YOUSIF BARZANI, MD, MA Ed & HD, MLS (ASCP) CM

1) CONTACT INFORMATION

Address: 1501 Kings Highway Shreveport, LA 71103

Department of Pathology and Translational Pathobiology

Email: yousif.barzani@lsuhs.edu

2) BIOGRAPHICAL HISTORY

Citizenship: USA

3) EDUCATION

University of Maryland, Baltimore (UMB) May 2005

BSc in Medical and Research Technology

Ross University School of Medicine Nov 2012

Doctor of Medicine (MD)

The George Washington University (GWU)

Graduate School of Education and Human Development (GSEHD)

1. Teaching Network for Early Career Faculty program

Certificate of Completion

April 2019

2. Graduate Certificate in Leadership Development

Master Teacher Leadership Development Program (MTLDP)

One-year (5 graduate courses and 15 credits) educational program

3. Master of Arts in Education and Human Development (M.A. Ed & HD) December 2021

4) POSTGRADUATE EDUCATION:

7/2024 – Present Residency in Anatomic and Clinical Pathology (in progress)

Ochsner Louisiana State University Health – Shreveport

Shreveport, LA

4) EMPLOYMENT (Reverse chronological order)

A- ACADEMIC EMPLOYMENT APPOINTMENTS

- 1) Louisiana State University (LSU) School of Medicine, Shreveport, LA
 Pathology resident

 July 2024 Present
- 2) The George Washington University, School of Medicine and Health Sciences Washington, DC
- A. Director, MSHS Laboratory Medicine Program Sep 1, 2018 to June 30, 2024 & Assistant Professor (Full time appointment)
 Department of Biomedical Laboratory Sciences (BLS)
- B. Visiting Assistant Professor (Full time appointment) Jan 11, 2016 to Aug 31, 2018 Department of Integrated Health Sciences (IHS) and Department of Clinical Research and Leadership (CRL), Medical Laboratory Sciences (MLS) Programs
- C. Adjunct Assistant Professor

 Department of Clinical Research and Leadership (CRL),

 Medical Laboratory Sciences (MLS) Programs

 Aug 4, 2014 to Jan 10, 2016

B. NON-ACADEMIC EMPLOYMENT APPOINTMENTS:

1) <u>Faculty/Postdoctoral Researcher</u> July 2023 to June 2024 The George Washington University Cancer Center, Washington, DC

Research focus:

- **A.** Molecular mechanisms of gastrointestinal pre-cancer and cancer lesions by:
 - Identifying genomic, RNA, and protein biomarkers in patients with Barrett's esophagus with risk of progression to dysplasia and adenocarcinoma
 - Using in vivo and in vitro models of gastric and esophageal cancers, including disease specific organoids and mouse models for chemoprevention of dysplasia and cancer
- **B.** Genomic and transcriptomic biomarkers of pre-cancer and cancers

2) ASCP Certified Medical Technologist III

April 2014 to

December 2015

The George Washington University Hospital (GWUH)

Washington, DC

Department of Pathology and Laboratory medicine Division of Clinical Chemistry, Hematology, Coagulation, Flow Cytometry, Urinalysis, Electrophoresis

3) ASCP Certified Medical Technologist III

Nov 2014 to

December 2015

Medstar Georgetown University Hospital

Washington, DC

Department of Pathology and Laboratory medicine

Division of Clinical Chemistry, Hematology, Coagulation, Flow Cytometry, Urinalysis, Electrophoresis

4) ASCP Certified Medical Technologist III

January 2013 to

October 2014

MedStar Washington Hospital Center, Washington, DC

Department of Pathology and Laboratory medicine

Division of Microbiology/Immunology/Serology/Parasitology/Mycology/Virology

5) ASCP Certified Medical Technologist I

May 2005 to

December 2006

University of Maryland Medical Center (UMMS)

Department of Pathology and Laboratory medicine

Division of

Microbiology/Immunology/Parasitology/Mycology/Virology/Chemistry/hematology/Urinalysis/Blood Bank/Mycobacteriology/Serology

6) Research Assistant (Cancer & Tissue Culture Research Lab) May 2004-May 2005

University of Maryland Baltimore (Department of Medical and Research Technology)

7) Research Assistant (Microbiology Research Lab) May 2004

Aug 2003-

University of Maryland, Baltimore (Department of Medical and Research Technology)

5) MEDICAL LICENSURE, BOARD CERTIFICATIONS, CONTINUING EDUCATION CREDITS

Trainee License, Louisiana: 7/2024 – Present

United States Medical Licensing Examinations (USMLE):

USMLE Step 1, Step 2 CS, Step 2 CK, and Step 3- Passed

Medical Laboratory Scientist (MLS) Board Certification: Passed

From the American Society for Clinical Pathology (ASCP) on May 31, 2005 to present

Certification Number: 220519

American Safety & Health Institute

CPR and AED for Adult, Child, and Infant- Certified on 09/08/2023

American Heart Association

Advanced Cardiovascular Life Support (ACLS) Provider-Certified on 07/18/2008 Basic Life Support (CPR & AED) Healthcare Provider- Certified on 07/18/2008

Continuing Education (CE) credits: 32 credits

January 2022 to present

From the American Society for Clinical Pathology (ASCP), American Society for Clinical Laboratory Sciences (ASCLS), Clinical Laboratory Educators Conference (CLEC), and National Accrediting Agency for Clinical Laboratory Sciences (NAACLS) in the fields of Microbiology/Immunology/Serology/Parasitology/Mycology/Virology/Chemistry/Hematology/Coagulation/Urinalysis/Blood Banking/Lab Safety/Lab Management/Flow Cytometry/Molecular Biology

6) TEACHING, DIDACTIC COURSE AND CLINICAL CLERKSHIP/PRACTICUM COURSE DEVELOPMENT EXPERIENCE

A. Graduate Laboratory Medicine Courses Taught at GWU:

- 1) MLS 6141 Advanced Immunology & Serology- Aug 2018- June 2024
- 2) MLS 6130 Advanced Hematology I- Jan 2020- June 2024
- 3) MLS 6131 Advanced Hematology II- Jan 2020- June 2024
- 4) MLS 6246 Capstone Project in Laboratory Medicine- May 2020- June 2024
- 5) MLS 6245 Current Topics in Medical Laboratory Sciences (MLS)- Aug 2019-June 2024
- 6) MLS 6213 Seminar in Immunohematology- May 2019- June 2024
- 7) MLS 6995 Advanced Independent Research in Biomedical Laboratory Sciences (BLS)- Jan 2022- June 2024

