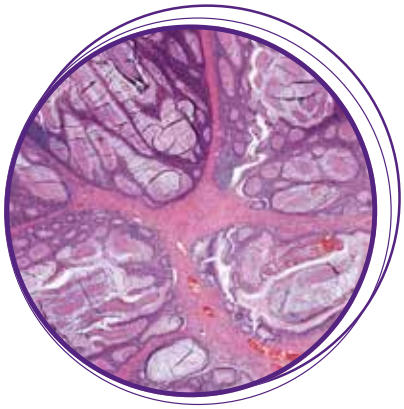
Global Engage

11TH DIGITAL PATHOLOGY & AI CONGRESS: EUROPE

UTILIZING DIGITAL PATHOLOGY & AI TO ADVANCE PATHOLOGY PRACTICE, ENABLE ENHANCED PATIENT CARE AND FURTHER DRUG DISCOVERY

LONDON HILTON METROPOLE - LONDON, UK

11-12 December 2024



#DigiPathLondon

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CPD Approved
The Royal College of Pathologists

Global Engage is pleased to announce the **11th Digital Pathology & AI Congress**, which is confirmed to take place on 11-12 December 2024 in London, UK at the London Hilton Metropole.

This world-renowned sell-out event attracted over 575 attendees and over 50 exhibitors last year. With 6 tracks focusing on the topics below, there is ample content to learn from top experts, network and broaden your connections and should you wish to showcase your work in the poster presentation sessions.

Conference Session Schedule

	Track 1	Track 2	Track 3
Day 1	Imaging AI & Digital Image Analysis	Digital Pathology Implementation, Strategy & Technology	Pharma/Biotech Case Studies
Day 2	Computational Pathology & AI	Applications and Research Case Studies	Pharma/Biotech Case Studies

- 75 strong senior level speaker faculty
- Exhibition hall for 60+ vendors
- Expert-led roundtables and interactive panel sessions
- Unique academic and pharma/biotech joint focus
- Poster presentations/ competition to promote scientific development
- Over 7 hours of networking time
- A fantastic reputation as the number one Digital Pathology & AI series worldwide

Reasons to attend

Are you:-

- Looking to invest and optimise the business case for digital pathology?
- Keen to learn how others have successfully implemented and integrated DP & AI into their workflow?
- An experienced user looking to uncover the latest advances, developments and case studies in the field
- Interested to meet 60+ vendors all in one room
- Wanting to network with like-minded peers

This congress is not to be missed and is a must attend event for anyone wanting to invest or utilize digital pathology to its full potential.

Medical staff and clinical scientists in career grade posts who are enrolled with one of the Royal Colleges for CPD purposes and attend the meeting will be entitled to receive 11 CPD credits.

CONFIRMED & RESERVED SPEAKERS

ANDREW JANOWCZYK
Assistant Professor, Department of Biomedical Engineering, Emory University and Georgia Institute of Technology and Department of Oncology, Division of Precision Oncology, Department of Diagnostics, Division of Clinical Pathology, Geneva University Hospitals, Switzerland

ANNA BODÉN
Pathologist and co-lead Bigpicture, Department of Clinical Pathology, (Region Östergötland), Centre for Medical Image Science and Visualization, Linköping University, Linköping, Sweden

BASHARAT HUSSAIN
Deployment Director, National Pathology Imaging Co-operative (NPIC)

BRANKO PERUNOVIC
Chief Medical Officer, Black Country Pathology Service

CARA BRODIE
Histopathology/ISH core facility, Cancer Research UK

RADHA KRISHNAN
Distinguished Scientist, Merck

CHRIS SLEIGHT
Chief Officer, Greater Manchester Diagnostics Network

CORINNA WOLF
Scientific Associate Director Digital Pathology, Merck Healthcare KGaA

DARREN TREANOR
Consultant Pathologist, Leeds Teaching Hospitals NHS Trust, Clinical Professor of Pathology, University of Leeds, Adjunct Professor of Digital Pathology, Linköping University and Director, National Pathology Imaging Co-operative

DAVID SNEAD
Consultant Pathologist and Director of PathLAKE, UHCW NHS Trust and Computer Science Department University of Warwick Coventry

PRITI LAL
Professor of Pathology, University of Pennsylvania, USA

EVITA SADIMIN
Chief, Division of Pathology Informatics and Data Science, Department of Pathology, City of Hope National Medical Center

ISABELLE SALMON
Head of the Department of Pathology, Erasme Hospital

JO MARTIN
Professor of Pathology, Deputy Vice Principal Health, Queen Mary University of London

JOHN LE QUESNE
Professor of Molecular Pathology, CRUK Beatson Institute

KATRIEN GRUNBERG
Professor & Chair of the Department of Pathology, Bigpicture co-coordinator, Radboud University

LASZLO IGALI
Consultant Histopathologist, Vice President, RCPath, Norfolk and Norwich University Hospital

LAURI DIEHL
Executive Director Nonclinical Safety & Pathobiology, Gilead

LORENZO RESSEL
Professor of Veterinary Pathology, University of Liverpool

LUIZA MOORE
Senior Director of Clinical Diagnostics, Global Oncology Diagnostics, AstraZeneca

MARILYN BUI
Scientific Director of Analytic Microscopy Core at Moffitt Cancer Center, Moffitt Cancer Center; Chair of Digital and Computation Pathology Committee of CAP

MATTHEW HUMPHRIES
Head of Translational Research, National Pathology Imaging Co-operative (NPIC)

JACK BOND
Business Development Manager – Healthcare, EIZO, England

PAUL J VAN DIEST
Professor & Head of Pathology Department, University Medical Center Utrecht

NINA LINDER
Associate Professor, Global Health & Migration, Dept. of Women's and Children's Health, Uppsala University

ORLY ARDON
Director Digital Pathology Operations and Assistant Attending, Memorial Sloan Kettering Cancer Center

PETER SCHIRMACHER
Director, Institute of Pathology Heidelberg University Hospital; President, European Society of Pathology

