



2nd Digital Pathology Congress

UNDERSTANDING & UTILIZING DIGITAL PATHOLOGY AS A TOOL FOR ADVANCING PATHOLOGY PRACTICE & ENABLING ENHANCED PATIENT CARE

Following the success of their 2014 meeting, which attracted over 260 delegates and 25 exhibitors, Global Engage is pleased to announce the 2nd Digital Pathology Congress which will be held on December 3-4 2015 in London, UK. The conference is part of their successful Personalised Medicine series which includes events on precision medicine, digital health, synthetic biology, the human microbiome, biologics and digital PCR. The meeting is also the sister meeting to the US and Asian Digital Pathology meetings taking place in June and September 2015 respectively.

The continuing growth and advances in digital pathology solutions is transforming the industry. With wide ranging applications and benefits including reduction in lab costs, increased workflow efficiency, greater interconnectivity, effective training / education methods, improved decision making is enabling enhanced patient care. The result is that Digital Pathology is rapidly gaining momentum worldwide.

Attracting over 300 industry & academic experts in 2015, working in all areas of Pathology this two day interactive meeting will provide the opportunity to take home cutting edge strategies, analysis techniques, case study examples and methods to allow you to fully understand both the technology and accompanying informatics and image analysis tools and utilize digital pathology to its greatest potential.

This will be achieved through a vibrant exhibition room, full of technology providers showcasing their technologies and other solutions, networking breaks allowing interaction with your peers, poster presentation sessions, expert led case study presentations and incisive Q&A panel discussions during four separate tracks which will examine the topics below.

There is also a complimentary workshop taking place on December 2nd between 12 – 5pm which is being organised by Hamamatsu Photonics. More information about the workshop can be found at the end of the agenda but it will give you the opportunity to hear about the current and future direction of digital pathology from Hamamatsu Photonics. The purpose of the workshop will be to provide both training from Hamamatsu and case studies from current users from across Europe regarding their positive experiences but also about overcoming challenges of whole slide imaging. There will also be an opportunity to have hands on experience with both Hamamatsu hardware and software.

Conference Synopsis – Approved for CPD points by the Royal College of Pathologists

Digital Pathology - Strategy and Technology

- Introduction, benefits & future developments of Digital Pathology
- Implications on pathology practice
 - Uses in education and training
 - International trade and its ramifications
- Converting to/ integration of digital pathology
 - User implementation experiences
- Technology advances in digital pathology
- Standardisation in Digital Pathology
- Regulations in Digital Pathology
- Quality assurance, control and improvement
- Validation methods
- Panel Discussion – Overcoming barriers in adoption of Digital Pathology
- Panel Discussion – Regulatory guidelines/issues in Europe, US & Asia

Pathology Informatics

- Acquisition, processing, archiving & retrieval of WSI
- Improving WSI workflow efficiency
- Cloud computing / storage solutions
- Access through mobile devices
- Pathology PACS
- Pathology IT
- Integration with LIMS / LIS
- Telepathology
 - Virtual networks
 - Use in remote areas

Virtual Microscopy & Digital Image Analysis

- Overcoming challenges in image analysis
 - Image standardization
 - Troubleshooting guide
- Computer aided diagnoses
- User interfaces
- Image registration
- Image quality and scanning speed
- Quantitative image analysis research
- Visualization methods for diagnosis and prognosis
- Image Processing
- Pattern recognition
- Scoring & Annotation tools
- Algorithm development / Image analysis algorithms

Digital Pathology Applications and Research Case Studies

Research case studies utilizing digital pathology in:-

- Clinical trials support
- Diagnosis
- Diagnostics
- Next generation sequencing
- Biomarker analysis /research / quantification
- Tissue-based research / imaging
- Biobanking
- Precision / personalised medicine
- Image analysis

2nd Digital Pathology Congress - Sponsors 2015

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Digital Pathology Series

Digital Pathology Congress Asia - September 21-22, 2015, Kuala Lumpur, Malaysia,
www.globalengage.co.uk/digital-pathology-asia.html