B. <u>Graduate Laboratory Medicine Clinical Practicum/Clerkship Courses Codeveloped & Course Director:</u>

- 8. MLS 6248 Advanced Blood Bank Practicum- Course Director Aug 2020- June 2024
- MLS 6250 Advanced Hematology Practicum- Course Director Aug 2020- June 2024
- 10. MLS 6249 Advanced Coagulation Practicum- Course Director Aug 2020- June 2024
- 11. MLS 6252 Advanced Urinalysis & Body Fluids Practicum- Course Director Aug 2020- June 2024
- 12. MLS 6251 Advanced Clinical Microbiology Practicum- Course Director Aug 2020- June 2024
- 13. MLS 6247 Advanced Clinical Biochemistry Practicum- Course Director Aug 2020- June 2024

C. <u>Undergraduate Laboratory Medicine Courses Taught at GWU:</u>

- 14. HSCI 2102 Pathophysiology- Spring 2019- June 2024
- 15. MLS 3004 Endocrinology for Health Sciences- Spring 2023- June 2024
- 16. MLS 4219 Parasitology, Mycology, and Virology Lab- Summer 2018- June 2024
- 17. MLS 2000 Biology for Health Sciences- Fall 2021 June 2024

D. Graduate and Undergraduate Didactic Course Development Experience:

- 1. MLS 6131 Advanced Hematology II
- 2. MLS 6130 Advanced Hematology I
- 3. MLS 6141 Advanced Immunology & Serology
- 4. Endocrinology for Health Sciences 3004
- 5. HSCI 2102 Pathophysiology
- 6. MLS 4128 Hematology I
- 7. MLS 4129 Hematology II

E. Other Courses Previously Taught at GWU:

- 1) MLS 4128 Hematology I- Taught from January 2016-August 2019
- 2) MLS 4129 Hematology II- Taught from January 2016-August 2019
- 3) MLS 4159 Capstone Seminar- Co-taught in Spring semester 2019
- 4) MLS 4162 Hematology Practicum- Course Director and taught in spring 2019
- 5) MLS 4166 Coagulation Practicum- Course Director and taught in spring 2019
- 6) MLS 4161 Biochemistry Practicum Course Director and taught in spring 2019
- 7) MLS 4165 Urinalysis Practicum- Course Director and taught in spring 2019
- 8) MLS 4136 Clinical Experience I- Course Director and taught in spring 2019
- 9) MLS 4138 Clinical Experience III- Course Director and taught in spring 2019
- 10) MLS 6115 Advanced Parasitology & Mycology- Taught from Jan 2016-Aug 2018
- 11) HSCI 6297 Independent Study in Microbiology- Co-taught in Fall 2018
- 12) HSCI 6297 Independent Study in Blood Banking- Co-taught in Summer 2018
- 13) HSCI 4112 Research and Writing in the Health Sciences- Taught in Fall 2016
- 14) HSCI 6244 Research Ethics & Integrity- Co-taught in Summer 2016
- 15) MLS 4145 Clinical Biochemistry I- Taught in Summer 2017

7) UNIVERSITY COMMITTEE SERVICE, ADVOCACY, AND ADMINISTRATIVE DUTIES

University Service:

University Wide Service-George Washington University (GW)

- 1. GWU Committee on Human Research, Institutional Review Board (IRB) Blue Panel primary member, and alternate member on the Gold Panel (October 2019 June 2024)
- 2. Member, University Integrity and Conduct Council (UICC) (May 2023 June 2024)

- 3. Member, Clinical Research Conflicts of Interest Committee (May 2023 June 2024)
- 4. Director of Equity, Department of BLS (Oct 2022-to present)

School Wide Service

George Washington University (GW) School of Medicine and Health Sciences (SMHS)

GW SMSH Committees:

- 1. Member, Anti-racism Guiding coalition (Oct 2022- June 2024)
- 2. Member, Faculty Senate Research Committee (July 2021 June 2024)
- 1. Member, Health Sciences Curriculum Committee (July 2020- June 2023)
- 2. Member, Educational Policy & Technology Committee (2020-2021)
- 3. Member, Health Sciences Student Evaluation Committee (July 2019-June 2022)
- 4. Teaching Faculty, Hematologic Diseases, GW Health Careers Opportunity Program (HCOP): Summer Program (**June 2019-** June 2024)
- 5. Member, Governor's Health Sciences Academy at TC Williams High School- GW MLS Planning Committee (August 2018 June 2024)
- 6. Member, Governor's Health Sciences Academy at TC Williams High School-Surgical Technology Sciences Planning Committee (**August 2018** June 2024) and GW Academy Course Director (**Summer 2020** June 2024)
- 7. Member, Defining the Core Curriculum (DCC)-Applied Health Equity Committee (March 2018 to December 2018)

GW SMSH Faculty Search Committees:

- 8. Chair, BLS Department Faculty Search Committee for a regular full time Assistant Professor & Program Director of Molecular Diagnostics Sciences in the BLS Department (August 2021)
- 9. Member, GW BLS Department Chair Search Committee, Diversity Advocate (March 2019)
- 10. Member, GW Post-Baccalaureate Pre-Medicine Program Faculty Search Committee, Diversity Advocate (March 2019)
- 11. Member, GW Post-Baccalaureate Pre-Medicine Certificate Program Admission Committee (August 2017-August 2018)

Department Wide Service:

GW Department of Biomedical Laboratory Sciences (BLS)

- 1. Director of Equity, Department of BLS (Oct 2022-to present)
- 2. Member, BLS Department Faculty Search Committee Diversity Advocate- **2018** June 2024)
- 3. Member, BLS Medical Laboratory Sciences (MLS) Program Advisory Board (**January 2016-** June 2024)

