# Poster Presentations

**2015 PATHOLOGY VISIONS**

Power of Convergence: The Impact of Digital Pathology
Tomorrow's Tools & Today's Tasks
October 11 - 13, 2015
The Westin Boston Waterfront
Boston, MA

**2015 Poster Presentation Winners**

**Best Poster by a Resident**
**P23. Return on Investment Using Whole Slide Imaging for Quality Initiatives to Improved Cancer Diagnosis**
Mark Priebe, MT and Jared Swartz, MD, PhD

**Best Clinical Poster**
**P4. Fast, Flexible Whole Slide Imaging Navigation**
Bryan Dangott, MD, *NimbleNav*

**Best Education & Research Poster**
**P24. NDER: A Novel Web Application Using Annotated Whole Slide Images for Rapid Improvements in Human Pattern Recognition**
Nicholas P. Reder, Daniel Glasser, Suzanne Dintzis, Mara Rendi, Rochelle Garcia, Jonathan Henriksen, Mark Kilgore

**Best Image Analysis Poster**
**P35. Machine Learning-based Prognostication of Breast Cancer Recurrence using Tissue Slide Features**
David A. Knowles, *Stanford University*
Stanley Ho, *Ventana Medical Systems, Inc, a Member of the Roche Group*
Kien Nguyen, *Ventana Medical Systems, Inc, a Member of the Roche Group*
Don Morris, *Alberta Health Services*
Anthony Magliocco, *Lee Moffitt Cancer Center*
Anindya Sarkar, *Ventana Medical Systems, Inc, a Member of the Roche Group*
Daphne Koller, *Stanford University*
Chukka Srinivas, *Ventana Medical Systems, Inc, a Member of the Roche Group*
Michael Barnes, *Ventana Medical Systems, Inc, a Member of the Roche Group*

**People's Choice**

**P27. Visualization of mRNA Levels in Histological Context as a Heat Map**

Chandrassegar Saravanan, *Preclinical Safety: Discovery & Investigative Safety*
Chiara Buono, *Preclinical Safety: Discovery & Investigative Safety*
Arno Doelemeyer, *Preclinical Safety: Discovery & Investigative Safety*
Jean-Rene Galarneau, *Preclinical Safety: Discovery & Investigative Safety*
Bryce Suchomel, *Preclinical Safety: Discovery & Investigative Safety*
Keith Mansfield, *Preclinical Safety: Discovery & Investigative Safety*
Alex Handler, *Neuroscience, Novartis Institutes for Biomedical Research, Cambridge, MA*
Manuela Polydoro, *Neuroscience, Novartis Institutes for Biomedical Research, Cambridge, MA*

**All 2015 Poster Presentations**

**P1. Digital Whole Slide Imaging Validation Following College of American Pathology Recommendation**

Derek Bumgarner, MD, Ewa Borys, MD, Maria Picken, MD, PhD, Dariusz Borys, MD

**P2. Digital Pathology Tumor Board Satisfaction**

Derek Bumgarner, MD and Dariusz Borys, MD

**P3. Colour Calibration in Digital Pathology: The Clinical Impact of a Novel Test Object**

Emily L. Clarke, MBBS PG Cert(HR), *Department of Histopathology, Leeds Teaching Hospitals NHS Trust, Leeds, UK*
Craig Revie, MSc, *FFEI Limited, Hemel Hempstead, UK*
David Brettle, BSc, MSc, PhD, FIPEM, *Department of Histopathology, Leeds Teaching Hospitals NHS Trust, Leeds, UK*
Robert Wilson, BSc, *University of Leeds, Leeds, UK*
Claudia Mello-Tho MS PhD, *Faculty of Health Sciences, University of Sydney, Australia*
Darren Treanor, MB BSc(Computing) PhD FRCPath, *Department of Histopathology, Leeds Teaching Hospitals NHS Trust, Leeds, U*

**P4. Fast, Flexible Whole Slide Image Navigation**

Bryan Dangott, MD, *NimbleNav*

**P5. Panoptiq Imaging System Compared with the Whole Slide Imaging (WSI) for Challenging Pathology Cases**

Kahmil Shajihan, *Intern in Computer Science, Biology and Biomedical Informatics, Department of Biomedical Informatics*
Sara E. Monaco MD, *Department of Pathology, University of Pittsburgh Medical Center*
Ishtiaque Ahmed, *Department of Pathology, University of Pittsburgh Medical Center*
Jon Duboy, *Department of Pathology, University of Pittsburgh Medical Center*
Liron Pantanowitz, MD, *Department of Pathology, University of Pittsburgh Medical Center*

**P6. Optimal Use of Digital Slides in Cytotechnologist Training**

Navid Farahani, MD, Jackie Cuda, Judy Modery, Liron Pantanowitz, MD

**P7. Utilizing Image Analysis for Quantification and Comparison of Immunohistochemical Staining Variance And Reproducibility**

