

**University of California, San Francisco
CURRICULUM VITAE**

Name: Georgios Deftereos

Position: Associate Professor of Clinical Pathology, Step 3
Pathology
School of Medicine

Address: University of California, San Francisco
1825 4th Street
Room L2181L
San Francisco, CA 94158
Voice: 4153539626
Email: georgios.deftereos@ucsf.edu

EDUCATION

1997 - 2005 Università Degli Study di Bari Aldo Moro, Bari, Italy MD

LICENSES, CERTIFICATION

09/2016 Diplomate, Molecular Genetic Pathology, the American Board of Pathology.

09/2015 Diplomate, Cytopathology, the American Board of Pathology.

07/2014 Diplomate, Anatomic Pathology and Clinical Pathology, the American Board of Pathology.

10/2009 Educational Commission for Foreign Medical Graduates (ECFMG) Certificate.

06/2016 Utah Physician and Surgeon License, License #: 9837984-1205.

03/2014 Washington State Physician and Surgeon License, License #: MD60449870.

10/2013 Commonwealth of Pennsylvania Medical License, License #: MD450271.

10/2017 Colorado Medical Board Physician License, License #: DR.0059401.

03/2018 Texas Medical Board Physician Full Permit, License #: R6378.

11/2017 New York State Department of Health Certificate of Qualification, CQ Code: DEFTG1: Cytopathology; Oncology: Molecular and Cellular Tumor Markers; Virology (Limited to FDA-Approved Molecular HPV Tests).

PRINCIPAL POSITIONS HELD

09/2023 - present	University of California, San Francisco	Associate Professor	Pathology
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07/2021 - 08/2022	University of Utah	Associate Professor	Pathology
08/2016 - 06/2021	University of Utah	Assistant Professor	Pathology
07/2015 - 06/2016	University of Washington	Fellow, Molecular Genetic Pathology	Pathology
07/2014 - 06/2015	University of Washington	Fellow, Cytopathology	Pathology
07/2010 - 06/2014	Allegheny Health Network	Resident, Pathology, Anatomic and Clinical	Pathology and Laboratory Medicine
10/2007 - 06/2010	University of Washington	Post-Doctoral Fellow	Pathology
05/2006 - 05/2007	Hellenic Armed Forces	Private - Physician	Health Corps

OTHER POSITIONS HELD CONCURRENTLY

09/2022 - present	University of California, San Francisco	Associate Director, Clinical Cancer Genomics Laboratory	UCSF Health Center for Clinical Genetics and Genomics
09/2022 - present	University of California, San Francisco	Director, Molecular Cytopathology	Pathology
08/2017 - 08/2022	University of Utah and ARUP Laboratories	Section Head, Solid Tumor Molecular Oncology	Pathology
08/2016 - 08/2022	University of Utah and ARUP Laboratories	Medical Director, Molecular Oncology	Pathology

HONORS AND AWARDS

2016	40 Under Forty Honoree	American Society for Clinical Pathology
2015	First Resident Research Award	Papanicolaou Society of Cytopathology
2013	Poster of Distinction Award	Digestive Disease Week
2012	First, Place, Resident Research Award	Papanicolaou Society of Cytopathology

KEYWORDS/AREAS OF INTEREST

Pathology, Cytopathology, Molecular Genetic Pathology, Oncology, Precision Medicine.

CLINICAL ACTIVITIES

CLINICAL ACTIVITIES SUMMARY

As the director of Molecular Cytopathology and as a cytopathologist at UCSF, I participate in the fine needle aspirate (FNA) clinic rotation, where I provide direct patient care through performing ultrasound-guided and palpation-guided FNAs. In addition to sign out of FNA cytology cases, I provide coverage in the different other services of the Cytopathology section, including rapid on-site evaluations, consultations and Gynecologic Cytopathology. During my time here, I have also led the digital pathology validation for use of digital pathology in cytology cell block H&E and immunohistochemistry stained slides. I serve as reference point for evaluation of cytopathology material for molecular ancillary testing, with regard to specimen adequacy and quality of digital pathology archival for documentation purposes.

As Associate Director of the Clinical Cancer Genomics Laboratory and as a molecular pathologist, I provide weekly service of solid tumor Molecular Pathology through sign out of the high-volume UCSF500 testing. In addition, I rotate on service at the Clinical Cancer Genomics Laboratory where I participate in the pre-analytical component of the service (slide circling), along with sign out of single gene assays and solid tumor fluorescent in situ hybridization (FISH) testing. In addition, I participate in weekly and monthly Quality Improvement meetings, offering medical directorship oversight of the laboratory operations.

Prior to joining UCSF, I served as a cytopathologist and molecular pathologist at the University of Utah and ARUP Laboratories, a national reference laboratory which is part of the University of Utah Department of Pathology. In addition, between 2017 – 2022 I served as the Section Head of Solid Tumor Molecular Oncology for the department of Pathology and ARUP Laboratories. During this time, I contributed to bringing improvements and advance the service and the scope of the practice of Molecular Pathology. During that time we saw an approximate 70% increase in overall testing volumes. Moreover, I chaired the search committees that successfully hired two additional molecular pathologists. Given my expertise in Molecular Pathology and my role as Section Head of the Solid Tumor Molecular Oncology service I have participated in multiple different faculty search committees in the department, including those in Hematopathology, Neuropathology and Molecular Genetics.

Moreover, I led and have personally participated in numerous clinical molecular assay validations, as well as clinical assay improvements, that are clinically available for order for patients across the country as part of ARUP's national reference lab outreach. These included: PD-L1 22C3 PharmDx by immunohistochemistry with interpretation for gastric/gastrointestinal junction (GEJ) adenocarcinomas; PD-L1 22C3 PharmDx by immunohistochemistry with interpretation for urothelial carcinomas; PD-L1 22C3 PharmDx by immunohistochemistry with interpretation for cervical carcinomas; PD-L1 22C3 PharmDx by immunohistochemistry with interpretation for esophageal squamous cell carcinomas; PD-L1 28-8 PharmDx by immunohistochemistry with interpretation for urothelial carcinomas; PD-L1 28-8 PharmDx by immunohistochemistry with interpretation for head and neck squamous cell carcinomas; Human papillomavirus (HPV) genotype 16 and 18 by PCR for head and neck squamous cell carcinomas; Solid tumor mutation panel by next generation sequencing; Mismatch repair protein testing by immunohistochemistry. For all these, spanning several years between 2017 and present, I have provided medical oversight of ARUP research and development (R&D) personnel, have overseen validation planning, review of results, design of

reporting templates and interpretative comments, as well drafting/editing of the standard operating procedures (SOPs).

CLINICAL SERVICES

2022 - present	Cytopathology Service, University of California, San Francisco	2 weeks per month
2022 - present	Molecular Pathology Service, University of California, San Francisco	1 week per month + weekly NGS sign-out
2016 - 2022	Molecular Genetic Pathology of Solid Tumors Service, ARUP Laboratories	6 weeks per quarter
2016 - 2022	Cytopathology Service, ARUP Laboratories, Huntsman Cancer Institute and Primary Children's Hospital	3 weeks per quarter.

PROFESSIONAL ACTIVITIES

MEMBERSHIPS

2015 - present	Member, Papanicolaou Society of Cytopathology.
2014 - present	Fellow Member, College of American Pathologists (CAP).
2014 - present	Fellow Member, American Society for Clinical Pathology (ASCP).
2014 - 2016	Member, Washington State Medical Association.
2014 - 2016	Member, Pacific Northwest Society of Pathologists.
2010 - present	Member, United States & Canadian Academy of Pathology (USCAP).
2010 - 2014	Member, College of American Pathologists (CAP).
2010 - 2014	Member, American Society for Clinical Pathology (ASCP).
2006 - present	Member, Greek Medical Association.

