**Diagnosis at Pixel Level – The New Era of Digital Pathology** *Prof. David Snead, University Hospitals Coventry and Warwickshire NHS FT*
10:25-11:05	**Improvements and Challenges in a Pathology Laboratory after Digitalisation and Use of Computational Pathology in Diagnostics** *Dr Alexi Baidoshvilli, LabPON, Netherlands*
11:05-11:25	**Refreshment**
11:25-11:55	**Analogue to Digital histopathology transformation in 12 months - The journey and current status** *Dr Rahul Chaudhary, Director of Business Unit, Histopathology - Medicover Diagnostic Services, Germany*
12:00-13:00	**Discussion Pannel: New service models for Histopathology: from the business case to digital pathology-enabled service** Dr Alexi Baidashvilli, Dr Rahul Chaudhary, Dr David Clark, Prof David Snead. Moderators: Dr Samar Betmouni and Dr Jonathan Bury
13:00-14:00	**Networking Lunch**
14:00-14:30	**Implementing Digital Pathology at Path Links – the story so far…** Dr David Clark, Path Links
14:30-15:00	**Greater Manchester Cancer Vanguard: a regional experience with digital pathology in the cloud** Dr Louisa Motta, Salford Royal NHS Foundation Trust, Clinical advisor for Greater Manchester Cancer Care
15:00-15:30	**Improving the clinical and financial outcomes of the histopathology workflow with artificial intelligence deep learning algorithms- Visiopharm Digital Pathology Image Analysis** Martin Kristensson, Visiopharm, Denmark
15:30-17:00	**Refreshment, Networking and Trade Show**
17:00	**Close**
14:00-16:00	**Breakout session for IT Leads and professionals: Meet with vendors' IT specialists**
11:00-13:00 14:00-16:00	**Breakout sessions: Digital Pathology Solutions for Haematology**

About our Speakers

Professor David Snead, *University Hospitals Coventry and Warwickshire NHS FT*

Professor Snead is a Consultant Pathologist at the University Hospitals Coventry and Warwickshire and Professor of Pathology Practice at the University of Warwick. He has been in post at Coventry for 20 years and has specialist interests in the skin and thoracic pathology.

He is an international expert in the use of digital pathology having led Coventry to be one of the first hospitals in Europe to switch to digital pathology for routine reporting of diagnostic samples. His team published a landmark paper in 2016, the worlds largest validation study on the use of digital pathology, and which was awarded the 2017 Roger Cotton Prize for best paper in *Histopathology.*

He leads the Digital Pathology workstream for CMPath and UK National External Quality Assurance Scheme for Pulmonary Pathology. He is also an examiner for the Royal College of Pathologists and sits on the Computational Pathology Advisory Board to Philips.

University Hospitals **NHS**
Coventry and Warwickshire
NHS Trust

Dr Alexi Baidoshvilli MD, *LabPON, Netherlands*

LabPON made the transition to digital diagnostics in July 2015. We believe we are one of the first laboratories to do this, whereby all histological slides are scanned and most of the diagnoses are made digitally.

After the transition to digital diagnostics, we faced some challenges, but we also found that the quality of our diagnostics and, especially, the logistics in LabPON had improved in many aspects. In 2016 and 2017 we set up a flow analysis, we compared digital workflow with the conventional one. As well as, we compared diagnostics time of pathologist using microscope vs digital system.

In this presentation, I will tell you about our experiences with digitalization. I have used the results of flow analysis, together with all the gained experience, to get a good overview of the challenges and real improvements of quality and logistics in digital diagnostics in our laboratory. We have found that the digital diagnostic process is faster, more efficient and qualitatively better than the microscope.

LABPON
Laboratorium Pathologie Oost-Nederland

Now we are working on the development of various image analysis programs. We have gained a lot of experience in developing image analysis software. We believe that computational pathology is the future of pathology diagnostics and have interesting plans and ideas about the use of computational pathology in diagnostics.

Alexi Baidoshvili is a clinical pathologist at the Laboratory of Pathology East Netherlands (LabPON). Alexi is a physician graduated from the VU University Amsterdam and has specialized in clinical pathology at the VU Medical Center in Amsterdam. The subject of his doctoral research is a digital pathology. He was the Project Director of the Digital Pathology Team of LabPON between 2009 and 2017. Now, after complete digitalization of LabPON, he is the Project Director of the Computational Pathology Team of LabPON. Internationally, Alexi is an active board member of several organizations and organizer of international annual conferences. Alexi believes that digital pathology holds the future for pathological diagnosis. He is a pioneer in this development and his goal is to fully digitalize routine diagnosis at LabPON. LabPON will be the first laboratory in the world to do this. Besides implementation, validation, flow analysis, and development of software and hardware, Alexi and his team are working on the development of various image analysis programs.