2nd Digital Pathology Congress Europe - December 3-4, 2015, London, UK
www.globalengage.co.uk/digital-pathology.html

2nd Digital Pathology Congress USA - June 2016, USA
www.globalengage.co.uk/digitalpathology.html

2015 Speakers



Liron Pantanowitz, Associate Professor of Pathology & Biomedical Informatics, Director of the Pathology Informatics Fellowship program, University of Pittsburgh Medical Center, USA



Peter Hufnagl, Head Digital Pathology & IT, Institute of Pathology, Charité University Hospital Berlin, Germany



Peter Caie, Senior Research Fellow in Digital and Systems Pathology, University of St Andrews, UK



Jeroen van der Laak, Assistant Professor in Digital Pathology, Dept of Pathology, Radboud University Nijmegen Medical Centre, The Netherlands



Alexi Baidoshvili, Pathologist in LabPON, Project Director of Digital Pathology Team, The Netherlands



David Snead, Consultant Histopathologist and Clinical Service Lead, Coventry and Warwickshire Pathology Services, UK



Antonino Carbone, Research Consultant, Department of Pathology, IRCCS CRO Aviano and AO "Santa Maria degli Angeli" Pordenone, Italy



Jared N. Schwartz, Consulting CMO *QualityStar, President Jared N Schwartz MD, PhD LLC, USA



Inti Zlobec, Professor & Head of the Translational Research Unit at the Institute of Pathology, University of Bern, Switzerland



Niels Werner Mortensen, IT Project Manager, Department of Biomedical Sciences, Faculty Of Health Sciences, University of Copenhagen, Denmark



Sebastian Brandner, Professor and Chair of Neuropathology Division of Neuropathology and, Dept. of Neurodegenerative Disease, UCL Institute of Neurology UK



Will Howat, Head of Histopathology/ISH, Cancer Research UK



Susan Anderson, Director of Undergraduate Studies and Associate Professor in Pathology, University of Nottingham Royal Derby Hospital Centre, UK



Johan Lundin, Research Director and Professor of Medical Technology, Institute for Molecular Medicine Finland, Helsinki, Finland and Karolinska Institutet, Stockholm, Sweden



Anant Madabhushi, Professor & Director, Center for Computational Imaging & Personalized Diagnostics, Case Western Reserve University, USA



Paul van Diest, Professor of Pathology, Head of Department, University Medical Center Utrecht, Netherlands



Andy Beck, Assistant Professor, Department of Pathology, Harvard University, USA



Derek Magee, Lecturer, School Of Computing, University of Leeds, UK



Fabio Grizzi, Chief Histology section, Humanitas Clinical and Research Centre, Milan, Italy



Charles Campbell, Professor of Surgery, Centre for Cancer Research and Cell Biology, Queen's University and Belfast Health & Social Care and Hospitals Trust, UK



Gloria Bueno, Professor, VISILAB – School of Engineering, Universidad de Castilla-La Mancha, Spain



Christian Münzenmayer, Group Manager Medical Image Processing, Fraunhofer IIS, Germany



Salam Al-Sam, Consultant Histopathologist, Princess Alexandria Hospital, UK



Katharina Wassilew, Head, Cardiac Pathology Unit, Senior Consultant, Department of Cardiovascular and Thoracic Surgery, Deutsches Herzzentrum Berlin, Germany



Ben Vainer, Professor, Department of Pathology, Rigshospitalet, University of Copenhagen, Denmark



Raza Ali, NIHR Academic Clinical Lecturer Honorary Histopathology Specialty Registrar, CRUK Cambridge Institute, University of Cambridge, UK



Erio Barale-Thomas, Principal Scientist, Pathology, J&J PRD, Belgium



Jonathan Bury, Consultant Histopathologist, Sheffield Teaching Hospitals NHS Foundation Trust, UK



Gerald Li, Research Fellow, Queen's University Belfast, UK



Clare Verrill, Senior Clinical Lecturer in Pathology, Nuffield Department of Surgical Sciences, Department of Cellular Pathology, John Radcliffe Hospital, University of Oxford, UK