SERVICE TO PROFESSIONAL ORGANIZATIONS

2023 - present	Multigene Tumor Panel Proficiency Testing Survey, Molecular Oncology Committee, College of American Pathologists (CAP).	Primary Reviewer.
2022 - present	Microsatellite Instability Proficiency Testing Survey, Molecular Oncology Committee, College of American Pathologists (CAP).	Secondary Reviewer
2022 - present	In Situ Hybridization Proficiency Testing Survey, Molecular Oncology Committee, College of American Pathology (CAP).	Secondary Reviewer
2022 - present	Neoplastic Cellularity Survey, Molecular Oncology Committee, College of American Pathologists (CAP).	Secondary Reviewer

2022 - present	Primary HPV Testing Cross-Council Quality Measures Workgroup, College of American Pathologists (CAP).	Member
2022 - 2022	Independent Review Panel, HER2 Breast Guideline Reaffirmation, College of American Pathologists (CAP).	Reviewer
2021 - present	Molecular Oncology Committee, College of American Pathologists (CAP).	Member
2021 - 2021	Official College of American Pathologists (CAP) Inspection, Anatomic Pathology and Cytopathology, Department of Pathology, The Ohio State University, Columbus, OH (Virtual Inspection).	Inspector
2020 - 2020	Interim College of American Pathologists (CAP) inspection, Genomics Laboratory primary inspector, ARUP Laboratories, Salt Lake City, UT.	Inspector
2018 - 2018	Interim College of American Pathologists (CAP) inspection, Genomics Laboratory primary inspector, ARUP Laboratories, Salt Lake City, UT.	Inspector
2018 - 2018	Official College of American Pathologists (CAP) inspection, Anatomic Pathology and Cytopathology inspector, Department of Pathology and Laboratory Medicine, Tulane University.	Inspector

SERVICE TO PROFESSIONAL PUBLICATIONS

2020 - present	Associate Editor, Diagnostic Cytopathology.
2020 - present	Ad Hoc Peer Reviewer, Cancer Management and Research. 1 review in the last 2 years.
2020 - present	Ad Hoc Peer Reviewer, Diagnostics. 1 review in the last 2 years.
2020 - present	Ad Hoc Peer Reviewer, Diagnostic Cytopathology. 17 reviews in the last 2 years.
2018 - present	Ad Hoc Peer Reviewer, Breast Cancer Screening. 1 review in the last 4 years.
2018 - present	Ad Hoc Peer Reviewer, Modern Pathology. 1 review in the last 4 years.
2016 - present	Ad Hoc Peer Reviewer, Advancements in Breast Cancer Research. 5 reviews in the last 6 years.
2017 - present	Ad Hoc Peer Reviewer, Biomedicine & Pharmacotherapy. 2 reviews in the last 5 years.
2017 - present	Ad Hoc Peer Reviewer, Open Journal of Pathology. 4 reviews in the last 5 years.
2016 - present	Ad Hoc Peer Reviewer, American Journal of Laboratory Medicine. 1 review in the last 6 years.

- 2016 - present Ad Hoc Peer Reviewer, Biotechnic and Histotechnology. 2 reviews in the last 6 years.
- 2016 - present Ad Hoc Peer Reviewer, Cancer Genetics. 3 reviews in the last 6 years.
- 2016 - present Ad Hoc Peer Reviewer, Diagnostic Pathology. 39 reviews in the last 6 years.
- 2016 - present Ad Hoc Peer Reviewer, Histology and Histopathology. 1 review in the last 6 years.
- 2020 - present Ad Hoc Peer Reviewer, International Journal of Molecular Sciences. 1 review in the last 2 years.
- 2016 - present Ad Hoc Peer Reviewer, Pathology and Laboratory Medicine. 1 review in the last 6 years.
- 2016 - present Ad Hoc Peer Reviewer, PeerJ. 3 reviews in the last 6 years.

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INVITED PRESENTATIONS - INTERNATIONAL

- 2023 6th International Medical Congress of Armenia, Pathology Speaker
Satellite Symposium. Molecular Diagnostics in Cytology
and Small Biopsy Specimens. Yerevan, Armenia.
- 2023 6th International Medical Congress of Armenia, Pathology Speaker
Satellite Symposium. Molecular Diagnostics in Non-Small
Cell Lung Cancer. Yerevan, Armenia.
- 2023 Agilent Technologies. PD-L1 IHC 22C3 Combined Positive Speaker
Score (CPS) Training. Corporate Workshop. United States
and Canadian Academy of Pathology 112th Annual
Meeting, New Orleans, LA.

INVITED PRESENTATIONS - NATIONAL

- 2022 University of Pittsburgh. Molecular Testing and Speaker
Cytopathology (and in Small Specimens). University of
Pittsburgh Genomics Research and Informatics in
Pathology (GRIPS) Course, Pittsburgh, PA.
- 2021 University of Pittsburgh. Molecular Testing and Speaker
Cytopathology (and in Small Specimens). University of
Pittsburgh Genomics Research and Informatics in
Pathology (GRIPS) Course, Pittsburgh, PA.
- 2019 College of American Pathologists. PD-L1 Biomarker Speaker
Testing: An Update for Practicing Pathologists, College of
American Pathologists 2019 Annual Meeting, Orlando, FL.
- 2018 College of American Pathologists. PD-L1 Biomarker Speaker
Testing: An Update for Practicing Pathologists, College of
American Pathologists 2018 Annual Meeting, Chicago, IL

2017	College of American Pathologists. PD-L1 Biomarker Testing: An Update for Practicing Pathologists, College of American Pathologists 2017 Annual Meeting, National Harbor, MD.	Speaker
2014	Association for Molecular Pathology. Solid Tumor Platform Presentation Workshop. Association for Molecular Pathology Annual Meeting, National Harbor, MD.	Moderator

INVITED PRESENTATIONS - REGIONAL AND OTHER INVITED PRESENTATIONS

2022	ARUP Laboratories. 35th Annual Park City Anatomic Pathology Update, ARUP Laboratories, Park City, UT.	Course Director
2022	ARUP Laboratories. Landscape of Molecular Alterations in Thyroid Neoplasms: Review and Real-life Scenarios. 35th Annual Park City Anatomic Pathology Update, ARUP Laboratories, Park City, UT.	Moderator, Speaker
2022	ARUP Laboratories. Molecular Testing in the Workup of Pancreatic and Biliary Tumors. 35th Annual Park City Anatomic Pathology Update, ARUP Laboratories, Park City, UT.	Speaker
2022	ARUP Laboratories. Landscape of Molecular Alterations in Thyroid Neoplasms: Review and Real-life Scenarios. 35th Annual Park City Anatomic Pathology Update, ARUP Laboratories, Park City, UT.	Speaker
2022	ARUP Laboratories. Molecular Testing in the Workup of Pancreatic and Biliary Tumors. 35th Annual Park City Anatomic Pathology Update, ARUP Laboratories, Park City, UT.	Speaker
2019	ARUP Laboratories. Updates on PD-L1 Biomarker Testing. 32nd Annual Park City Anatomic Pathology Update, Park City, UT.	Speaker
2018	ARUP Laboratories. Molecular Pathology of the Gastrointestinal Tract, Part 2. 31st Annual Park City Anatomic Pathology Update, Park City, UT.	Speaker
2017	ARUP Laboratories. Molecular Testing and Cytopathology, 30th Annual Park City Anatomic Pathology Update, Park City, UT.	Speaker
2016	Weill Cornell Medical College. The Role of Cytopathology in Molecular Diagnostics: Downsizing Precision Medicine but not Precision. Weill Cornell Medical College, Department of Pathology and Laboratory Medicine Grand Rounds, New York, NY.	Speaker

