# Roger Steyer Riley, M.D., Ph.D.



Professor of Pathology
Director of the Coagulation Laboratory
Co-Director of Hematology
Department of Pathology
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### **Licenses & Certifications**

Diplomate, National Board of Medical Examiners, June, 1975

Diplomate, Board of Pathology, Anatomic and Clinical Pathology, American, June, 1983; Recertification, December, 2013

Subspecialty Certification in Hematology, American Board of Pathology, August, 1998

### Education

West Virginia University School of Medicine, M.D., May, 1978

West Virginia University School of Medicine, Ph.D. Biochemistry, May, 1975 (WVU Foundation Fellow)

Frostburg State University, B.S., Biology, May, 1971

Postdoctoral Training

Residency, Pathology, West Virginia University School of Medicine, July 1979 – May, 1982

Internship, Pathology, West Virginia University School of Medicine, July 1978 – June, 1979

### **Awards**

Recipient, Saul Kay Award, Department of Pathology, VCU Medical Center, Richmond, VA, 2004

Faculty Mentor in Instructional Technology, Virginia Commonwealth University, 1998

Nominee, National Board of Medical Examiners, 1991

Medical Student Summer Research Fellow, West Virginia University School of Medicine, 1975

Scholar of the New York Life Insurance Company, 1975-1978

Senior Honor Award in Biological Sciences, Frostburg State College, 1971 CRC

Achievement Award in Chemistry, Frostburg State College, 1968

*Fellowships* 

American Society for Clinical Pathology

College of American Pathologists

West Virginia University Foundation Fellow

External Grants, Funded

Lenalidomide and azacitidine for adaptive immunotherapy in multiple myeloma: Pilot study of autologous lymphocyte mobilization following immunomodulatory therapy. Principal Investigator - Amir Toor, M.D. Celene. Funded October, 2009, \$350,000.

Platelet activity and response to aspirin in stage 5 chronic kidney disease. Principal Investigator - Donald Brophy, M.D., Ph.D. A.D. Williams Foundation. Funded September, 2009, \$15,000.

Modernization of the ECU-SOM Research Core Flow Cytometry Laboratory. Principal Investigator - R.S. Riley, M.D., Ph.D.. North Carolina Biotechnology Center. Submitted December 2, 1991, Funded April 1, 1992, \$244,981.67

Seroprevalence of human immunodeficiency virus (HIV) at Lubbock General Hospital, Coinvestigator (Thomas Butler, M.D., Principal Investigator), Abbott Laboratories - Submitted September, 1987. Funded, \$10,000.

Immunology and immunohistochemistry of prostate cancer: Effects of interstitial 125iodine implantation. American Urological Association Summer Student Fellowship Program, Principal Investigator and Faculty Supervisor - R.S. Riley, M.D.,

Ph.D., Summer, 1986, Funded, \$3300.

Elastase inhibition by M-subtypes of alpha-1-antitrypsin. National Institutes of Health, Colnvestigator (Kathleen P. Brooks, Ph.D., Principal Investigator), September, 1984, Funded, \$164,400.00.

# Virginia Commonwealth University and Medical Center Appointments

Co-Director, Hematology Laboratory, Department of Pathology, VCU Medical Center, Richmond, VA, July 2009 - Present

Professor of Pathology, Virginia Commonwealth University, Richmond, VA, July, 2005 - Present

Medical Director, Hemostasis Laboratory, VCU Medical Center, Richmond, VA, January, 2002-Present

Pathology consultant for medicolegal affairs, Crews and Hancock, P.L.C., Richmond, VA, August, 2000

Associate Professor of Pathology, Virginia Commonwealth University, Richmond, VA, August, 1997- June, 2005

Director/Technical Supervisor, Histocompatibility Laboratory, West Virginia University School of Medicine, Morgantown, WV, January – July, 1997

Pathology consultant for medicolegal affairs, Jackson & Kelly, P.L.C., Charleston, WV, July, 1997

Medical Director, Clinical Laboratory, West Virginia University United Health Associates Clinic, Fairmont, WV, January, 1994 – December, 1996

Associate Professor of Pathology, Director of Hematopathology, Co-Director Bone Marrow Laboratory, West Virginia University School of Medicine, Morgantown, WV, November, 1992 – July, 1997

Director, ECU Research Core Flow Cytometry Laboratory, East Carolina University

School of Medicine, Greenville, NC, July, 1991 – September, 1992

Associate Professor of Pathology, Pathologist-in-Charge of Clinical Immunology, Pathologist-inCharge of Histocompatibility Laboratory, East Carolina University School of Medicine, July, 1989 – September, 1992

Consultant, Coulter Corporation, Hialeah, FL, development of computerized literature data base, January – December, 1988

Associate Professor of Pathology, Director of Immunology, Director/Technical Supervisor, Histocompatibility and Immunogenetics Laboratory, Texas Tech University Health Sciences Center, Lubbock, TX, July, 1987 – June, 1989

Assistant Professor of Pathology, Medical Director, Clinical Immunopathology Laboratories, CoMedical Director, Cellular Immunology and Histocompatibility Laboratory, Medical Director, Renal Pathology Service, West Virginia University School of Medicine, Morgantown, WV, July, 1982 – June, 1987

Inspector, College of American Pathologists, Laboratory Inspection and Accreditation Program, 1981 – Present (CAP Laboratory Inspectors Training Course, Charleston, WV, July, 1994)

Biological Technologist and Photographer, National Air Pollution Control Administration, United States Public Health Service, Administration, Durham, NC, May – December, 1970

### **Professional Organizations**

American Society of Hematology (ASH)

College of American Pathologists (CAP)

American Society for Clinical Pathology (ASCP)

American Society of Hematology (ASH)

Society for Hematopathology (SH)

International Society on Thrombosis and Hemostasis (ISTH)

North American Society on Thrombosis and Hemostasis (NASTH)

International Society for Laboratory Hematology (ISLH)

Clinical Cytometry Society (CCS)

International Society for Advancement of Cytometry (ISAC)

Flow Informatics and Computational Cytometry Society (FICCS) Virginia Society of Pathology West Virginia Association of Pathologists

### Past Memberships

American Medical Association
American Society for Histocompatibility and Immunogenetics (ASHI)
Association of Pathology Chairs, Program Directors, and Business Managers
Monongalia County (WV) Medical Society
North Carolina Medical Society
North Carolina Society of Cytology
West Virginia Medical Society
West Virginia State Pathology Society

#### **Community Organizations**

Member, Lewis Ginter Biological Gardens, Richmond, VA Member, Maymont Foundation, Richmond, VA Member, Virginia Museum of Fine Arts, Richmond, VA Member, Weems-Botts Museum, Dumfries, VA

### **Professional Service**

University and hospital
EPIC EHR Laboratory Leadership Workgroup, 2020

CSL Advisory Committee, 2019 -2020

Perioperative Hemostasis and Bleeding Optimization Group, 2017 - Present

Pathology Inpatient Tower Planning Committee, 2017 - Present

Hematopathology Faculty Search Committee, 2009 - Present

Bone Marrow/Cytogenetics Working Group, 2016 - Present

Bone Marrow Transplantation Quality Improvement Committee, 2009 - Present

Hematology Laboratory Operations Group, 2009-Present

VCUHS Stakeholder Group SSE, 2017-14 (2017)

Education Subcommittee, GME Committee, VCU School of Medicine, 2012 - 2017

VCU Severe Combined immunodeficiency Treatment Group, 2014 - 2015

VCUHS AML RAM Care Committee, 2013 - 2015

Publications Subcommittee, GME Committee, VCU School of Medicine, 2012 - 2016

Radiation Oncology Internal Review Committee, VCU School of Medicine, 2006

Medical Records Committee, VCU Health System, MCV Hospitals and Physicians, Richmond, VA, 2001-2007

Pediatric Subcommittee of the Blood and Urine Culture Committee, Ruby Memorial Hospital, Morgantown, WV, 1996

Flow Cytometry Research Laboratory Advisory Committee, West Virginia University School of Medicine, Morgantown, WV, 1993

Cancer Committee, Pitt County Memorial Hospital, Greenville, NC, 1991 Pediatric Research Oncology Group, East Carolina University School of Medicine, Greenville, NC, 1989

Clinical Transplant Committee, East Carolina University School of Medicine, Greenville, NC, 1989-1992

Subcommittee on Morbidity and Mortality, Clinical Transplant Committee, East Carolina University School Of Medicine, Greenville, NC, 1990-1992

Clinical Immunology Committee, East Carolina University School of Medicine, Greenville, NC, 1991-1992

Chair, Advisory Subcommittee on Flow Cytometry, Core Facilities Advisory Committee, East Carolina University School of Medicine, Greenville, NC, 1990–1992

Ad Hoc Committee On AIDS, Lubbock General Hospital, Lubbock, TX, 1988-1989

Ad Hoc Committee on Policies for Infectious Diseases, Texas Tech University Health Sciences Center, Lubbock, TX, 1988

Infection Control Committee, Lubbock General Hospital, Lubbock, TX, 1987-1988

University Chair, Laser Safety Committee, Texas Tech University Health Sciences Center, Lubbock, TX, 1987-1988