- 4. Teaching faculty, GW BLS Department Summer Immersion Program (**January 2016**-June 2024)
- 5. Presenter, GW BLS Department PACE Program Webinars Summer 2020 June 2024)
- 6. Member, BLS Department Scholarship Committee (July 2021 June 2024)
- 7. Chair, BLS Department Faculty Search Committee for a regular full time Assistant Professor & Program Director of Molecular Diagnostics Sciences in the BLS Department (August 2021)
- 8. Member, GW BLS Department Search Committee, Diversity Advocate for Assistant Director of Clinical Education position (February 2020)

8) EDUCATIONAL CLINICAL PROGRAM DEVELOPMENT, ASSESSMENT, AND DIRECTOR EXPERIENCE

GWU School of Medicine and Health Sciences (SMHS)

A) Graduate Professional Program <u>Development</u>

- 1- Doctor of Clinical Laboratory Science (DCLS) Program
 - Assisted the BLS Department chair in developing a DCLS program at GW
- 2- Pathologists' Assistant (PA) Program
 - Worked on developing a graduate level National Accrediting Agency for Clinical Laboratory Sciences (NAACLS) accredited PA program at GW

B) Graduate Professional Program Assessment

- 1- MSHS Laboratory Medicine program at GWU
 - As program director of the MSHS Laboratory Medicine Program, I assessed the program learning outcomes annually. I also made sure the courses content in the program are in alignment with the program learning outcomes and checked if the courses need improvement or are deficient in any areas.
 - For example, in the fall of 2021 after having assessed the program, I added modules on Justice, Equity, Diversity and Inclusion (JEDI) to the MLS 6246 Capstone course of the MSHS Laboratory Medicine Program of study (POS) the following semester in the spring of 2022. The modules are called "Health Equity Series" and are built into Week 14 of the Capstone course. The modules were developed and are currently taught by several professors and subject matter experts at GW. The series covers areas including workforce equity, challenges to health equity, social determinants of health, recognizing vulnerable and socially disadvantaged U.S. populations, cultural humility, root causes of health disparities, and leveraging community assets through partnerships.
 - Working with the BLS Department chair, I modified the MSHS Laboratory
 Medicine Program Practicum Courses to incorporate Virtual Lab Simulations.
 The virtual lab simulations provide students with real-life case scenarios to
 interact with lab equipment and perform lab experiments virtually. Virtual
 Lab Simulation assignments were added to the following courses:
 - 1- MLS 6251 Advanced Clinical Microbiology Practicum

- 2- MLS 6248 Advanced Blood Bank Practicum
- 3- MLS 6250 Advanced Hematology Practicum
- 4- MLS 6249 Advanced Coagulation Practicum
- 5- MLS 6247Advanced Clinical Biochemistry Practicum
- 6- MLS 6252 Advanced Urinalysis Practicum

C. Program Director

As program director of the MSHS Laboratory Medicine Program, I:

- Reviewed and decided on applications for admission to the program on a rolling basis
- Developed new curricula for the program
- Identified areas for improvement in program curricula
- Introduced and evaluate new and existing teaching tools
- Evaluated ASCP BOC pass rates of graduated students in the program

9) Clinical Program Accreditation Experience

National Accrediting Agency for Clinical Laboratory Sciences (NAACLS) Clinical Site Visitor Experience and Clinical Program Self Study Reviewer:

A. <u>NAACLS Clinical Site Visitor</u>- University and hospital-based programs undergoing accreditation and re-accreditation. **Fall 2019 to Present**

Responsibilities include:

- Read program Self-Study Reports in the context of its Self-Study Review and the NAACLS Standards
- Assist the team coordinator in scheduling site visits
- Conduct site visits according to NAACLS protocol
- Conduct interviews, ask questions, and perform observational functions with discretion
- Make objective assessments based upon established criteria
- Assist in preparing Site Visit Reports
- Submit a NAACLS Site Visit Evaluation Form

Hospitals/Programs Visited:

1. University of Rochester Medical Center, Rochester, NY- October 2-3, 2023 Department of Pathology and Laboratory Medicine- MLS Program

B. NAACLS Clinical Program Self Study Reviewer- University and hospital-based programs. Fall 2019 to Present

Responsibilities include:

- Read program Self-Study Reports in the context of NAACLS Standards for accredited programs and analyze the quantitative information provided
- Complete the Self-Study Report Review Form according to standard protocol for content and format
- Submit Self-Study Report Reviews within established timelines

10) CLINICAL ROTATIONS, TRAINING, & OBSERVERSHIPS

A) Pathology Observerships:

1. Pennsylvania Hospital (University of Pennsylvania Health System) Philadelphia, PA Department of Pathology & Laboratory Medicine (2 weeks, Daily one-on-one and group sessions, 8 AM-7 PM)

- Attended daily one-on-one sign-out and group sign-out sessions with several attending pathologists on gastrointestinal, gynecology, breast, head & neck, and genitourinary pathology cases
- Attended daily consensus conference and lecture sessions
- Observed frozen section preparation, interpretation, and diagnosis
- Observed and participated grossing specimens

2. University of Maryland, Medical Center, Baltimore, MD

Department of Pathology & Laboratory Medicine (2 weeks, Daily one-on-one and group sessions, 8:30 AM-7:30 PM)

- Attended daily group sign-out sessions with several attending pathologists on hematopathology, neuropathology, cytopathology, gastrointestinal, gynecology, breast, head & neck, thoracic, cardiovascular, soft tissue and bone, and genitourinary pathology cases
- Attended daily consensus conference and lecture sessions
- Observed frozen section preparation, interpretation, and diagnosis

3. The Mount Sinai Hospital and Icahn School of Medicine

Department of Pathology & Laboratory Medicine (2 weeks, Daily one-on-one and group sessions, 8:30 AM-7:30 PM)

- Attended daily one-on-one sign-out and group sign-out sessions with several attending pathologists
- Attended daily consensus conference and lecture sessions

- Observed frozen section preparation, interpretation, and diagnosis
- Observed and participated grossing specimens
- Delivered a presentation on Renal Cell Carcinomas

B) Medical School Rotations and Training:

Pathology (4 weeks) --- Wyckoff Heights Medical Center, Brooklyn, NY

Pathology Research Elective (4 weeks) --- Wyckoff Heights Medical Center, Brooklyn, NY