Faye C. Doherty, PhD, *Premier Laboratory, LLC*
Roger Pearce, MS, *Premier Laboratory, LLC*
Christine "Charlie" Domer, HT (ASCP), LSS-BB, *Dako An Agilent Technologies Company*
Elizabeth A. Chlipala, BS, HTL (ASCP)QIHC,  *Premier Laboratory, LLC*


**P8. Automated Analysis of Chromogenic In Situ Hybridisation of Breast Tumours in Tissue Microarra ys**

Ali Dariush, H. Raza Ali, Silvia-Elena Glont, Suet Fueng Chin, Elena Provenzano, Nicholas Walton, Paul Pharoah, Carlos Caldas


**P9. Gross Digital Pathology Advancement**

Izak Dimenstein


**P10. Automated Digital Pathology Solution for Rapid and Reliable Cervical Cancer Screening**

Hubert Elie, *Department of Pathology, Cherbourg Public Hospital Center, Cherbourg, France*
Michel Lecluse, *Department of Pathology, Cherbourg Public Hospital Center, Cherbourg, France*
Boris Lesner, *DATEXIM SAS, Caen, France*
Abderrahim Elmoataz, *GREYC CNRS UMR 6072, Caen, France*
Arnaud Renouf, *DATEXIM SAS, Caen, France*


**P11. Validation of Automated Quantification of pSTAT3 in Colonic Tissue as a Biomarker of Disease Progression and Reliable Endpoint in Inflammatory Bowel Disease (IBD) Preclinicial Murine Modeling**

Holly Raymond, Jeff Hall, Mike Harris, Tadimeti Rao


**P12. Application of Network Theory in Pathology Research**

Amir Momeni Boroujeni,  Raavi Gupta, Elham Yousefi


**P13. Three-Dimensional Evaluation and Volume Rendering from Aligned Serial Whole-Slide Images of Routine Histology Specimens**

Beverly Faulkner-Jones and Charles Law


**P14. Automated Alignment of Serial Whole Slide Images from Routine Histology Specimens**

Charles Law PhD and Beverly Faulkner-Jones MD, PhD


**P15. Remote Eye Tracking in Digital Anatomic Pathology**

Sharon E. Fox and Beverly E. Faulkner Jones

**P16. 3D-Rendering Histologic Structures from Aligned Sequential Whole Slide Images**

Edward Fulton, MD, Kristin Smith, MD, Beverly E. Faulkner-Jones, MD, PhD, C. Charles Law, PhD, Brian Helba, BS

**P17. Diagnostic Differentiation Between Inflammatory Dermatoses using Whole Slide Images with Emphasis on Neutrophilic Dermatoses and Cutaneous Lupus Erythematosus**

Kristin Burns Smith, MD, *Beth Israel Deaconess Medical Center, Pathology, Boston, Massachusetts, United States*
Edward H. Fulton, MD, *Beth Israel Deaconess Medical Center, Pathology, Boston, Massachusetts, United States*
Jia Xu, MD, *Beth Israel Deaconess Medical Center, Pathology, Boston, Massachusetts, United States*
Toni Peters, MD, *Beth Israel Deaconess Medical Center, Pathology, Boston, Massachusetts, United States*
Charles Law, PhD, *Kitware, Inc., Clifton Park, New York, United States*
Brian Helba, BS, *Kitware, Inc., Clifton Park, New York, United States*
Beverly E. Faulkner-Jones, MD, PhD, *Beth Israel Deaconess Medical Center, Pathology, Boston, Massachusetts, United States*

**P18. Development of Standardized, Codified Checklists and Predetermined Discordance Tables for the Assessment od Diagnostic Concordance**

Katy Wack, *Omnyx, LLC, Pittsburgh, PA*
Laura Drogowski, *Omnyx, LLC, Pittsburgh, PA*
Murray Treloar, *Dr. Murray Treloar Medicine Professional Corporation, Port Hope, ON*
Anil Parwani, *Department of Pathology, Ohio State University, Columbus, OH*
Andrew Evans, *Department of Pathology, University Health Network-Toronto General Hospital, Toronto, ON*
Jon Ho, Department of Dermatology, *University of Pittsburgh Medical Center, Pittsburgh, PA*
Michael C. Montalto, PhD, *Omnyx, LLC, Pittsburgh, PA*

**P19. Validation of Digital Pathology-Based Prostate Core Biopsy Diagnoses Using Custom Reporting and Arbitrating Documents**