Ioannis Roxanis, Consultant pathologist, Oxford University Hospitals, UK



Ann Cornelis, Head of the department of Pathology, RZ Tienen, Belgium



Lazlo Iguai, University of Norwich, UK



Ingrid Carlbohm, Professor, Division of Visual Information and Interaction, Department of Information Technology, Uppsala University, Sweden



Samar Betmouni, Director Clinical Pathology, Faculty of Life Sciences, Deputy Director Health & Wellbeing Centre, DHEZ, University of Bradford, UK



Yinyin Yuan, Team Leader, Cancer Research UK



Andy Green, Senior Research Fellow, Molecular Pathology Research Unit, Division of Cancer and Stem Cells, The University of Nottingham, UK



Catherine Chinyama, Cons Pathologist/Hon Clinical Senior Lecturer, Brighton and Sussex Medical School, UK



Senior Representation, Leica Biosystems



Senior Representation, Abbott Molecular



Senior Representation, Indica Labs



Senior Representation, Phillips



Senior Representation, Hamamatsu



Senior Representation, PathXL



Senior Representation, Sakura

08.00-08.50	Registration & Coffee	
08.50-08.55	Global Engage Welcome Address	
08.55-09.00	Stream Chair - Will Howat, Head of Histopathology/ISH, Cancer Research UK	
09.00-09.30	Keynote Address: Contemporary Guidelines in Digital Pathology Several guidelines have been published for validating and implementing digital pathology systems. This talk will critically summarize these guidelines and discuss: • How guidelines promote standardization and adoption of Digital Pathology • Which guidelines are important to the Digital Pathology community. • Highlight relevant issues that will need to be addressed in future guidelines Confirmed: Liron Pantanowitz, Associate Professor of Pathology & Biomedical Informatics, Director of the Pathology Informatics Fellowship Program and Associate Director of the Pathology Informatics Division at the University of Pittsburgh Medical Center, USA	
09.30-10.00	Keynote Address: Digital Pathology and Tissue-based Diagnosis. How do they Differ? – Title to be Confirmed Digital pathology is still not widely used in clinical pathology. To reveal obstacles and foster penetration of clinical environments we present our perspective to move from reliability of systems to trustability into systems. Moreover, we introduce required techniques and activities to promote virtual microscopy in clinical pathology as well as in research. Confirmed: Peter Hufnagel, Head Digital Pathology & IT, Institute of Pathology, Charité University Hospital Berlin, Germany	
10.00-10.30	Solution Provider Presentation 	
10.30-11.40	Morning Refreshments Poster Presentation Sessions One-to-One Meetings Digital Pathology Strategy & Technology Pathology Informatics	
11.40-12.05	A Fully Digital Pathology Laboratory for Routine Clinical Use; How We Got Here Digital pathology is mainly used for education, research, and consultations; use in routine diagnostics is less common. It is quite complicated for a pathology laboratory to completely transition to digital diagnostics. However, starting July 2015, all routine diagnostics at the Laboratory of Pathology East Netherlands (LabPON) will be performed digitally. LabPON is a pioneer in this field and started transitioning to fully digital diagnostics in 2009. During the transition, LabPON came across and resolved many issues by e.g. multiple validations, flow analyses, improving software and user interface, and setting up regional networks. I will share our unique experience, present the necessary steps and adjustments for the transition to fully digital diagnostics, and compare it to partially digital diagnostics and diagnostics with the light microscope. Confirmed: Alexi Baidoshvili, Pathologist in LabPON, Project Director of Digital Pathology Team, The Netherlands	Probing the Tumor Microenvironment with Cloud-Based Computer Vision – Title to be Confirmed Confirmed: Johan Lundin, Research Director and Professor of Medical Technology, Institute for Molecular Medicine Finland (FIMM), Helsinki, Finland and Karolinska Institutet, Stockholm, Sweden
12.05-12.30	VIRMIK: A Way to Organize Virtual Slides for Use in Teaching, Self-Studies and Examinations VIRMIK supports 5 virtual slide formats (Slide Scanners) and provides a safe place, a Repository, to store slides. It's organized in such a way that SlideOwners have full control over own slides meaning they may add medical/veterinary descriptions, annotations etc. and finally publish slides. Our students love to use VIRMIK in classroom teaching and for self-studies. VIRMIK is also used in fully digitized examinations. Confirmed: Niels Werner Mortensen, IT Project Manager, Department of Biomedical Sciences, Faculty Of Health Sciences, University of Copenhagen, Denmark	Application of Digital Pathology to the Construction of High-Quality Tissue Microarrays for Biomarker Research: The Next-Generation Tissue Microarray (ngTMA) Approach Biomarker studies in cancer research have become synonymous with tissue microarrays. The next-generation Tissue Microarray (ngTMA) approach at the University of Bern combines tailored strategic planning with the latest digital pathology technology. Rapid slide scanning, viewing and digital slide annotating using specialized TMA annotation tools allow precise histological regions of interest to be marked directly on the slide. These slides and their annotations are aligned with images from the corresponding tissue blocks, which are then cored out at designated regions and transferred into the final recipient tissue microarray block using an automated arrayer. The ngTMA process results in high-quality tissue microarrays that lead to high-quality biomarker research with uses in clinical, translational and reverse-translational settings. Confirmed: Inti Zlobec, Professor & Head of the Translational Research Unit at the Institute of Pathology, University of Bern, Switzerland