RENATE KAIN
Head of Pathology, University of Vienna

RICHARD HAWORTH
Director, RosettaPath

MAXIMILIAN KOELLER
Pathology Resident & PhD Student, University of Vienna

STEFAN PLATZ
SVP, Clinical Pharmacology & Safety Sciences, AstraZeneca

FIONA HENDERSON
PhD, Senior Field Applications Scientist, EMEA, Indica Labs

FLORIAN JAECKLE
Postdoctoral Researcher, University of Cambridge, UK

AURÉLIE FUGON
Business Development Director, Biomarker and Discovery Pharma Solutions, Owkin

SENIOR REPRESENTATIVE
Sectra

SENIOR REPRESENTATIVE
Aiforia

DONAL O'SHEA
Chief Executive Officer, Deciphex

SENIOR REPRESENTATIVE
Diagnexia

HADASSAH SADE
Executive Director, AZ Computational Pathology, AstraZeneca, Germany

GONZALO GARCIA-CALVO NAVARRO
Data & Analytics Segment Leader, Enterprise Imaging, GE HealthCare

SENIOR REPRESENTATIVE
Histologix

JAMES THACKERAY
Chief Commercial Officer, Lumea

SENIOR REPRESENTATIVE
Epredia

SENIOR REPRESENTATIVE
AWS

CHAITH KONDRAGUNTA
CEO, AIRA Matrix

SENIOR REPRESENTATIVE
IBEX

SENIOR REPRESENTATIVE
Tribun Health

LORENZ ROGNONI
Senior Director and Portfolio Owner, Spatial Image Analysis, Ultivue

SENIOR REPRESENTATIVE
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Scientific Area Lead Computational Pathology, Roche

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Roche

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Source LDPath

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[The Third Dimension For Histology]

Stratipath

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GRUNDIUM

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a biotechne brand

Modella AI

SLIDE SCORE

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sciento

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From Biology to Data

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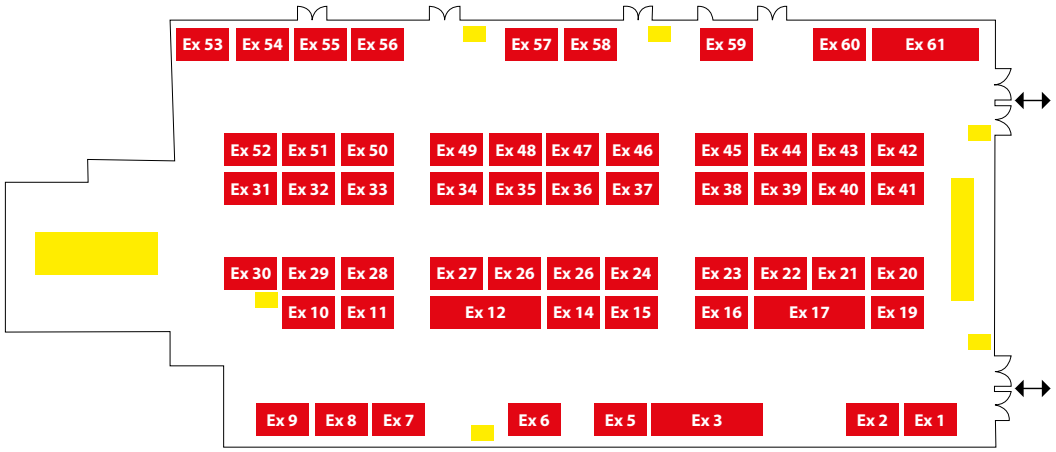
11TH DIGITAL PATHOLOGY & AI CONGRESS: EUROPE

HILTON LONDON METROPOLE

11-12 December 2024

MAIN EXHIBITION AREA



#1	Indica Labs	#19	Sectra	#34	LG Electronics	#49	PathQA
#2	Axlab	#20	Aiforia Technologies	#35	AXON	#50	Dell Technologies
#3	Leica Biosystems	#21	Medica Reporting	#36	Techcyte Europe	#51	Exponential-e Limited
#5	Paige	#22	OracleBio	#37	EIZO	#52	FUJIFILM Healthcare UK Ltd
#6	Clinisys	#23	Sciento	#38	Deep Bio	#53	INFINITT Europe
#7	Histofy	#24	Visiopharm	#39	Aurora mScope	#54	Amazon Web Services
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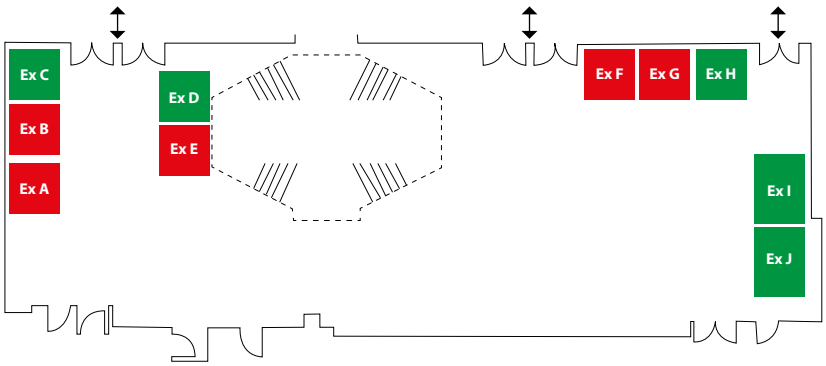
#9	PathAI	#26	mTuitive	#41	Proscia	#56	Lunaphore
#10	Siemens Healthineers	#27	NPIC	#42	Aira Matrix Private Limited	#57	Deciphex / Diagnexia
#11	Qritive	#28	Sysmex	#43	Ultivue	#58	G2 Speech
#12	Evident Europe GmbH	#29	Kaiko.ai	#44	Owkin	#59	Lumea
#14	Philips	#30	Source LDPath	#45	Tribun Health	#60	Cirdan
#15	Barco NV	#31	Hamamatsu	#46	IBEX Medical Analytics	#61	Epredia
#16	AGFA HealthCare	#32	Akoya Biosciences	#47	SCC Soft Computer		
#17	Objective Imaging	#33	Stratipath	#48	GE Healthcare		