2015	University of Washington. The Role of Cytopathology in Molecular Diagnostics: Downsizing Precision Medicine but not Precision. University of Washington Laboratory Medicine Grand Rounds, Seattle, WA.	Speaker
2015	Fred Hutchinson Cancer Research Center. Markers of Disease in Pancreatic FNA Cytology. Oral presentation. Pancreatic Cancer Specialty Clinic, Pancreatic Cancer Translational Research Forum, Fred Hutchinson Cancer Research Center, Seattle, WA.	Speaker
2015	University of Washington. Aberrant Methylation as a Potential Biomarker for the Detection of Pancreatic Cancer in FNA Cytology. Abstract and platform presentation. University of Washington Pathology retreat, Seattle, WA.	Speaker

GOVERNMENT AND OTHER PROFESSIONAL SERVICE

2022 - present	Agilent Technologies. Pathologist Training in PD-L1 22C3 Combined Positive Score (CPS).	Speaker
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UNIVERSITY AND PUBLIC SERVICE

SERVICE ACTIVITIES SUMMARY

Since joining the University of California, San Francisco, Department of Pathology, I offer my services to patients in the Cytopathology section, including performing of fine needle aspirate biopsies at the UCSF Mission Bay Campus, offer rapid on-site evaluation of Radiology and Endoscopy performed fine needle aspirate and core needle biopsy procedures at the UCSF Mission Bay, Mt. Zion and Parnassus campuses, via telepathology. In addition, I participate in the sign out of fine needle aspirate, fluid and gynecologic pathology cases, including external consultations. In addition, I rotate on the Molecular Pathology service at the Clinical Cancer Genomics laboratory, with pre-analytical evaluation of specimens for molecular testing, and sign out of the UCSF500 gene panel testing, as well as single gene testing and fluorescent in situ hybridization (FISH) testing. As Associate Director of the Clinical Cancer Genomics Laboratory (CCGL), I participate in the oversight of the Clinical Cancer Genomics Laboratory operations and present at the Molecular Tumor Board. As Director of Molecular Cytopathology, I oversee the validation and workflow for the utilization of cytopathological specimens for molecular testing and I am the point person for consultations on adequacy assessment and processing of these specimens for testing at CCGL. In this capacity, I drafted a standard operating procedure (SOP) for the selection, scanning and documentation of the use of cytology smears for nuclei acid extraction and testing. In addition, I offer overnight frozen section coverage at the UCSF Parnassus campus. Finally, I led and completed the validation for use of digital pathology in Cytopathology cell block H&E and immunohistochemistry slides.

In addition, I offer services to the Pathology community through my participation in the College of American Pathologists (CAP) Molecular Oncology Committee. The College of American Pathologists is the largest Pathology professional organization in the United States and, among other things provides regulatory oversight of Pathology and Laboratory Medicine operations in the United States, but also overseas, through the CAP Laboratory Accreditation program. The scope of the Molecular Oncology Committee is to oversee Proficiency Testing in

the area of solid tumor and hematological Molecular Oncology, administer proficiency testing in laboratories throughout the United States and abroad, analyze the results, identify trends and make recommendations on the practice of Molecular Pathology. As part of my committee responsibilities include being the primary reviewer for the multigene panel testing proficiency testing, but also secondary reviewer for proficiency testing of microsatellite (MSI), in situ hybridization (ISH) and neoplastic cellularity proficiency testing. Part of responsibilities is also to participate in publications stemming from this work, with manuscripts in preparation. I am also a member for the College of American Pathologists Primary Human Papillomavirus (HPV) Testing Cross-Council Quality Measures Workgroup, given my prior experience with HPV and cervical cancer. Scope of this workgroup is to make recommendations, including creating specific laboratory inspection guidelines for the implementation of primary HPV testing, for the prevention of cervical cancer in the United States. Finally, as a laboratory inspector for CAP, I have participated in inspections of outside Pathology departments, performing inspections in both my areas of subspecialty, Cytopathology and Molecular Pathology.

My service obligations at the University of Utah School of Medicine were similar to those here at UCSF, where I provided service to the Solid Tumor Molecular Oncology sections, for which I was also the Section Head, as well as the Cytopathology Section. In addition, I chaired the search for a new molecular pathologist hire and participated as a member in the search committee for a new Anatomic Pathology Division Chief, during the 2021-2022 academic year. That same year I participated as an inspector for a College of American Pathologists (CAP) inspection of The Ohio State University Department of Pathology, where I was in charge of inspecting several laboratories and locations throughout Ohio State University Health and co-lead the clinical validation of a comprehensive genomic panel testing for solid tumors at ARUP Laboratories. My service to that institution included serving as the pathologist on the Protocol Review and Monitoring Committee (PRMC), Internal Review Board for the University of Utah School of Medicine and the Huntsman Cancer Institute, where I reviewed hundreds of clinical trial protocols for pathology and ancillary test requirements. Finally, I participate in many education-related committees, such as the Pathology Residency Clinical Competency Committee (CCC) and Selection Committee and I was one of the three members of the Masters of Science in Pathology Scientific Advisory Committee.

DEPARTMENTAL SERVICE

2023 - present	Cytopathology Position Search Committee, Department of Pathology, UCSF	Member
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SERVICE AT OTHER UNIVERSITIES

2018 - 2022	Pathologist Member, Protocol Review and Monitoring Committee (PRMC), Internal Review Board, University of Utah School of Medicine and Huntsman Cancer Institute.	Salt Lake City, UT
2017 - 2022	Member, Pathology Residency Selection Committee, Department of Pathology, University of Utah.	Salt Lake City, UT
2017 - 2022	Member, Pathology Residency Clinical Competency Committee, Department of Pathology, University of Utah	Salt Lake City, UT
2021 - 2022	Member, Advisory Committee, Masters of Science in Pathology – Pathology Post-Sophomore Fellowship, Department of Pathology, University of Utah.	Salt Lake City, UT

2018 - 2020	Chair, Molecular Genetic Pathologist Position Search Committee, Department of Pathology, University of Utah.	Salt Lake City, UT
2021 - 2022	Chair, Molecular Genetic Pathologist Position Search Committee, Department of Pathology, University of Utah.	Salt Lake City, UT
2021 - 2022	Member, Anatomic Pathology Division Chief Position Search Committee, Department of Pathology, University of Utah.	Salt Lake City, UT

CONTRIBUTIONS TO DIVERSITY

CONTRIBUTIONS TO DIVERSITY Contributions to Diversity, Equity & Inclusion Guidance

I am happy and proud to say that my contributions to diversity started very early in my life and, more specifically, my medical career. Following my graduation from medical school, I served fulfilled my military service obligations, serving as a physician in the Greek Armed Forces. During my 12-month military service, albeit a compulsory service, I found a way to make a difference in the community. I volunteered to provide medical assistance for an anti-personnel mine demining team, whose task was to clear minefields, left over from World War II and the Greek civil war that followed, on the Greek-Albanian border. Throughout the 90s and well in to the 2000s many people would cross that border, over mountain passes, leaving post-communist Albania and coming to Greece in search for a better future. Over the years, many people would get killed crossing through these minefields, a story that unfortunately never got much coverage. As I learned at the time, many of the mines would be inactive after so many years, but some would still be active, if not unstable and more sensitive, posing a threat for people making this already dangerous trip. During this time, I met some remarkably brave people, willing to risk their lives daily for the common good, but I also believe I contributed to the safety of these people who not only would get the opportunity to prosper, but also to enrich our society.

During my time as faculty at the University of Utah, I Mentored Drs. Cassi Grotepas and Rachel Stewart, two women fellows (Cytopathology and Molecular Genetic Pathology, respectively) at the University of Utah and ARUP Laboratories on research projects that resulted in Abstracts accepted at the United States and Canadian Academy of Pathology Annual Meeting and publications. In addition, I mentored Dr. Valarie McMurtry, a woman fellow (Cytopathology and then Molecular Genetic Pathology) at the University of Utah and ARUP Laboratories on research that resulted in a publication.