Agenda: Day One - Continued

Thursday, 3rd December 2015

12.30-13.00

Solution Provider Presentation



Solution Provider Presentation

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13.00-14.00

Lunch
Poster Presentation Sessions
One-to-One Meetings

14.00-14.25

The Value of Digital Histology and Pathology in Medical Education

Virtual microscopy is a potentially important tool in medical education. In this talk, the use of virtual histology and pathology at the University of Nottingham is described along with an evaluation of the advantages and disadvantages from both the staff and student perspectives. Some key uses of the virtual microscope will be discussed including enabling staff to prepare better assessment material and encouraging the development of student-generated tailored revision resources. The talk will also focus on future directions which use this technology to bridge the gap between pre-clinical and clinical phases of education as well as opportunities for postgraduate training

Confirmed:

Susan Anderson, Director of Undergraduate Studies and Associate Professor in Pathology, Division of Medical Sciences & Graduate Entry Medicine, School of Medicine Faculty of Medicine & Health Sciences, University of Nottingham Royal Derby Hospital Centre, UK

CAD in Pathology: Closer Than You Think

The introduction of digital pathology in primary diagnostics is still hampered by high costs. It is hypothesized that computer aided diagnosis (CAD) techniques will be the tipping point, leading to large scale introduction of digital scanning of histopathological slides. However, many pathologists are still skeptic about the possibilities of computers taking over part of their daily routine. In reality, the state-of-the-art of CAD in pathology is much further evolved than most pathologists may think. Modern pattern recognition techniques have accelerated research in this area enormously. Current algorithms are ready for evaluation in routine diagnostic situations and may significantly alleviate the work of the pathologist. This talk will show examples of algorithms and solutions for use of these techniques in daily practice.

Confirmed:

Jeroen van der Laak, Assistant Professor in Digital Pathology, Dept of Pathology, Radboud University Nijmegen Medical Centre, The Netherlands

14.25-14.50

Is It Time For a Common Data Exchange Standard for Digital Pathology and Digital Image Analysis?

Confirmed:

Gerald Li, Research Fellow, Queen's University Belfast, Northern Ireland

Title to be Confirmed

Confirmed:

Erio Barale-Thomas, Principal Scientist, Pathology, J&J PRD

14.50-15.20

Solution Provider Presentation



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15.20-15.50

Panel Discussion – Overcoming Barriers in Adoption of Digital Pathology

Confirmed:

David Snead, Consultant Histopathologist and Clinical Service Lead, Coventry and Warwickshire Pathology Services, UK

Sebastian Brandner, Professor and Chair of Neuropathology Division of Neuropathology and, Dept. of Neurodegenerative Disease, UCL Institute of Neurology, UK

