

University of California, San Francisco
CURRICULUM VITAE

Name: Annemieke van Zante, MD, PhD

Position: Professor of Clinical Pathology, Step 2
Pathology
School of Medicine

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EDUCATION

1991 - 1994	Cornell University, Ithaca, NY	B.A.	Magna cum laude, Biochemistry
1995 - 2004	University of California, San Francisco	M.D./Ph.D.	Medical Scientist Training Program
2004 - 2006	University of California, San Francisco	Resident	Anatomic Pathology
2006 - 2007	University of California, San Francisco	Fellow	Surgical Pathology
2007 - 2008	University of California, San Francisco	Fellow	Cytopathology
2009 - 2009	University of Virginia, Charlottesville, VA	Visiting Pathologist	Head and Neck Pathology

LICENSES, CERTIFICATION

2006	Medical License, California #A95553
2007	American Board of Pathology Certification, Anatomic Pathology
2008	American Board of Pathology Certification, Cytopathology
2009	Thin-Prep Certification
2019	American Heart Association Basic Life Support

PRINCIPAL POSITIONS HELD

2006 - 2007	University of California, San Francisco	Chief Resident	Anatomic Pathology
2008 - 2014	University of California, San Francisco	Assistant Professor, Clinical X	Anatomic Pathology
2014 - 2020	University of California, San Francisco	Associate Professor, Clinical X	Anatomic Pathology
2020 - present	University of California, San Francisco	Professor, Clinical X	Anatomic Pathology

OTHER POSITIONS HELD CONCURRENTLY

2009 - present	University of California, San Francisco	Joint appointment	Otolaryngology - Head and Neck Surgery
2012 - 2016	University of California, San Francisco	Associate Chief of Cytopathology	Anatomic Pathology
2022 - present	University of California, San Francisco	Director, Cytopathology Fellowship Program	Anatomic Pathology

HONORS AND AWARDS

1992	Pew Undergraduate Student Research Award
1993	Howard Hughes Scholar
1994	Honors Thesis in Biochemistry, Cornell University
1994	Magna cum laude, Cornell University
1994	Phi Beta Kappa, Cornell University

KEYWORDS/AREAS OF INTEREST

Cytopathology, Fine needle aspiration biopsy, Surgical pathology, Head and neck cancer, Salivary gland neoplasia, Human papilloma virus

CLINICAL ACTIVITIES**CLINICAL ACTIVITIES SUMMARY**

My clinical mission is to provide diagnostic expertise in head and neck cytopathology and surgical pathology to the UCSF Department of Otolaryngology and Neck Surgery. The first component of this service is providing primary diagnoses based on surgical and fine needle

aspiration specimens obtained at UCSF and submitted from other institutions. The second component of my service is to the UCSF Cancer Center as the primary pathologist for the Head and Neck Multidisciplinary Tumor Board held weekly at Mission Bay. I perform a vital quality assurance role for the Department of Otolaryngology in correlating clinical data and pathologic findings for a large number of their patients prior to treatment planning. I directly supervise pathology trainees and cytopathology fellows in all these roles.

CLINICAL SERVICES

2008 - present	Attending Physician, UCSF Surgical Pathology Service	Daily
2008 - present	Attending Physician, UCSF FNA Biopsy and Cytopathology Service	Daily
2008 - present	Attending Pathologist, UCSF Head and Neck Multidisciplinary Tumor Board	Weekly

PROFESSIONAL ACTIVITIES

MEMBERSHIPS

2006 - present United States and Canadian Academy of Pathology
2006 - present American Society of Clinical Pathology
2006 - present College of American Pathologists
2009 - present American Society of Cytopathology
2013 - present Papanicolaou Society of Cytopathology

SERVICE TO PROFESSIONAL ORGANIZATIONS

2018 - present	Clinical Practice Committee, American Society of Cytopathology	Member
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SERVICE TO PROFESSIONAL PUBLICATIONS

2011 - 2011 Co-Editor, Pathology Case Reviews
2011 - present Ad-hoc reviewer, Journal of Cutaneous Pathology, Dr. Tim McCalmont, Editor
2012 - present Ad-hoc reviewer, Diagnostic Cytopathology, Dr. Carlos Bedrossian, Editor
2019 - present Ad-hoc reviewer, Head and Neck, Dr. Patrick Ha, Editor
2019 - present Ad-hoc reviewer, BMC Cancer, Dr. Linda Gummlich, Editor
2020 - present Ad-hoc reviewer, Modern Pathology, Dr. Justin Bishop, Editor
2020 - present Ad-hoc reviewer, Cancer Cytopathology, Dr. William Faquin, Editor
2020 - present Ad-hoc reviewer, American Journal of Surgical Pathology, Stacey Mills, Editor

