

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 and the ARUP Institute for Clinical and Experimental Pathology[®]. Lectures in most disciplines of laboratory medicine are available for pathologists, clinicians, and medical laboratory scientists. 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**

- Direct-to-Consumer Genetic Testing
- Gene Discovery in Pulmonary Hypertension

**Shelly Bosworth, MS, CGC****Topics: Genetic Counseling**

- Prenatal Screening and Diagnosis of Chromosome Abnormalities, Neural Tube Defects, and Copy Number Variants: Maternal Serum Screening, NIPT, and Confirmatory Testing
- Laboratory Testing for Developmental Delay, Intellectual Disability, and Autism Spectrum Disorder
- Genetic Variant Databases for Collaboration in Assessing the Clinical Relevance of Genetic Analysis Results
- Secondary Findings Revealed in Genetic Testing and Strategies for Nonmaleficence

**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, MASCP, MLS(ASCP)^{CM}****Topics: Hematology**

- Hematology M+Ms: The Maturation, Morphology, and Mystery of Erythrocytes
- Hematology M+Ms: Morphology and Mystery (Case Studies)
- Phlebotomy Ps and Qs: Problems and Quandaries in Specimen Collection

EDUCATIONAL PRESENTERS



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



Marc Couturier, PhD

Topics: Infectious Disease

- Alternative Proficiency Testing Options for Infectious Diseases Other Than CAP
- Artificial Intelligence for the Detection of Parasite
- Cases in Parasitology
- Emerging and Zoonotic Infections
- *Helicobacter pylori*: Update on Disease, Diagnosis, and Discouraging Trends
- ISO Inspection and Accreditation
- Multiplex/Molecular Testing for Gastrointestinal Infections
- Public and Private Partnership for Pandemic and Emerging Diseases Responses: Lessons Learned
- Shigatoxigenic *E. coli*: A Fully Emerged, Still Underappreciated Pathogen
- What's New in Tickborne Diseases?



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

- Diagnostic Findings in Laboratory Testing for Inborn Errors of Metabolism: A Case-Based Discussion
- Factors Affecting the Measurement of Lysosomal Enzymes Activity
- Genetic Counseling and Carrier Detection for Tay-Sachs Disease
- Quantitative Amino Acids Analysis Using Liquid Chromatography Tandem Mass Spectrometry: Do We Have a New Gold Standard?



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 Porphyrurias



Jonathan R. Genzen, MD, PhD

Topics: Clinical Chemistry and Laboratory Automation

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

EDUCATIONAL PRESENTERS



Tracy I. George, MD

Topics: Hematopathology

- Basics of Anemias
- Bench to Bedside: Advances in Mastocytosis
- Cerebrospinal Fluid and Body Fluids
- Diagnostic Hematology
- Myeloproliferative Neoplasms
- Myelodysplastic Syndromes
- 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
- Budgeting Basics for Laboratory Management
- Business Decisions in an Agile Culture
- Fitting Finance Into the Laboratory
- 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?



Kimberly Hanson, MD, MHS

Topics: Microbiology

- Cytomegalovirus Infections
- Fungal Diagnostics
- Update on Mycobacteriology
- 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 Six Sigma's Most Powerful Value Stream Mapping
- 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 (*Limited Availability*)

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



Elke Jarboe, MD

Topics: Gynecologic Pathology

- Endometrial Intraepithelial Neoplasia
- Pelvic Serous Carcinogenesis



Leo Lin, MD, PhD

Topics: Hematopathology

- 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



Yuan Ji, PhD, DABCP, FACMG

Topics: Molecular Genetics and Genomics and Laboratory Leadership

- Artificial Intelligence (AI) in Clinical and Genomics Diagnostics
- Clinical Pharmacogenetics Testing
- Coding and Billing for Genetics Tests
- Genetic Carrier Screening: From Single Disorders to Expanded Panels
- Genetics Laboratory Business Models and Strategies
- In-House Testing or Outsourcing?
- 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