START UP / INNOVATION ZONE EXHIBITION AREA



A	Tooploox
B	SlideScore
C	
D	
E	Histomography
F	Modella AI
G	Spotlight Pathology
H	
I	
J	

Key

- Allocated Exhibition Space
- Available Exhibition Space
- Lunch / Refreshment Station
- To / From Conference Rooms

*Global Engage reserves the right to make adjustments to this plan where necessary for operational reasons

Sponsored by:

indica labs
AI-POWERED PATHOLOGY

Tuesday 10th December 12:00-16:00

Complimentary access but registration is required

Learn how Indica Labs' customers employ HALO products for life science, clinical, and diagnostic use cases

Indica Labs is pleased to announce our London HALO® User Group Meeting at Hilton London Metropole on December 10 from 12:00 – 16:00. A lunch will be provided to all pre-registered attendees and a drinks reception will follow the event from 16:00 – 17:00.

Our program this year features three distinguished guest speakers who will discuss how they use AI-based phenotypers in HALO AI to advance breast cancer research, how HALO AP® is being deployed at Med Uni Graz for primary diagnostics, and how Breast IHC AI is advancing diagnostics at the University Hospital Bern. In addition to our guest speakers, Indica Labs will present an introduction and live demonstration of our image analysis and image management platforms for life sciences, introduce our offering in clinical AI and Cloud Services, and reflect on milestones and innovations enabled by HALO AP®.

We welcome anyone who is interested in learning more about Indica Labs' quantitative digital pathology solutions to register for the meeting. You do not need to be a current Indica Labs customer to attend.

11:00-12:00 Check In / Lunch

12:00-12:10

Dr. Kate Lillard Tunstall
Chief Scientific Officer, Indica Labs
Welcome Address

12:10-12:45

Pedro Espinosa Gonzalez
Field Applications Scientist, Indica Labs
HALO and HALO AI: AI-Powered Image Analysis
Join us for a live demonstration of the intuitive HALO image analysis platform and HALO AI deep learning toolset. This session will highlight HALO's powerful analytic capabilities as well as its flexibility and scalability supporting diverse areas of research. Topics include the pretrained AI-based nuclear and membrane segmentation networks available in HALO 4.0, which play a game-changing role compared to traditional tools. We will also introduce the latest networks released this year for HALO AI. These pretrained AI-based networks can be re-trained by the user to better fulfil the specific needs of a project and the trainable AI tissue classifiers can be used to segment the different compartments of each tissue. Learn how to train the different networks using the new Training Sessions feature and how to utilize the new Classifier Pipeline feature to accomplish routine detection workflows with efficiently trained classifiers having a limited number of classes.

12:45-1:00

Pedro Espinosa Gonzalez
Field Applications Scientist, Indica Labs
HALO Link: Promoting Discovery Through Collaboration
In this presentation we will focus on HALO Link, our image management platform for the life sciences, which facilitates collaboration, study management, image and metadata integration, and visualization of data. We will cover common workflows in HALO Link, and will discuss how different users, with various permission levels, can access images and will demonstrate tasks that can be accomplished using the browser-based platform. Discover the powerful plotting functionalities available to visualize data across a study, including heatmaps, scatter plots, violin plots, and box and whisker plots. Additionally, learn about the new tools in version 4.0 supporting auditing and Good Laboratory Practices (GLP).

1:00-1:20 Coffee Break

1:20-1:50

Dr. Katherine Sheehan
Consultant Pathologist, Pathology Laboratory, Blackrock Health, Dublin; Senior Lecturer & Consultant Pathologist, Depts of Pathology & Surgery, Royal College of Surgeons in Ireland
Digital Analysis of Metastatic Breast Cancer Using Cellular Phenotyping and Spatial Transcriptomics
In this presentation, we will show the use of HALO software in the differentiation of metastatic breast carcinoma from surrounding neural tissue types in the brain. Our study uses several components of the HALO AI platform, including tissue classification, object phenotyping and spatial analysis modules. In addition, the cellular localization and subclassification on routine H&E sections will be compared with spatial transcriptomics data that have been deployed on the same tissues.

1:50-2:10

Katie McKinley
VP, Clinical Applications, Indica Labs
HALO AP Five Years On: Milestones, Innovations, and the Future of AP Labs
Since its launch in late 2019, HALO AP® has transformed AP labs of varying scales and specializations. In this session, we will reflect on the key drivers behind our development over the past five years, highlighting our first-in-market tools that have set industry standards and enhanced client workflows. We will also explore what's next for HALO AP®, discussing the evolving needs of the industry and how we plan to continue leading the way in innovation and efficiency.

2:10-2:25

Dr. Peter Caie
Sr. Principal Scientist, AI Diagnostics, Indica Labs
HALO Clinical AI Solutions: From Research and Development to the Clinic
This session will introduce Indica Labs' current HALO Clinical AI solutions. We will describe how the AI Diagnostics team utilizes Indica Labs software to collaborate with external industrial, clinical, and academic partners during the research, development, validation, and deployment of our clinical AI products.

2:25-2:45 Coffee Break

2:45-3:15

Markus Plass
Researcher, Technical Lead Digital Pathology and Computational Pathology, Medical University of Graz
Implementing Digital Pathology: The Step from Research to Diagnostics
The Institute of Pathology at the Medical University of Graz is currently in the process of transitioning its diagnostics to digital pathology. Over the past few years, approximately half a million slides from the biobank have been digitized. This presentation will focus on how digitization can be transferred from research and teaching into routine diagnostics and how these areas can benefit from each other.

3:15-3:25

Billy Heseltine
Director of Cloud Services, Indica Labs
Optimizing Digital Pathology Infrastructure Through Cloud Services
This presentation will delve into how the Indica Labs Cloud Services team can elevate your HALO infrastructure through customized cloud solutions. Our expert engineers, proficient in both cloud technology and digital pathology, provide optimized deployments and exceptional support. Discover how our tailored approach ensures robust, scalable, and efficient operations for your digital pathology needs.