INVITED PRESENTATIONS - INTERNATIONAL

2016	Platform Presentation, Comparison of Molecular Platforms for Detection of HPV in FNA Biopsies of the Head and Neck. United States and Canadian Academy of Pathology Annual Meeting. Seattle, WA, March 2016.	Senior author
2019	Invited Faculty, USCAP Interactive Pathology Course, Head and Neck Cytopathology, Palm Springs, CA, February, 2019	Faculty
2020	Invited Faculty, USCAP Evening Specialty Conference - Head, Neck and Endocrine Pathology, March 2020	Faculty
2020	Invited Faculty, Scientific Symposiums International: Diagnostic Problems in Head & Neck, Soft Tissue, GI and Pancreaticobiliary Pathology: A Practical Approach for the Practicing Pathologist. October, 2020	Five practical seminars

INVITED PRESENTATIONS - NATIONAL

2001	Invited Speaker, American Society for Investigative Pathology Workshop for MD/PhD Graduates, FASEB 2001. "Genetic Deletion of High Endothelial Cell N-Acetyl Glucosamine 6-Sulfotransferase: Effect on L-selectin Ligands and Lymphocytic Homing," Orlando, FL, March 2001.	Scientific Seminar
2013	Invited Presenter, Improving FNA Technique with an Introduction to US Guidance - a Practical Hands-on Workshop. American Society of Cytopathology Annual Meeting. Orlando, FL, November 2013.	Practical Seminar
2014	Invited Presenter, Improving FNA Technique with an Introduction to US Guidance - a Practical Hands-on Workshop. American Society of Cytopathology Annual Meeting. Dallas, TX, November 2014.	Practical Seminar
2016	Invited Presenter, Ultrasound FNA Course. American Society of Cytopathology Annual Meeting. New Orleans, LA, November 2016.	Practical Seminar
2017	Invited Presenter, Ultrasound FNA Course. American Society of Cytopathology Annual Meeting. Phoenix, AZ, November 2017.	Practical Seminar
2017	Invited Presenter, Cytology and Beyond: Molecular and Ancillary Test Correlations for Head and Neck Neoplasms. American Society of Cytopathology Annual Meeting. Phoenix, AZ, November 2017.	Practical Seminar

2018	Invited Presenter, Ultrasound FNA Course. American Society of Cytopathology Annual Meeting. Washington, DC, November 2018.	Practical Seminar
2019	Platform Presentation, American Society of Cytopathology Annual Meeting. Salt Lake City, UT, November, 2019.	Research Presentation
2020	Invited Speaker, Multidisciplinary Head and Neck Cancer Symposium, Scottsdale, AZ, March 2020	Expert Panelist

INVITED PRESENTATIONS - REGIONAL AND OTHER INVITED PRESENTATIONS

2011	UCSF Current Issues in Anatomic Pathology, Cytopathology of Salivary Glands	Faculty
2012	UCSF Current Issues in Anatomic Pathology, Salivary Gland Neoplasia	Faculty
2012	Washington State Society of Pathologists Fall Meeting, Thyroid, Salivary Gland and Pancreatic Cytopathology Course	Faculty
2012	UCSF Head and Neck Cancer Update, Salivary Gland Pathology	Faculty
2012	UCSF Head and Neck Endocrine Surgery Update, Parathyroid Pathology	Faculty
2013	UCSF Current Issues in Anatomic Pathology, Salivary Gland Cytopathology	Faculty
2014	UCSF Current Issues in Anatomic Pathology, Salivary Gland Pathology	Faculty
2014	UCSF Radiology Highlights, Thyroid Cytopathology for Radiologists	Faculty
2016	UCSF Head and Neck Cancer and Endocrine Surgery Update, Pitfalls in Salivary Tumor FNA	Faculty
2017	UCSF Radiation Oncology Update, Head and Neck Cancer Panel Discussion	Faculty
2017	UCSF Current Issues in Anatomic Pathology, HPV Testing in Head and Neck Cancer	Faculty
2018	UCSF Current Issues in Anatomic Pathology, Application of the CAP Guidelines for HPV Testing of Head and Neck Squamous Cell Carcinoma in Cytopathology	Faculty
2018	UCSF Technology, Innovation, and Personalized Care in Head and Neck Cancer, HPV Testing in Head and Neck Cancer and Salivary Gland Pathology	Faculty