Liron Pantanowitz, Associate Professor of Pathology & Biomedical Informatics, Director of the Pathology Informatics Fellowship Program and Associate Director of the Pathology Informatics Division at the University of Pittsburgh Medical Center, USA

Developing Computerized Grading of Prostate Cancer

Confirmed:

Ingrid Carlbom, Professor, Division of Visual Information and Interaction, Department of Information Technology, Uppsala University, Sweden

15.50-16.40

Afternoon Refreshments
Poster Presentation Sessions
One-to-One Meetings

16.40-17.10

Solution Provider Presentation



Solution Provider Presentation

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For more information please contact Steve Hambrook, Conference Director, Global Engage Ltd.

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17.10-17.35	How Digitalisation Can Improve Pathology Service - The Danish Experience Digitalisation of pathology has become synonymous with introduction of advanced computer software algorithm for the reading of biomarker expression or substitution of the microscope with a whole slide scanner and a computer screen. Few pathologist realise that in general, pathology is already highly computerized with computer-controlled running of staining machines and digitalisation of the pathology report and as the most obvious examples. In Denmark, all pathology laboratories use the same laboratory information system, which is linked to nationwide databases containing previous pathology workup and other relevant patient information. This gives Danish pathologists unique opportunities to interact with each other and to study diseases from an epidemiological point-of-view. This talk will focus on the advantages of these national initiatives and will give an overview of computerisation and digitalisation in routine laboratory operations from the clinician's ordering of a service via tissue sectioning and staining to speech recognition and presentation of the report to the clinician and to research-related national cancer databases. Confirmed: Ben Vainer, Professor, Department of Pathology, Rigshospitalet, University of Copenhagen	Mobile Health & the Future of Digital Pathology Recent advances in mobile technology have presented new opportunities and challenges in Digital Pathology. This talk will discuss: • The current impact of mobile health on Digital Pathology applications. • Recent advances of handheld computing in Digital Pathology. • The application of wearable technology such as Google Glass in Pathology. Confirmed: Liron Pantanowitz, Associate Professor of Pathology & Biomedical Informatics, Director of the Pathology Informatics Fellowship, Pogram and Associate Director of the Pathology Informatics Division at the University of Pittsburgh Medical Center, USA
17.35-18.00	Image Analysis and Virtual Microscopy In Hematology In clinical hematology the morphological evaluation of blood and bone marrow cells is the starting point for further downstream diagnostics of blood diseases such as leukemia and anemia. Infectious diseases such as Malaria are caused by parasites which are laborious and difficult to detect in blood samples. As demographic change and financial pressure require centralization and automatization the demand for automated image analysis and computer assisted microscopy is ever increasing. Furthermore, the morphological differentiation of cells and identification of parasites is a challenging task for which experience and continuous qualification over many years is needed. This talk will discuss: - Recent advances in automated analysis of blood and bone marrow smears - Virtual microscopy for training and quality control Confirmed: Christian Münzenmayer, Group Manager Medical Image Processing, Fraunhofer IIS	Machine Learning and Computational Pathology for Data-Driven Predictive Cancer Diagnostics Our lab is developing methods to integrate advanced microscopy, computer vision, bioinformatics, and machine learning to build data-driven predictive cancer diagnostics. We will present work focused on our development of technologies for: automated analysis of morphology and biomarker expression from the normal breast and breast cancer; automated diagnosis of early breast neoplasia; analysis of advanced 3D microscopy for classification and risk prediction in early breast neoplasia; and construction and analysis of genomewide epithelial-stromal co-expression networks incorporating transcriptomic and morphologic data. Our overall goal is to build new tools to improve the ability of researchers and pathologists to build and integrate heterogeneous large data sets from tissue samples to better understand disease biology and better predict clinical outcomes. Confirmed: Andy Beck, Assistant Professor, Department of Pathology, Harvard University, USA
18.00-18.25	Patient Safety and Access to Care through e-Pathology - Examples from Cytology and Microbiology -Telepathology using digital technology is rapidly gaining both acceptance and increasing adoption to help solve the stubborn problem of providing improved access while maintaining patient safety to patients who for a variety reason do not have easy access to healthcare services. This presentation will select a couple areas of diagnostic need not often covered in these conferences. The two areas are providing diagnostic services for Cytopathology (including blood smears) and for selected infectious diseases (Microbiology) using digital technology. Confirmed: Jared N. Schwartz, Consulting CMO *QualityStar, President Jared N Schwartz MD, PhD LLC, USA	Profiling Big Data Histopathology through Image Analysis Complex image analysis of digital pathology specimens, like the more classical 'omics' fields, now has the ability to create robust hierarchical 'big data'. This data may be made up from the quantification of set histopathological features, cell types, biomarkers or unbiasedly captured data features while spatial heterogeneity may also be captured. The data must be collated and mined in order to distil the most significant parameters to answer the clinical question and create a transferable test. This methodology is demonstrated in the field of colorectal cancer where it identified a novel histopathological feature capable of stratifying high risk stage II colorectal cancer patients. The novel feature was further integrated with significant clinical pathology parameters to form a highly significant prognostic signature (HR = 7.8; 95% CI, 3.2 – 19.2). Confirmed: Peter Caie, Senior Research Fellow in Digital and Systems Pathology, University of St Andrews, UK