3:25-3:55

Dr. Wiebke Solass
Head of Gynecological Pathology, University Hospital Bern
Deploying Indica Labs Software at the University of Bern and Its Use for Clinical Reporting and Research Projects
At the University of Bern, the slogan "Tissue Medicine is the New Pathology" describes our vision of conducting holistic digital pathology-driven patient-oriented diagnostics and research. In this talk, I will briefly discuss our current reporting of breast cancer immunohistochemistry, the plans at Bern to integrate and deploy both HALO AP and Breast IHC AI into our clinical workflow, and the predicted efficiency gains we aim to achieve by doing so. I will also describe how Indica Labs' clinical software can be utilized to undertake research projects and train medical students at the University of Bern; focusing on a recent study comparing undergraduate breast cancer IHC scoring to that of trained pathologists, when assisted by Breast IHC AI.

3:55-4:00

Dr. Kate Lillard Tunstall
Chief Scientific Officer, Indica Labs
Closing Remarks

4:00-5:00 Drinks Reception

7:45-8:45 Registration & Sponsored Breakfast Workshop Session

8:50-9:00 Global Engage Welcome Address / Morning Chair's Opening Remarks

9:00-9:40

KEYNOTE ADDRESS:
KATRIEN GRUNBERG
Professor Head of the Department of Pathology at Radboudumc, Nijmegen, The Netherlands
AI Red Queen in pathology practice
Digitizing pathology has set the stage for borderless sharing of pathology expertise and for introducing artificial intelligence to everyday pathology practice. In this talk I will share experiences from Radboudumc pathology practice in digital collaboration in a regional network and creating a playground for safe and responsible introduction of AI solutions in clinical practice.

9:40-10:15

KEYNOTE ADDRESS:
ANDREW JANOWCZYK
Assistant Professor, Department of Biomedical Engineering, Emory University and Georgia Institute of Technology and Department of Oncology, Division of Precision Oncology, Department of Diagnostics, Division of Clinical Pathology, Geneva University Hospitals, Switzerland
Clinical deployment of digital pathology algorithms for precision medicine

- Integration: Explore how digital pathology algorithms are seamlessly integrated into clinical workflows, enhancing diagnostic accuracy and efficiency for pathologists.
- Precision Medicine Impact: Discuss the role of these algorithms in enabling precision medicine by identifying biomarkers, predicting treatment responses, and stratifying patients for personalized therapies based on pathomic profiles and disease characteristics.
- Clinical Validation and Adoption: Discuss the importance of clinical validation studies in demonstrating the reliability and effectiveness of digital pathology algorithms, and explore strategies for widespread adoption by healthcare institutions, including training programs for pathologists and infrastructure support for implementation.

10:15-10:45

SENIOR REPRESENTATIVE
Sectra

10:45-11:55 Morning Break / Poster Presentations / One-to-One Partner Meetings

IMAGING AI & DIGITAL IMAGE ANALYSIS

11:55-12:20

JOHN LE QUESNE
Professor of Molecular Pathology, CRUK Beatson Institute
Self-learning AI in pathology images; from H&E to multiplex
Abstract: HPL (Histomorphological Phenotype Learning) is a new self-learning artificial intelligence approach which discovers the meaningful recurrent morphological landscape in a set of histology images, and assigns interpretable quantitative summary vectors to whole slide images. It performs extremely well, generating best-in-class performance in lung cancer and mesothelioma cohorts in several tasks including subtyping and prognosis. Furthermore, it is highly interpretable and democratises image interpretation. We have been adapting the method to multiplex IF imaging, finding that it discovers key biologies related to patient outcomes without expert annotation. We will discuss this innovative approach and give multiple examples of its performance.

12:20-12:45

LASZLO IGALI
Consultant Histopathologist, Vice President, RCPath, Norfolk and Norwich University Hospital
Practical use of imaging and other types of AI in diagnostics
Digital (aided) diagnostics is taking over many pathology subspecialties, and the role and importance of AI are emerging. I will look at the role and implementation of AI solutions – from the perspective of clinical practice and direct patient care. The presentation will critically examine the

DIGITAL PATHOLOGY IMPLEMENTATION, STRATEGY & APPLICATIONS

11:55-12:20

ANNA BODÉN
Pathologist and co-lead Bigpicture, Department of Clinical Pathology, (Region Östergötland), Centre for Medical Image Science and Visualization, Linköping University, Linköping, Sweden
Bigpicture: A Digital Pathology Platform for FAIR Data Sharing and AI Development - The Skin Node Experience

- Bigpicture is an IMI funded project that aims to develop a digital pathology repository and services for FAIR data sharing and AI development.
- Bigpicture has developed a data model, tools, and guides to support data extraction, conversion, and sharing, based on DICOM, ISO, and common ontologies.
- Bigpicture data collection is organized into 7 clinical nodes, each with a node coordinator and a specific data collection strategy. The skin node focuses on skin cancer cases and observations. I will in this talk present the practical steps from clinical data to the final sharable dataset, based on experiences from the first collected skin dataset.

12:20-12:45

BRANKO PERUNOVIC
Chief Medical Officer, Black Country Pathology Service
Journey to Pathology 3.0: Intelligent Digital Pathology Platform Programme

PHARMA/ BIOTECH CASE STUDIES

11:55-12:20

STEFAN PLATZ
Clinical Pharmacology & Safety Sciences, AstraZeneca
Digital pathology and it's vital role as the cornerstone of the spatial biology revolution
At AstraZeneca, we are expanding the role and impact of digital toxicological pathology beyond quantitative image assessment. We are establishing a suite of tools and frameworks for integrating emerging multi-omic data to support our pathology project portfolios. By effectively embedding digital pathology tools into out workflows, we can improve the quality and quantity of pathology analysis but also apply it to new data sources. This is providing novel insights and a dynamic, integrated understanding of tissues, disease, and impact of our therapies. We are also expanding digital pathology into virtual pathology, where we use advances in AI analysis to accurately recreate label-free multiplex images from standard histology data. Key to driving our innovation and adoption are close collaborations between our pathologists and multidisciplinary data scientist, enabling a seamless and scalable digital revolution to support our accelerated drug discovery.