Since I joined UCSF, I have actively sought, and I am grateful for the many opportunities available to be engaged and promote diversity, equity and inclusion in our institution. I was able to receive the UCSF School of Medicine Diversity, Equity & Inclusion Champion certification, after completing the "Differences Matter: Diversity, Equity, and Inclusion Champion Training", UCSF School of Medicine's initiative designed to make UCSF a university that is home to people with diverse identities and backgrounds, all of whom are committed to advancing equity, belonging, and anti-oppression in medicine. In addition, I participated in the UCSF 15th Annual Chancellor's Leadership Forum on Diversity and Inclusion. The forum provided a platform for community members to hear from senior leadership on diversity, equity, inclusion, accessibility, and anti-racism initiatives at UCSF. The 2023 program featured UCSF leaders sharing updates and innovations in DEIA and Anti-Racism Initiative work including

institutional responses to the results of the UCSF Climate Survey. Finally, I participated in the UCSF Department of Pathology Diversity, Equity and Inclusion (DEI) Grand Rounds. The Grand Rounds were presented by Matthew Beld, MPH and entitled “ Addressing Gender in Work and Conversation” . This included a very informative presentation and audience participation in addressing these very important issues.

TEACHING AND MENTORING

TEACHING SUMMARY

At UCSF, I participate in the weekly Cytopathology teaching for residents and fellows, which always combine my two areas of expertise, Cytopathology and Molecular Genetic Pathology. In addition, I provide one-on-one teaching of residents and fellows in both the areas of Cytopathology and Molecular Genetic Pathology. This includes teaching during sign out of cases, during performance of fine needle aspirate biopsy procedures, but also structured lectures, including the monthly Cytopathology Conference in which I have presented four times between September 2022 and June 2023. In addition, I have volunteered to present an Anatomic Pathology board review course for 4th year residents and other trainees preparing for the Anatomic Pathology boards, that took place in May 2023, prior to the beginning of the Anatomic Pathology Board examinations. I also organized a panel discussion aimed at residents to give them information on applying for Pathology jobs, preparing them for interviews, job talks, contract negotiations, etc. This involved the participation of some of this year’ s graduating fellows, who shared their experiences from their recent job searches, which included job searches in academic pathology and industry. My plan is to make these didactic activities a yearly occurrence, as they have been at my prior institution.

For the last two years I was invited to speak at the annual Genomics Research and Informatics in Pathology (GRIPS) Course, organized by the University of Pittsburgh. My talk focused on the use of cytological and small biopsy specimens for molecular ancillary testing in solid tumors.

Further, I was invited to present a Corporate Workshop, organized by Agilent Technologies on PD-L1 immunohistochemistry, during the 112th United States and Canadian Academy of Pathology Annual Meeting (the largest annual Pathology meeting worldwide) in New Orleans, LA in March of 2023, while I have taught online workshops on this subject on multiple occasions.

Finally, I was invited to give two presentations on molecular testing in cytopathology and small biopsy specimens and also on molecular testing in non-small cell lung cancer at the 6th International Medical Congress of Armenia, in Yerevan, Armenia, which featured many Pathology experts from US and other international Universities, along with experts in other medical fields. This was a fantastic opportunity to educate pathologists from Armenia and the Armenian diaspora on the even-evolving field of molecular pathology.

Prior to joining UCSF, I performed many teaching activities both within the department, with formal and on the job training of residents, Cytopathology fellows and Molecular Genetic Pathology fellows, but also outside the department and the University of Utah and ARUP, with national and regional meetings. For three consecutive years (2017-2019), I was invited by one of the leading national pathology professional organizations, the College of American Pathologists (CAP; the largest Pathology professional society in the United States) to present a course entitled “ PD-L1 Biomarker Testing: An Update for Practicing Pathologists” at the CAP Annual Meeting. Moreover, on multiple occasions I have taught courses at the annual ARUP

Park City Anatomic Pathology Update, a national CME course put on by the Department of Pathology at the University of Utah and ARUP Laboratories, that is attended by pathologists across the country. One of the courses I have taught, entitled “ Molecular Testing and Cytopathology: Downsizing Precision Medicine but not Precision” is available as an online teaching module from the ARUP Institute of Learning, and was available for pathologists and other healthcare professionals to view, answer content-related questions and claim continuing education credit. Moreover, I am the author of two of ARUP’ s Expert Consult Online Series on PD-L1 testing and ordering algorithms, available at <https://arupconsult.com/content/pd-l1-testing> and <https://arupconsult.com/algorithm/pd-l1-testing-algorithm>, respectively, for national pathologist education. Similar to my didactic activities at UCSF, I participated in formal teaching of Pathology residents and fellows, in the areas of Molecular Pathology and Cytopathology, providing many hours daily of one-on-one microscope teaching. Moreover, I participated in the yearly Molecular Pathology Course that the residents and fellows attended every September. In addition, every year I organized and presented the Anatomic Pathology Board Review series and the Pathology Job Search Panel Discussion, as described above. Finally, I sat on the Pathology Residency Clinical Competency Committee (CCC), and on the Pathology Residency selection committee.

INFORMAL TEACHING

- 2023 - present Annual Job Search Panel Discussion for residents and fellows. University of California, San Francisco, Department of Pathology. San Francisco, CA.
- 2023 - present Anatomic Pathology Board review for residents taking the Anatomic Pathology boards. 5-8 1.5-hour lecture series on important topics in Anatomic Pathology. University of California, San Francisco, Department of Pathology. San Francisco, CA.
- 2023 - present Molecular Diagnostics in the Cytopathology of Pancreaticobiliary Tumors. Monthly lecture series, Cytopathology. University of California, San Francisco, Department of Pathology. San Francisco, CA.
- 2023 - present Molecular Diagnostics in Thyroid Cytopathology, Part 2. Monthly lecture series, Cytopathology. University of California, San Francisco, Department of Pathology. San Francisco, CA.
- 2023 - present Molecular Diagnostics in Thyroid Cytopathology, Part 1. Monthly lecture series, Cytopathology. University of California, San Francisco, Department of Pathology. San Francisco, CA.
- 2022 - present Molecular Diagnostics in Cytopathology and Small Biopsy Specimens. Monthly lecture series, Cytopathology. University of California, San Francisco, Department of Pathology. San Francisco, CA.
- 2022 - present Resident and fellow teaching during service. Molecular Genetic Pathology. University of California, San Francisco, Department of Pathology. San Francisco, CA.
- 2022 - present Resident and fellow teaching during service, Cytopathology. University of California, San Francisco, Department of Pathology. San Francisco, CA.

- 2016 - present ARUP Laboratories Expert Consult Series: Human Papillomavirus (HPV) Testing - Cervical Cancer Screening. ARUP Consult®.
<https://arupconsult.com/content/human-papillomavirus>.
- 2016 - present ARUP Laboratories Expert Consult Series: PD-L1 Testing. ARUP Consult®.
<https://arupconsult.com/content/pd-l1-testing>.
- 2016 - 2022 University of Utah, Department of Pathology and ARUP Laboratories Institute for Learning Video Lecture Series. Molecular Diagnostics in Cytology and Small Biopsy Specimens of Non-Small Cell Lung Cancer.
<https://arup.utah.edu/education/deftereos-moleTestDx-pcap20.php/>.
- 2016 - 2022 Annual Resident and Fellow Course on Molecular Genetics and Genomics. Participated with at least 1 hour teaching sessions every year. University of Utah, Department of Pathology and ARUP Laboratories, Salt Lake City, UT.
- 2016 - 2022 Annual Job Search Panel Discussion for residents and fellows. University of Utah, Department of Pathology and ARUP Laboratories, Salt Lake City, UT.
- 2016 - 2022 Resident and fellow teaching during service, Molecular Genetic Pathology, University of Utah, Department of Pathology and ARUP Laboratories, Salt Lake City, UT.
- 2016 - 2022 Resident and fellow teaching during service, Cytopathology. University of Utah, Department of Pathology and ARUP Laboratories, Salt Lake City, UT.
- 2016 - 2022 Formal lecture series, Cytopathology. University of Utah, Department of Pathology and ARUP Laboratories, Salt Lake City, UT.

