

EDUCATIONAL PRESENTERS

This list of ARUP Institute for Learning speakers comprises experts from ARUP Laboratories and the University of Utah School of Medicine Department of Pathology, including ARUP medical directors and executives, laboratory professionals, and members of the University of Utah Medical Laboratory Science Program, the ARUP Institute for Research and Innovation in Diagnostic and Precision Medicine™, and the ARUP Institute for Clinical and Experimental Pathology®. Lectures in most disciplines of laboratory medicine are available for pathologists, clinicians, and laboratory professionals. In addition to the topics and titles listed here, other subjects may be available upon consultation with the ARUP Institute for Learning.



Archana Agarwal, MD

Topics: Hematopathology

- Laboratory Diagnosis of Hemolytic Anemia
- Laboratory Diagnosis of Thalassemias and Hemoglobinopathies
- Update in Red Blood Cell Membrane Disorders



Daniel Albertson, MD

Topics: Genitourinary and Gynecologic Pathology

- Urologic Pathology



Erica F. Andersen, PhD, FACMG

Topics: Cytogenetics and Genomic Microarray

- Copy Number Variant Interpretation
- Cytogenetic Testing in Hematologic Disease
- Cytogenetic Testing in Hereditary Disorders
- Prenatal Cytogenetics



Adam Barker, PhD

Topics: Microbiology

- Advances in the Acid Fast Bacterial Laboratory
- Laboratory Management During a Pandemic
- MALDI-TOF MS in the Clinical Microbiology Laboratory
- Molecular Testing for *Mycobacterium tuberculosis*



Pinar Bayrak-Toydemir, MD, PhD, FACMG

Topics: Molecular Genetics and Genomics

- Clinical Exome Testing
- HHT Testing
- Rett Syndrome
- Sequencing



Hunter Best, PhD, FACMG

Topics: Next Generation Sequencing (NGS) and Biocomputing

- Gene Discovery in Pulmonary Hypertension
- Next Generation Sequencing



Shelly Bosworth, MS, CGC

Topics: Genetic Counseling

- Prenatal Screening and Diagnosis of Chromosome Abnormalities, Neural Tube Defects, and Copy Number Variants: Maternal Serum and cfDNA Screening, and Confirmatory Testing
- Laboratory Testing for Developmental Delay, Intellectual Disability, and Autism Spectrum Disorder
- Secondary Findings Revealed in Genetic Testing and Strategies for Nonmaleficence



Jessica Boyd, PhD, FCACB, DABCC (TC)

Topics: Clinical Toxicology and Therapeutic Drug Monitoring

- Basics of Urine Drug Testing
- Interpretation of Urine Drug Testing: From Screen to Confirmation
- Laboratory Evaluation of Trace Elements
- Lead: Exposure, Health Effects and Laboratory Assessment



Dillon Bradford, PTB (ASCP)

Topics: Phlebotomy

- Phlebotomy Site Selection Obstacles and Complications
- Phlebotomy Special Collection and Handling Procedure Breakdowns

EDUCATIONAL PRESENTERS



Benjamin T. Bradley, MD, PhD

Topics: Infectious Disease

- Infectious Disease Histopathology for Non-Pathologists
- Interesting Cases in Molecular Microbiology
- Lessons Learned: Zika, COVID, Monkeypox, and More
- What's New in Clinical Virology



Mary Bronner, MD

Topics: Gastrointestinal (GI), Hepatic, and Pancreaticobiliary Pathology, and Molecular Oncology

- Barrett's Esophagus
- Circulating Tumor DNA
- GI Pathology
- Hereditary GI Cancer Testing
- Idiopathic Inflammatory Bowel Disease



Karen Brown, MS, MSCP, MLS(ASCP)^{CM}

Topics: Hematology

- Back to Basics: Helpful Hints for Evaluating Peripheral Blood Cells
- Hematology M+Ms: Morphology and Mystery (Case Studies)
- Phlebotomy Ps and Qs: Problems and Quandaries in Specimen Collection



Jonathan Carr, JD

Topics: Legal

- Corporate Compliance Programs
- Intellectual Property
- Privacy (HIPAA)
- Risk Management



Margaret G. Coppin, HT(ASCP)