12:20-12:45

LAURI DIEHL
Executive Director Nonclinical Safety & Pathobiology, Gilead
How we apply deep learning/AI to practical problems in computational pathology

12:20-12:45

different AI solutions available now, not only from an imaging perspective but also including the "other" AI solutions (LLM, etc.). We will look at the subject from the angle of emerging regulations and future trends, including our experience, solutions, and proposals on how to deal with the limitations and uncertainties surrounding AI applications. I believe AI is Augmented rather than Artificial Intelligence and will help diagnostics in the future. However, it requires a critical approach, profession-driven regulation and careful clinical evaluation.

12:20-12:45

Continued

12:20-12:45

Continued

12:45-1:15

SENIOR REPRESENTATIVE
Aiforia

12:45-1:00

GONZALO GARCIA-CALVO NAVARRO
Data & Analytics Segment Leader, Enterprise Imaging, GE HealthCare
Breaking silos trough Connected Care

1:00-1:15

SENIOR REPRESENTATIVE
Kaiko.ai

12:45-1:15

DONAL O'SHEA
Chief Executive Officer, Deciphex

1:15-2:25 Lunch

2:25-2:50

CARA BRODIE
Histopathology/ISH core facility, Cancer Research UK
Dissecting prostate cancer metabolic compartmentalization using digital pathology and hyperpolarized MRI

Prostate cancer (PCa) is the second commonest and the fifth deadliest male cancer worldwide. The key diagnostic challenge in PCa is differentiating indolent from clinically significant disease as the latter requires more stringent follow-up and/or immediate treatment. Hyperpolarized [1-13C]pyruvate MRI (HP-13C-MRI) is an emerging clinical imaging technique that can visualize metabolic alterations that occur throughout tumorigenesis. Digital pathology and image analysis with HALO was used to measure immunohistochemical and mRNA expression of monocarboxylate transporters 1 and 4, confirming that HP-13C MRI specifically visualizes tumor epithelial metabolism that was significantly different from that of PCa stroma.

2:25-2:50

BASHARAT HUSSAIN
Deployment Director, National Pathology Imaging Co-operative (NPIC)
Digital Pathology Implementation, Strategy & Application

The NPIC Journey - covering the technical journey of deploying a National Digital Pathology System, including some of the challenges and the benefits.

2:25-2:50

CORINNA WOLF
Scientific Associate Director Digital Pathology, Merck Healthcare KGaA
The power of DP & AI for clinical implementation of tissue-based biomarker assays in the context of DNA Damage Response (DDR) drug development

- Power of DP for biomarker assay validation & implementation
- Novel AI strategies to enable clinical implementation of challenging multiplex immunofluorescence biomarker assays
- Application of DP & AI in the context of DDR drug development

2:50-3:15

MATTHEW HUMPHRIES
Head of Translational Research, National Pathology Imaging Co-operative (NPIC)
The NPIC AI FORGE: A unique multi-scanner facility for artificial intelligence data acquisition

The talk will describe the concept, installation, and capabilities of the scanning facility, including how we are already supporting translation research.

2:50-3:15

EVITA SADIMIN
Chief, Division of Pathology Informatics and Data Science, Department of Pathology, City of Hope National Medical Center
Optimizing digital pathology: Enhancing efficiency and improving satisfaction

After the initial setup phase, which includes configuring scanners, storage solutions, Laboratory Information Systems (LIS), and Image Management Systems (IMS), attention to further details remains crucial for optimizing the digital pathology workflow. This presentation will delve into essential aspects such as monitors options and navigation tools designed to enhance efficiency and ensure user comfort. In addition, we will explore effective strategies for utilizing templates to streamline repetitive tasks, reducing errors and improving consistency in diagnostic processes. These solutions are useful not only for clinical applications but also for advancing education and facilitating research.

2:50-3:15

RICHARD HAWORTH
Director, RosettaPath
Integration of AI in the Pathology workflow of toxicology studies

- Effective implementation of AI tools into the pathology workflow will lead to enhanced productivity and insights
- Increasing numbers of off-the-shelf algorithms and software vendors incorporating these tools into non-GLP and GLP workflows requires strategic review and careful selection by Pharma/ biotech/CRO decision makers
- Quantitative image analysis data will form an increasing part of pathology reports and needs to be generated, interpreted and reported alongside traditional semi-quantitative and qualitative diagnostic terms.

3:15-3:40

ORLY ARDON
Director Digital Pathology Operations and Assistant Attending, Memorial Sloan Kettering Cancer Center
Clinical Digital Pathology Operations at Scale: The Memorial Sloan Kettering Cancer Center Experience
Clinical grade digital pathology holds many promises to patient care yet requires additional resources for scaling up the infrastructure and ongoing operations. Memorial Sloan Kettering Cancer Center has been an early adopter of digital pathology and is currently scanning more than 30,000 slides a week. The talk will explore the benefits of a phased implementation of digital pathology and the considerations when scaling up the operation to a fully digital workflow

3:15-3:40

NINA LINDER
Professor (Guest), Uppsala University, Sweden and Researcher at the Institute for Molecular Medicine - FIMM, University of Helsinki, Finland
AI with pathologist verification for cervical cancer screening in a global setting
We have developed a method for point-of-care diagnostics in low-resource settings based on a combination of mobile small sized scanners and artificial intelligence, with a broad potential for application to cytology/histopathology, for example screening for cervical atypia (n=2950 patients). The microscope scanners are wirelessly connected via mobile networks for deep learning-based image analysis. Results are verified and classified by cytotechnologists and pathologists and agreement between observers is estimated. The diagnostic system provides a tool for access to advanced diagnostics at the point-of-care, meaning a significant step towards a more equitable and sustainable access to high-quality diagnostics in a global setting.