Senate Hearing Committee, West Virginia University, 1987

Clinical Transplantation Committee, WVU Hospitals, Inc., Morgantown, WV, 1986-1987

Laboratory Review Committee, WVU Hospitals, Inc., Morgantown, WV, 1986

Operating Room Committee, WVU Hospitals, Inc., Morgantown, WV, 1985-1986

Diagnostic Services Committee, WVU Hospitals, Inc., Morgantown, WV, 1984-1985

Surgical Case Review Committee, WVU Hospitals, Inc., Morgantown, WV, 1984-1986

Two-Tract Tenure System Committee, WVU School of Medicine, Morgantown, WV, 1984-1985

Surgical Case Review Committee, WVU Hospitals, Inc., Morgantown, WV, 1984-1986

#### Professional

Coagulation Standards Standing Committee - International Society on Thrombosis and Haemostasis (ISTH), 2016 - Present

Plasma Coagulation Inhibitors Committee - - International Society on Thrombosis and Haemostasis (ISTH), 2016-Present

Member, CAP CPT/RUC Subcommittee, Bone Marrow Aspiration and Biopsy Multi-Specialty Group

Member, ASCP PATHWays Self-Directed Learning Design Standards Committee, 2011

Chairman, Image Management Committee, Department of Pathology, VCU Medical Center, Virginia Commonwealth University, Richmond, VA, 2001-Present

Member, Public Relations Committee, Department of Pathology, VCU Medical Center, Virginia Commonwealth University, Richmond, VA, 2000

Member, Promotion and Tenure Committee, Department of Pathology, VCU Medical Center, Virginia Commonwealth University, Richmond, VA, 1997-1998

Member, Pathology Information Systems Steering Committee, Department of Pathology, VCU Medical Center, Virginia Commonwealth University, Richmond, VA, 1998

Chairman, Digital Photography Subcommittee, Pathology Information Systems Steering Committee, Department of Pathology, VCU Medical Center, Virginia Commonwealth University, Richmond, VA, 1998

Member, Editorial Board, Journal of Clinical Laboratory Analysis, 1992 - Present

Member, Faculty Search Committee, Department of Pathology, WVU School of Medicine, Morgantown, WV, 1996

Member, Quality Assurance Committee, Department of Pathology, West Virginia University School Of Medicine, Morgantown, WV, 1992-1997

Chair, Pathology Residency Committee, Department of Pathology, West Virginia University School of Medicine, Morgantown, WV, 1994-1995

Pathology Residency Committee, Department of Pathology, West Virginia University School of Medicine, Morgantown, WV, 1993

Commission on Continuing Education, Council on Immunopathology, American Society of Clinical Pathologists, October, 1990-1996

Ad Hoc Committee on Publications, Department of Clinical Pathology and Diagnostic Medicine, East Carolina University School of Medicine, Greenville, NC, 1989

Quality Assurance Committee, Department of Clinical Pathology and Diagnostic Medicine, East Carolina University School Of Medicine, Greenville, NC, 1989

Chair, Safety Committee, Department of Pathology, Texas Tech University Health Sciences, 1987-1989

Photography Committee, Department of Pathology, West Virginia University School of Medicine, Morgantown, WV, 1987

Promotion And Tenure Committee, Department of Pathology, West Virginia University School of Medicine, Morgantown, WV, 1985-1987

# **Editorial Advisory Boards**

Journal of Clinical Laboratory Analysis

Journal of Clinical and Laboratory Medicine

Pathology Clinical & Medical Research Journal

Pathology - Anatomic Case Reports Hematology, Blood Transfusion & Disorders

### **Recent Invited Presentations**

New innovations in blood cell counting. Presented at monthly meeting, Richmond Society of Clinical Laboratory Scientists, Richmond, VA, December, 2017.

A 67-year-old female with severe episodes of bleeding. Presented at West Virginia Association of Pathologists 2017 Annual Meeting, Morgantown, WV, September, 2017.

Hematology and Coagulation Update. Presented at VCUHS Anesthesiology Grand Rounds, Richmond, VA, November, 2017.

New innovations in blood cell counting. Presented at VCUHS Pediatric Hematology Board, Richmond, VA, March, 2017.

New innovations in blood cell counting. Presented at VCUHS Hematology/Oncology Grand Rounds, Massey Cancer Center, Richmond, VA, February, 2017.

New innovations in blood cell counting. Presented at VCUHS Pathology Grand Rounds, Richmond, VA, February, 2017.

A pattern-based approach to the interpretation of bone marrow specimens, ASCP Workshop 5016, ASCP 2014 Annual Meeting, Tampa, FL, October, 2014.

Creative use of slides for teaching, VCU Faculty Development Presentation, June, 2014.

Platelet function evaluation, Monthly meeting, VCUHS Pediatric Hematology Board, April, 2014.

Case Studies in hemostasis and thrombosis, Monthly meeting, Richmond Society of Clinical Laboratory Specialists, Richmond, VA, September, 2012.

Flow cytometric analysis and the diagnostic evaluation of hematogones, Monthly meeting, VCUHS Pediatric Hematology Board, March, 2012.

Practicalities of bone marrow aspiration and biopsy: Interpretation and issues

beyond the diagnosis, Workshop #82, 2011 ASCP Annual Meeting/WASPaLM XXVI World Congress, Las Vegas, NV, October 21, 2011.

Contemporary issues in diagnostic hemostasis and thrombosis, Workshop #66, 2011 ASCP Annual Meeting/WASPaLM XXVI World Congress, Las Vegas, NV, October 21, 2011.

Red blood cell morphology, Monthly meeting, Richmond Society of Clinical Laboratory Specialists, Richmond, VA, September, 2011.

The art and science of creating presentation slides, part #1. Faculty Development Seminar, VCU School of Medicine, Richmond, VA, May, 2011.

Laboratory interpretation of the bronchoalveolar lavage, Monthly meeting, Richmond Society of Clinical Laboratory Specialists, Richmond, VA, November, 2009.

Coagulation update, Fall 2009 Meeting, Virginia Society for Pathology, Richmond, VA, October, 2009.

Bone marrow aspirate and biopsy case presentations, Resident's Conference, Department of Pathology, University of Louisville Health Sciences Center, Louisville, KY, May, 2009.

Heparin-induced thromboytopenia, Hematology/Oncology Grand Rounds, James Brown Cancer Canter, University of Louisville Health Sciences Center, Louisville, KY, March, 2009.

Procurement and interpretation of the bone marrow aspirate and biopsy, Resident's Conference, Department of Pathology, University of Louisville Health Sciences Center, Louisville, KY, March, 2009.

Heparin-induced thrombocytopenia, Grand Rounds, VCU Affiliate Hospital CME Program, Mary Washington Hospital, Fredericksburg, VA, June, 2008.

Platelet function testing: A long way to go, Monthly meeting, Richmond Society of Clinical Laboratory Specialists, Richmond, VA, March, 2008.

Heparin-induced thrombocytopenia, Friday Luncheon Lecture, Virginia Heart Institute, Richmond, VA, September, 2007.

An overview of heparin-induced thrombocytopenia, Grand Rounds, Department of Pathology. VCU School of Medicine, October, 2006.

A review of heparin-induced thrombocytopenia, Tumor Board, Thomas Johns Cancer Center, Chippenham & Johnston-Willis Hospital, Richmond, VA, May, 2006.

Laboratory evaluation of heparin-induced thrombocytopenia, Richmond Society of Clinical Laboratory Specialists, Richmond, VA, April, 2006.

An introduction to hemostasis, Central Virginia Association of Neonatal Nurses Annual Conference, Richmond, VA, November, 2005.

An introduction to blood cells and blood cell counts, Central Virginia Association of Neonatal Nurses Annual Conference, Richmond, VA, November, 2005.

Hemostasis update, VCU Medical Center, Department of Respiratory Therapy, CE Update Conference, Respiratory Therapy, March 2005.

Killer blood clots: Laboratory evaluation of thromboembolic disease, Richmond Society for Clinical Laboratory Science, Richmond, VA, December, 2003.

Research applications of flow cytometry, Pathology Research Luncheon, Department of Pathology, VCU Medical Center, Virginia Commonwealth University, Richmond, VA, February, 2003.

Applications of digital pathology in pathology. Workshop #R367, Roundtable Discussions, 2002 Fall Meeting, American Society Of Clinical Pathologists, Washington, D.C., October, 2002.

Pathology of bone marrow reconstitution, Workshop #5733, Diagnostic Problems in the Interpretation of Bone Marrow Aspirates and Biopsies, 2002 Fall Meeting, American Society Of Clinical Pathologists, Washington, D.C., October, 2002.

Killer blood clots: New developments in diagnosis and treatment, Mini-Medical School Series on Deadly Pathology, Science Museum of Virginia, Richmond, VA, September, 2002.

Thromboembolic disease: Recent advances in diagnosis and treatment, Pathology Grand Rounds, Department of Pathology, VCU Medical Center, Virginia Commonwealth University, Richmond, VA, September, 2002.