Topics: Accreditation and Quality

- Introduction to Laboratory Regulatory Oversight and Strategies for Ensuring Continued Compliance
- Managing Nonconformances
- Quality Management Systems



Ken Curtis, BS, PBT(ASCP)

Topics: Specimen Management

- Avoiding Specimen Collection Errors That Can Lead to Erroneous Results
- Methods for Tracking, Communicating, and Reducing Specimen Collection Issues



Irene De Biase, MD, PhD, FACMG

Topics: Biochemical Genetics

- Diagnosing Inborn Errors of Plasmalogen Biosynthesis by Liquid Chromatography Tandem Mass Spectrometry
- Laboratory Diagnosis of Disorders of Peroxisomal Biogenesis and Function
- Laboratory Evaluation of Inborn Errors of Metabolism: A Case-Based Discussion
- Tay-Sachs Disease: A Model for Genetic Disease Prevention



Julio Delgado, MD, MS

Topics: Immunology

- Clinical Testing for Monoclonal Antibody Therapeutics
- Diagnosis of Monoclonal Gammopathies
- Transplantation-Related Testing



Kelly Doyle, PhD, DABCC, FAAC

Topics: Clinical Chemistry and Endocrinology

- Adrenal Gland Function and Associated Laboratory Testing
- Direct and Indirect Methods for Reference Interval Determination
- Introduction to Clinical Mass Spectrometry
- Quality Management—Plan, Implement, Track, Improve



Mark Fisher, PhD

Topics: Bacteriology and Microbiology

- MALDI-TOF Bacterial Identification
- Methicillin-Resistant *Staphylococcus aureus* (MRSA)
- Sequencing Bacterial Identification



Elizabeth L. Frank, PhD, DABCC

Topics: Clinical Chemistry

- Biochemical Evaluation of Pheochromocytoma
- Biogenic Amines
- Calculi and Calculi Risk Assessment
- Diagnosing Porphyria
- Laboratory Assessment of Renal Calculi
- Nutritional Assessment—Vitamin Testing
- Porphyrins and Porphyrias

EDUCATIONAL PRESENTERS



Jonathan R. Genzen, MD, PhD, MBA

Topics: Laboratory Regulations, Clinical Chemistry and Laboratory Automation

- Body Fluid Testing in the Clinical Laboratory
- Clinical Laboratory Automation
- Laboratory Developed Test Regulations



Tracy I. George, MD

Topics: Hematopathology

- Basics of Anemias
- Bench to Bedside: Advances in Mastocytosis
- Cerebrospinal Fluid and Body Fluids
- Diagnostic Hematology
- New Insights into Reactive Lymphadenopathies
- Principles of Automated Hematology



Kent Gordon, CPA, MAcc

Topics: Finance

- Accounting Basics for Laboratory Management
- Blood Bank vs. Piggy Bank: Keys to Harmonizing Mission and Margin
- Cash Flows for Laboratory Management
- Budgeting Basics for Laboratory Management
- Business Decisions in an Agile Culture
- Fundamentals of Laboratory Reimbursement
- Healthcare Business Fundamentals, Building Your Business Expertise



H. Evin Gulbahce, MD, MSCI

Topics: Breast Pathology

- Atypical Lesions on Core Biopsy: Should They Be Excised?
- Diagnostic Dilemmas and Clinical Conundrums in Breast Pathology
- HER2 Testing: Where Did We Come From and Where Are We Going?
- Immunohistochemistry in Breast Disease: Uses and Pitfalls



Kimberly Hanson, MD, MHS

Topics: Microbiology

- Advanced Infectious Disease Diagnostics for the Immunocompromised Host
- Antiviral Resistance Testing for Herpes Viruses
- COVID Diagnostics
- Fungal Diagnostics
- Fungal Infections
- Pneumonia Diagnostics
- Viral Load Testing in Transplantation



Maureen Harte, MT(ASCP), Certified LSS Master Black Belt

Topics: Quality

- Change Management
- Implementing Continuous Improvement in a Hospital Laboratory
- Journey From Problem to CAPA
- Kanban Systems for Laboratories
- Key Lean Six Sigma Tools for Sustained and Continuous Improvement
- Lean Principles and Tools
- Managing Continuous Improvement Through the Value Stream: Beyond the Current State
- Understanding and Using Lean Six Sigma's Most Powerful Tools for Process Improvement
- What Is Continuous Improvement and How Can You Benefit From It?
- What to Expect From an Improvement Project