MENTORING SUMMARY

During my career as an academic pathologist, I have had the possibility to interact with, teach and mentor numerous trainees, including Pathology residents, but also fellows, especially in the areas of Cytopathology and Molecular Genetic Pathology, that are my two areas of subspecialty. Some of these interactions have resulted in research projects, presented as abstracts in national meetings and/or have resulted in publications, but also to offer career advice and mentoring. In addition, I have offered advice to many trainees, especially those with an interest in Cytopathology and Molecular Genetic Pathology. Some of the highlights include my interactions with Dr. Michael Ward, my former Cytopathology fellow at the University of Utah and currently Assistant Professor of Pathology at the University of Utah, where he also currently serves as the Pathology Residency Program Director. I guided Dr. Ward through designing and executing a research project investigating PD-L1 expression in upper urothelial tract urothelial carcinomas, which was first presented at the 2018 United States and Canadian Academy of Pathology (USCAP) Annual Meeting in Vancouver, BC, Canada, and followed by a peer reviewed publication. In a similar fashion, I mentored Dr. Cassi Grotepas (former resident and Cytopathology fellow and current pathologist in private practice in Decatur, IL) in two research projects, one investigating PD-L1 testing results in off-label cancer types and one investigating PD-L1 expression in mismatch repair proficient and deficient colorectal and endometrial carcinomas, resulting in one abstract present at the 2018 USCAP Annual Meeting, with manuscripts in preparation, and Dr. Rachel Stewart (former Molecular Genetic Pathology fellow and current Associate Scientific Director at Janssen Pharmaceuticals) on a project investigating the expression of PD-L1 in mesotheliomas, in collaboration with investigators at Department of Pathology at the University of Chicago, which resulted in an abstract

presentation at the 2018 UCSAP Annual Meeting and in a peer reviewed publication. Finally, I have been serving as a mentor for Dr. Valarie McMurtry (former resident, Cytopathology fellow, Molecular Genetic Pathology fellow and current Assistant Professor of Pathology at the University of Utah), who decided to take a career path similar to mine, choosing fellowship training in Cytopathology and Molecular Genetic Pathology, and with whom I worked on an invited review publication on the role of molecular testing in thyroid fine needle aspirate (FNA) cytology specimens, already published, but also on a research project.

POSTDOCTORAL FELLOWS AND RESIDENTS MENTORED

Dates	Name	Fellow	Mentor Role	Faculty Role	Current Position
2016 - 2018	Michael Ward, MD	Surgical Pathology, Cytopathology	Project Mentor	Mentored on research project .	Assistant Professor, Pathology and Pathology Residency Program Director, University of Utah.
2017 - 2018	Cassi Grotepas, MD	Cytopathology	Project Mentor	Mentored on two research projects.	Pathologist, private practice, Decatur, IL.
2017 - 2018	Rachel Stewart, DO, PhD	Molecular Genetic Pathology	Project Mentor	Mentored on research project.	Associate Scientific Director, Janssen Pharmaceuticals.
2021 - 2023	Valarie McMurtry, MD, PhD	Cytopathology, Molecular Genetic Pathology	Project Mentor, Career Mentor	Career mentoring. Mentoring on research projects.	Assistant Professor, Pathology, University of Utah.

RESEARCH AND CREATIVE ACTIVITIES

RESEARCH AND CREATIVE ACTIVITIES SUMMARY

One of my main research interests involves identifying means to optimize the acquisition and use of cytological specimens and small biopsies for molecular testing, the development of novel genetic and epigenetic biomarkers of disease for different malignancies, including pancreatic carcinomas, lung cancer, gynecologic malignancies and other. This interest has materialized in a total of 3 publications, along with 3 platform/poster presentations in national meetings. This is also one of the main reasons I chose to continue my career at UCSF. The

UCSF Cytopathology service is one of the pioneers in developing the technique of ultrasound guided fine needle aspirate biopsy and, over the years, has brought significant innovation in the field of specimen acquisition. One of my current goals is to develop workflows to optimize specimen acquisition and utilization specifically for use with comprehensive genomic profiling, including the UCSF500 next generation sequencing testing, performed at the UCSF Clinical Cancer Genomics Laboratory, where I am also an Associate Director.

More recently, and in light of my experience with clinical testing of PD-L1 in lung cancer and other solid tumors needed to qualify cancer patients for immune checkpoint inhibitor treatment, I was able to produce multiple studies in this field, resulting in a publication in Human Pathology, a leading clinical journal in diagnostic pathology, a publication in Applied Immunohistochemistry and Molecular Morphology, as well as other studies presented at the USCAP Annual Meeting, the largest academic pathology meeting worldwide including one manuscript under revision for Diagnostic Pathology and two other manuscripts in preparation.

Finally, my research includes studies on cervical carcinomas and human papillomavirus (HPV) and the expertise has led to published work and assay developments on HPV, but also on molecular alterations of different solid tumors, with multiple publications in prestigious journals, resulting in hundreds of citations over the last decade. Moreover, I have presented my research in platform and poster presentations multiple times and in multiple different meetings, including the United States and Canadian Academy of Pathology (USCAP), the largest Pathology meeting worldwide, and have won awards for my presented research on several occasions.

RESEARCH AWARDS - CURRENT

1.	Co-Investigator		Gill (PI)
	UCSF Department of Pathology Clinical Research Endowment.	11/02/2022	11/02/2023
	Molecular profiling of recurrent hepatocellular carcinoma in a well-characterized patient population.	\$ 7,555.30 direct/yr 1	\$ 7,555.30 total
	In this study, we propose to specifically evaluate hepatocellular carcinoma (HCC) resection specimens from patients with established recurrence (most of this cohort developed recurrence following transplantation) for molecular abnormalities detected by UCSF500, which may augment histologic assessment of recurrence risk (as previously reported and noted above) and provide further insight into how best to predict recurrence in otherwise similar tumors. We would also compare findings with The Cancer Genome Atlas (TCGA) data and published literature on HCC molecular classification		
	Selection of tumor areas for UCSF500 testing. UCSF500 test result analysis. Comparison with TCGA data. Overall data analysis. Manuscript preparation.		

RESEARCH AWARDS - PAST

1.	Co-PI		Florou, Deftereos (PI)
	Huntsman Cancer Institute Gastrointestinal Cancers Center RFA Grant	04/11/2022	04/10/2023
	Correlation of pancreatic cancer subtypes with responses to chemotherapy and survival using the expression of GATA6 on diagnostic biopsies in localized disease.	\$ 19,500 direct/yr 1	\$ 19,500 total
		direct/yr 1	total

Pancreatic cancer remains one of the most lethal cancers worldwide, with limited overall survival even in localized settings. However, systemic chemotherapy can prolong survival in patients with pancreatic cancer. This project aims to correlate the pancreatic cancer subtypes with responses to chemotherapy and survival using the expression of GATA6 on diagnostic biopsies in localized disease.

Collection of cases, optimization of immunohistochemistry protocol. Interpretation of immunohistochemistry results. Coordination and interpretation of sequencing results for subset of cases.