Lindsay Demblowski, *Omnyx, LLC, Pittsburgh, PA*
Laura Drogowski, *Omnyx, LLC, Pittsburgh, PA*
Katy Wack, PhD, *Omnyx, LLC, Pittsburgh, PA*
Mike Montalto, PhD, *Omnyx, LLC, Pittsburgh, PA*
Gaby Quiroga-Garza, *Department of Pathology, University of Pittsburgh Medical Center, Pittsburgh, PA*
Dinesh Prahan, MD, *Department of Pathology, University of Pittsburgh Medical Center, Pittsburgh, PA*
Sheldon Bastacky, MD, *Department of Pathology, University of Pittsburgh Medical Center, Pittsburgh, PA*
Anil Parwani, MD, PhD, *Department of Pathology, The Ohio State University, Columbus, OH*

**P20. Method for Feature-Based Evaluation of Reader Performance Using Digital Region of Interest Images**

Varsha Shankla, MS
Vipul Baxi, MS
Laura Drogowski, *Omnyx, LLC, Pittsburgh, PA*
Katy Wack. PhD, *Omnyx, LLC, Pittsburgh, PA*
Tyler Keay, *Omnyx, LLC, Pittsburgh, PA*
Lindsay Demblowski, *Omnyx, LLC, Pittsburgh, PA*
Billie Fyfe, MD, *Department of Pathology and Laboratory Medicine, Robert Wood Johnson Medical School, New Brunswick, NJ*

Michael C. Montalto, PhD, *Omnyx, LLC, Pittsburgh, PA*

**P21. Workflow Solutions for End to End Digital Pathology Case Management and Review**
Dan Hosseinzadeh, *CEO, PathCore*

**P22. Gaze Tracking Reveals Patterns of Whole-Slide Viewing that Depend on Pathologist Experience**
Andrei Plagov, *Drexel University College of Medicine, Philadelphia, PA*
Mark D. Zarella, *Drexel University College of Medicine, Philadelphia, PA*
David E. Breen, *College of Computing and Informatics, Drexel University, Philadelphia, PA*
Fernando U. Garcia, *Cancer Treatment Centers of America, Eastern Regional Medical Center, Philadelphia, PA*

**P23. Return on Investment Using Whole Slide Imagingfor Quality Inititiatives to Improved Cancer Diagnosis**
Jared Schwartz, MD, PhD and Mark Priebe, MT (ASCP) SBB

**P24. NDER: A Novel Web Application Using Annotated Whole Slide Images for Rapid Improvements in Human Pattern Recognition**
Nicholas P. Reder, Daniel Glasser, Suzanne Dintzis, Mara Rendi, Rochelle Garcia, Jonathan Henriksen, Mark Kilgore

**P25. Implementation of Whole-Slide Imaging in the Routine Diagnosis in a Pathology Laboratory: Consequences for File Storage**
Jaume Ordi, *Department of Pathology, Hospital Clinic-University of Barcelona, Barcelona, Spain*
Adela Saco, *Department of Pathology, Hospital Clinic-University of Barcelona, Barcelona, Spain*
Monica Hernandez, *Department of Pathology, Hospital Clinic-University of Barcelona, Barcelona, Spain*
Rosana Millan, *Department of Pathology, Hospital Clinic-University of Barcelona, Barcelona, Spain*
Margarita Mainar, *Department of Pathology, Hospital Clinic-University of Barcelona, Barcelona, Spain*
Paola Castillo, *ISGlobal, Barcelona Ctr. Int. Health Res. (CRESIB), Barcelona, Spain*
Natalia Rakislova, *Department of Pathology, Hospital Clinic-University of Barcelona, Barcelona, Spain*
Josep Ramirez, *Department of Pathology, Hospital Clinic-University of Barcelona, Barcelona, Spain*

**P26. Implementation of Whole-Slide Imaging in the Routine Diagnosis in a Pathology Laboratory: Consequences for the Technician Workload**
Adela Saco, *Department of Pathology, Hospital Clinic-University of Barcelona, Barcelona, Spain*
Monica Hernandez, *Department of Pathology, Hospital Clinic-University of Barcelona, Barcelona, Spain*
Natalia Rakislova, *Department of Pathology, Hospital Clinic-University of Barcelona, Barcelona, Spain*
Amaia Sagasta
Paola Castillo, *ISGlobal, Barcelona Ctr. Int. Health Res. (CRESIB), Barcelona, Spain*
Rosana Millan, *Department of Pathology, Hospital Clinic-University of Barcelona, Barcelona, Spain*
Margarita Mainar, *Department of Pathology, Hospital Clinic-University of Barcelona, Barcelona, Spain*
Josep Ramirez, *Department of Pathology, Hospital Clinic-University of Barcelona, Barcelona, Spain*
Jaume Ordi, *Department of Pathology, Hospital Clinic-University of Barcelona, Barcelona, Spain*