2020	UCSF Otolaryngology/Head and Neck Surgery. "Management Strategies in Early and Late Stage Head and Neck Cancer"	Faculty
2022	UCSF Current Issues in Anatomic Pathology, Utility of NGS in Head and Neck Cancer and AJCC 8th Ed. and staging Head and Neck Cancer	Faculty
2022	UCSF Updates in the Management of Head and Neck Disease, How NGS Can Help Us Out of Diagnostic Uncertainty in Head and Neck Tumors	Faculty
2022	University of New Mexico Pathology Seminar, "How Can NGS Help Us Out of Diagnostic Uncertainty in the Head and Neck?"	Invited lecturer

CONTINUING EDUCATION AND PROFESSIONAL DEVELOPMENT ACTIVITIES

2007	United States and Canadian Academy of Pathology Annual Meeting, San Diego, CA
2008	Diagnostic Cytopathology, Carefree, AZ
2008	UCSF/Stanford Update in Gyn/Breast, San Francisco, CA
2009	USCAP Practical Pathology, San Francisco, CA
2009	UCSF/Stanford Current Issues in Anatomic Pathology, San Francisco, CA
2010	UCSF Current Issues in Anatomic Pathology, San Francisco, CA
2011	UCSF Current Issues in Anatomic Pathology, San Francisco, CA
2011	CAP Ultrasound-Guided Fine Needle Aspiration, Practical Pathology Program, Northbrook, IL
2012	United States and Canadian Academy of Pathology Annual Meeting, Vancouver, Canada
2012	UCSF Current Issues in Anatomic Pathology, San Francisco, CA
2012	UCSF-Coro Leadership Workshop
2013	UCSF Current Issues in Anatomic Pathology, San Francisco, CA
2013	American Society of Cytopathology Annual Scientific Meeting, Orlando, FL
2014	United States and Canadian Academy of Pathology Annual Meeting, San Diego, CA
2014	UCSF Current Issues in Anatomic Pathology, San Francisco, CA
2014	American Society of Cytopathology Annual Scientific Meeting, Dallas, TX
2016	American Society of Cytopathology Annual Scientific Meeting, New Orleans, LA
2017	American Society of Cytopathology Annual Scientific Meeting, Phoenix, AZ

2018	American Society of Cytopathology Annual Scientific Meeting, Washington, DC
2019	American Society of Cytopathology Annual Scientific Meeting, Salt Lake City, UT
2021	UCSF School of Medicine Diversity, Equity and Inclusion Champion Training, San Francisco, CA

UNIVERSITY AND PUBLIC SERVICE

SERVICE ACTIVITIES SUMMARY

I support the UCSF campus in recruitment of trainees and faculty to the departments of Otolaryngology/Head and Neck Surgery and Anatomic Pathology. In addition, I have recently chaired a Departmental Stewardship Review Committee. In this role, I was the primary author of a comprehensive report on the performance of the Chair of Clinical Pharmacy after interviewing more than 25 individuals affiliated with the department including faculty, staff, students and UCSF leaders.

UCSF CAMPUSWIDE

2008 - present	UCSF Multidisciplinary Head and Neck Tumor Board	Attending Pathologist
2009 - 2014	UCSF Comprehensive Cancer Center-Head and Neck Site Committee	Vice Chair
2012 - 2012	UCSF Department of Otolaryngology-Head and Neck Surgery Chair Search Committee	Committee member
2018 - 2018	Stewardship Review Committee, Department of Clinical Pharmacy	Chair

SCHOOL OF MEDICINE

2017 - 2018	Department of Otolaryngology-Head and Neck Surgery-Faculty Search Committee	Member
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DEPARTMENTAL SERVICE

2008 - present	Department of Anatomic Pathology-Cytopathology Fellowship Selection Committee	Member
2010 - 2010	Department of Oral Pathology-Faculty Search Committee	Member
2010 - 2010	Department of Anatomic Pathology-Faculty Search Committee	Member
2012 - 2016	Department of Anatomic Pathology - AP Laboratory Quality Improvement Committee	Member
2012 - present	Department of Anatomic Pathology - Faculty Quality Assurance/Quality Improvement Committee	Member