Internal Medicine (12 weeks) --- Wyckoff Heights Medical Center, Brooklyn, NY

Surgery (12weeks) --- Wyckoff Heights Medical Center, Brooklyn, NY

Cardiothoracic Surgery (4 weeks) --- Maimonides Medical Center, Brooklyn, NY

Pediatrics (6 weeks) --- Wyckoff Heights Medical Center, Brooklyn, NY

OB/GYN (6 weeks) --- Wyckoff Heights Medical Center, Brooklyn, NY

Emergency Medicine (4 weeks) --- Wyckoff Heights Medical Center, Brooklyn, NY

Medicine (4 weeks) --- New York Methodist hospital, Brooklyn, NY

Psychiatry (6 weeks) --- St. John's Episcopal hospital, Far Rockaway, NY

Family Medicine (6 weeks) --- Wyckoff Heights Medical Center, Brooklyn, NY

Radiology (2 weeks) Wyckoff Heights Medical Center, Brooklyn, NY

Nephrology (4weeks) --- Staten Island University Hospital, Staten Island, NY

Hematology-Oncology (4 weeks) --- Cleveland Clinic, Florida

C) <u>Undergraduate Medical Laboratory Science (MLS)/ Clinical Pathology</u> <u>Rotations and Training:</u>

Johns Hopkins Bayview Medical Center, Baltimore, MD Mar 2005 to May 2005

Internship in Clinical Microbiology/Virology/Parasitology/Mycology/

Immunology/Serology/Molecular Diagnostics

 Trained and experienced in clinical laboratory quality control and assurance, specimen testing and interpretation. Analyzed specimens for bacteria, viruses, parasites, fungi, MTB, and serological studies. Performed PCR, setup cultures, performed and read gram stains, worked up blood cultures, read plates, set up and read antimicrobial susceptibility testing, performed C. diff, agglutination tests, and EIA procedures.

Baltimore VA Medical Center, Baltimore MD

Jan 2005 to Feb 2005

Internship in Clinical Chemistry, Urinalysis, Blood Gases, Hemoglobin Electrophoresis, and Toxicology

 Trained and experienced in clinical laboratory quality control and assurance, specimen testing and interpretation. Analyzed specimens for electrolyte panel, comprehensive metabolic panel (BMP/CMP), liver function tests (LFT), thyroid function test (TFT), renal function tests (RFT), urinalysis, lipid/lipoprotein panels, bilirubin levels, vitamin levels, hormone levels, enzyme assays, hepatitis panel, hemoglobin electrophoresis, semen analysis, urine drug screening, and therapeutic drug monitoring tests. Performed blood gas tests.

Harbor Hospital, Baltimore, MD

Nov 2004 to Dec 2004

Internship in Blood Banking, Transfusion Medicine, and Phlebotomy

• Trained and experienced in clinical laboratory quality control and assurance, specimen testing and interpretation. Analyzed specimens for ABO and Rh typing, cross matching, antibody identification, DAT, IAT, transfusion reaction investigation, and performed phlebotomy on patients.

Medstar Good Samaritan Hospital, Baltimore, MD Sep 2004 to Oct 2004

Internship in Hematology, Routine & Special Coagulation, and Body fluids

• Trained and experienced in clinical laboratory quality control and assurance, specimen testing and interpretation. Analyzed specimens for complete blood count (CBC), performed manual white blood cell differentials, coagulation testing including PT, PTT, D-dimer, fibrinogen, mixing studies, factor assays. Performed manual blood smear prep, staining, and reading. Performed Thromboelastography (TEG) tests. Performed body fluid analysis including manual smear prep, staining, and cell counting.

11) PROFESSIONAL DEVELOPMENT ACTIVITIES

- 3/23/2024 Attended USCAP's Annual Meeting 2024. March 23 28, 2024. Baltimore Convention Center and Hilton Baltimore Inner Harbor. Baltimore, MD
- 10/7/2023 Attended College of American Pathologists (CAP) 2023 Annual Meeting (Virtually). October 7-10. Chicago, IL.
- **06/26/2023** Attended the American Society for Clinical Laboratory Sciences (ASCLS) Annual Meeting. June 26-30. Providence, RI. Completed 12 CEUs.

Moderated the following sessions:

- 1. Heavy Metals: Toxicity and Testing
- 2. Leveraging Cytogenomics and Molecular Technologies to Complement Genomic Testing
- 3. The Impact of Organism Reporting from Respiratory Cultures on Antibiotic Prescribing
- **02/27/2023** Attended the Clinical Laboratory Educators Conference (CLEC), New Orleans, LA. March 2-4. Completed 12 CEUs.
- **09/09/2022** Attended the American Society for Clinical Pathology (ASCP) Annual Meeting. Chicago, IL. Sep 07- Sep 9. Completed 12 CEUs
- 03/14/2022 Attended the Clinical Laboratory Educators Conference (CLEC) Virtual Annual Meeting. Sessions held virtually due to COVID-19 Pandemic. March 14-16. Completed 11 CEUs
- **02/25/2021** Attended the Clinical Laboratory Educators Conference (CLEC) Virtual Annual Meeting. Sessions held virtually due to COVID-19 Pandemic. February 25-27. Completed 12 CEUs.
- **09/09/2020** Attended the American Society for Clinical Pathology (ASCP) Virtual Annual Meeting. Sessions held virtually due to COVID-19 Pandemic. Sep 09- Sep 11.
- 06/28/2020 Attended the American Society for Clinical Laboratory Sciences (ASCLS) Virtual Annual Meeting. Sessions held virtually due to COVID-19 Pandemic. June 28-July 2. Completed 18 CEUs.
- **02/27/2020** Attended the Clinical Laboratory Educators Conference (CLEC), Orlando, Florida. February 27-29. Completed 12 CEUs.
- **09/11//2019** Attended the American Society for Clinical Pathology (ASCP) Annual Meeting. Phoenix, Arizona. Sep 11-13. Completed 24.5 CEUs
- **02/21/2019** Attended the Clinical Laboratory Educators Conference (CLEC), Baltimore, MD. February 21-23. Completed 9.5 CEUs.
- **07/29/2018** Attended the American Society for Clinical Laboratory Sciences (ASCLS) Annual Meeting. Chicago, IL. July 29-August 2. Completed 12.5 CEUs.
- 11/02/2018 Attended the Demystifying NAACLS' Accreditation/Approval Processes Workshop, Chicago, IL. November 2. Completed 6 CEUs.