Dr Rahul Chaudhary, *Director of Business Unit, Histopatholgy - Medicover Diagnostic Services, Germany*

Dr Rahul Chaudhary has a degree in clinical medicine and is a post graduate in Medical Diagnostics (Services and technologies). After practicing as a doctor for a short while, Rahul has been working in the commercial medical diagnostics and life sciences sector for the past 17 years in Asia and Europe in various functions including Marketing, product management and Business development. He has worked for various multinational companies including Perkin Elmer, Thermo Fisher, Danaher (Leica Biosystems) and now for Medicover. Currently his role within Medicover is to lead the histopathology labs and expand the business coverage and reach of histopathology services, within Europe and globally. He has led the transformation of the business from Analog to digital for various Medicover labs in Central and Eastern Europe.

Dr David Clark, *Clinical Lead - Path Links, Lincoln, Consultant Haematopathologist, Nottingham University Hospital; Honorary Senior Clinical Lecturer – Imperial College*

David undertook general professional training in general medicine and clinical haematology before training as a Histopathologist. He has a subspecialist interest in Haematopathology and is co-author (with Bridget Wilkins and Barbara Bain) of a textbook on bone marrow pathology and has contributed chapters to a number of other textbooks.

He was Clinical Director of Path Links (pathology network across all five DGH in Lincolnshire) from its formation in 1998 until 2014. He was National Clinical Lead for Histopathology at NHS Improvement from 2011-2013. He currently works as Consultant Haematopathologist at Nottingham University Hospital where is part of the team implementing an integrated Haematological Malignancy Diagnostic service for the East Midlands Cancer Network. He is Clinical Lead of the Path Links Digital Pathology steering group.

Path Links started implementation of digital pathology in 2016. The system is currently in its roll out with all skin, head & neck, breast and haematopathology cases being scanned. Path Links is working in partnership with Nottingham University Hospitals who are providing routine reporting of breast pathology and haematopathology cases using digital workstations in Nottingham.

The presentation will cover, the business case for digital pathology, the benefits of digital reporting, individual pathologist validation, the problems that have to be addressed during implementation and the joint working between Path Links and Nottingham.

Dr Luisa Motta, *Consultant Histopathologist and Clinical Lead for Cellular Pathology at Salford Royal NHS Foundation Trust and Clinical advisor for Greater Manchester Cancer Care*

Dr Luisa Motta is a consultant dermatopathologist at Salford Royal NHS Foundation Trust and Vanguard Innovation's clinical lead for the digital pathology project.

The primary aim of this project was to win the "Hearts and Minds" of the Pathology community, exposing Cellular Digital Pathology (CDP) to as many potential users and interested parties as possible across the Greater Manchester Pathology Provider Trusts. In essence, the project sought to understand whether the "hearts and minds" of the pathology community would benefit from the use of technology that could be delivered by a market leading provider who would work collaboratively with all the stakeholders to establish a single Cellular Digital Pathology networked community across Greater Manchester.

To achieve this, a system solution partner was chosen through the Cancer Vanguard Industry Challenge. The vendor was tasked with being able to provide the necessary software, project management and scanners for the lifetime of the project at no cost to the GM Cancer Vanguard and the Pathology Provider Trusts. If this was being procured across the seven trusts through traditional methods the anticipated budgets would be circa £800k for the three months of the project.

With the support of each of the respective CEO's and CIO's, all seven Pathology Provider Trusts in GM actively participated in this project. Each with the same remit, to understand the concepts and benefits that CDP could deliver, with an emphasis on what it could contribute to the modernisation of their respective Pathology services. The outcomes of the project were never a given however they have provided an empirically backed argument that supports the development of a business case to deliver CDP across GM.

Martin Kristensson, *Senior Vice President, Visiopharm, Denmark*

Martin is leading the EU based sales team. He received his M.Sc. in Biomedical Engineering from the Technical University of Denmark in 2011, specializing in Signal and Model-based Diagnostics, combined with Image Diagnostics and Radiation Physics. In 2014, he became a certified Project Manager.

Together with his team, he coordinated the development of Visiopharms clinical products, and the change management processes used to implement the tools in the daily clinical routine across Denmark. In close collaboration with colleagues and customers, he continues to investigate new applications of image analysis within pathology, pursuing new ways of offering standardized high-quality data and diagnosis.

Visiopharm is a world leader in Augmented Pathology™ solutions; quantitative image analysis and Digital Pathology, solving everything from H&E to advanced fluorescence. Leading biopharmaceutical companies, contract research organizations (CRO), academic medical centers, and hospital diagnostic pathology labs all over the world utilize the Oncotopix® platform for tissue-based research and diagnostics. Oncotopix® provides scientists and pathologist with a scalable software solution that fits the needs and volumes of both research and diagnostic labs. Over the past years, Visiopharm has grown into an international business with over 900 installations and countless more users. Visiopharm software is featured in over 1200 scientific publications since 2010 and is compatible with leading slide scanning systems and data management software. A growing network of authorized distributors and integration partners support the growth of Visiopharm solutions on several continents including North America, Europe, and Asia. Our headquarters is in the Medicon Valley of Denmark, with a branch office in the United Kingdom, and a North American office in Broomfield, Colorado.