3:15-3:40

HADASSAH SADE
Executive Director, AZ Computational Pathology, AstraZeneca, Germany
Computational pathology to guide the use of ADCs
Technological advancements in the fields of computer vision and artificial intelligence (AI) have led to the emergence of computational pathology approaches to leverage information from histology images that can not only replicate to varying degrees of accuracy the performance of pathologists, but also predict molecular cancer subtypes, outcomes, mutations, and gene expression from standard diagnostic hematoxylin-and-eosin (H&E) sections. The development of AI algorithms to quantify the expression of therapeutic targets utilizing immunohistochemically stained sections is transforming the assessment of therapeutic targets, given that the levels of precision, accuracy, and reproducibility, as well as the assessable dynamic range offered by these computational pathology solutions significantly surpass those attained by visual scoring by pathologists. One of the computational pathology approaches called Quantitative Continuous Scoring (QCS) deploys the power of Deep Learning (DL) to provide objective and continuous expression data of biomarkers in digitized IHC whole slide images (WSI), particularly of proteins expressed at low levels. We have successfully used QCS to drive the selection of antibody clones for IHC assays and to delineate the mode of action and PK/PD mechanisms. Of note, the combination of assessing continuous target expression and capturing the spatial distribution of tumor cells has provided surrogate markers to predict potential bystander activity of antibody drug conjugates (ADCs). This approach outperformed traditional pathologist scoring in identifying patient populations having maximum treatment benefit through retrospective analysis of multiple clinical trials.In summary, we here describe and discuss a computational pathology-based approach for precise biomarker quantification and superior patient selection with broad applicability and the potential to transform the very fabric of how we diagnose and treat cancer.

3:40-4:10

FIONA HENDERSON
PhD, Senior Field Applications Scientist, EMEA, Indica Labs
HALO: Powering Discovery with AI
Join us for a live demonstration of HALO® and HALO AI, the intuitive deep learning platform for image analysis. This session will showcase HALO AI's powerful capabilities, flexibility, and scalability across diverse research areas such as immuno-oncology, neuroscience, and metabolism. Whether you're new to HALO or an existing user, this demonstration will guide you through complex tissue and cell segmentation using pre-trained and trainable networks. Learn how to enhance your annotation skills for optimal training and discover the full potential of HALO AI. Nuclear and membrane segmentation optimised in HALO AI can then be embedded in HALO analysis modules for improved cell detection and phenotyping. We will also demonstrate how creating classifier pipelines can achieve more precise and efficient batch image analysis.

3:40-4:10

SENIOR REPRESENTATIVE
Proscia

3:40-3:55

AURÉLIE FUGON
Business Development Director, Biomarker and Discovery Pharma Solutions, Owkin
AI for histology-based spatial biomarker discovery
Understanding the tumor microenvironment (TME) and its spatial architecture is crucial for enhancing patient outcomes. However, research has been hindered by the absence of standardized quantification methods. At Owkin, we address this by developing HistoPLUS, a suite of reproducible AI-based biomarkers, to accurately characterize patients' TMEs. Our presentation will outline methodologies for characterizing individual patients' TMEs at the cellular level. We employ active learning techniques and collaborate with data scientists and pathologists to create high-quality datasets and robust cell-level detection and classification models. These models generate spatially resolved characterizations of patient tumors. For example, we demonstrate that the density of lymphocytes within the tumor core, along with metrics quantifying their spatial organization, are significant prognostic factors in colorectal and breast cancer. These spatial descriptors are integrated into our drug discovery engines to refine and optimize patient population selection for therapeutic development.

3:55-4:10

SENIOR REPRESENTATIVE
Histologix

4:10-5:00 Afternoon Break / Poster Presentations / One-to-One Partner Meetings

IMAGING AI & DIGITAL IMAGE ANALYSIS

5:00-5:30

JAMES THACKERAY
Chief Commercial Officer, Lumea

Over 2 Million Digital Diagnoses Driven by Tissue Tech and Workflow AI

For over a decade, Lumea has led the way in digital pathology innovation, driving the standardization of pathology workflows. In this presentation, discover how leveraging tissue technology and workflow AI can optimize the entire pathology ecosystem, significantly improving diagnostic accuracy, operational efficiency, and patient care.

5:30-6:20

PANEL DISCUSSION:

What AI tools do pathologists want and what are they likely to receive?

- What are the roles of AI in accelerating the generation of novel therapies, and how do we provide this?
- How do we reimburse the adoption of AI into clinical practice?
- Is digital pathology delivering on its promise?

DARREN TREANOR (Moderator)
Consultant Pathologist, Leeds Teaching Hospitals NHS Trust, Clinical Professor of Pathology, University of Leeds, Adjunct Professor of Digital Pathology, Linköping University and Director, National Pathology Imaging Co-operative

EVITA SADIMIN
Chief, Division of Pathology Informatics and Data Science, Department of Pathology, City of Hope National Medical Center

DIGITAL PATHOLOGY IMPLEMENTATION, STRATEGY & APPLICATIONS

5:00-5:30

SENIOR REPRESENTATIVE
Epredia

5:30-5:55

PAUL J VAN DIEST
Professor & Head of Pathology Department, University Medical Center Utrecht

Topic TBC

5:55-6:20

CHRIS SLEIGHT
Chief Officer, Greater Manchester Diagnostics Network

Recruiting a Future Workforce. Why digital technology in the NHS is more important than ever before!

Since the millennium the world population has increased by 33%. WHO predict this growth will continue for the next 80 years. By 2100 average life expectancy in the UK is predicted to increase to over 90 years of age. The healthcare needs of the UK population are already increasing with an increasing percentage of over sixty-fives, whilst the percentage of the population at an employable age is reducing. Chris will approach the stereotypes of Generation Z and Generation Alpha and ask how we create a workforce with the skills, incentives, capacity and capability of sustaining and providing high quality services to an increasing population. Chris will suggest why your choice of digital solutions is more important than ever before.