Chairman's Closing Remarks and End of Day 1

18.25-19.25	Drinks Reception
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Agenda: Day Two

Friday, 4th December 2015

08.00-08.40	Morning Coffee One to One Meetings	
08.40-09.10	Keynote Address: Histologic Image Based Risk Score: Predicting Disease Recurrence and Progression from Digitized H&E Images - With the advent of digital pathology, there is an opportunity to develop computerized image analysis methods to not just detect and diagnose disease from histopathology tissue sections, but to also attempt to predict risk of recurrence, predict disease aggressiveness and long term survival. - At the Center for Computational Imaging and Personalized Diagnostics, our team has been developing a suite of image processing and computer vision tools, specifically designed to predict disease progression and response to therapy via the extraction and analysis of image-based "histological biomarkers" derived from digitized tissue biopsy specimens. These tools would serve as an attractive alternative to molecular based assays, which attempt to perform the same predictions. - The fundamental hypotheses underlying our work are that: 1) the genomic expressions detected by molecular assays manifest as unique phenotypic alterations (i.e. histological biomarkers) visible in the tissue; 2) these histological biomarkers contain information necessary to predict disease progression and response to therapy; and 3) sophisticated computer vision algorithms are integral to the successful identification and extraction of these biomarkers. Confirmed: Anant Madabhushi, Professor & Director, Center for Computational Imaging & Personalized Diagnostics, Departments of Biomedical Engineering, Urology, Pathology, Radiology, General Medical Sciences, Electrical Eng & Computer Sci, Member, Case Comprehensive Cancer Center, Case Western Reserve University	
09.10-09.40	Keynote Address: Implementation of Full Digital Workflow Confirmed: Paul van Diest, Professor of Pathology, Head of Department, University Medical Center Utrecht, Netherlands	
09.40-10.10	Solution Provider Presentation  PHOTON IS OUR BUSINESS	
10.10-11.20	Morning Refreshments Poster Presentation Sessions One-to-One Meetings	
	Stream Chair - Samar Betmouni, Director Clinical Pathology, Faculty of Life Sciences, Deputy Director Health & Wellbeing Centre, DHEZ, University of Bradford, UK	Stream Chair - Andy Green, Senior Research Fellow, Molecular Pathology Research Unit, Division of Cancer and Stem Cells, The University of Nottingham, UK
	Virtual Microscopy / Digital Image Analysis	Digital Pathology Case Studies
11.20-11.45	Title to be Confirmed Confirmed: Raza Ali, NIHR Academic Clinical Lecturer Honorary Histopathology Specialty Registrar, CRUK Cambridge Institute, University of Cambridge, UK	Using digital slide scanning as a tool for enabling cross site intraoperative frozen section diagnosis in clinical practice Confirmed: Jonathan Bury, Consultant Histopathologist, Sheffield Teaching Hospitals NHS Foundation Trust, UK