- **07/31/2017** Attended the American Society for Clinical Laboratory Sciences (ASCLS) Annual Meeting. San Diego, CA. July 31-August 3. Completed 15.5 CEUs.
- 06/07/2016 Quality Matters Certificate for successful completion of Independent Applying The QM Rubric workshop

12) PATHOLOGY DIAGNOSTIC & CLINICAL RESEARCH LABORATORY EXPEREINCE

A) Pathology Diagnostic and Clinical Research Laboratory Instruments Training:

Trained on Microtomes, Sysmex hematology analyzer, Vitros 5600 chemistry analyzer, Vista Chemistry analyzer, Stago Coagulation analyzer, ABL blood gas analyzer, TEG 5000 Thromelastograph hemostasis analyzer, IRIS/Atlas Urine Chemistry and Microscopy analyzer, ProVue Blood Bank analyzer, Cytomics FC500 Flow Cytometry Analyzer, Immulite 1000 Immunoassay Analyzer, Cepheid GeneXpert MTB/Rif instrument, BD Phoneix Microbiology ID/Susceptibility analyzer, BD Bactec FX blood culture sys

B) Pathology Diagnostic and Clinical Research Laboratory Technical Skills:

Microtomes, Immunohistochemistry (IHC), Tumor microarrays (TMA), QuPath digital bioimage analysis, Next Generation Sequencing (NGS), DNA/RNA/Protein extraction/isolation, Cell/Tissue culture, Organoid culture generation, staining procedures including the picric-sirius red staining, Masson's trichrome staining, gram staining, Ziehl-Neelsen and kinyoun staining for AFB, and the Hematoxylin- eosin (H&E) stain, Body fluid cell counting and staining, ELISA, Western Blot, DNA/RNA gel electrophoresis, RT-PCR, WBC differential counts, malaria thick and thin smears

C) Clinical Rapid tests Training:

Trained on performing rapid testing for C. diff, EHEC, M.TB, Flu AB, Infectious mono, Strep A, FISH for Staph aureus and Candida albican, Wet mount prep, KOH prep, India Ink prep, Urine legionella/Strep Pneumo/Beta Hcg, HIV

D) Pathology and Research Instruments troubleshooting:

Experience with troubleshooting Sysmex hematology analyzer, Vitros 5600 chemistry analyzer, Vista Chemistry analyzer, Stago Coagulation analyzer, ABL blood gas analyzer, TEG 5000 Thromelastograph hemostasis analyzer, IRIS/Atlas Urine Chemistry and Microscopy analyzer, BD Phoneix Microbiology ID/Susceptibility analyzer, BD Bactec FX blood culture sys

13) RESEARCH POSTER & ORAL PRSENTATIONS

- Seckar, T., Komissarova, Elena., LeFevre, Narine., Barzani, Y., Babaei, A., Sepulveda, J., Sepulveda, A. Oncogenic KrasG12D and Cdkn2a/p16 knockout in murine derived small intestinal LGR5 expressing 3D organoids enhance tumorigenic properties in vitro. Poster presentation at The George Washington University. Department of Pathology. Washington, DC. April 25, 2024.
- 2. O'Dwyer, R., Schwartz, L., Rentas, C., Cymrot, C., Ganjoo, R., Barzani, Y. (March 2023). Impact of Being Multilingual on Online Science-Based Examination Performance. Oral presentation at the Clinical Laboratory Educators Conference (CLEC) Annual Meeting. New Orleans, LA. Mar 2-4, 2023
- 3. Cymrot, C., Barzani, Y., Lopez, G., Rentas, C., Firmani, M. (March 2023). Pathways to the Biomedical Laboratory Science Professions. Oral presentation at the Clinical Laboratory Educators Conference (CLEC) Annual Meeting. New Orleans, LA. Mar 2-4, 2023
- 4. Barzani, Y., Firmani, M., Ganjoo, R. (March 2022). Design and implementation of a Virtual Microbiology Practicum Course Using Lab Simulations, Supplemental Materials, and LabCE Exam Simulator. Virtual Oral presentation at the Clinical Laboratory Educators Conference (CLEC) Annual Meeting. Denver, Colorado. Mar 14 16, 2022
- 5. Ganjoo, R., Barzani, Y., Schwartz, L., Firmani, M. (Feb 2021). Promoting student engagement through Instagram. Virtual Oral presentation at the American Society for Clinical Laboratory Sciences (ASCLS) Virtual Annual Meeting. Louisville, KY, June 27-July1, 2021. Sessions held virtually due to COVID-19 Pandemic
- 6. Shariff M, Saiful F, Compton K, Barzani Y, Molloy W, Carlucci R, Soliven C, Mcginn J. Minimally Invasive Coronary Artery Bypass Grafting: Five Year Experience. Poster Presentation at the International Society for Minimally Invasive Cardiothoracic Surgery (ISMICS) 2011 Annual Scientific Meeting, Washington, DC, 8-11 June, 2011
- 7. Aggarwal P, Singh S, Barzani Y, Osawe E, Desai T, Saaraswat V, Bhat P, Arora S. Sitagliptin (Januvia) Induced Acute Renal insufficiency: Role of Ang II in preexisting volume depleted status- An extremely rare case and review of literature. Poster Presentation at the American College of physicians (ACP)-New York Chapter, 2011 Annual Abstract Competition and Scientific Meeting, Rye Brook, NY. May 26, 2011
- 8. Mandava A, Barzani Y, Ahmad I, Vellore P, Palta S. Statin Therapy Before
 Percutaneous Coronary Intervention Reduces the Extent of Periprocedural Myocardial
 Infarction in Diabetic Patients. Poster Finalist at the American College of physicians
 (ACP)-New York Chapter National Research Poster Competition in Internal
 Medicine 2011, San Diego Convention Center, San Diego, CA. April 7, 2011