David Hillyard, MD

Topics: Infectious Disease

- Advances in Hepatitis C Virus (HCV) Molecular Diagnostics and Treatment
- BK Virus Testing in Patients Undergoing Renal Transplants
- Emerging Infectious Diseases
- Hepatitis B Molecular Testing
- Molecular Diagnosis of Viral Respiratory Infections
- Molecular Testing for Encephalitis/Meningitis
- Ongoing Evaluation of Hepatitis C Treatment
- Verification and Validation of Molecular Infectious Disease Tests



Judith Hobert, PhD

Topics: Biochemical Genetics and Newborn Screening

- Amino Acid Metabolism and Associated Conditions
- Disorders of Fatty Acid Oxidation
- Newborn Screening
- Organic Acidemias



Filippo Ingoglia, PhD

Topics: Biochemical Genetics

- Creatine Metabolism in Patients With Urea Cycle Disorders
- Disorders of Creatine Metabolism and Transport

EDUCATIONAL PRESENTERS



Brian Jackson, MD, MS

Topics: Laboratory and Medical Director Leadership

- A Hippocratic Oath for the Diagnostic Industry: Linking Business Sustainability to Ethical Standards
- Analyzing Test-Ordering Patterns: Improving Diagnosis and Reducing Costs
- Ethical Development and Implementation of Artificial Intelligence in Laboratory Medicine
- How Are Diseases Defined? Tests, AI, Corporations, and Ethics
- Laboratory Formularies
- Metrics for Value-Driven Diagnostic Medicine
- The Future of Value-Based Payments and Its Impact on the Laboratory Industry
- You Keep Using the Word "Diagnosis." I Do Not Think It Means What You Think It Means.



Elke Jarboe, MD

Topics: Gynecologic Pathology

- Endometrial Intraepithelial Neoplasia
- Pelvic Serous Carcinogenesis



Yuan Ji, PhD, MBA, FACMG

Topics: Molecular Genetics and Genomics

- General Considerations of Developing Clinical Pharmacogenomic Testing
- Genomic Testing Strategies and Considerations: An Overview
- Noninvasive Prenatal Screen (NIPS) by Cell-Free DNA Sequencing



Kamisha Johnson-Davis, PhD, DABCC (CC, TC)

Topics: Clinical Toxicology

- Drug Testing for In Utero Drug Exposure
- Nuts and Bolts of Drug Testing
- Testing for Alcohol Exposure Biomarkers
- Therapeutic Drug Monitoring



Kristin Hunt Karner, MD

Topics: Hematopathology

- Bone Marrow Morphology
- Molecular Testing in Myeloid Neoplasms



Mark Kushnir, PhD

Topics: Mass Spectrometry

- Accurate Measurement of Thyroglobulin in Presence of Antithyroglobulin Autoantibodies
- Mass Spectrometry Based Proteomics in Clinical Laboratories
- Mass Spectrometry: Principles and Applications



Eszter Lázár-Molnár, PhD, D(ABMLI), F(ACHI)

Topics: Immunology and Transplantation

- Functional Immune Testing for Defects in Innate and Adaptive Immunity
- HLA Testing for Disease Association
- HLA Testing for Pharmacogenetics
- Laboratory Testing for Posttransplant Monitoring
- Monoclonal Antibody Drugs and Their Impact on Clinical Laboratory Testing (Immunogenicity, Test Interferences)
- The Evolution of HLA Typing Methodologies
- The Role of Eplets in Donor Recipient Matching in Solid Organ Transplantation



Zoe Lewis, MS, CGC

Topics: Genetic Counseling

- How to Reclassify Genetic Variants Responsibly and Reasonably in the Clinical Laboratory
- Interpreting and Reporting Germline Variants with Reduced Penetrance - From Prenatal to Oncology Testing
- Role of the Genetic Counselor in the Laboratory Reporting Process: Communicating Effectively and Building Efficiencies