11.45-12.10	Quantification of Anatomical Structures from a Pathologist's Perspective: The hypertrophic heart as an example - Assess where to obtain tissue in the quantity necessary for diagnosis - Interpret a histology report with regard to terms as fibrosis and scarring - Understand what pathologists define as extracellular matrix/volume and how it can be measured - Give a brief overview about biomarker research in this field Confirmed: Katharina Wassilew, Head, Cardiac Pathology Unit, Senior Consultant, Department of Cardiovascular and Thoracic Surgery, Deutsches Herzzentrum Berlin, Germany	Title to be Confirmed Confirmed: Ann Cornelis, Head of the Department of Pathology, RZ Tienen, Belgium
12.10-12.40	Confidence Rate of Tissue Diagnosis by Whole Slide Image Analysis Over the last three years, we analysed whole slide images of over 800 histological cases using 6 different scanners and compared findings with microscopical examination of the slides submitted for scanning. We also looked into the practical issues related to flow of work, impact on pathologists and BMS staff time. In the current study, we used Hamamatsu NanoZoomer 2.OHT slide scanner and the NDP software to scan tissue sections in semi-automatic and automatic modes. 5 consultant pathologists and 2 trainee pathologists participated in this study in which histology reports are written based on findings of cases seen for the first time on screens. The slides were then checked under the microscope before reports were authorised. Differences in findings were tabulated on Excel sheets and analysed. 350 biopsies from various sites were diagnosed in this manner. The differences in findings were measured grade 1-5 based on the number of different findings between the two methods, WSI screen analysis and microscopy. The findings together with calculation of scanning time, impact on pathologists and BMS staff are measured. Confirmed: Salam Al-Sam, Member of Research, innovation and Development at the Princess Alexandra Hospital, Pathology Directorate Audit Lead, Examiner for the Royal College of Surgeons, Author of Atlas and textbook of Pseudomalignancy, Consultant Histopathologist, The Princess Alexandra Hospital, UK	Whole Slide Imaging in in situ Molecular Pathology - In situ molecular techniques have a fundamental role in the diagnosis of tumors, which show characteristic gene rearrangements, translocations and amplifications or viral association - It could be of greater utility to share by whole-slide-imaging (WSI) telepathology in situ molecular techniques, improving their application and standardization in interpretation - The aim of this work is validating WSI for clinical purposes in tumor pathology (virus detection, gene translocation, gene amplification, miRNA expression) using bright field in situ hybridization Confirmed: Antonino Carbone, Research Consultant, Department of Pathology, IRCCS CRO Aviano and AO "Santa Maria degli Angeli" Pordenone, Italy

For more information please contact Steve Hambrook, Conference Director, Global Engage Ltd.