Clinical pathology in the new millennium, Grand Rounds, Department of Pathology, University of Oklahoma School of Medicine, Oklahoma City, OK, June, 2000.

Academic pathology in the new millennium, Grand Rounds, Department of Pathology, University of Illinois at Chicago, College of Medicine at Peoria, Peoria, IL, June, 2000.

Academic pathology in the new millennium, Grand Rounds, Department of Pathology, Milton S. Hershey Medical Center of Penn State University, Hershey, PA, February, 2000.

Pathology education in the new millennium, Grand Rounds, Department of Pathology, Medical College of Ohio, Toledo, OH, June, 1999.

Paroxysmal nocturnal hemoglobinuria, Grand Rounds, Department of Pathology, Roswell Park Cancer Institute, Buffalo, NY, April, 1999.

The antiphospholipid antibody syndrome. Pathology Grand Rounds, Department of Pathology, VCU Medical Center, Richmond, VA, January, 1999.

The antiphospholipid antibody syndrome. Richmond Society for Clinical Laboratory Science, Richmond, VA, January, 1999.

Computer graphics and digital photography in pathology education, Pathology Grand Rounds, Department of Pathology, VCU Medical Center, Virginia Commonwealth University, Richmond, VA, June, 1998.

Contemporary aspects of platelet pathology, National teleconference, Hematology Council, American Society Of Clinical Pathologists, December, 1997.

Interesting hematology cases with emphasis on light scatter analysis, A Hematology Symposium: The Clinical Impact of New Approaches in Automated Hematology, Lynchburg, VA, November, 1997.

Paroxysmal nocturnal hemoglobinuria, Grand Rounds, Department of Pathology,

VCU Medical Center, Virginia Commonwealth University, Richmond, VA, May, 1997.

Rapid detection of microorganisms in bronchoalveolar lavage specimens, National teleconference, Microbiology Council, American Society Of Clinical Pathologists, March, 1997.

Future applications and trends in clinical flow cytometry, Workshop #8093, 1997 Spring Meeting, American Society of Clinical Pathologists, Chicago. IL, April, 1997.

Burkitt's lymphoma-Historical perspective and new discoveries, Continuing Education Conference, Fairmont Clinic, Fairmont, WV, September, 1996.

Hemolytic anemia induced by a Clostridium perfringens infection, West Virginia Pathology Society, Annual Meeting, Charleston, WV, May 1996.

Bone marrow transplantation: Current status in West Virginia, West Virginia Pathology Society, Annual Meeting, Charleston, WV, May, 1996.

Antithrombin III deficiency, West Virginia Society for Clinical Laboratory Science (WVSCLS), Spring Meeting, Morgantown, WV, April, 1996.

Automated reticulocyte enumeration, West Virginia Society for Clinical Laboratory Science (WVSCLS), Spring Meeting, Morgantown, WV, April, 1996

Case studies in hematology, emphasizing automated differential analysis, West Virginia Hematology Symposium, Charleston, WV, March, 1995.

Controversies in immunophenotypic analysis of hematologic neoplasms, River Cities Pathology Society, Monthly Meeting, March, 1995.

Laboratory monitoring of oral anticoagulants, Grand Rounds, Department of Pathology, Robert C. Byrd Health Sciences, Morgantown, WV, November, 1995.

Controversies in the immunophenotypic analysis of hematopoietic neoplasms, Workshop #8093, 1995 Fall Meeting, American Society of Clinical Pathologists, New Orleans, LA, September, 1995.

Reticulocytes and reticulocyte enumeration, Workshop #A157, 1995 Fall Meeting, American Society of Clinical Pathologists, New Orleans, LA, September, 1995.

Hemostasis update: Thromboembolic disease. AMS-ASCP Seminar, Robert C. Byrd Health Sciences, Morgantown, WV, April, 1995.

The pathology of bone marrow transplantation, Grand Rounds, Department of Pathology, Robert C. Byrd Health Sciences, Morgantown, WV, January and February, 1995.

Making slides and giving presentations, Workshop #A149, 1994 Fall Meeting, American Society of Clinical Pathologists, Washington, D.C., October, 1994.

Medical utilization of DNA ploidy and cell cycle analysis, Workshop #8093, Controversies in Clinical Flow Cytometry, 1994 Fall Meeting, American Society Of Clinical Pathologists, Washington, D.C., October, 1994.

Laboratory evaluation of hematologic neoplasms, Workshop #8093, Controversies in Clinical Flow Cytometry, 1994 Fall Meeting, American Society Of Clinical Pathologists, Washington, D.C., October, 1994.

Making slides and giving presentations, Grand Rounds, Department of Pathology, Robert C. Byrd Health Sciences, Morgantown, WV, September, 1994.

How to use the hematology laboratory in patient care, Monthly CME Conference, Greenbriar Clinic, White Sulphur Springs, WV, June, 1994.

Case studies in hemostasis, Hemostasis '94, Pittsburgh, PA, June, 1994.

The case of the man with dark urine and abdominal pain, AMS-ASCP Seminar, Robert C. Byrd Health Sciences, Morgantown, WV, April, 1994.

Reticulocytes and reticulocyte enumeration, West Virginia State Society of Medical Technology (WVSSMT) Spring Meeting, Canaan Valley, WV, April, 1994.

Paroxysmal nocturnal hemoglobinuria, Workshop #8066, Immunopathology Grand Rounds, 1994 Spring Meeting, American Society Of Clinical Pathologists, Seattle, WA, April, 1994. Clinical applications of flow and image cytometry, 1994 Spring Meeting, American Society of Clinical Pathologists, Seattle, WA, April, 1994.

Laboratory evaluation of cryoglobulins, Medicine-Pathology Grand Rounds, Robert C. Byrd Health Sciences, Morgantown, WV, March, 1994.

Making slides and giving presentations, Workshop #A149, 1993 Fall Meeting, American Society of Clinical Pathologists, Orlando, FL, October, 1993.

Flow cytometry for the nineties, 1993 Fall Meeting, American Society of Clinical Pathologists, Orlando, FL, October, 1993.

Recent developments in hemostasis, Grand Rounds, Department of Surgery, West Virginia University School of Medicine, Morgantown, WV, August, 1993.

Reticulocyte enumeration by flow cytometry, Workshop #8066, Immunopathology Grand Rounds, 1993 Spring Meeting, American Society of Clinical Pathologists, Chicago, IL, March, 1993.

What's involved in organ transplantation? A Practical Approach, Workshop #8077, 1993 Spring Meeting, American Society of Clinical Pathologists, Chicago, IL, March, 1993.

Reticulocytes and reticulocyte enumeration, Continuing Education Conference, Clinical Laboratories, Preston Memorial Hospital, Kingwood, WV, February, 1993.

Clinical applications of flow cytometry, Workshop #9072, 1992 Fall Meeting, American Society of Clinical Pathologists, Las Vegas, NV, October, 1992.

Flow cytometry in cytogenetics and molecular biology, Research Conference, Department of Pathology, West Virginia University School Of Medicine, Morgantown, WV, July 1992.

Applications of flow cytometry in cytogenetics and molecular biology, Grand Rounds, Department of Pathology and Laboratory Medicine, East Carolina University School Of Medicine, Greenville, NC, April, 1992.

What's involved in organ transplantation? A practical approach, Workshop #8077, 1992 Spring Meeting, American Society of Clinical Pathologists, Boston, MA, April, 1992.

The analysis and interpretation of flow cytometric data, Workshop #9099, 1992 Meeting, American Society of Clinical Pathologists, Boston, MA, April, 1992.

Clinical applications of flow cytometry, Workshop #9072, 1991 Fall Meeting, American Society of Clinical Pathologists, New Orleans, LA, September, 1991.

DNA ploidy and cell cycle analysis, Workshop #8066, Immunopathology Grand Rounds, 1991 Spring Meeting, American Society of Clinical Pathologists, Nashville, TN, March, 1991.

New horizons in immunogenetics and histocompatibility testing, Workshop #8078, Diagnostic Immunology and Immunopathology: An Update, 1991 Spring Meeting, American Society of Clinical Pathologists, Nashville, TN, March, 1991.

The analysis and interpretation of flow cytometric data, Workshop #8099, 1991 Spring Meeting, American Society of Clinical Pathologists, Nashville, TN, March, 1991.

Flow cytometry in the nineties, Recent Advances in Diagnostic Pathology, Department of Pathology and Laboratory Medicine, East Carolina University School Of Medicine, February, 1991.

Applications of flow cytometry in the diagnosis and treatment of urological cancer, Monthly Meeting, Eastern Carolina Urology Society, Greenville, NC, January, 1991.

The cell cycle and cell cycle analysis, Grand Rounds, Department of Pathology and Laboratory Medicine, East Carolina University School Of Medicine, Greenville, NC, January, 1991.

Clinical applications of flow cytometry, Workshop #8072, 1990 Fall Meeting, American Society of Clinical Pathologists, Dallas, TX, October, 1990.

The role of flow cytometry in cytologic diagnosis: Techniques and applications, Cytology Update: Recent Advances and Developments, North Carolina Society of Cytology, Fall Meeting, Greenville, NC, September, 1990.