DIGITAL PATHOLOGY TECHNOLOGY & APPLICATIONS

5:00-5:15

JACK BOND
Business Development Manager – Healthcare, EIZO, England

The Importance of Display Specifications in Digital Pathology

In the evolving field of digital pathology, there is often a lot of technical jargon used to describe the systems put in place. This presentation highlights the key specifications that should be considered when searching for your digital pathology display. Explaining the terminology in a universal language that can be understood by attendees of all technology backgrounds. Combining market feedback and our industry knowledge as a manufacturer of medical grade and colour specific displays, attendees will gain a deep insight into the world of displays and see how different specifications can influence the digital image in your workflow.

5:15-5:30

SENIOR REPRESENTATIVE
AWS

5:30-6:20

ROUNDTABLE SESSIONS:

Roundtables are informal, small-group interactive discussions on key topics in the field. Discussion leaders will introduce sub-topics/questions for discussion and roundtable attendees are encouraged to participate actively in the session

TABLE 1: Accreditation of digital pathology algorithms within the clinical routine workflow

ANDREW JANOWCZYK
Assistant Professor, Department of Biomedical Engineering, Emory University and Georgia Institute of Technology and Department of Oncology, Division of Precision Oncology, Department of Diagnostics, Division of Clinical Pathology, Geneva University Hospitals, Switzerland

TABLE 2: TBC

HADASSAH SADE
Executive Director, AZ Computational Pathology, AstraZeneca, Germany

6:20-7:20 Networking Drinks Reception

7:45-8:45 Sponsored Breakfast Workshop Session

8:55-9:00 Morning Chair's Opening Remarks

9:00-9:40

KEYNOTE ADDRESS:
PETER SCHIRMACHER
Director, Institute of Pathology, Heidelberg University Hospital; President, European Society of Pathology
Computational Pathology – Strategy of the European Society of Pathology (ESP) and impact on pathohistological diagnostics

9:40-10:15

KEYNOTE ADDRESS:
MARILYN M. BUI
Senior Member and Professor of Pathology and Machine Learning Departments, Scientific Director of Analytic Microscopy Core, Moffitt Cancer Center & Research Institute, Tampa, FL, USA; Chair of Digital and Computation Pathology Committee of CAP
Digital Pathology and AI for Practicing Pathologists

- Update on recent developments in DP and AI relevant to practicing pathologists.
- Raise awareness of resources and guides for incorporating DP and AI into daily practice.
- Foster collaboration between pathology and scientific communities

10:15-10:45

CHAITH KONDRAGUNTA
CEO, AIRA Matrix
AI Solutions that make the Business Case for Digital Pathology
Digital Pathology solutions are being increasingly adopted in laboratories worldwide. For sustained real world usage, it is essential to identify solutions that (1) achieve return on investment for Digital Pathology and (2) provide a foundation for adoption of advanced solutions like AI based analysis, etc. AIRAQc is a quality control solution for preanalytical anatomic pathology workflows that provides the two benefits. The automated detection and quantification of processing and scanning errors early in the workflow reduces costs, speeds up turnaround times and provides for clean digital image data.It also improves the accuracy of downstream AI based image analysis. This solution effectively builds the business case for the adoption of Digital Pathology.

10:45-11:35 Morning Break / Poster Presentations / One-to-One Partner Meetings

COMPUTATIONAL PATHOLOGY & AI

11:35-11:50

15-Minute Solution Provider Presentation
For sponsorship opportunities contact Gavin Hambrook
gavin@globalengage.co.uk

11:50-12:15

DAVID SNEAD
Consultant Pathologist and Director of PathLAKE, UHCW NHS Trust and Computer Science Department University of Warwick Coventry
Drivers and barriers to the adoption of AI into cellular pathology
The promise of AI to improve histopathology has been the focus of considerable attention over the past 5 years. However its adoption remains limited to a relatively small number of laboratories and use cases. The vast majority of cellular pathology work remains the domain of the human pathologist alone. The adoption of digital pathology AI presents considerable challenges to laboratory managers, pathologists, procurement and IT departments. This talk, drawn from the experience of running the PathLAKE project explores some of the main drivers and barriers to the adoption of this technology. A review of use cases considered in the PathLAKE procurement, the process of drawing up specifications, the difficulties in delivering solutions into the pathologist's workflow will be presented.

12:15-12:40

JO MARTIN
Professor of Pathology, Deputy Vice Principal Health, Queen Mary University of London

DIGITAL PATHOLOGY STRATEGY & APPLICATIONS

11:35-11:50

SENIOR REPRESENTATIVE
Diagnexia

11:50-12:15

RENATE KAIN
Head of Pathology, University of Vienna
Digital spatial profiling in immunological diseases of the kidney
Digital spatial profiling, a technology increasingly used to interrogate transcriptomic and protein expression profiles in tissue sections in topographical context has increasingly become a method not only to generate hypotheses but also to investigate specific disease pathways and molecular signatures. Well established in neoplastic disease, it now also provides a technology to be used in complex immunological diseases like auto-immune diseases of the kidney.

12:15-12:40

ISABELLE SALMON
Head of the Department of Pathology, Erasme Hospital
Improving the neuropathological diagnosis of pediatric brain tumors and clinical management of patients using the SecundOS diagnostic platform

PHARMA/ BIOTECH CASE STUDIES

11:35-11:50

15-Minute Solution Provider Presentation
For sponsorship opportunities contact Gavin Hambrook
gavin@globalengage.co.uk

11:50-12:40

PANEL DISCUSSION:
How is AI implementation delivering a return on investment in your pathology workflows?