2.	PI		Deftereos (PI)
	University of Utah Department of Pathology and ARUP Laboratories William R. Roberts Memorial Fund Grant	05/01/2017	06/30/2019
	PD-L1 22C3 expression in mismatch repair protein proficient and deficient endometrial adenocarcinomas.	\$ 10,000 direct/yr 1	\$ 10,000 total
	Project to investigate correlation between immunohistochemical expression of PD-L1 and mismatch protein expression in endometrial carcinomas.		
	Project design, collection of cases, coordination of testing, interpretation of testing and statistical calculations.		
3.	Co-PI		Grotepas, Deftereos (PI)
	University of Utah Department of Pathology and ARUP Laboratories William R. Roberts Memorial Fund Grant	05/01/2017	06/30/2019
	PD-L1 22C3 expression in mismatch repair protein proficient and deficient colorectal adenocarcinomas	\$ 10,000 direct/yr 1	\$ 10,000 total
	Project to investigate correlation between immunohistochemical expression of PD-L1 and mismatch protein expression in colorectal carcinomas.		
	Project design, collection of cases, coordination of testing, interpretation of testing and statistical calculations.		

PEER REVIEWED PUBLICATIONS

1. Wilcock DM, Moore KH, Rowe L, Mahlow J, Jedrzakiewicz J, Cleary AS, Lomo L, Ruano AL, Gering M, Bradshaw D, Maughan M, Tran P, Burlingame J, Davis R, Affolter K, Albertson DJ, Adelhardt P, Kim JT, Coleman JF, **Deftereos G**, Gulbahce EH, Sirohi D. Quantitative Imaging Analysis Fluorescence In Situ Hybridization Validation of Clinical HER2 Testing in Breast Cancer. *Arch Pathol Lab Med* 2023 Mar 15. doi: 10.5858/arpa.2022-0372-OA. Online ahead of print.
2. McMurtry V, Mahlow J, Coleman JF, **Deftereos G**, Jattani R, Bastien RRL, Durtschi J, Jarboe E, Lomo L, Sirohi D. Morphological Characteristics and Mutational Analysis of Fumarate Hydratase Deficient Kidney and Smooth Muscle Tumors: A Reference Laboratory Experience. *Am J Clin Pathol* 2023;159(2):164-171.
3. Wilcock DM, McMurtry V, Coleman J, Kim JT, Khalili P, **Deftereos G**, Albertson D, Gulbahce EH, Liu T, Sirohi D. Clinical Significance of Chromosome 12 Polysomy by Fluorescence In Situ Hybridization in Adipocytic Neoplasms. *In J Surg Pathol* 2022;45:734-742.

4. Wilcock DM, Schmidt RL, Furtado LV, Matynia AP, **Deftereos G**, Sirohi D. Histological, FISH and Molecular Characterization of Discordant ROS1 Immunohistochemistry and Fluorescent in Situ Hybridization. *Appl Immunohistochem Mol Morphol* 2022;30:19-26.
5. Ward M, Albertson, D, Furtado L, **Deftereos G**. PD-L1 Expression in Upper Tract Urothelial Carcinomas Associated with Higher Pathological Stage. *Appl Immunohistochem Mol Morphol* 2022;30:56-61.
6. Zhou W, Rowe L, Witt B, **Deftereos G**. Application of the Roche cobas® HPV 4800 in formalin-fixed, paraffin-embedded samples for head and neck squamous cell carcinomas. *Head Neck Pathol* 2021;15:532-536.
7. Florou V, Jarboe E, **Deftereos G**. Intravenous Leiomyomatosis – a rare diagnosis with aggressive potential. *JCO Oncol Pract*. 2020 Nov 4:OP2000666. doi: 10.1200/OP.20.00666. Online ahead of print.
8. **Deftereos G**, Schmechel SS, Waner EE, Itani M, Dighe MK, Tylee TS. Differential outcomes of patients with thyroid FNA diagnoses of AUS/FLUS with and without nuclear atypia: The potential need for separation in the Bethesda System. *Diagn Cytopathol* 2020;48:610-617.
9. **Deftereos G**, Sandoval A, Furtado LV, Bronner M, Matynia AP. Successful Lung Cancer EGFR Sequencing from DNA Extracted from TTF-1 Immunohistochemistry Slides: A New Means to Extend Insufficient Tissue. *Hum Pathol* 2020;97:52-59.
10. Sirohi D, Schmidt R, Aisner DL, Behdad A, Betz BL, Brown N, Coleman, JF, **Deftereos G**, Ewalt MD, Fernandes H, Hsiao SJ, Mansukhani MM, Murray SS, Niu N, Ritterhouse LL, Suarez CJ, Tafe LJ, Thorson JA, Segal JP, Furtado LV. Multi-Institutional Evaluation of Inter-rater Agreement of Variant Classification Based on the 2017 AMP, ASCO and CAP Standards and Guidelines for the Interpretation and Reporting of Sequence Variants in Cancer. *J Mol Diagn* 2019;22:284-293.
11. Chapel DB, Stewart R, Furtado LV, Husain AN, Krausz T, **Deftereos G**. Tumor PD-L1 Expression in Malignant Pleural and Peritoneal Mesothelioma by Dako PD-L1 22C3 pharmDx and Dako PD-L1 28-8 pharmDx Assays. *Hum Pathol* 2019;87:11-17.
12. **Deftereos G**, Silverman JF, Krishnamurti U. GATA3 Immunohistochemistry Expression in Histologic Subtypes of Primary Breast Carcinoma and Metastatic Breast Carcinoma Cytology. *Am J Surg Pathol* 2015;39:1282-9.
13. Sadashiv S, Pakravan E, **Deftereos G**, Silverman JF, Mao S. Benign Schwannoma Masquerading as a Malignant Metastatic Lesion in a Patient with Renal Cell Carcinoma. *Gastrointest Cancer Res* 2014;7(3-4):123-5.
14. Khara H, Jackson SA, Saraswathi N, **Deftereos G**, Patel S, Silverman JF, Ellsworth E, Sumner C, Smith DM, Jr, Finkelstein SD, Gross S. Assessment of mutational load biopsy tissue provides additional information about genomic instability to histological classifications of Barrett's Esophagus. *J Gastrointest Cancer* 2014;45(2):137-45.
15. **Deftereos G**, Finkelstein SD, Jackson SA, Ellsworth EMG, Krishnamurti U, Liu Y, Silverman JF, Binkert C, Ujevich B, Mohanty A. The value of mutational profiling of the cytocentrifugation supernatant fluid from fine needle aspiration of pancreatic solid mass lesions. *Mod Pathol* 2014;27:594-601.

16. Lee H, Park CS, **Deftereos G**, Morihara J, Stern JE, Hawes SE, Swisher E, Kiviat NB, Feng Q. MicroRNA Expression in Ovarian Carcinoma and its Correlation with Clinicopathological Features. *World J Surg Oncol*. 2012 Aug 27;10(1):174.
17. **Deftereos G**, Corrie SR, Feng Q, Morihara J, Stern J, Hawes SE, Kiviat NB. Expression of mir-21 and mir-143 in Cervical Specimens Ranging from Histologically Normal through to Invasive Cervical Cancer. *PLoS One*. 2011;6(12):e28423.
18. Schroeder TC, **Deftereos G**, Lupetin A, Hartman MS. A Case of Primary Intrahepatic Gastrinoma. *Radiology Case Reports*. (Online) 2011;7:577.
19. Feng Q, **Deftereos G**, Hawes SE, Stern JE, Willner JB, Swisher EM, Xi L, Drescher C, Urban N, Kiviat N. DNA Hypermethylation, Her-2/neu Overexpression and p53 Mutations in Ovarian Carcinoma. *Gynecological Oncology*. 2008 Nov;111(2):320-9.

REVIEW ARTICLES

1. McMurtry V, Canberk S, **Deftereos G**. Molecular Testing in Fine-Needle Aspiration of Thyroid Nodules. *Diagn Cytopathol* 2023;51(1):36-50.
2. **Deftereos G**, Kiviat NB. Detection and Clinical Management of Cervical Pathology in the Era of HPV. *Curr Obstet Gynecol Rep* 2014;3(2):107-15.
3. **Deftereos G**, Finkelstein SD, Jackson SA, Silverman JF. The role of molecular testing in the work-up of pancreatic cysts. *Path Case Rev* 2014;14(1):22-7.