The immunology of Burkitt's/Non-Burkitt's lymphoma, Workshop #8066, Immunopathology Grand Rounds, 1990 Spring Meeting, American Society of

Clinical Pathologists, San Francisco, CA, March, 1990. What's involved in organ transplantation? A practical approach, Workshop #8077, 1990 Spring Meeting, American Society of Clinical Pathologists, San Francisco, CA, March, 1990.

Clinical applications of flow cytometry, Workshop #8072, 1990 Spring Meeting, American Society of Clinical Pathologists, San Francisco, CA, March, 1990.

The immunology of aging, Grand Rounds, Department of Clinical Pathology and Diagnostic Medicine, East Carolina University School Of Medicine, Greenville, NC, January, 1990.

Clinical applications of flow cytometry. Workshop #9072, Fall Meeting, American Society of Clinical Pathologists, Washington, DC, October, 1989.

Flow cytometry in medical diagnosis, Grand Rounds, Department of Clinical Pathology and Diagnostic Medicine, East Carolina University School of Medicine, Greenville, NC, September, 1989.

Brief review of flow cytometry, Tumor Board, Pitt County Memorial Hospital, Greenville, NC, July, 1989.

Clinical applications of flow cytometry, Workshop #9072, Weekend of Pathology, American Society of Clinical Pathologists, Seattle, WA, July, 1989.

A practical approach to establishing a flow cytometry laboratory, Flow Cytometry Forum, Cancer Therapy and Research Foundation of South Texas, University of Texas Health Science Center at San Antonio, San Antonio, TX, April, 1989.

Cell surface marker interpretations in clinical medicine, Flow Cytometry Forum, Cancer Therapy and Research Foundation of South Texas, University of Texas Health Science Center at San Antonio, San Antonio, TX, March, 1989.

Cryoglobulinemia: A case presentation and review of the literature. Workshop #8066, Immunopathology Grand Rounds, 1989 Spring Meeting, American Society of Clinical Pathologists, Chicago, IL, March, 1989.

Immunological aspects of transplantation, Workshop #8077, 1989 Spring Meeting, American Society of Clinical Pathologists, Chicago, IL, March, 1989.

Clinical applications of flow cytometry, Workshop #9072, 1989 Spring Meeting, American Society of Clinical Pathologists, Chicago, IL, March, 1989.

A review of diagnostic immunology, Resident's Conference, Texas Tech University Health Sciences Center, Amarillo Regional Campus, Amarillo, TX, February, 1989.

New horizons in diagnostic immunology, Grand Rounds, Department of Pathology, East Carolina University School of Medicine, Greenville, NC, January, 1989.

Immunology of aging, Texas Pathology Society, 68th Annual Meeting, Austin, TX, January, 1989.

Recent advances in diagnostic immunology, Residents Conference, Department of Pathology, University of Michigan Medical School, Ann Arbor, MI, November, 1988.

Clinical applications of flow cytometry, Workshop #9072, 1988 Fall Meeting, American Society of Clinical Pathologists, Las Vegas, NV, October, 1988.

Clinical applications of flow cytometry, Workshop #9072, 1988 Spring Meeting, American Society of Clinical Pathologists, Kansas City, MO, April, 1988.

Flow cytometry in gynecological pathology, Grand Rounds, Department of Obstetrics and Gynecology, Texas Tech University Health Sciences Center, Amarillo, TX Campus, December, 1987.

Flow cytometry, Clinical Oncology Rounds, Texas Tech University Health Sciences Center, November, 1987.

Flow cytometry in medical care, Family Practice Teaching Conference, Texas Tech University Health Sciences Center, Lubbock, Texas, October, 1987.

The immune system, Immunosuppression: Nursing Care Of The Cancer, Bone Marrow Transplant, and AIDS Client, Nursing Service Education, WVU Hospitals, Sheraton Lakeview Resort, Morgantown, WV, Morgantown, WV, October, 1986.

Immunology for the practicing physician, Annual Alumni Meeting, WVU School

of Medicine, Sheraton Lakeview Resort, Morgantown, WV, October, 1986. Immunology for the surgeon, Grand Rounds, Department of Surgery, West Virginia University, Morgantown, WV, October, 1986.

Flow cytometry for the pathologist, Grand Rounds, Department of Pathology, East Carolina University, Greenville, N.C., June, 1986.

Flow cytometry, Annual Meeting, West Virginia State Pathology Society, Annual Meeting, Huntington, WV, May, 1986.

Flow cytometry in medical diagnosis, Grand Rounds, Department of Pathology, West Virginia University School of Medicine, February, 1986.

# Other significant experiences

#### Graduate student trainees

Graduate School, West Virginia University School of Medicine, Member of Graduate Student Committees (2 Master's, 1 Doctoral), West Virginia University School of Medicine, 1982-1987 and 1992-1996

Faculty Advisor and Research Supervisor for Graduate Student in Master's Degree Program of School of Medical Technology, West Virginia University School of Medicine, 1986-1987 and 1996

#### Postdoctoral trainees

Alden Chesney, M.D., Hematopathology Fellow, Department of Pathology, VCU Medical Center, Richmond, VA, 2003-2004

Shourong Zhao, M.D., Ph.D., Hematopathology Fellow, Department of Pathology, VCU Medical Center, Richmond, VA, 2004-2005

David Williams, M.D., Ph.D., Hematopathology Fellow, Department of Pathology, VCU Medical Center, Richmond, VA, 2005-2006

Micaela Ross, M.D., Hematopathology Fellow, Department of Pathology, VCU Medical Center, Richmond, VA, 2006-2007

Muhammad Hanif Pathan, M.D., Hematopathology Fellow, Department of Pathology, VCU Medical Center, Richmond, VA, 2007-2008

Patrick McDonough, M.D., Hematopathology Fellow, Department of Pathology, VCU Medical Center, Richmond, VA, 2008-2009

Shella Mongia, M.D., Hematopathology Fellow, Department of Pathology, VCU Medical Center, Richmond, VA, 2008-2009

Ronald Mageau, M.D., Hematopathology Fellow, Department of Pathology, VCU Medical Center, Richmond, VA, 2009-2010

Balamurali Varadarajalu, M.D., Hematopathology Fellow, Department of Pathology, VCU Medical Center, Richmond, VA, 2009-2010

Emerald O'Sullivan-Mejia, M.D., Hematopathology Fellow, Department of Pathology, VCU Medical Center, Richmond, VA, 2010-2011

Guanhua Lai, M.D., Ph.D., Hematopathology Fellow, Department of Pathology, VCU Medical Center, Richmond, VA, 2010-2011

Vanessa Phillips-Williams, M.D., , Hematopathology Fellow, Department of Pathology, VCU Medical Center, Richmond, VA, 2011-2012

Caroline C. Martin, M.D., , Hematopathology Fellow, Department of Pathology, VCU Medical Center, Richmond, VA, 2011-2012

Jailan Osman, M.D., , Hematopathology Fellow, Department of Pathology, VCU Medical Center, Richmond, VA, 2012-2013

Lawrence Williams, M.D., Hematopathology Fellow, Department of Pathology, VCU Medical Center, Richmond, VA, 2012-2013

Adana Siddiqui, M.D. Hematopathology Fellow, Department of Pathology, VCU Medical Center, Richmond, VA, 2013-2014

Dipti Surve, M.D. Hematopathology Fellow, Department of Pathology, VCU Medical Center, Richmond, VA, 2013-2014

Yanping Li, M.D., Ph.D., Hematopathology Fellow, Department of Pathology, VCU Medical Center, Richmond, VA, 2014-2015

Justin Dalton, M.D., Ph.D., Hematopathology Fellow, Department of Pathology, VCU Medical Center, Richmond, VA, 2014-2015

Tiffany Mullins, M.D., Hematopathology Fellow, Department of Pathology, VCU Medical Center, Richmond, VA, 2015-2016

Marcus Winkler, D.O., Hematopathology Fellow, Department of Pathology, VCU Medical Center, Richmond, VA, 2015-2016

Niru Nahar, M.B.B.S., Hematopathology Fellow, Department of Pathology, VCU Medical Center, Richmond, VA, 2016-2017

Andy Lim, M.D., Hematopathology Fellow, Department of Pathology, VCU Medical Center, Richmond, VA, 2016-2017

Nasim Badaidorabad, M.D., Hematopathology Fellow, Department of Pathology, VCU Medical Center, Richmond, VA, 2017-2018

Bin Zhao, M.D., Hematopathology Fellow, Department of Pathology, VCU Medical Center, Richmond, VA, 2017-2018

Weihua Tang, M.D., Hematopathology Fellow, Department of Pathology, VCU Medical Center, Richmond, VA, 2017-2018

Susan B. Harley, M.D., Hematopathology Fellow, Department of Pathology, VCU Medical Center, Richmond, VA, 2017-2018

Sudha Han, M.D., Hematopathology Fellow, Department of Pathology, VCU Medical Center, Richmond, VA, 2018-2019

Sara Mustafa, M.D., Hematopathology Fellow, Department of Pathology, VCU Medical Center, Richmond, VA, 2018-2019

Misty Hall, M.D., Hematopathology Fellow, Department of Pathology, VCU Medical Center, Richmond, VA, 2020-2021