- 9. Arora S, Siddiqui M, Ali M, Barzani Y, Ali S, Kitchloo K, Bhatt P, Bhandari R, Aggarwal P, Maini A, Duffoo F, Arya V. Aspartate aminotransferase(AST) and Alanine aminotransferase(ALT) in Hemodialysis patients with positive Hepatitis B/Hepatitis C Serology: Are they good predictors of liver injury? Poster Presentation at the American Gastroentrological Association (AGA) Clinical Congress of Gastroenterology and Hepatology: Best Practices in 2011, Miami, FL Jan 14&15, 2011
- 10. Barzani Y, Mandava A, Ahmad I, Vellore P, Simakov AA, Palta S. Statin Therapy Before Percutaneous Coronary Intervention Reduces the Extent of Periprocedural Myocardial Infarction. Poster Presentation at the American College of physicians (ACP)-New York Chapter 2010 Annual Abstract Competition and Scientific Meeting, Rochester, NY Nov 4, 2010.
- 11. Barzani Y, Naraghi A, Ali S, Patel A, Chendrasekhar A. Nutritional Status and Decuebitus Ulcers: An Elaborate Hoax? Poster Presentation at Wyckoff Heights Medical Center- Brooklyn, NY, 2010 Medical Student Research Competition June 25, 2010
- 12. Mishra S, Arora S, Barzani Y, Jamil S, Arya M, Shah U, Cordoso E. Vertebral Osteomyelitis and epidural abscess caused by Prevotella Oralis-An extremely rare pathogen and review of literature. Poster Presentation at Wyckoff Heights Medical Center- Brooklyn, NY, 2010 Medical Student Research Competition, June 25, 2010
- 13. Saaraswat V, Saaraswat B, Ghimire RG, Barzani Y, Ali S, Adler M, Chandra P. Simultaneous emphysematous pyelonephritis cystitis-An extremely rare infection of the genitor-urinary system successfully managed by medical therapy alone. Poster Presentation at Wyckoff Heights Medical Center- Brooklyn, NY, 2010 Medical Student Research Competition June 25, 2010
- 14. Barzani Y, Saaraswat B, Mishra S, Saaraswat V, Adler M, Chandra P. Late prosthetic valve endocarditis caused by Bulkholderia cepacia and Candida dubliniensis-The first reported case in the medical literature. Poster Presentation at the American College of physicians (ACP)-New York Chapter, 2010 Resident and Medical Student Research Competition, Mount Sinai Medical Center, NY April 10, 2010
- 15. Saaraswat B, Mishra S, Barzani Y, Saaraswat V, Adler M, Chandra P. Inferior pancreaticoduodenal artery aneurysm with superior mesenteric artery occlusion- An extremely rare case of visceral artery aneurysms. Poster Presentation at the American College of physicians (ACP)-New York Chapter, 2010 Resident and Medical Student Research Competition, Mount Sinai Medical Center, NY April 10, 2010
- 16. Barzani Y, Salehi M, Vucenik I. Anti-angiogenic effect of Inositol Hexaphosphate (IP6) Poster Presentation at the Maryland House of Delegates, Annapolis, MD, 2005 Second Annual Student Research Day, March, 1 2005 (Abstract)

17. Barzani Y, Salehi M, Vucenik I. Anti-cancer effects of Inositol Hexaphosphate (IP6) on breast cancer. Poster Presentation at the University of Maryland Baltimore County (UMBC), 2004 7th Annual Undergraduate Research Symposium in the Chemical and Biological Sciences, October 23, 2004 (Abstract)

Award Winning Presentations:

- 1. Barzani Y, Mandava A, Ahmad I, Vellore P, Simakov AA, Palta S. Statin Therapy Before Percutaneous Coronary Intervention Reduces the Extent of Periprocedural Myocardial Infarction. Winner of the 2010 Medical Student Research Competition held at Wyckoff Heights Medical Center-An affiliate of Weil Cornell, Brooklyn, NY on June 25, 2010.
- 2. Barzani Y, Saaraswat B, Mishra S, Saaraswat V, Adler M, Chandra P. Late prosthetic valve endocarditis caused by Bulkholderia cepacia and Candida dubliniensis-The first reported case in the medical literature. Winner of the NYACP 2010 Resident and Medical Student Research Competition held at Mount Sinai Medical Center, NY on April 10, 2010.
- 3. Mishra S, Arora S, Barzani Y, Jamil S, Arya M, Shah U, Cordoso E. Vertebral Osteomyelitis and epidural abscess caused by Prevotella Oralis-An extremely rare pathogen and review of literature. Presented at the 2010 Medical Student Research Competition held at Wyckoff Heights Medical Center-An affiliate of Weil Cornell, Brooklyn, NY, June 25, 2010. Awarded Certificate of Achievement
- 4. Saaraswat V, Saaraswat B, Ghimire RG, Barzani Y, Ali S, Adler M, Chandra P. Simultaneous emphysematous pyelonephritis cystitis-An extremely rare infection of the genitor-urinary system successfully managed by medical therapy alone. Presented at the 2010 Medical Student Research competition held at Wyckoff Heights Medical Center-An affiliate of Weil Cornell, Brooklyn, NY, June 25, 2010. Awarded Certificate of Achievement
- 5. Barzani Y, Salehi M, Vucenik I. Anti-angiogenic effect of Inositol Hexaphosphate (IP6). Presented at Second Annual Student Research Day at the Maryland House of Delegates, Annapolis, MD, March 1, 2005. Awarded an Honorary Certificate of Merit.

14) PUBLICATIONS

Textbooks Published/In development:

- 1. Clinical Hematology and Fundamentals of Hemostasis- 6th Edition. F.A. Davis Company. Served as subject matter expert and was acknowledged in the book. Contribution included:
 - 1) Closely evaluating the content for accuracy, completeness, clarity, and appropriateness
 - 2) Approving and/or editing learning objectives, case studies, chapter content, review questions, chapter summary, and other learning features.
 - 3) Responding to editorial queries

Book Chapters:

- 1. Barzani Y (2018). Zoonotic Diseases. Connie Mahon and Donald Lehman (Eds), Textbook of Diagnostic Microbiology (6th ed), pp. 939-952. St. Louis, MO: Elsevier Saunders.
- 2. Barzani Y (2018). Genital Infections and Sexually Transmitted Infections. Connie Mahon and Donald Lehman (Eds), Textbook of Diagnostic Microbiology (6th ed), pp. 897-929. St. Louis, MO: Elsevier Saunders.
- 3. Barzani Y (2018). Nonfermenting and Miscellaneous Gram-Negative. Connie Mahon and Donald Lehman (Eds), Textbook of Diagnostic Microbiology (6th ed), pp. 465-485. St. Louis, MO: Elsevier Saunders.