Peng Li, MD, PhD

Topics: Hematopathology

- AML Classification
- Clinical Utility of NGS Testing in Myeloid Neoplasms
- Copy Number Variation by NGS and Its Clinical Utility
- Hereditary Hematologic Neoplasms
- Myelodysplastic Syndrome in VEXAS
- Rapid AML Testing for Immediate Treatment Guidance



Leo Lin, MD, PhD

Topics: Immune Phenotyping

- Diagnosis and Evaluation of Fetal Maternal Hemorrhage by Flow Cytometry
- Diagnosis and Evaluation of Leukocyte Adhesions Deficiency (LAD) by Flow Cytometry
- Diagnosis and Evaluation of Paroxysmal Nocturnal Hemoglobinuria (PNH) by Flow Cytometry

EDUCATIONAL PRESENTERS



Rong Mao, MD, FACMG

Topics: Molecular Genetics and Genomics

- Clinical Exome Sequencing
- Fragile X Syndrome: Interesting Cases
- Innovation in Molecular Diagnosis
- Introducing Next Generation Sequencing in Clinical Diagnostics
- Molecular Diagnosis for Mitochondrial Disorders
- Using Polymerase Chain Reaction (PCR) in Molecular Diagnosis



Blaine Mathison, BS, M(ASCP)

Topics: Infectious Disease

- Artificial Intelligence for the Detection of Gastrointestinal Parasites Cases in Parasitology
- Case Studies in Parasitology
- Laboratory Diagnosis of Microfilariae
- Laboratory Identification of Arthropod Ectoparasites
- Laboratory Identification of Intestinal Helminths
- Laboratory Identification of Intestinal Protozoa
- Medical Entomology
- Morphologic Identification of Parasites in Histology Specimens
- Morphologic Identification of Plasmodium and Babesia
- Zoonotic Helminths



Gwen McMillin, PhD

Topics: Clinical Toxicology and Mass Spectrometry

- Are Results Generated by Mass Spectrometry Really “Definitive”?
- Detection of Drug Exposed Newborns: What, Why and How?
- Strategies for Choosing the “Best” Drug Test



James McVey

Topics: Laboratory Leadership

- Communicating Hard Things
- Leveraging Generational Differences in the Laboratory
- Transitioning from Lab Staff to Lab Leader



Madhu P. Menon, MD, PhD, FCAP

Topics: Hematopathology

- A Tale of Two Classifications in Hematopathology
- B-Cell Lymphomas That Refuse to Express B-Cell Markers
- CD30+ Hematopoietic Neoplasms: Beyond the Hodgkins and Anaplastics of the Hematopathology World

- Follicular Helper T-cell Lymphomas (TFH Lymphoma): Diagnostic Approach and Potential Pitfalls
- Hematopoietic Neoplasms That Mimic Soft Tissue Tumors
- In Situ and Indolent Lesions of the Hematopathology World
- In Situ, Early, and Indolent Lesions in Hematopathology
- PD-1+ Proliferations: The Usual and the Unusual



Ryan A. Metcalf, MD, CQA(ASQ)

Topics: Transfusion Medicine

- Adverse Events Related to Blood Transfusion
- Evidence-based Clinical Transfusion Practice
- Patient Blood Management



Rodney R. Miles, MD, PhD

Topics: Hematopathology

- Bone Marrow Pathology: Rational Use of Ever-Increasing Ancillary Tests
- Classification of Leukemias and Lymphomas: Increasing Role of Molecular Testing
- Lymph Node Pathology: Adding Ancillary Testing to a Foundation of Morphology
- Rare Pediatric Lymphomas and Their Mimics: Pathology and Diagnosis (30 minutes)



Karen A. Moser, MD

Topics: Hematology

- Anticoagulant Measuring and Monitoring
- Case Studies in Hemostasis
- Clinical Cases at the Intersection of Hematology and Hemostasis
- Direct Oral Anticoagulants (DOAC) and the Clinical Laboratory
- Laboratory Measurement of D-Dimer
- Lupus Anticoagulant Testing