# Major teaching assignments

### **Undergraduate Medical Teaching**

MSII Lectures and Laboratories, Hematopathology, VCU Medical Center, Virginia Commonwealth University, Richmond, VA, Fall, 1997 - Present

Coordinator, Renal Pathology Section, MS-II Nephrology Block, VCU Medical Center, Virginia Commonwealth University, Richmond, VA, Fall, 1997, 1998, and 2001

Medical Technology Interpretative Hematology course (Medical Technology 309), VCU Medical Center, Virginia Commonwealth University, Richmond, VA, 2000-Present

Hematopathology Lectures, School of Dentistry, Robert C. Byrd Health Sciences Center of West Virginia University, Spring, 1994-1996

Medical Relevance Lectures, Hematopathology, School of Medical Technology, Robert C. Byrd Health Sciences Center of West Virginia University, 1993 - 1997

Senior Medical Technology Lectures, Hematopathology, School of Medical Technology, Robert C. Byrd Health Sciences Center of West Virginia University, 1993 - 1997

MSII Lectures and Laboratories, Hematopathology, Phlebotomy, and Clinical Hemostasis, Robert C. Byrd Health Sciences Center of West Virginia University, 1996

MSII Lectures and Laboratories, Hematopathology, Phlebotomy, Clinical Hemostasis, and Urinalysis, Robert C. Byrd Health Sciences Center of West Virginia University, 1993 - 1995

Co-Cordinator, Integrated MSII Hematology and Hematopathology Teaching Block, Robert C. Byrd Health Sciences Center of West Virginia University, 1993 - 1994 Cytotechnology School, East Carolina University School of Medicine - Flow Cytometry, 1992

MSII Lecture and Student Laboratory, East Carolina University School of Medicine - Hematoreticular Neoplasms, 1992

Medical Student Faculty Advisor - West Virginia University School of Medicine, Texas Tech

University Health Sciences Center, East Carolina University School of Medicine, Virginia Commonwealth University

Undergraduate Biology Course (Immunology BIOL 5190), East Carolina -Lecturer in Medical Applications of Immunological Techniques, April, 1990

MSII Lectures, Texas Tech University School of Medicine - Immunology, Pulmonary Pathology, Clinical Immunology, Transplantation Immunology, & Flow Cytometry, 1987-1989

MSIV Elective Courses, West Virginia University School of Medicine - Supervising Pathologist, MSIV Clinical Laboratory Electives in Renal Pathology, and Clinical Immunology, 1982-1987

Medical Technology School, West Virginia University School of Medicine -Lecturer in Clinical Immunology and Urinalysis, 1982-1987

Dental School, West Virginia University School of Medicine - Lecturer in Clinical Immunology and Renal Pathology, 1982-1987

MSII Pathology Laboratory, West Virginia University School of Medicine - Weekly Laboratory, Fall & Spring Semesters, 1982-1987

MSII Lectures, West Virginia University School of Medicine - Inflammation, Immunopathology, Clinical Immunology, Renal Pathology, Protein Analysis, Flow Cytometry, & Urinalysis, 1982-1987

Coordinator, National Library of Medicine Videodisc Instruction Program, Department of Pathology, WVU School of Medicine, 1984-1987

### Postgraduate Medical Teaching

Pathology Resident Education, Department of Pathology, VCU Medical Center, Virginia Commonwealth University- Residency Instruction in Hematopathology, Hemostasis, Body Fluid Analysis, and Renal Pathology, 1997-Present

Pathology Resident Education, Department of Pathology, West Virginia University School of Medicine - Residency Instruction in Hematopathology, Hemostasis, and Body Fluid Analysis. Regular Participant in Departmental Teaching Conferences (Update Conference, Clinical Pathology Conference, Pathology Grand Rounds, Hematology Conference, Bone Marrow Transplantation Conference, Pediatric Hematology Conference, Tumor Board), 1992–1997

Residency Coordinator, Department of Pathology, Robert C. Byrd Health Sciences Center, Morgantown, WV, 1994-1995

Resident Pathology Education, Department of Pathology and Laboratory Medicine, East Carolina University School of Medicine - Residency Instruction in Flow Cytometry, Clinical Immunology, and Histocompatibility Testing. Regular Participant in Departmental and Intradepartmental Teaching Conferences (Update Conference, Pathology Grand Rounds, Surgical Pathology Conference, Hematology Conference, Tumor Board), 1989-1992

Resident Pathology Education, Department of Pathology, Texas Tech University Health Sciences Center - Instruction of Medicine, Surgery, Obstetrics/Gynecology, and Family Practice Residents in Clinical Immunology, Flow Cytometry, and Histocompatibility Testing. Regular Participant in Departmental and Interdepartmental Conferences - 1987-1988

Coordinator, Medicine-Renal Pathology Conference, West Virginia University School of Medicine, 1982-1987

Extra-departmental Education, West Virginia University School of Medicine - Participant, Educational Conferences in Departments Of Medicine, Rheumatology, Hematology-Oncology, and Urology

Resident Pathology Education, West Virginia University School of Medicine - Residency Instruction in Immunopathology, Clinical Immunology, Renal Pathology, Histocompatibility Testing and Flow Cytometry. Regular Participant in Departmental Teaching Conferences (Pathology Rounds, Surgical Pathology Conference, Clinical Pathology Conference, Clinical Pathology Lecture Series, Clinical Pathology Update, Laboratory Medicine Rounds, Autopsy Conference)

### *Graduate Teaching*

Graduate School, School of Medical Technology, Robert C. Byrd Health Sciences Center - Full Member, 1993 - 1996

Graduate School, Robert C. Byrd Health Sciences Center - Full Member of Graduate Faculty, 1993 - 1994

Graduate School, East Carolina University School of Medicine - Full Member of Graduate Faculty, 1990 - 1992

Graduate School, West Virginia University School of Medicine, Member of Graduate Student Committees (2 Master's, 1 Doctoral), West Virginia University School of Medicine, 1982 - 1987 and 1992 - 1996

Faculty Advisor and Research Supervisor for Graduate Student in Master's Degree Program of School of Medical Technology, West Virginia University School of Medicine, 1986-1987 and 1996

Graduate School, West Virginia University School of Medicine - Full Member, Graduate Faculty, 1982-1987

### Workshop Director

Director, Workshop #9072, Clinical applications of flow cytometry, American Society of Clinical Pathologists, April, 1988 (Kansas City, MO) October, 1988 (Las Vegas, NV) March, 1989 (Chicago, IL) July, 1989 (Seattle, WA) October, 1989 (Washington, D.C.) March, 1990 (San Francisco, CA) October, 1990 (Dallas, TX) September, 1991 (New Orleans, LA) October, 1992 (Las Vegas, NV)

Director, Workshop #8077, What's involved in organ transplantation? A practical approach, American Society of Clinical Pathologists, March, 1990 (San Francisco, CA), April, 1992 (Boston, MA), March, 1993 (Chicago, IL)

Director, Workshop #9099, The analysis and interpretation of flow cytometric data, American Society of Clinical Pathologists, March, 1991 (Nashville, TN), April, 1992 (Boston, MA)

Director, Flow cytometry for the nineties, American Society of Clinical Pathologists, October, 1993 (Orlando, FL)

Director, Workshop #A149, Making slides and giving presentations, October, 1993 (Orlando, FL), October, 1994 (Washington, D.C.)

Director, Clinical applications of flow and image cytometry, American Society of Clinical Pathologists, April, 1994 (Seattle, WA)

Director, Workshop #5733, Diagnostic problems in the interpretation of bone marrow aspirates and biopsies, American Society Of Clinical Pathologists, October, 2002 (Washington, D.C.)

Director, Workshop #66, Contemporary issues in diagnostic hemostasis and thrombosis, 2011 ASCP Annual Meeting/WASPaLM XXVI World Congress, Las Vegas, NV, October 19-22, 2011

Director, Workshop #82, Practicalities of bone marrow aspiration and biopsy: Interpretation and issues beyond the diagnosis, 2011 ASCP Annual Meeting/WASPaLM XXVI World Congress, Las Vegas, NV, October 19-22, 2011

Director, Workshop #5016, A pattern approach to bone marrow interpretation, 2014 ASCP Annual Meeting, Tampa, FL October 10, 2014

### **Recent Publications**

Papers published

**Riley, R.S.**, Khan, A., Pai, S., Warmke, L., Winkler, M., and Gunning, W.T. A case of chronic thrombocytopenia in a 17 year-old female. Lab Medicine 2019;50:406–

