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
• Cyto genetic Testing in Hematologic Disease
• Cyto genetic Testing in Hereditary Disorders
• Prenatal Cyto genetics

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 Pancreatobiliary Pathology, and Molecular Oncology
• Barrett’s Esophagus
• Circulating Tumor DNA
• GI Pathology
• Hereditary GI Cancer Testing
• Idiopathic Inflammatory Bowel Disease

Pinar Bayrak-Toydemir, MD, PhD, FACMG
Topics: Molecular Genetics and Genomics
• Clinical Exome Testing
• HHT Testing
• Rett Syndrome
• Sequencing

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
• 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 Gammapathies
• 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

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

Advancing Education in Laboratory Medicine
aruplab.com/education
## 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
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<th>Name</th>
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<tr>
<td><strong>Brian Jackson, MD, MS</strong></td>
<td><em>Limited Availability</em></td>
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<td><strong>Topics: Laboratory and Medical Director Leadership</strong></td>
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<td>• A Hippocratic Oath for the Diagnostic Industry: Linking Business Sustainability to Ethical Standards</td>
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<td>• Analyzing Test-Ordering Patterns: Improving Diagnosis and Reducing Costs</td>
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<td>• Ethical Development and Implementation of Artificial Intelligence in Laboratory Medicine</td>
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<td>• Laboratory Formularies</td>
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<td>• Metrics for Value-Driven Diagnostic Medicine</td>
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<td>• The Future of Value-Based Payments and Its Impact on the Laboratory Industry</td>
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<td><strong>Yuan Ji, PhD, DABCP, FACMG</strong></td>
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<td><strong>Kristin Hunt Karner, MD</strong></td>
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<td><strong>Nicola Longo, MD, PhD</strong></td>
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<td><strong>Kamisha Johnson-Davis, PhD, DABCC (CC, TC)</strong></td>
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<td>• Drug Testing for In Utero Drug Exposure</td>
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<td>• Therapeutic Drug Monitoring</td>
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**Arup Laboratories Institute for Learning**

[aruplab.com/education](aruplab.com/education)
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 Parasite 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
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<td>• CLL/SLL: Update and Other Things You Should Know</td>
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<td>• Diagnosis of Lymphoproliferative Neoplasms</td>
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<td>• Flow Cytometry Artifacts and Panel Design</td>
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<td>• Introduction to Gating Strategies</td>
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<td>• Minimal Residual Disease Detection</td>
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<td>Amanda Openshaw, MS, CGC</td>
<td>Genetic Counseling</td>
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<td>• All in the Family: How Genetic Counselors Facilitate Familial Genetic Testing</td>
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<td>Rick Panning, MBA, MLS(ASCP)</td>
<td>Laboratory Business Solutions</td>
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<td>• Advocacy With the C-Suite</td>
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<td>• Decentralizing Testing in the Physician Office Lab Environment</td>
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<td>• Regulatory and Legislative Updates—What Happens in Washington, D.C., Does NOT Stay in Washington, D.C.</td>
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<td>• Optimizing Laboratory Care</td>
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<td>Marzia Pasquali, PhD</td>
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<td>Jay L. Patel, MD, MBA</td>
<td>Hematopathology</td>
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<td>• Evolving Diagnosis of Myelodysplastic Syndromes in the Era of Genomic Medicine</td>
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<td>• Molecular Tools for Minimal Residual Disease Assessment in AML</td>
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<td>• Practical Use of Next Generation Sequencing in Patients with Acute Myeloid Leukemia</td>
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<td>Lauren Pearson, DO, MPH</td>
<td>Laboratory and Medical Director Management</td>
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<td>• Method Validation and Verification: Case Studies and Laboratory Challenges</td>
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<td>Chérie Petersen, BA</td>
<td>Laboratory Communication, Engagement, Leadership, and Service</td>
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<td>• Are You a Customer Service “Have” or “Have Not”?</td>
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<td>• Communicating When There Is Potential for Conflict</td>
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<td>• Communication Skills: How “Connected” Are You?</td>
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<td>• The Customer-Driven Laboratory: Your Leadership Role in a Culture Reform</td>
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<td>• Customer Service: What’s in it for Me?</td>
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<td>• Empowered Communications Through Behavior-Style Identification</td>
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<td>• Exceptional Service Based on Principles</td>
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<td>• If Only You Could Have a Do-Over: A Customer Service Case Study</td>
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<td>• Leadership Strategies for Cultivating Engagement</td>
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<td>• Leading with Authority Rather Than Power</td>
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<td>• Management Strategies for Creating a Culture of Service Excellence</td>
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<td>• Quantifying the Financial Impact of Service Excellence</td>
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<td>Anton Rets, MD, PhD</td>
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<td>Sherin Shaaban, MD, PhD, FACMG</td>
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<td>• Pharmacogenetics and Clinical Testing: Basics, Hurdles, and Advances in Pharmacogenetics</td>
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<td>• Pharmacogenetics in Precision Medicine</td>
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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)SM
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