How to find us

Traveling by car

SatNav is: Beech Hill Road, S10 2RX

Coming from M1:

1) Leave at Junction 33 on to A630/ A57 (Sheffield Parkway)
2) Carry on Sheffield Parkway until you reach Park Square roundabout.
3) At roundabout, take 3rd exit
4) Turn right to stay on A61 / St Mary's Road
5) Pass through 2 roundabouts, remaining on A61
6) Turn left on to B6547 / Glossop Road
7) Turn right on to Beech Hill Road
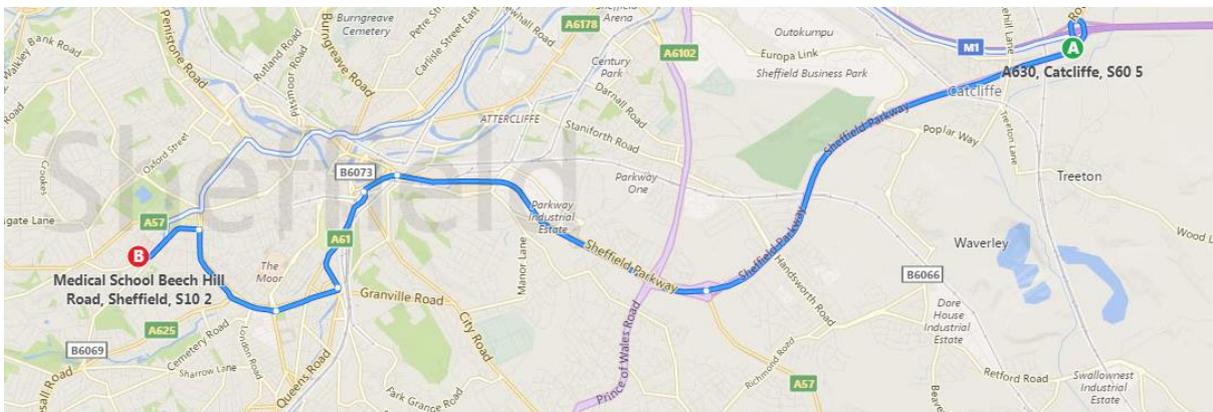
Parking near Medical School

Street side parking near the Medical School is Pay and Display, however many parking spots are limited to 2 or 4 hours of parking.

Royal Hallamshire Hospital multi storey car park is signposted from each entrance – please note this car park does have disabled spaces but does not have a lift facility.

Q Park is a short walk away located on Durham Road and has full disabled access with lifts to all floors.
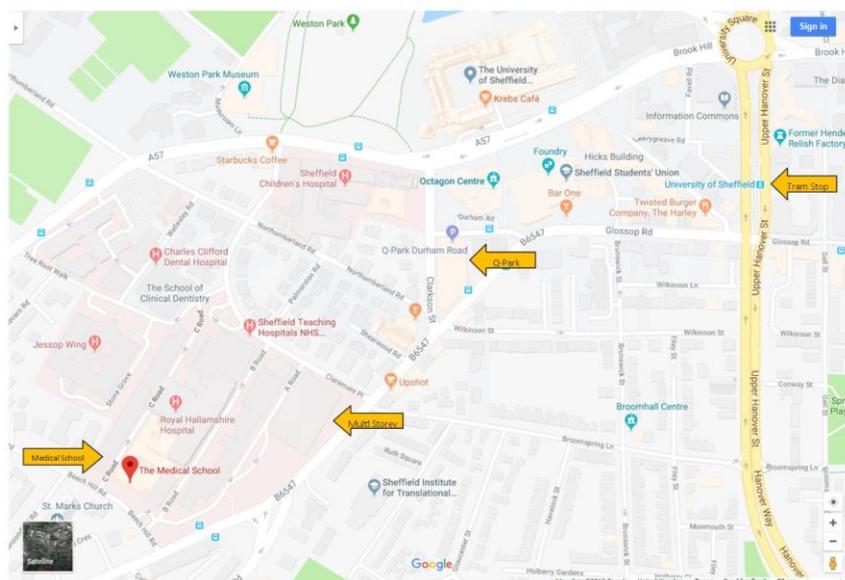
Traveling by public transport

Tram

Take the yellow/blue line towards Middlewood/Malin Bridge. The closest stop to the Medical School is the University of Sheffield tram stop and is a 10-15 minute uphill walk.

Bus

Several buses serve the Medical School and Royal Hallamshire Hospital please click the link here using Beech Hill Road, S10 2RX as your destination.

Train

The closest station is the Sheffield Station. It is approximately a 40 min walk to the Medical School. From the train station you can use either a bus, tram or taxi service which are all linked to the station.

Taxi

Local taxi numbers are:

- City Taxis – 0114 239 3939
- Mercury Taxis – 0114 266 2662

Medical School Entrance:

There are two entrances to the Medical School. The event takes place in LECTURE THEATRE 2 and is easier to reach by the entrance on B Floor just off B Road.