BOOKS AND CHAPTERS

1. Krishnamurti U, Mosunjak, **Deftereos G**, Hanley KZ. Gynecologic Cytology. In: *Gynecologic and Obstetric Pathology*. Zheng W, Fadare O, Quick CM, Shen D, Guo D (Eds.). Springer, New York, NY, pp. 571-630, 2019.
2. **Deftereos G**, Kiviat NB. Human Papillomaviruses: Cervical Cancer and Warts. In: *Viral Infections in Humans (Fifth Edition)*. Kaslow RA, Stanberry LR, Le Duc JW (Eds.). Springer, New York, NY, pp. 1063-1104, 2014.
3. Feng Q, Jiang M, **Deftereos G**, Kiviat NB. Human Papillomavirus and its Role in Cervical Carcinoma. In: *Molecular Diagnostics – Techniques and Applications for the Clinical Laboratory*. Grody WW, Nakamura RM, Kiechle FL, Strom C (Eds.). Elsevier, San Diego, CA, pp. 301-312, 2010.

SIGNIFICANT PUBLICATIONS

1. **Deftereos G**, Schmechel SS, Waner EE, Itani M, Dighe MK, Tylee TS. Differential outcomes of patients with thyroid FNA diagnoses of AUS/FLUS with and without nuclear atypia: The potential need for separation in the Bethesda System. *Diagn Cytopathol* 2020;48:610-617.

Project design, review of cases and participation in statistical analysis. Manuscript preparation. This article was a large-scale study on clinical outcomes of patients with thyroid nodules and cytopathological diagnosis of AUS/FLUS, and specifically on the importance of the presence/absence of nuclear features suspicious for papillary thyroid carcinoma in predicting papillary thyroid carcinoma on follow up. The upcoming edition of the Bethesda System for Reporting Thyroid Cytopathology is dividing the AUS/FLUS category based on the presence or not of these nuclear features, based, among others, on this publication.

2. **Deftereos G**, Silverman JF, Krishnamurti U. GATA3 Immunohistochemistry Expression in Histologic Subtypes of Primary Breast Carcinoma and Metastatic Breast Carcinoma Cytology. *Am J Surg Pathol* 2015;39:1282-9.

Project design, review of cases and participation in statistical analysis. Manuscript preparation. The first manuscript to extensively report on the immunohistochemical expression of GATA3, currently an established marker of breast origin, in different histopathological subtypes of breast carcinoma, but also in establishing breast origin in metastatic disease.

3. **Deftereos G**, Finkelstein SD, Jackson SA, Ellsworth EMG, Krishnamurti U, Liu Y, Silverman JF, Binkert C, Ujevich B, Mohanty A. The value of mutational profiling of the cytocentrifugation supernatant fluid from fine needle aspiration of pancreatic solid mass lesions. *Mod Pathol* 2014;27:594-601.

Project design, review of cases and participation in statistical analysis. Manuscript preparation. This publication showed the utility of this, usually/previously discarded cytopathology preparation material for molecular ancillary testing in pancreatic cancer, but also other tumor types. This has led to laboratory implementation with validation of this type of specimens for clinical use. This and other papers like it have led to the implementation of molecular testing from supernatant material in many laboratories.

CONFERENCE ABSTRACTS

1. Jadhav AA, Perry LJ, **Deftereos G**, Knudsen BS. A Pipeline to Compare Algorithms for Quantification of PD-L1 by Immunohistochemistry in Lung Cancer. Abstract and poster presentation, United States & Canadian Academy of Pathology, 111th Annual Meeting, New Orleans, LA, 2023.
2. Sirohi D, **Deftereos G**, Davis RG, Lapray J, Schmid H, Furtado LV. Comparative Analysis of Immunohistochemistry and Fluorescence In Situ Hybridization Assays to Establish Reporting Criteria for ALK and ROS1 Immunohistochemical Stains for Lung Adenocarcinomas. Abstract and poster presentation, Association for Molecular Pathology 2019 Annual Meeting, Baltimore, MD, 2019.
3. Zhou W, Witt B, Rowe L, Stanchfield J, Chadwick B, **Deftereos G**. Validation of cobas® HR-HPV Genotyping Assay Head and Neck Squamous Cell Carcinoma FFPE Specimens. Abstract and poster presentation, Association for Molecular Pathology 2018 Annual Meeting, San Antonio, TX, 2018.
4. Sirohi D, Schmidt R, Aisner DL, Behdad A, Betz BL, Brown N, Coleman JF, Corless CL, **Deftereos G**, Ewalt MD, Fernandes H, Hsiao SJ, Mansukhani MM, Murray SS, Niu N, Ritterhouse L, Segal JP, Suarez CJ, Tafe LJ, Thorson JA, Furtado LV. Multi-institutional evaluation of the 2017 AMP, ASCO and CAP Standards and Guidelines for the Interpretation and Reporting of Sequence Variants in Cancer. Abstract and poster presentation, Association for Molecular Pathology 2018 Annual Meeting, San Antonio, TX, 2018.
5. **Deftereos G**, Zhou W, Rowe L, Tripp SR, Salama M, Matynia AP, Witt B. Expression of PD-L1 22C3 in Head and Neck Squamous Cell Carcinomas, in Relation to p16 and HR-HPV DNA Status. Abstract and poster presentation, United States & Canadian Academy of Pathology, 107th Annual Meeting, Vancouver, BC, Canada, 2018.

6. Stewart R, Chapel DB, Furtado L, Husain AN, Krausz T, **Deftereos G**. PD-L1 22C3 and 28-8 Expression in Malignant Melanoma. Abstract and poster presentation, United States & Canadian Academy of Pathology, 107th Annual Meeting, Vancouver, BC, Canada, 2018.
7. Grotepas CB, Abawi J, Coleman JF, Furtado L, Grossmann A, Matynia AP, Sandoval A, Sirohi D, **Deftereos G**. Off-Label Use of PD-L1 (22C3) Reveals Expression Trends: A Reference Laboratory Experience. Abstract and poster presentation, United States & Canadian Academy of Pathology, 107th Annual Meeting, Vancouver, BC, Canada, 2018.
8. Ward M, Albertson, D, Furtado L, **Deftereos G**. PD-L1 Expression in Upper Tract Urothelial Carcinomas Associated with Higher Pathological Stage. Abstract and poster presentation, United States & Canadian Academy of Pathology, 107th Annual Meeting, Vancouver, BC, Canada, 2018.
9. **Deftereos G**, Carter V, Sandoval A, Furtado LV, Matynia A, Bronner M. Successful Lung Cancer EGFR Sequencing from DNA Extracted from TTF-1 Immunohistochemistry Slides: A New Means to Extend Insufficient Tissue. Abstract and poster presentation. Association for Molecular Pathology 2017 Annual Meeting, Salt Lake City, UT, 2017.
10. Rindler PM, Bolia A, Bastien RR, Margraf RL, Raney JA, Hall AA, Hellwig S, **Deftereos G**, Grossmann AH, Matynia AP, Bernard P, Bronner M, Kennedy B, Furtado LV, Gee EP, Gligorich KM. Use of Synthetic Mutation Standards to Bolster Validation of DNA Based NGS Panels for Detection of Translocations and Large Indels. Association for Molecular Pathology 2017 Annual Meeting, Salt Lake City, UT, 2017.
11. Bastien R, Dames S, Bolia A, Simmon K, Rindler P, Raney J, Nelson J, Hall A, **Deftereos G**, Matynia A, Gligorich K, Bronner M, Best H, Kennedy B, Gee E, Furtado L. Specimen Identification and Tracking from DNA Extraction to NGS Results Through the Addition of Barcoded Synthetic DNA. Association for Molecular Pathology 2017 Annual Meeting, Salt Lake City, UT, 2017.
12. **Deftereos G**, Tretiakova MS. GATA3 Expression in Primary Extramammary Paget Disease. Abstract and poster presentation. College of American Pathologists 2016 Annual Meeting, Las Vegas, NV, 2016.
13. **Deftereos G**, Morrissey C, Zhang X, True LD, Tretiakova MS. Cyclin D1 Loss and CD44 Expression in Metastatic Castration Resistant Prostate Cancer with and without Neuroendocrine Differentiation. Abstract and poster presentation. College of American Pathologists 2016 Annual Meeting, Las Vegas, NV, 2016.
14. Ahmad I, Itani M, **Deftereos G**, Waner E, Roth MY, Tylee T. Impact of Molecular Diagnostics for Indeterminate Thyroid Nodules on Medical Management. Abstract and poster presentation. 86th Annual Meeting of the American Thyroid Association, Denver, CO, 2016.
15. Waner EE, **Deftereos G**, Tylee T, Roth M. Fine Needle Aspiration (FNA) and Ultrasound (US) Features of Benign Thyroid Nodules: Can We Implement the 2015 American Thyroid Association (ATA) Guideline Recommendations? Abstract and poster presentation. 86th Annual Meeting of the American Thyroid Association, Denver, CO, 2016.
16. **Deftereos G**, Tylee TS, Waner EE, Itani M, Dighe MK, Schmechel SS. Differential Outcomes of Patients with FNA Diagnoses of AUS versus FLUS: The Potential Need for