Peer-Reviewed Publications:

- 4. Rentas, C., O'Dwyer, R., Ganjoo, R., Firmani, M., Cymrot, C., Barzani, Y. & Schwartz, L. (2025) Impact of being an English language learner on online, asynchronous, science-based examinations. International Journal of Distance Education Technologies (IJDET),23(1). https://doi.org/ 10.4018/IJDET.369093
- 5. Ganjoo R, Schwartz L, Barzani Y, Firmani M. 2021. Exploring instagram to promote student engagement in an online didactic environment. J. Microbiol. Biol. Educ. 22(1): doi:10.1128/jmbe.v22i1.2587
- 6. Arora S, Siddiqui M, Ali M, **Barzani Y**, Ali S, Kitchloo K, Bhatt P, Bhandari R, Aggarwal P, Maini A, Duffoo F, Arya V. Aspartate aminotransferase(AST) and Alanine aminotransferase(ALT) in Hemodialysis patients with positive Hepatitis B/Hepatitis C

- Serology: Are they good predictors of liver injury? *Clinical Gasteroenterology and Hepatology 2011*, 9:2-185
- 7. Saaraswat V, **Barzani Y**, Saaraswat B, Mishra S, Adler M, Chandra P. Late prosthetic valve endocarditis caused by Bulkholderia cepacia and Candida dubliniensis-The first reported case in the medical literature. *The internet Journal of Cardiology.* 2011, 9:2 http://www.ispub.com/journal/the_internet_journal_of_cardiology/volume_9_number_2_16/article/late-prosthetic-valve-endocarditis-caused-by-bulkholderia-cepacia-and-candida-dubliniensis-the-first-reported-case-in-the-medical-literature.html
- 8. Saaraswat B, Saaraswat V, Mishra S, **Barzani Y**, Adler M, Chandra P. Inferior pancreaticoduodenal artery aneurysm with superior mesenteric artery occlusion- An extremely rare case of visceral artery aneurysms. *The internet Journal of Surgery.* 2011, 26:2
 - http://www.ispub.com/journal/the_internet_journal_of_surgery/volume_26_number_2/article/inferior-pancreaticoduodenal-artery-aneurysm-with-superior-mesenteric-artery-occlusion-an-extremely-rare-case-of-visceral-artery-aneurysms.html.
- 9. Arora S, Agarwal M, Sun L, Duffoo F, Zaidi M, Iqbal J. HIV and Bone Loss. *Curr Osteoporos Rep* 2010, 8:4. [Acknowledged for Editorial Assistance and for Developing the Figures in the manuscript]

Manuscripts submitted/ in development:

1) Barzani, Y., Firmani, M., Ganjoo, R. Design and implementation of a Virtual Microbiology Practicum Course Using Lab Simulations, Supplemental Materials, and LabCE Exam Simulator. (Completed, pending submission)

Textbook Content Contributor/Reviewer:

- 1) Textbook of Diagnostic Microbiology. Connie Mahon and Donald Lehman (Eds) Elsevier Saunders.
- 2) Clinical Hematology and Fundamentals of Hemostasis- 6th Edition. F.A. Davis Company. **February 1, 2024.**

15) JOURNAL EDITORIAL BOARD MEMBER/CONTRIBUTOR/ REVIEWER

- 1. **Laboratory Medicine journal** (Published quarterly by the ASCP and Oxford University Press)- **Reviewer- Jan 2022- June 2024**
- 2. Collaborative Healthcare & Translational Medicine Editorial Board Member, **May 2016-to present**
- 3. EC microbiology Editorial Board Member, March 2016 to present
- 4. Cardiology & Current Research Editorial Board Member, March 2016- Dec 2019

16) PROFESSIONAL SOCIETY AFFILIATIONS AND LEADERSHIP ROLES

Professional Society Memberships:

- 1. College of American Pathologists (CAP)- November 2024 to Present
- 2. Digital Pathology Association (DPA)- November 2024 to present
- 3. The American Society of Dermatopathology (ASDP)- December 2024 to Present
- 4. Society for Hematopathology (SH) December 2024 to present
- 5. United States and Canadian Academy of Pathology (USCAP)- March 2024 to Present
- 6. American Society for Clinical Pathology (ASCP)- 2005 to Present
- 7. The American Society for Clinical Laboratory Science (ASCLS)- May 2016 to Present
- 8. Alpha Eta Honor Society-National Scholastic Honor Society For The Allied Health Profession
- 9. American College of Physicians (ACP)- Member from 2010-2011
- 10. American College of Surgeons (ACS)- Member from 2010-2011
- 11. American Medical Student Association (AMSA)- Member from 2007-2010

A. Committee Service and Leadership Roles:

- 1. CAP Future Champion Program member- Feb 2025 to Present
- 2. Digital Pathology Association (DPA) Education Committee member-May 2025 to Present
- 3. Digital Pathology Association (DPA) Creative Content Committee member-May 25 to Present
- 4. Infectious Control Committee member at LSU Health Shreveport- Nov 2024 to Present
- 5. BLS Department Faculty Search Committee Chair July-2021
- 6. Served as the American Society for Clinical Laboratory Science (ASCLS) Region II Secretary (August 2017-June 2021)
- 7. Served as the ASCLS DC chapter Membership Committee Chair (August 2018-June 2024)
- 8. Served as the ASCLS DC chapter Board member (August 2018 June 2024)
- 9. Served on the ASCLS Diversity Advisory Council (May 2016-June 2024)

17) CLINICAL RESEARCH, SCHOLARSHIP ACTIVITIES, GRANTS

A. Poster Presentation Judge

George Washington University (GW) School of Medicine and Health Sciences (SMHS) Research Showcase 2022 -April 11th - April 15th

1. Served as a poster presentation judge at the GW Research Showcase 2022 which featured research and scholarship from more than 400 GW students, postdocs, faculty, staff and alumni

B. Research

1. George Washington University (GW) School of Medicine and Health Sciences (SMHS) May 2019- August 2020

• Principal Investigator in a research project on the use of Instagram to enhance student engagement in distance learning. Published in 2021 in the Journal of Microbiology and Biology Education (American society of Microbiology) 22(1): doi:10.1128/jmbe.v22i1.2587