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Agenda: Day Two – Continued

Friday, 4th December 2015

12.40-13.10	Solution Provider Presentation 	Solution Provider Presentation For sponsorship opportunities please contact Steve Hambrook at steve@globalengage.co.uk
13.10-14.10	Lunch Poster Presentation Sessions Scheduled One-to-One Meetings	
14.10-14.40	Solution Provider Presentation 	Solution Provider Presentation For sponsorship opportunities please contact Steve Hambrook at steve@globalengage.co.uk
14.40-15.05	Title to be Confirmed Confirmed: Lazlo Iguali, University of Norwich, UK	Digital Imaging in Management of Cancer Patients in a Multidisciplinary Setting Confirmed: Catherine Chinyama, Cons Pathologist/Hon Clinical Senior Lecturer Brighton and Sussex Medical School, UK
15.05-15.30	Advanced Image Processing Methods Applied to Digital Pathology. Confirmed: Gloria Bueno, Professor, VISILAB – School of Engineering, Universidad de Castilla-La Mancha, Spain	Title to be Confirmed Confirmed Yinyin Yuan, Team Leader, Cancer Research UK
15.30-15.55	Afternoon Refreshments Poster Presentation Sessions	
15.55-16.20	On the Quantitative Digital Histology: Advantages and Pitfalls Several factors affect the “interpretation” of a histological image. Overcoming these problems requires not only advanced imaging techniques, but also answers to the question of what makes an “expert histologist”. Histology involves looking at an image and interpreting what is seen, and experience gives a histologist the perceptual and cognitive skills to know what information to look for and how to interpret that information on the basis of the information processed from previous encounters with similar images. However, histologists can never perceive all of the possible variations no matter how many images they see. The need to find a new way of observing and quantifying complex anatomical forms prompted us to discuss the advantages and pitfalls of “ <i>in vivo</i> and <i>ex vivo</i> digital image analysis”. Confirmed: Fabio Grizzi, Chief Histology Section, Humanitas Clinical and Research Centre, Milan, Italy	Mechanistic Dissection of Cribriform Colorectal Cancer - Translational Studies High-grade colorectal cancer (CRC) morphology heralds early metastasis and represents an age-old, unresolved problem in tumour biology. We conducted pathobiology studies in three-dimensional (3D) CRC culture models and validated findings by digital histopathology in human CRC. We induced cribriform morphology (CM) a highly aggressive variant, by suppression of apical polarity signalling (APS) in 3D models. These events destabilized mitotic spindle, cell cleavage and apical membrane dynamics to induce stratified malignant epithelium arranged around multiple aberrant lumens, characteristic of CM. In human CRC, low APS readout associated with CM. Furthermore, CM was accompanied by CRC gland breakdown, high numbers of poorly differentiated clusters (PDCs) of malignant cells and greater lymph node metastases. Digital pathology thus enhanced clinical translation of fundamental studies of aggressive CRC morphology phenotypes. Confirmed: Charles Campbell, Professor of Surgery, Centre for Cancer Research and Cell Biology, Queen’s University and Belfast Health & Social Care and Hospitals Trust
16.20-16.45	Title to be Confirmed Confirmed: Clare Verrill, Senior Clinical Lecturer in Pathology Nuffield Department of Surgical Sciences, Department of Cellular Pathology, John Radcliffe Hospital, University of Oxford Ioannis Roxanis, Consultant pathologist, Oxford University Hospitals	Title to be Confirmed Reserved: Laura García Hernández, Associate Professor, University of Cordoba, Spain
16.45-17.10	Histopathology in the third dimension: 3D Reconstruction, Multi-stain and Multi-modal Analysis This talk presents an overview of work relating to histopathology image analysis of three dimensional tissue samples. The Leeds approach to 3D pathology by stacking up and aligning serial sections has been applied to many hundreds of volumes over the last 8 years. A range of applications will be discussed. Additionally, more recent work that extends this approach to differently stained interleaved sections and Histopathology:Radiology correlation will be presented. This work involves image transforms to data sets to be registered to increase similarity based on intensity, colour and texture co-occurrence between aligned images. Again, application areas and case studies will be presented and discussed. Confirmed: Derek Magee, Lecturer, School Of Computing, University of Leeds, UK	How Digitalisation Can Improve The Organ Transplantation Workflow. The Experience of a Second Opinion By a Fast Emailed Blitz Reserved: Matteo Brunelli, Professor, University of Verona, Italy
17.10	Conference Close	

Workshop Organiser

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Hamamatsu Photonics Digital Pathology Workshop

Date: 2nd December 2015

Start time: 12:00

End time: 17:00

Sign up to this free special event that will give you the opportunity to hear about the current and future direction of digital pathology from Hamamatsu Photonics.

The purpose of the workshop will be to provide both training from Hamamatsu and case studies from current users from across Europe regarding their positive experiences but also about overcoming challenges of whole slide imaging. There will also be an opportunity to have hands on experience with both Hamamatsu hardware and software.

This event will be held the day before the 2nd Digital Pathology Congress and at the same venue. Our workshop will offer the perfect opportunity to create a forum to exchange ideas, form new collaborations and develop a new community for digital pathology.

<http://www.hamamatsu.com/eu/en/event/eu/20151202120000.html>