RICHARD HAWORTH
Founder and Director, RosettaPath

LAURI DIEHL
Executive Director Nonclinical Safety & Pathobiology, Gilead

MARCO TECILLA
Scientific Area Lead Computational Pathology, Roche

12:40-1:10

SENIOR REPRESENTATIVE
IBEX

12:40-1:10

SENIOR REPRESENTATIVE
Tribun Health

12:40-1:10

LORENZ ROGNONI
Senior Director and Portfolio Owner, Spatial Image Analysis, Ultivue

Unlocking the Tumor Microenvironment with End-to-End Optimized Highly Reproducible AI-Driven Spatial Image Analysis and Multiplex Assays

The tumor microenvironment (TME), characterized by diverse cancer and immune cell populations, plays a critical role in tumor progression, metastasis, and therapeutic response. Understanding this complex environment is essential for advancing precision oncology and developing effective therapies. This presentation will explore how Ultivue's InSituPlex® assays, combined with the AI-powered STARVUE™ platform, provide a highly reproducible, end-to-end optimized solution to address this complexity. By leveraging deep learning, our platform transforms multiplex immunofluorescence (mIF) images into rich, actionable data. We will demonstrate the reproducibility of our 12-plex assay and its ability to reveal critical insights into cellular populations, spatial relationships, and immune interactions within the TME, enabling more informed therapeutic development.

1:10-2:20 Lunch

2:20-2:40

SENIOR REPRESENTATIVE
Leica Biosystems

2:20-2:40

SENIOR REPRESENTATIVE
AGFA Healthcare

2:20-2:40

SENIOR REPRESENTATIVE
Dell Technologies

2:40-2:55

POSTER COMPETITION WINNERS TALK:
If interested in submitting a poster and/or applying to present a poster on the programme, please apply before the deadline of 22nd November 2024

2:40-2:55

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2:55-3:20

FLORIAN JAECKLE
Postdoctoral Researcher, University of Cambridge, UK

Machine Learning Achieves Pathologist-Level Coeliac Disease Diagnosis

Florian will present how machine learning can be used to diagnose coeliac disease, an autoimmune disorder that relies on the histological examination of duodenal biopsies. He will first talk about how an AI model diagnosing coeliac disease can achieve similar accuracy, sensitivity, and specificity as pathologists on an independent test set from a previously unseen hospital. He will then cover how more explainable and interpretable AI approaches have the potential to aid pathologists in diagnosing duodenal biopsies.

2:55-3:20

LORENZO RESSEL
Professor of Veterinary Pathology, University of Liverpool

3D Virtual anatomical pathology: the experience of Liverpool Veterinary School

Pathology educators have long aimed to preserve unique and typical lesions for teaching, a need accelerated by the shift to online learning. To address this, we developed a standardized protocol for creating digital 3D models for veterinary pathology education. Utilizing photogrammetry, we capture multiple photographs from different angles to reconstruct a 3D mesh, overlaying it with detailed textures of the organ surfaces. These models are used in live sessions or uploaded to online platforms for study and revision. Additionally, we incorporate these models into a virtual reality (VR) environment in the metaverse, allowing users to interact with the models and each other in a virtual room. This approach not only enhances learning with life-like, durable 3D models but also leverages the metaverse's potential for immersive and interactive education in veterinary pathology.

2:55-3:20

LUIZA MOORE
Senior Director of Clinical Diagnostics, Global Oncology Diagnostics, AstraZeneca

Topic: Biomarker Assessment

3:20-3:55

MAXIMILIAN KOELLER
Pathology Resident & PhD Student, University of Vienna
Standardized metadata for computational pathology
The interrogation of scanned whole slide images of histopathological specimen requires unified nomenclatures and metadata not only for comparative clinical studies but also to interrogate repositories containing whole slide images. Bigpicture, an EC founded IMI project designed to collect 3 Million histopathological whole slide images and associated metadata set out to fulfill this goal by providing a framework for collecting data and associated metadata at pre-analytical, technical and diagnostic level. Here we present a minimum standardized metadata for the development of artificial intelligence in computational pathology.

3:20-3:55

PRITI LAL
Professor of Pathology, University of Pennsylvania, USA

3:20-3:55

RADHA KRISHNAN
Distinguished Scientist, Merck
Topic: TBC

3:55-4:25

CLOSING KEYNOTE ADDRESS:
DARREN TREANOR
Consultant Pathologist, Leeds Teaching Hospitals NHS Trust, Clinical Professor of Pathology, University of Leeds, Adjunct Professor of Digital Pathology, Linköping University and Director, National Pathology Imaging Co-operative
The UK National Pathology Imaging Co-operative: Update and next steps
The UK National Pathology Imaging Co-operative has entered its 6th year of operation and has now established a national digital pathology PACS for the NHS, aligned to a national research image management system. 7 Trusts are live to date, with 100% scanning and nearly 2 million slides scanned. The talk will describe the work to date at NPIC and future plans in clinical, research use of digital pathology including AI evaluation and deployment in the NHS

4:25 End of Conference

MAKING A POSTER PRESENTATION – CLOSING DATE 22ND NOVEMBER 2024

Poster presentation sessions will take place in breaks and alongside the other breakout sessions of the conference. Your presentation will be displayed in a dedicated area, with the other accepted posters from industry and academic presenters.

We also issue a poster eBook to all attendees with your full abstract in and can share your poster as a PDF after the meeting if you desire (optional).

Whether looking for funding, employment opportunities or simply wanting to share your work with a like-minded and focused group, these are an excellent way to join the heart of this congress.

In order to present a poster at the forum you need to be registered as a delegate. Please note that there is limited space available and poster space is assigned on a first come first served basis (subject to checks and successful registration)

SUBMISSION INSTRUCTIONS

We will require the form to be submitted by the 22nd November. This is the formal deadline however space is another limiting factor so early application is recommended. Therefore please contact us with any questions you have as soon as possible.

POSTER COMPETITION

- Three 15-minute speaking slots have been reserved on the Agenda for you to give an oral presentation of your research.
- Simply indicate that you would like your poster presentation to be submitted to the judging panel on the poster submission form.
- The winning entries will be notified one week after the closing date above.
- The competition is not open to representatives of organisations offering services and/or business & technology solutions or business consultants.