## P27. Visualization of mRNA Levels in Histological Context as a Heat Map

Chandrassegar Saravanan, *Preclinical Safety: Discovery & Investigative Safety*
Chiara Buono, *Preclinical Safety: Discovery & Investigative Safety*
Arno Doelemeyer, *Preclinical Safety: Discovery & Investigative Safety*
Jean-Rene Galarneau, *Preclinical Safety: Discovery & Investigative Safety*
Bryce Suchomel, *Preclinical Safety: Discovery & Investigative Safety*
Keith Mansfield, *Preclinical Safety: Discovery & Investigative Safety*
Alex Handler, *Neuroscience, Novartis Institutes for Biomedical Research, Cambridge, MA*
Manuela Polydoro, *Neuroscience, Novartis Institutes for Biomedical Research, Cambridge, MA*

## P28. A Fully Automated Method to Analyse Lung Fibrosis in Bleomycin Rat Model

Shanon Seger, *Department of Translational Science, Actelion Pharmaceuticals Ltd, Allschwil, Switzerland*
Manuel Stritt, *Department of Information Management Drug Discovery, Actelion Pharmaceuticals Ltd, Allschwil, Switzerla*nd
Enrico Vezzali, *Department of toxicology preclinical development, Actelion Pharmaceuticals Ltd, Allschwil, Switzerland*
Peter Groenen, *Department of Translational Science, Actelion Pharmaceuticals Ltd, Allschwil, Switzerland*
Oliver Nayler, *Department of cardiovascular and fibrosis, Actelion Pharmaceuticals Ltd, Allschwil, Switzerland*
Anna Stalder,  *Department of Translational Science, Actelion Pharmaceuticals Ltd, Allschwil, Switzerland*

## P29. Cost Savings through Digitizing Her2 and Special Stain Controls

Renee J. Slaw, MBA, Linda McDonald, HT(ASCP), EMSA, Amy Posch, BS, MT, Gary Vitanye, CPA, Thomas W. Bauer, MD, PhD

## P30. Troubleshooting the Whole Slide Image Scanning Process

Nicholas C. Jones, *Massachusetts General Hospital and Harvard Medical School, Boston, Massachusetts*

## P31. Computerized Identification of Tumor-infiltrating Immune Cell in Hematoxylin-eosin and Stained Breast Cancer Samples

Riku Turkki, *Institute for Molecular Medicine Finland (FIMM), University of Helsinki, Helsinki, Finland*
Nina Linder
Panu E. Kovanen
Johan Lundin, *Institute for Molecular Medicine Finland (FIMM), University of Helsinki, Helsinki, Finland*

## P32.The Implementation and Execution of an International Telepathology Consultation Program between China and the United States

Christopher J. Kim, Jianyu Rao, Chris Khacherian, Hui-Ling Wang, Scott W. Binde, W. Dean Wallace
*University of California, Los Angeles (UCLA)*

## P33. Quantitative Image Analysis of Immunohistochemistry to Determine Efficacious Doses of Therapeutics in Preclinical Models of Colitis

Terry Melim, Stephanie Gaudette, Candace Graff, Heather Knight, Sarah Heighton, Christine Nelson, Liz O'Connor, Karin Orsi, Annette Schwartz, Igor Mikaelia
*AbbVie Bioresearch Center, Worcester, Massachusetts, United States*

**P34. Computer Aided Region Detection SystemTM: Machine Learning Based User Interactive Digital Pathology Solution**

Abhijeet Gholap, Dr. Anagha Jadhav, Gurunath Kamble, Paarth Dave

**P35. Machine Learning-based Prognostication of Breast Cancer Recurrence using Tissue Slide Features**

David A. Knowles, *Stanford University*

Stanley Ho, *Ventana Medical Systems, Inc, a Member of the Roche Group*

Kien Nguyen, *Ventana Medical Systems, Inc, a Member of the Roche Group*

Don Morris, *Alberta Health Services*

Anthony Magliocco, *Lee Moffitt Cancer Center*

Anindya Sarkar, *Ventana Medical Systems, Inc, a Member of the Roche Group*

Daphne Koller, *Stanford University*

Chukka Srinivas, *Ventana Medical Systems, Inc, a Member of the Roche Group*

Michael Barnes, *Ventana Medical Systems, Inc, a Member of the Roche Group*

**P36. Biologically- Inspired Group Sparsity Model for Brightfield Multiplex IHC Stain Unmixing**

Ting Chen, *Digital Pathology and Workflow, Ventana Medical Systems, Inc., Mountain View, CA, USA*

Chukka Srinivas, *Digital Pathology and Workflow, Ventana Medical Systems, Inc., Mountain View, CA, USA*

Bob Ochs, *Technology and Applied Research, Ventana Medical Systems Inc., Tucson, AZ, USA*