- Separation in the Bethesda System. Abstract and poster presentation, United States & Canadian Academy of Pathology, 105th Annual Meeting, Seattle, WA, 2016.
17. Ahmad I, Itani M, **Deftereos G**, Waner E, Dighe M, Roth MY, Tylee TS. Benefit of Repeat FNA in Indeterminate Thyroid Nodules: An Institutional Review. Abstract and poster presentation. 15th International Thyroid Congress and 85th Annual Meeting of the American Thyroid Association, Lake Buena Vista, FL, 2015.
 18. **Deftereos G**, Feng Q, Upton MP, Stern J, Hawes SE, Kiviat NB. Methylation Markers of Pancreatic Carcinoma and their Usefulness in Pancreatic FNA Cytology. Abstract and platform presentation, United States & Canadian Academy of Pathology, 104th Annual Meeting, Boston, MA, 2015.
 19. Daglilar ES, Styn MA, Jackson SA, Barr TM, **Deftereos G**, Finkelstein SD, Brugge WR. Mutational Load as a Predictor of Progression in Barrett's Esophagus: a Longitudinal Study. Abstract and poster presentation. Digestive Disease Week 2014, Chicago, IL, 2014.
 20. **Deftereos G**, Uchin JM, Silverman JF, Krishnamurti U. GATA3 Immunohistochemistry Expression in Primary Cutaneous Tumors and Breast Carcinomas Metastatic to the Skin. Abstract and platform presentation, United States & Canadian Academy of Pathology, 103rd Annual Meeting, San Diego, CA, 2014.
 21. **Deftereos G**, Narick C, Silverman JF, Freed LL, Ellsworth EMG, Jackson SA, Finkelstein SD. Correlation of Mutational Change with Histological Disease Progression in Barrett's Esophagus. Abstract and poster presentation, United States & Canadian Academy of Pathology, 102nd Annual Meeting, Baltimore, MD, 2013.
 22. **Deftereos G**, Krishnamurti U, Silverman JF. GATA3 Expression in Cytology Samples of Metastatic Breast versus Gynecological Carcinoma and Comparison with GCDFP15 and Mammaglobin. Abstract and poster presentation, United States & Canadian Academy of Pathology, 102nd Annual Meeting, Baltimore, MD, 2013.
 23. **Deftereos G**, Krishnamurti U, Silverman JF. GATA3 Expression in Different Subtypes of Invasive Breast Carcinoma and Comparison with GCDFP15 and Mammaglobin. Abstract and poster presentation, United States & Canadian Academy of Pathology, 102nd Annual Meeting, Baltimore, MD, 2013.
 24. Daglilar ES, Ellsworth E, Jackson SA, **Deftereos G**, Bleicher J, Klein Welsh N, Sumner CJ, Corcoran BM, Brugge WR, Finkelstein SD. A Preliminary Longitudinal Assessment of Mutational Load in Patients with Barrett's Esophagus. Abstract and poster presentation, Digestive Disease Week 2013, Orlando, FL, 2013.
 25. Khara H, Freed L, Jackson SA, Ellsworth E, Steams V, Devlin K, Seebald L, Patel S, **Deftereos G**, Silverman JF, Finkelstein SD, Gross SA. Evaluation of Mutational Load (ML) in Four Independent Datasets with Dysplastic and Non-Dysplastic Barrett's Esophagus. Abstract and poster presentation, Digestive Disease Week 2013, Orlando, FL, 2013.
 26. **Deftereos G**, Finkelstein SD, Krishnamurti U, Liu Y, Silverman JF, Binkert C, Ujevich B, Mohanty A. The Value of Mutational Profiling of the Cytocentrifugation Supernatant Fluid from Fine Needle Aspiration of Pancreatic Solid Mass Lesions. Abstract and platform presentation, United States & Canadian Academy of Pathology, 101st Annual Meeting, Vancouver, BC, Canada, 2012.

27. **Deftereos G**, Krishnamurti U, Storto P, Silverman JF, Bunker ML. Expression of HER2 and GRB7 in Upper Gastrointestinal Tract Carcinomas. Abstract and poster presentation, United States & Canadian Academy of Pathology, 101st Annual Meeting, Vancouver, BC, Canada, 2012.
28. **Deftereos G**, Corrie S, Feng Q, Morihara J, Stern J, Kiviat N. MiR-21 Overexpression is Correlated with Decrease of PDCD4 in Cervical Cancer Independent of HPV Status. Abstract and poster presentation, University of Washington Pathology Retreat, Seattle, WA, 2009.

ACADEMIC LEADERSHIP

Since joining UCSF, I have been serving as Associate Director of the Clinical Cancer Genomics Laboratory. In this role, I participate in the oversight of operations for this laboratory, including quality and operations, as well as in the strategic planning for cancer genomics offerings at our institution. In addition, I serve as the Director of Molecular Cytopathology. In this role, I oversee procedures pertaining to molecular testing from cytology specimens, a particularly crucial part of the care of many cancer patients, as many receive their cancer diagnosis from cytology specimens and my role is to ensure that the pre-analytical operations ensure quality of specimens but also optimal utilization of specimens for molecular ancillary testing. In addition, I function as a point of reference for any troubleshooting pertaining to cytology specimens in this context, given my expertise in both Cytopathology and Molecular Genetic Pathology. Part of my tasks is also to evaluate the need and to develop panel testing to aid with cytopathology diagnosis and management in areas such as pancreaticobiliary and salivary gland cytology.

Between 2017 - 2022, I served as the Section Head of Solid Tumor Molecular Oncology for the University of Utah Department of Pathology and ARUP Laboratories. During this time, I put a lot of time and effort in bringing improvements and advance our service and the scope of the practice of Molecular Pathology in our department. Our sections included 8 molecular pathologists. During my time as the Section Head of Solid Tumor Molecular Oncology, we saw an approximate 70% increase in overall testing volumes. As the Section Head of the Solid Tumor Molecular Oncology service, my role included strategic planning for our service and the laboratories we collaborate with, recruitment of new faculty, scheduling, and oversight of quality assurance metrics. Moreover, I participated in the weekly Anatomic Pathology Leadership meeting, involved in strategic planning for the Anatomic Pathology division, and worked with the other section heads on division operations and service.