Gordon Nelson, C(ASCP), NRCC-TC

Topics: Clinical Toxicology

- Clinical Drug Testing
- Cost-Effective Utilization of Urine Drug Testing for Patients with Chronic Pain
- High-Resolution Hybrid Urine Drug Screen for Managing Costs and Time in Pain Management
- Observations in National Laboratory Inspections
- Testing by Mass Spectrometry

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Heather Nelson, PhD, DABCC

Topics: Clinical Chemistry

- Diabetes: Don't Sugarcoat It
- Gastrointestinal Disease – Laboratory Screening and Diagnosis
- Lipids, Cholesterol, and Lipoproteins: Understanding CVD Risk Methodologies in Lipid Testing
- Methodologies in Lipid Testing



Ryan Nelson, PharmD

Topics: Pharmacogenetics

- Germline Pharmacogenetics
- Precision Medicine in Cancer Care
- Somatic Pharmacogenetics



David P. Ng, MD

Topics: Hematopathology

- CLL/SLL: Update and Other Things You Should Know
- Diagnosis of Lymphoproliferative Neoplasms
- Diagnosis of Myeloid Neoplasm
- Flow Cytometry Artifacts and Panel Design
- Introduction to Gating Strategies
- Minimal Residual Disease Detection



Robert S. Ohgami, MD, PhD, FCAP

Topics: Hematopathology, Translational Research, and Innovation

- Applied Artificial Intelligence
- B-Cell Lymphomas
- Blastic Plasmacytoid Dendritic Cell Neoplasms
- Castleman Disease
- Hematolymphoid Neoplasms and Disorders in Surgical Pathology
- Rare and Orphan Hematologic Diseases
- Research and Innovation



Amanda Openshaw, MS, CGC

Topics: Genetic Counseling

- All in the Family: How Genetic Counselors Facilitate Familial Genetic Testing



Vrajesh K. Pandya, PhD, DABCC

Topics: Clinical Chemistry and Toxicology

- Assay Interferences Beyond the HIL Indices
- Body Fluid Testing: Challenges and Solutions
- GFR Estimation: Past, Present, and Opportunities for the Future



Rick Panning, MBA, MLS(ASCP)^{CM}

Topics: Laboratory Business Solutions

- Advocacy With the C-Suite
- Decentralizing Testing in the Physician Office Lab Environment
- Laboratory Workforce
- Leadership
- Regulatory and Legislative Updates—What Happens in Washington, D.C., Does NOT Stay in Washington, D.C.
- Succession Planning
- Total Cost of Care
- Laboratory Stewardship



Marzia Pasquali, PhD

Topics: Biochemical Genetics

- Cerebral Creatine Deficiency Syndromes
- Disorders of Amino Acid Metabolism
- Fatty Acid Oxidation Defects
- Galactosemia
- Mucopolysaccharidoses
- Newborn Screening
- Organic Acidemias



Jay L. Patel, MD, MBA

Topics: Hematopathology

- Evolving Diagnosis of Myelodysplastic Syndromes in the Era of Genomic Medicine
- Practical Use of Next Generation Sequencing in Patients with Acute Myeloid Leukemia



Lauren Pearson, DO, MPH

Topics: Laboratory and Medical Director Management

- CLIA Regulations
- Method Validation and Verification: Case Studies and Laboratory Challenges
- Verification of Automated Urinalysis Instrumentation: Analytical and Clinical Considerations

EDUCATIONAL PRESENTERS



Chérie Petersen, BA

Topics: Laboratory Communication, Engagement, Leadership, and Service

- Are You a Customer Service “Have” or “Have Not”?
- Communicating When There Is Potential for Conflict
- Communication Biohazard
- Communication Skills: How “Connected” Are You?
- The Customer-Driven Laboratory: Your Leadership Role in a Culture Reform
- Customer Service: What’s in It for Me?
- Empowered Communications Through Behavior-Style Identification
- Exceptional Service Based on Principles
- If Only You Could Have a Do-Over: A Customer Service Case Study
- Leadership Strategies for Cultivating Engagement
- Leading with Authority Rather Than Power
- Making Work Meaningful: The Key to Positive Morale
- Management Strategies for Creating a Culture of Service Excellence
- Pursuing Service Excellence