- 420. DOI: 10.1093/labmed/lmz013
- Abbassi, M., **Riley, R.** Malkin, M., Tang, Y., Rajendran, B., and Yazbeck, V. Treatment of Primary Central Nervous System Posttransplant Lymphoproliferative Disorder in an Adult Kidney Transplant Recipient: A Case Report. Exp. Clin. Transpl. (2019) 1:111-114. Dol: 10.6002/ect.2016.0171
- **Riley, R. S.**, Gilbert, A. R., Dalton, J. B., Pai, S., McPherson, R. A. Widely used types and clinical applications of D-Dimer assay. Lab. Med. 47(2):90-102, 2016. PMID 27016528
- Soong, J., **Riley, R.**, McPherson, R. Oligoclonal bands of immunoglobulins in serum leading to diagnosis of human immunodeficiency virus 1 infection. Am. J. Clin Pathol. 145(2):277-281, 2016. PMID 26834125.
- Shipe, T., Moore, B.L., and **Riley, R.S.** Glanzmann thrombocythemia, ASCP Case Reports (CHKS-2013-10-0080-H), 2014.
- Sayeed, S., Williams, L.A., **Riley, R.S.**, Roseff, S.D. Catastrophic antiphospholipid syndrome Distinguishing features for diagnosis and treatment. ASCP Check Sample Program, 2013.
- **Riley, R.S.**, Hollenstead, S.C., and Mongia, S. Bone marrow contamination of cerebral spinal fluid. ASCP Clinical Pathology CheckPath Program (CheckPath CP Case 0038), 2011.
- **Riley, R.S.** Williams, D., Ross, M., Zhao, S., Chesney, A., Clark, B.D., and Ben-Ezra, J.M. Bone marrow aspirate and biopsy: A pathologist's perspective. II. Interpretation of the bone marrow aspirate and biopsy. J. Clin. Lab. Anal. 23: 259–307, 2009.
- Williams, D.C., Massey, G.V., Russell, E.C., **Riley, R.S.**, Ben-Ezra, J. Translocation positive acute myeloid leukemia associated with valproic acid therapy in a 2 year old child. Pediatr. Blood Cancer 50(3): 641-643, 2008.
- Chang, S.H. Park, H.K., Eryilmaz, R., Bu, D., Stone, J.J., Massey, D., **Riley, R.S.**, Fisher, R.A..: A new alloantigen-independent control for chronic allograft nephropathy rat models. J. Surg. Res. 128(1):50-54, 2005.
- **Riley, R.S.**, Idowu, M., Chesney, A., Zhao, S., McCarty, J., Lamb, L.S., and Ben-Ezra, J.M.: Hematologic aspects of myeloabalative therapy and bone marrow

- transplantation, J. Clin. Lab. Anal. 19:47-79, 2005.
- **Riley, R.S.**, Tidwell, A.R., Zhao, S., McPherson, R.A., Bode, A.P., and Carr, M.E.: A review in hemostasis testing, Part 2. Advance for Administrators of the Laboratory, 13(10):56-62, 2004.
- **Riley, R.S.**, Tidwell, A.R., Zhao, S., McPherson, R.A., Bode, A.P., and Carr, M.E.: A review in hemostasis testing, Part 1. Advance for Administrators of the Laboratory, 13(9): 80-90, 2004.
- **Riley, R.S.**: Drawing and modeling: Essential parts of medical education. Chem News, 14.2:12-13, 2004.
- **Riley, R.S.**, Idowu, M., Chesney, A., Clark, B.D., Massey, D. Ben-Ezra, J.M.: Perspectives in pathology. The value of the bone marrow aspirate, biopsy: Part 2. Advance for Administrators of the Laboratory., 13 (4), 22, 2004.
- **Riley, R.S.**, Idowu, M., Chesney, A., Clark, B.D., Massey, D. Ben-Ezra, J.M.: Perspectives in pathology. The value of the bone marrow aspirate, biopsy: Part 2. Advance for Administrators of the Laboratory., 13 (3), 14, 2004.
- **Riley, R.S.**, Idowu, M., Chesney, A., Clark, B.D., Massey, D. Ben-Ezra, J.M.: Perspectives in pathology. The value of the bone marrow aspirate, biopsy: Part 1. Advance for Administrators of the Laboratory., 13 (2): 20, 2004.
- **Riley, R.S.**, Ben-Ezra, J.M., Massey, D., Slyter, R.L., Romagnoli, G.: Digital photography: A primer for pathologists. J. Clin. Lab. Anal., 18(2):91–128, 2004.
- **Riley, R.S.**, Hogan, T.F., Pavot, R., Forysthe, R., Massey, D., Smith, E., Wright, Jr. Ben-Ezra, J.M.: A pathologist's perspective on bone marrow aspiration and biopsy: I. Performing a bone marrow examination. J. Clin. Lab. Anal., 18(2):70-90, 2004.
- Massey, D., King, A., and **Riley, R.**: Renal allograft dysfunction in kidney transplantation. American Society for Clinical Pathology Clinical Chemistry Check Sample No. CC 03-2 (CC-238), 43(2):19-34, 2003.
- **Riley, R.S.**, Idowu, M., Romagnoli, G.: The value of flow cytometry. Advance for Administrators of the Laboratory., 11(7):101-106, 2002.
- Riley, R.S., Massey, D., Jackson-Cook, C., Idowu, M., Romagnoli, G.:

Immunophenotypic analysis of acute lymphocytic leukemia. Hematol. Oncol. Clin. North Am., 16(2): 245-299, 2002.

**Riley, R.S.**, Ben-Ezra, J.M., Tidwell, A., Romagnoli, G.: Reticulocyte analysis by flow cytometry and other techniques. Hematol. Oncol. Clin. North Am., 16(2): 373-420, 2002.

**Riley, R. S.**, Ben-Ezra, J.M., Massey, D., Cousar, J.: The virtual blood film. Clin. Lab. Med., 22(1): 317-345, 2002.

Maluf, D.G., Fisher, R.A., **Riley, R.**, Wallace, M., Tawes, J., Bu, D., Posner, M.: Immunobiology and long-term graft function in a transplant heterotopic renal rat model. Clin.Transplant., 16(7): 6-14, 2002.

Idowu, M., **Riley, R.S.**, and Ben-Ezra, J.M.: Acute erythroleukemia, FAB M-6 type. ASCP Check Sample Program, 2002.

**Riley, R.S.**, Ben-Ezra, J.M., and Tidwell, A.: Reticulocyte enumeration: Past and present. Lab. Med., 32(10):599-608, 2001.

Stern, A., **Riley, R.**, and Buckley, L.: Worsening of macrophage activation syndrome in a patient with adult onset Still's disease after initiation of Etanercept therapy. Clin. Rheumatol., 7(4):252-256, 2001.

Ben-Ezra, J.M., St. Louis, M., and **Riley, R.S.**: Automated malarial detection with the Abbott Cell-Dyn 4000 hematology analyzer. Lab. Hematol., 7:61-64, 2001. Cesca, C., Ben-Ezra, J.M., and Riley, R.S. Platelet satellitism as presenting finding in mantle cell lymphoma. Am. J. Clin. Pathol. 115:567-570, 2001.

**Riley, R.S.** and Idowu, M.O.: High resolution digital photography. Advance for Administrators of the Laboratory., 10(5):12, 2001.

**Riley, R.S.**, Ben-Ezra, J.M., Goel, R., and Tidwell, A.: Reticulocytes and reticulocyte enumeration. J. Clin. Lab. Anal., 15:267-294, 2001.

Riley, R.S. and Fisher, L.M., Rowe, D.: Clinical utilization of the International Normalized Ratio (INR). J. Clin. Lab. Anal., 14:101-114, 2000.

Saggi, B.H., Fisher, R.A., Bu, D., Tawes, J.W., **Riley, R.**, and Posner, M.P.: Intragraft cytokine expression and tolerance induction in rat renal allografts.

Transplantation., 67:206-210, 1999.

Meda, B.A., **Riley, R.S.**, and Rogers, J.S., II.: Gelatinous transformation of the bone marrow in anorexia nervosa: a case report and review. Lab. Hematol., 3(2):117-122, 1997.

**Riley, R. S.**, Friedline, J., Rogers, J. S., II.: Antiphospholipid antibodies: standardization and testing. Clin. Lab. Med., 17(3):395-430, 1997.

Hogan, T. F., **Riley, R. S.**, and Thomas, J. G.: Rapid diagnosis of acute eosinophilic pneumonia (AEP) in a patient with respiratory failure using bronchoalveolar lavage (BAL) with calcofluor white (CW) staining. J. Clin. Lab. Anal., 11(4):202-207, 1997.

**Riley, R.S.**, Friedline, J.A., Ritchey, A.K., and Ware, R.E.: Recent advances in the diagnosis and management of paroxysmal nocturnal hemoglobinuria. American Society of Clinical Pathologists, ASCP Check Sample Program, Clinical Hematology Section (CH 97-5, CH-23), 3(5): 65-99,1997.

Menello, J.M., **Riley, R.S.**, and Thomas, J.G.: Severe hemolytic anemia caused by Clostridium perfringes. American Society of Clinical Pathologists, ASCP Check Sample Program, Clinical Microbiology Section (Vol. 39:260, MB 96-9, MB-260), 1996.

Maymind, M., Thomas, J.G., Abrons, H.L., and Riley, R.S.: Laboratory implementation of a rapid three-stain technique for detection of microorganisms from lower respiratory specimens. J. Clin. Lab. Anal., 10:104-109, 1996.