2. Wyckoff Heights Medical Center

October 2009-April 2011

Conducted retrospective studies by reviewing patient charts on various topics including:

- Decubitus ulcers
- Satin therapy and Percutaneous coronary intervention
- AST/ALT levels in Hepatitis B/C patients
- Minimally Invasive Coronary Artery Bypass Grafting

3. University of Maryland Baltimore, School of Medicine Feb 2009-June 2009 Department of Surgery, Division of Cardiac Surgery (Artificial Organs Lab)

- 1. Involved in research projects pertaining post myocardial infarction remodeling of the heart tissue
- 2. Assisted with animal experiments on artificial organs such as the lung and ventricular assist devices
- 3. Other duties included: western blotting, protein extraction from heart tissue and different types of staining including the picric-sirius red staining, Masson's trichrome staining and the Hematoxylin- eosin (H&E) stain

4. Department of Medical and Research Technology (DMRT) May 2004-May 2005 Cancer & Tissue Culture Lab

- Assisted with animal experiments, maintained cultures of established cell lines, split the cells, autoclaved, performed different types of staining including gram staining, Hematoxylin- eosin (H&E)
- Conducted research projects on breast cancer and angiogenesis using the anticancer agent 0IP-6 (Inositol Hexaphosphate)

C. Scholarship Training/Activities

- 1. Completed the Collaborative Institutional Training initiative (CITI Program) courses in Human Research for IRB members in October 2019
- 2. Completed the Collaborative Institutional Training initiative (CITI Program) courses in Human Research and Social & Behavioral Research for researchers on December 10, 2018

D. Grants:

Terramera, Inc. Funding for a project, titled, "96-well Plate Assay to determine growth inhibition of several microbial organisms." 2019. PI: Marcia Firmani (\$8,982.00) with potential to expand project and funding to test additional pathogens.

Role: Co-investigator

18) EDUCATIONAL ACHIEVEMENTS

A. GW Medical Laboratory Sciences (MLS) Summer Immersion Program-

Offered to high school students every summer- Professor since July 2017

B. GW Health Careers Opportunity Program (HCOP)- Lecturer

• **Hematologic Diseases** - June 2019 to Present

C. Governor's Health Sciences Academy at T.C. Williams High School

Academy Course Director and consultant for:

- HSCI 1107: Introduction to Sterile Processing- Spring 2020 June 2024
- HSCI 1109: Introduction to Surgical Sciences- Summer 2021- June 24

19) COMMUNITY SERVICE

Volunteer Services:

1. <u>American Society for Clinical Pathology (ASCP) Career Ambassador- April 2019 to Present.</u> Responsibilities & Duties include:

- Seek opportunities in my communities to share information about and promote careers in the medical laboratory science profession
- Promote ASCP membership and opportunities
- Create engaging presentations with a mixture of visual aids, hands-on activities, and dialogue with students
- Make as many presentations as possible throughout the year in classrooms, career fairs, and other venues for young people
- Document each presentation with the online activity report and share my activities in the online Facebook group
- Recruit Career Ambassadors to the program

Eastern Senior High School, Washington, DC September 24, 2019

• As an ASCP career ambassador, I delivered a presentation on fulfilling careers in the laboratory sciences to high school students

2. GW BLS Department Summer Immersion Program- Summer 2016 – June 2024

• I participate in the BLS Department's Summer Immersion program. This is a terrific program which provides outreach to high school and community college students in Virginia, Maryland, Washington, D.C. communities. The program one week sessions are held every year in the summer in person and virtual. The program allows faculty to work with students to help them build a solid laboratory science background and also gain hands-on skills and laboratory experience. As faculty, I lead modules and sessions in the hematology and parasitology sections in the program.

3. 2010 Medical Student Research Competition June 22, 2010

Organized and participated in the research competition at Wyckoff Heights Medical Center

4. Project Haiti Earthquake Relief

Jan 22, 2010

Organized and participated in a successful fund raising event "International Food Festival" at Wyckoff Heights Medical Center for the January 2010 Haiti Earthquake relief. Accrued over \$4100.00 in funds donated to Haiti through various charity organizations

5. <u>University of Maryland Medical Center</u>

August 2002-May 2005

(Operating rooms and R Adams Cowley Shock Trauma Center)

• Participated in the operating room assembly, handling of blood and tissue samples, and patient transportation before and after surgery.

20) AWARDS AND HONORS

- Awarded two Certificates of Appreciation by the NY-ACP for research presentation at the 2010 Annual abstract competition and scientific meeting held in Rochester, NY on November, 4 2010
- First Place Award and two Certificates of Achievement for research on four case reports and a retrospective study at the 2010 Medical Student Research Competition held at Wyckoff Heights Medical Center on June 25, 2010
- Third place award by NY-ACP for research presentation at the 2010 Resident and Medical Student Research Competition held at Mount Sinai Medical Center on April, 10 2010.
- Awarded Certificate of Appreciation by the NY-ACP for research presentation at the 2010 Resident and Medical Student Research Competition held at Mount Sinai Medical Center on April, 10 2010.

- **Honorary Certificate of Merit** for research on angiogenesis by Maryland Delegate Dan Morhaim in Annapolis, MD at the House of Delegates on March 1, 2005
- National student honor award from the American Society for Clinical Pathology on May 25, 2005.
- Award for contribution as the Events Coordinator to the DMRT class of 2005 on May 25, 2005.

21) Extracurricular Activities

Founder of Pathology Social-Social Media Handles:

Twitter (X) /TikTok/Snapchat/LinkedIn & Facebook Groups- @pathologysocial

Instagram/Threads- @pathology.social

About Pathology Social:

Pathology Social is a free educational community platform to share and promote pathology and laboratory medicine content, resources, stories, jobs, volunteer work, career moves and tips to enhance professional development and education. It is also a space for advocating for pathology and laboratory medicine, mentoring students, residents, fellows, and early career faculty & attendings, sharing information about clinical observerships/visiting clerkships, and networking with medical laboratory technicians/scientists, histotechnologists, cytotechnologists, biotechnologists, medical students, residency applicants, pathology assistants, residents, fellows, pathologists, and all other healthcare professionals. Pathology Social welcomes everyone to participate, contribute, or collaborate.