Anton Rets, MD, PhD

Topics: Hematopathology, Diagnostic Hematology, and Blood Smear Morphology

- Myeloproliferative Neoplasms
- Myelodysplastic Syndromes
- Mast Cell Disorders
- Nonneoplastic Lymph Node Conditions
- Red Blood Cell Disorders



Sherin Shaaban, MD, PhD, FACMG

Topics: Molecular Genetics/Genomics and Pharmacogenetics

- Clinical Exome Sequencing
- Next Generation Sequencing
- Pharmacogenetics and Clinical Testing: Basics, Hurdles, and Advances in Pharmacogenetics
- Pharmacogenetics in Precision Medicine



Salika Shakir

Topics: Sexually Transmitted Infections and Women’s Health

- Molecular Diagnosis of Genital Ulcer Disease
- Molecular Testing for Human Papilloma Virus (HPV)
- Updates on Laboratory Diagnosis of Vaginitis
- Updates on Molecular Testing for Sexually Transmitted Infections



David Shiembob, MBA, C(ASCP)^{CM}

Topics: Healthcare Advisory Services and Laboratory Financial Planning

- Error Handling in the Laboratory
- Identifying Inefficiencies and Bottlenecks
- Making the Business Case for Laboratory Investments



Patricia Slev, PhD, D(ABCC)

Topics: Immunology

- COVID-19 Serology
- Hepatitis C Viral Infection and *IL28B* Genotyping
- Hepatitis Delta (HDV) Testing
- Infectious Disease Serology (*any*)
- Lyme - Borrelia
- Newborn Screening for Severe Combined Immunodeficiencies (SCIDs)
- Noninvasive Assessment of Liver Fibrosis (FibroMeter) Serologic Assays for Viral Hepatitis (A, B, and C) Infection
- Quantiferon for Tuberculosis
- Serologic Assays, Screening, and Confirmatory for HIV Infection
- Syphilis
- Tickborne Disease Serology
- TORCH Testing



Tony Smith, BS(HCM), MLT(ASCP)^{CM}

Topics: Laboratory Stewardship and Laboratory Operations

- The Importance of Good Governance in Laboratory Stewardship: Setting Your Program Up for Success
- How to Lead With Data-Driven Laboratory Stewardship
- Addressing the Laboratory Staffing Crisis: Expert Strategies to Recruit and Retain a Stronger Workforce



Kristi Smock, MD

Topics: Hematology

- Basic Coagulation Testing
- Heparin-Induced Thrombocytopenia
- Thrombotic Thrombocytopenic Purpura
- Von Willebrand Disease

EDUCATIONAL PRESENTERS



Joely Straseski, PhD, MS, MLS(ASCP), DABCC

Topics: Clinical Chemistry and Endocrinology

- Assessing Fertility: Markers of Ovarian Reserve
- Diagnostic Tests Used to Assess Polycystic Ovary Syndrome (PCOS)
- Inclusivity in Laboratory Medicine: Endocrine Testing in Transgender Individuals
- Jumping the Pediatric Reference Interval Hurdles
- More Than a Flag: Myths and Realities of Interpreting Reference Intervals
- What the Heck Is Anti-Müllerian Hormone?



Diana G. Wilkins, MS, PhD, MLS(ASCP)

Topics: Clinical Toxicology

- Biomarkers of Acetaminophen Toxicity: Protein-Derived APAP-CYS and Other Indicators in the Overdose Setting
- Biomonitoring of Periconceptual Exposure to Selected Chemical Agents: The Bisphenol-A Example
- Forensic Toxicology in Postmortem Investigation: Tales From the Dead



Margaret Williams, MD

Topics: Clinical Toxicology

- Clonality Testing in Lymphomas
- Incorporating Ancillary Findings in Hematologic Malignancies: Challenge Cases



Benjamin L. Witt, MD

Topics: Cytopathology

- Fine Needle Aspiration (FNA) Cytology of the Head and Neck: Common Cases and Their Possible Pitfalls
- Salivary Gland Pathology



Tatiana Yuzyuk, PhD, ABMGG

Topics: Biochemical Genetics

- Essential Fatty Acids Deficiency in Cystic Fibrosis in the Era of Modern Therapies
- Lipid Abnormalities in Children and Adolescents with Cystic Fibrosis