Wiley, J., Posekany, K., **Riley, R.**, Holbrook, T., Silverman, J., Joshi, V., Bowyer, S.: Cytogenetic and flow cytometric analysis of a pancreatoblastoma. Cancer Genet. Cytogenet., 79(2): 115-118, 1995.

**Riley, R.S.**: Paroxysmal nocturnal hemoglobinuria: New discoveries about an old disease. J. Clin. Lab. Anal., 8:335-341, 1994.

**Riley, R.S.**: The prognostic significance of DNA ploidy and proliferative activity in cancer of the female breast. Current Surg., 50 (8):50-55, 1993.

Lee, T.K., Wiley, A.L. Jr, Esinhart, J.D., **Riley, R.S.**, and Blackburn, L.D.: Variations associated with tissue disaggregation methods in DNA flow cytometry. Anal.

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**Riley, R.S.**, Taylor, D., Thomas, J.T., and Ross, W.S.: Histocompatibility testing for the sensitized allograft recipient. ASCP Check Sample Program, Immunopathology Section, Immunopathology No. IP92-5 (IP-98), 1993.

Thomas, J.M., Carver, F.M., Cunningham, P.R., Gross, U., Verbanac, K.M., Rebellato, L.M., **Riley, R.**, and Thomas, F.T.: Donor bone marrow infusion suppresses alloantibody response in RATGtreated recipients: A correlate of long survival. Transpl. Proc., 25:342-343, 1993.

Rebellato, L., Gross, U., Carver, M., Cunningham, P., **Riley, R.**, Ross, W., Knowles, R., and Thomas, J.: Treatment of Rhesus monkey allograft recipients with a combination of anti-T-cell monoclonal antibodies. Transpl. Proc., 25:598-599, 1993.

**Riley, R.S.**: Cellular proliferation markers in the evaluation of human cancer. Clin. Lab. Med., 12:163-199, 1992.

Elsheikh, T.M., Silverman, J.F., McCool, J.W., **Riley, R.S.**: Comparative DNA analysis of solid tumors by flow cytometry and image analysis of touch imprints and flow cell suspensions. Am. J. Clin. Pathol., 98:296-304, 1992.

Norris, H.T., Bode, A.P., Catrou, P.G., Christie, J.D., Gagnon, G.A., and **Riley, R.S.**: Fundamental issues in patient care and diagnostic approach. Current Sur., 48:101-107, 1991.

**Riley, R.S.**, Forney, R.F., Bradley, C.A., and Dunn, D.: Alpha-1-antitrypsin: New perspectives and clinical importance. Clin. Immunol. Newslr., 10: 95-99, 1990. Riley, R.S.: Cytoplasmic fluorescence in FANA testing. CAP Today, 2(5), 20-21, 1988.

**Riley, R.S.** and Pence, B.: In-situ hybridization in diagnostic pathology. CAP Today, 2(2), 26, 1988.

Kandzari, S.J., **Riley, R.S.**, and Belis, J.A.: Histopathological effects of 125lodine implantation. Prostate, 9(4):319-326, 1986.

Moss, A.H. **Riley, R.S.**, Murgo, A.J. and Skaff, L.A.: Over-the-counter Ibuprofen and nephrotic syndrome. Ann. Int. Med., 105:303, 1986.

Kandzari, S.J., Belis, J.A., Kim, K.C., Gnepp, D.R., and **Riley, R.S.**: Clinical results of early stage prostatic cancer treated by pelvic lymphadenopathy and 125lodine implantation. J. Urol., 127:923-927, 1982.

Blair, P.A., Gnepp, D.R., **Riley, R.S.**, and Sprinkle, P.M.: Blastomycosis of the larynx - Report of a case and review of the literature. South. Med. J., 74:880-882, 1981.

**Riley, R.S.** and Rafter, G.W.: Further studies on the activation of (Na++K+)-dependent ATPase by a leukocytic product. Biochem. et Biophys. Acta, 410:832, 1975.

**Riley, R.S.** and Rafter, G.W.: Activation of (Na++K+)-dependent ATPase by a leukocytic product: Modification of the reaction product. Fed. Proc., 34:506, 1975.

**Riley, R.S.** and Rafter, G.W.: Activation of rabbit brain microsomal (Na++K+)-dependent ATPase by a leukocytic product. Biochem. et Biophys. Acta, 381:120, 1975.

#### **Abstracts**

Karrs, J. X., Ferreira-Gonzalez, A., Vlangos, C., **Riley, R.**, Wilkinson, D. S., Dalton, J. Idowu, M., and Jackson-Cook, C. A complex four-Break rearrangement involving Chromosomes 9, 15, 17 and 22-Integration of multiple techniques to resolve a leukemia diagnosis. Poster presentation at USCAP 107th Annual Meeting by Dr. Karrs, 03/19/18.

Zhao, S., Ladd, A., Dumar, C., Marcavagem, D., Sana, S., Smith, E., **Riley, R.**, Ferreria-Gonzalez, A., Wilkinson, D.S., Garrett, C., and Ben-Ezra, J. Detection and quantitation of the fusion PMLRARa nRNA in acute promyelocytic leukemia with t(15;17) by a single step real-time Taqman PCR procedure. Lab. Hematol. 11:Abst. A24, 2005.

Maluf, D.G., Fisher, R.A., **Riley, R.**, Wallace, M., Tawes, J., Bu, D., Posner, M.: Immunobiology and long-term graft function in a transplant heterotopic renal rat model. SEOPF Report, January, 2002.

Zhao, S., Calvin, L., Chang, S., Guo, J.Q., Arlinghaus, R., **Riley, R.**, and Andreeff, M.: Detection of BCR-ABL fusion mRNA, protein, and Ph+ chromosome in CML patients with complete clinical remission: A comparison study by real-time

Tagman PCR, RT-PCR, Western blot, and cytogenetics., Blood 98(11):269b,2001.

Ben-Ezra, J.M. and **Riley, R.S.**: Detection of malaria infection by the Cell-Dyn® 4000 automated hematology analyzer. Blood, 94(10, Suppl. 1), 5b, 1999.

Brooks, K.P., Alboronoz, L., and **Riley, R.S.**: Amniotic fluid lamellar body number density on the Abbott Cell-Dyn 3500 compared with other measures of fetal lung maturity. Am. J. Clin. Pathol., 103, 431, 1996.

**Riley, R.S.**, Nestor, S., Hare, J., and Hall, S.: Utilization of an automated hematology analyzer for red and white blood cell enumeration in body fluid specimens. Am. J. Clin. Pathol., 103, 422, 1996.

Faynor, S.M., Brooks, K.P., and **Riley, R.S.**: Comparison of the Abbott Cell-Dyn 3500 and the Coulter STKS in determination of amniotic fluid lamellar body number density, Clin. Chem., 41(6):S164, 1995.

Maymind, M., Thomas, J., and **Riley, R.**: Implementation of new, rapid staining techniques for selected lower respiratory specimens, emphasizing Calcofluor White. Am. J. Clin. Pathol., 102:550, 1994.

**Riley, R.**, Ross, W.: Detection of antinuclear antibodies by flow cytometry. Am. J. Clin. Pathol., 100:343, 1993.

**Riley, R.**, Ross, W.: A comparative study of reticulocyte enumeration by flow cytometry and light microscopy in patients with sickle cell anemia. Am. J. Clin. Pathol., 100:335-336, 1993.

Posekany, K.J., **Riley, R.S.**, Gagnon, G.A., and Holbrook, C.T.: Bimodal CD45 fluorescence distribution in precursor B-cell acute lymphoblastic leukemia. Am. J. Clin. Pathol., 96:423-424, 1991.

Elsheikh, T.M., Silverman, J.F., McCool, J.W., and **Riley, R.S.**: Comparative DNA analysis of solid tumors by flow cytometry and image analysis. Am. J. Clin. Pathol., 96:402, 1991.

Forney, J.R., **Riley, R.S.**, And Griffith, K.M.: Characterizing the alpha-1-antitrypsin isoform response in acute inflammation. Proceeding of the Society of Armed Forces Medical Laboratory Scientists, Washington, D.C., 1988.

**Riley, R.S.**, Mahin, E.J., Ashraf, M., Boyd, C.B., Perfetto, S.P., and Griffith, K.: Flow cytometric analysis of uterine cervical aspirates. Am. J. Clin. Pathol., 88(4):532, 1987.

**Riley, R.S.**, Forney, R.F., Brestel, E.A., Koss, W., and Griffith, K.: Demonstration of an acute inflammatory response in acute and chronic uticaria. J. South. Med. Assoc., 80(9):S58, 1987.

deAndrade, R., Jordan, K., McCormick, S., Rogers, J., **Riley, R.**, Raich, P., Koss, W., Shamma, J., and Fontana, J.: Immunoblastic lymphoma in a patient with acquired immune deficiency syndrome (AIDS). American College of Physicians, 6th Annual Meeting, Washington, D.C., 1985.

Moreland, L., DiBartolomeo, A., and **Riley, R.**: Polyarteritis nodosa presenting as a renal mass in a patient with rheumatoid arthritis. American College Of Physicians, Washington, DC, 1985.