Patti Krautscheid, MS, CGC

Topics: Genetic Counseling

- Current Recommendations for Genetic Carrier Screening and Expanded Screening Options
- Utilization Management Prevents Genetic Test Order Errors



Mark Kushnir, PhD

Topics: Mass Spectrometry

- Accurate Measurement of Thyroglobulin in Serum in Presence of Antithyroglobulin Autoantibodies
- Applications of Mass Spectrometry in Endocrinology
- Introduction to Validation of Analytical Methods
- 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



Nicola Longo, MD, PhD

Topics: Biomedical Genetics

- Defects of the Urea Cycle
- Disorders of Creatine Metabolism and Transport
- Inherited Disorders of Fatty Acid Oxidation
- Organic Acidemias

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
- 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

- Clinical Drug Testing
- Detection of In Utero Drug Exposure
- Mass Spectrometry in the Clinical Lab



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

- Follicular Helper T-cell Lymphomas (TFH Lymphoma): Diagnostic Approach and Potential Pitfalls
- In Situ, Early, and Indolent Lesions in Hematopathology



Ryan A. Metcalf, MD, CQA(ASQ)

Topics: Transfusion Medicine

- Adverse Events Related to Blood Transfusion
- 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
- 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



Heather Nelson, PhD, DABCC

Topics: Clinical Chemistry

- Clinical Utility of Lipids and Lipoproteins
- Diabetes: Don't Sugarcoat It
- Methodologies in Lipid Testing



Ryan Nelson, PharmD

Topics: Pharmacogenetics

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

EDUCATIONAL PRESENTERS



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



Amanda Openshaw, MS, CGC

Topics: Genetic Counseling

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



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

Topics: Laboratory Business Solutions

- Advocacy With the C-Suite
- Decentralizing Testing in the Physician Office Lab Environment
- Lab 2.0
- Laboratory Workforce
- Leadership
- Regulatory and Legislative Updates—What Happens in Washington, D.C., Does NOT Stay in Washington, D.C.
- Optimizing Laboratory Care
- Personnel Licensure
- 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
- Molecular Tools for Minimal Residual Disease Assessment in AML
- 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



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
- Quantifying the Financial Impact of 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

EDUCATIONAL PRESENTERS



Salika Shakir

Topics: Microbial Amplified Detection

- Molecular Diagnosis of Genital Ulcer Disease
- Molecular Testing for Sexually Transmitted Infections
- Updates on Laboratory Diagnosis of Vaginitis



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

Topics: Laboratory System Alignment, Test Ordering Pattern Analysis, Laboratory Stewardship

- 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
- Infectious Disease Serology
- Newborn Screening for Severe Combined Immunodeficiencies (SCIDs)
- Noninvasive Assessment of Liver Fibrosis (FibroMeter) Serologic Assays for Viral Hepatitis (A, B, and C) Infection
- Serologic Assays, Screening, and Confirmatory for HIV Infection



Kristi Smock, MD

Topics: Hematology

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



Joely Straseski, PhD, MS, MT(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
- Laboratory Testing for Diabetes
- Measurement of Parathyroid Hormone-Related Peptide (PTHrP) Using LC-MS/MS: Old Protein, New Assay
- Method Evaluation Basics
- More Than a Flag: Myths and Realities of Interpreting Reference Intervals
- Reproductive Hormones: What, Why, and How Do We Measure Them?

Continued

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

Topics: Clinical Chemistry and Endocrinology

- The Critical Role of the Laboratory in the Investigation of Hypoglycemia
- The Delta Check in Action: An Essential Quality Improvement Tool
- What the Heck Is Anti-Müllerian Hormone?



Samantha Wiley, MS, CGC

Topics: Genetic Counseling

- BRCA Testing Recommendations: It's Not Just Breast Cancer Anymore
- Hereditary Colorectal Cancer: When and How to Order Germline Testing
- Testing for Hereditary Cancer Syndromes: Genetic Counseling, Testing, and the Guidelines to Help



Diana G. Wilkins, MS, PhD, MT(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



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