Jagannathan, S.N., Caterson, B., and **Riley, R.S.**: Immunohistochemical location of proteoglycan monomers in human arteries using monoclonal antibodies directed against proteoglycan substructures. 7th International Symposium on Atherosclerosis, Sydney, Australia, October, 1985.

**Riley, R.S.**: Prostatic adenocarcinoma: Histological effects of treatment with 125I-seed implantation. Am. J. Clin. Pathol., 78(2):269-270, 1982.

Books and/or Book Chapters

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**Riley, R.S.**, and McPherson, R.A. Basic examination of urine. In McPherson, R.A. and Pincus, M.R. (eds): Henry's Clinical Diagnosis and Management by Laboratory Methods, 23rd Edition, Saunders, 2016.

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- **Riley, R.S.**, Mageau, R., and Ben-Ezra, J.M. Laboratory evaluation of the cellular immune system. In McPherson, R.A., and Pincus, M.R. Henry's Clinical Diagnosis and Management by Laboratory Methods (22nd Edition), Saunders, 2011 (ISBN 1437709745).
- **Riley, R.S.** and Ben-Ezra, J.M. Laboratory evaluation of the cellular immune system. In McPherson, R.A., and Pincus, M.R. Henry's Clinical Diagnosis and Management by Laboratory Methods (21st Edition), Elsevier Ltd., Edinburgh, UK, 2006 (ISBN: 1-4160-0287-1).
- **Riley, R.S.** and Anderson, P. Basic principles of immunodiagnosis, Introductory chapter in Immunology Section, Clinical Laboratory Medicine, Second Edition. McClatchey, K., Editor., Lippincott, Williams & Wilkins Publishers, 2002 (ISBN: 0781731992).
- **Riley, R.S.**, Ross, W.S., And Perfetto, S.P. Setting up a flow cytometry laboratory, In Flow Cytometry in Clinical Diagnosis, Second Edition, Keren, D. Editor. ASCP Press, 1994.
- **Riley, R.S.** Basic principles of immunodiagnosis, Introductory Chapter in Immunology Section, Clinical Laboratory Medicine, McClatchey, K., Editor., Williams And Wilkins, 1994.
- **Riley, R.S.** and Silverman, J.A.: Flow cytometry applications in cytology, Cytopathology Annual 1993, Schmidt, W.A., Miller, T.R., Katz, R.L., Silverman, J.F., Ashton, P.R. (Eds.). Baltimore, Williams And Wilkins, 1993, pp. 115-146.
- **Riley, R.S.**, Mahin, E.J., and Ross, W. Clinical Applications of Flow Cytometry. 928-Page Book (ISBN 0-89640-200-2), Igaku-Shoin Medical Publishers, 1993 12.4 Other Exhibits .
- **Riley, R.S.** "Department of Pathology, Robert C. Byrd Health Sciences Center," Exhibit Presented at Residency Fair, Wright State University School of Medicine, Dayton, OH, October, 1994.
- **Riley, R.S.** "Department of Pathology, Robert C. Byrd Health Sciences Center," Exhibit Presented at Residency Fair, East Carolina University School of Medicine, Greenville, NC, September, 1994.
- Riley, R.S., Mahin, E.J., And Perfetto, S. "Flow cytometry for the pathologist,"

Exhibit Presented at Annual Meeting, West Virginia State Pathology Society, Annual Meeting, Huntington, WV, May, 1986

\*\*Instructional Technology\*\*

**Riley, R.S.** An introduction to hemostasis, in progress.

**Riley, R.S.** et al. How to prepare & interpret peripheral blood smears, revised, 2004.

Riley, R.S. and Idowu, M. An introduction to flow cytometry, 2004.

**Riley, R.S.** CD-ROM supplement for hemostasis, pathology resident hemostasis rotation, VCU Medical Center, (2002- Present)(Recipient of Saul Kay Award, June, 2004).

**Riley, R.S.** Heparin-induced thrombocytopenia (HIT) - Frequently asked questions, 2004.

**Riley, R.S.** et al. An illustrated guide to performing the bone marrow aspiration and biopsy, revised, 2003.

Riley, R.S. and Fisher, L.M. Factor VII deficiency, 2003

**Riley, R.S.** eAtlas of renal pathology, revised. http://www.pathlabonline.com, November, 2001

**Riley, R.S.**, Rosenblum, D., Forysthe, R., and Hogan, T.F. An illustrated guide to performing the bone marrow aspiration and biopsy, http://www.pathlabonlineb.com, November, 2001

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**Riley, R.S.**, James, G.W., Sommer, S., and Martin, M.J. How to prepare & interpret peripheral blood smears, http://www.labmedweb.com, September, 1999

**Riley, R.S.**, Rosenblum, D., Forysthe, R., and Hogan, T.F. An illustrated guide to performing the bone marrow aspiration and biopsy, http://www.labmedweb.com, August, 1999

Riley, R.S. Illustrated syllabus for MS-II renal pathology education, MCV

Department of Pathology web site, November, 1998

Faculty Mentor in Information Technology, VCU Medical Center, 1998 – Present

# Activities in Progress

Journal Articles in Press

**Riley, R.S.**, Gandhi, P., Harley, S.B., Garcia, P., Dalton, J.B., and Chesney, A. A synoptic method for monitoring bone marrow quality data. Submitted to J. Pathol. Informatics (Accepted, In Press).

**Book Chapters Published** 

**Riley, R.S.**, Chow, W., Alamarga, J., and Fuller, C. Digital images. In Walz, C.M., and Doucette, R. (eds): Neurohistology and Imaging: Basic Techniques, Totowa: Humana Press, 2020.

Chapters in Press

**Riley, R.S.** Laboratory evaluation of the cellular immune system. In McPherson, R.A. and Pincus, M.R. (eds): Henry's Clinical Diagnosis and Management by Laboratory Methods, 24th Edition, Saunders, 2020.

**Riley, R.S.**, and McPherson, R.A. Basic examination of urine. In McPherson, R.A. and Pincus, M.R. (eds): Henry's Clinical Diagnosis and Management by Laboratory Methods, 24th Edition, Saunders, 2020.

McPherson, R.A., **Riley, R.S.**, and Massey, H.D. Laboratory evaluation of immunoglobulin function and humoral immunity. In McPherson, R.A. and Pincus, M.R. (eds): Henry's Clinical Diagnosis and Management by Laboratory Methods, 24th Edition, Saunders, 2020.

Manuscripts Submitted

**Riley, R.S.** and Babaidorabad, N. Imitation is the sincerest form of flattery: Plasma cells imitating Burkitt lymphoma. Submitted to Blood (BloodWorks, #BLOOD/2020/890426) (Rejected).

**Riley, R.S.**, Pula, N., and Dalton, J. An unexpected finding on a peripheral blood film. Submitted to Am. J. Hematol. (Images in Hematology, AJH-20-0893)(Rejected).

**Riley, R.S.**, Pula, N., and Dalton, J. An unexpected finding on a peripheral blood film. Submitted to Blood (BloodWorks, # BLD/2020/007803)(Rejected)

Panuscripts in Preparation

Zot, P., Wieditz, K., and **Riley, R.** Comparison of the clinical microscopy laboratory with the cytopathology laboratory in the detection of malignant cells in body fluids.

**Riley, R.S.**, Pai, S., Williams, L.A., Pham, H.P. Overview of laboratory technology for the evaluation of diseases of hemostasis and thrombosis (for submission to Critical Reviews in Clinical Laboratory Sciences).

**Riley, R.S.**, Wieditz, K., Mustafa, S., Wallace, V., Dalton, J.B., and Chesney, A.E. Laboratory evaluation of the bronchoalveolar lavage (for submission to Critical Reviews in Clinical Laboratory Sciences).

**Riley, R.S.**, Wallace, V., Matlick, S., and Dalton, J.B. Automated urinalysis in 2020 and beyond (for submission to Critical Reviews in Clinical Laboratory Sciences). Riley, R.S. and Matlick, S., and Chesney, A.E. New innovations in reticulocyte counting (for submission to American Journal of Hematology, Test of the Month).

**Riley, R.S.**, Dalton, J.B., and Chesney, A.E. Peripheral blood film examination in the molecular era (journal undetermined).

**Riley, R.S.**, Pai, S., Chesney, A. Laboratory testing and standardization of lupus anticoagulants (for submission to Critical Reviews in Clinical Laboratory Sciences).

Books in Preparation

**Riley, R.S.**, Lai, G., Chesney, A., and Dalton, J. Biopsy interpretation of the bone marrow. Contract completed with Lippincott, Williams, and Wilkins on 10/03/14.

**Riley, R.S.** Case studies in blood cell histogram interpretation.

Riley, R.S. Diagnostic hematology for residents and fellows.

**Riley, R.S.**, and Barrett, J.A. A color atlas of hemostasis and thrombosis, ASCP Press.

Computer-Assisted Instructional Materials in Preparation

**Riley, R.S.** Interactive hematology learning modules for residents and fellows (prepared using SoftChalk Create)

**Riley, R.S.** An introduction to diseases of the blood, bone marrow, and lymph nodes for medical students and residents, Apple eBook

**Riley, R.S.** An introduction to hemostatic and thrombotic diseases for medical students and residents, Apple eBook