2018 - 2018	Department of Anatomic Pathology-Faculty Search Committee	Member
2019 - 2020	Department of Anatomic Pathology-Faculty Search Committee	Member
2022 - present	Cytopathology Fellowship Clinical Competency Committee	Member
2022 - present	Cytopathology Fellowship Program Evaluation Committee	Chair
2022 - 2022	Department of Anatomic Pathology-Faculty Search Committee	Chair

COMMUNITY AND PUBLIC SERVICE

2008 - 2008	Doctors for Global Health, June, 2008, Hospital San Carlos, Altamirano, Chiapas, Mexico	Volunteer physician
2019 - 2022	American Society of Clinical Pathology telepathology global health initiative	Volunteer physician

CONTRIBUTIONS TO DIVERSITY

CONTRIBUTIONS TO DIVERSITY Contributions to Diversity, Equity & Inclusion Guidance

As a mother to three school-age children and an MD/Ph.D., I take particular pride in advocating for parents within academic medicine. I have personally advocated for equity in parental leave policies within our department. I openly discuss my family responsibilities and the progress UCSF has made regarding parental leave and accommodation for lactating parents with trainees, staff, colleagues, and applicants. In doing so, I demonstrate that while parenting is challenging, the climate is improving and that parents of small children can find a balance between family responsibilities and an academic career. I completed the Diversity, Equity, and Inclusion Champion training in 2021.

TEACHING AND MENTORING

TEACHING SUMMARY

I am involved in the teaching of medical students and residents in anatomic pathology, otolaryngology/head and neck surgery, and radiation oncology. I am particularly interested in training surgical pathology and cytopathology fellows in diagnosing complex diseases in the head and neck. In addition to leading multiple histology and pathology laboratories for medical students, I participate in one-on-one microscope-based teaching of medical students who rotate through anatomic pathology as part of the one-month elective for senior medical students (Pathology 150.03), the two-week elective for students in the clinical core (Demystifying Pathology), and the two-week elective for students interested in the multidisciplinary care of head and neck cancer patients (IDS 130.09 Head and Neck Cancer CIEx).

I am involved with teaching anatomic pathology residents in surgical pathology with a focus on the gross evaluation of complex specimens from the head and neck. In this capacity, I am routinely called to the gross room to guide the appropriate sampling of these specimens. I am additionally focused on training cytopathology fellows in palpation and US-guided FNA biopsy of lesions in the head and neck, particularly on adjunctive clinical laboratory and molecular

testing relevant to small biopsies.

More recently, I have initiated a series of lectures on the pathology of the head and neck for radiation oncology residents, reviewing diagnostic categories and pathologic features which impact the delivery of radiation therapy.

As the Cytopathology fellowship director, I oversee the fellowship program's didactic curriculum and clinical service schedule. I supervise the fellows' orientation, assess their readiness for graded independent practice, and distribute assessments on assigned reading in preparation for the Cytopathology subspecialty certificate examination. I oversee and mentor the fellows and residents presenting at our monthly Cytology Journal Club. I am the chair of the Cytopathology Fellowship Program Evaluation Committee and present the progress of our fellows to the Clinical Competency Committee biannually. The UCSF Cytopathology fellowship is highly sought after and receives many inquiries and applications annually, a testament to the quality of the Cytopathology clinical service and the training our fellows receive.

FORMAL TEACHING

	Academic Yr	Course No. & Title	Teaching Contribution	School	Class Size
	2005 - 2006	Advances in Medical Science	Small Group Leader	Medicine	10
	2008 - 2009	Immunity and Inflammation	Laboratory Instructor	Medicine	30
	2008 - 2009	Hypersensitivity and Rejection	Laboratory Instructor	Medicine	30
	2008 - 2009	Benign vs. Malignant Neoplasms	Laboratory Instructor	Medicine	30
	2008 - 2009	Placental Pathology	Laboratory Instructor	Medicine	60
	2008 - 2009	Endocrine Pathology	Laboratory Instructor	Medicine	30
	2008 - present	Classification of Neoplasms	Small Group Leader	Medicine	12
	2009 - 2010	M & N: Pancreas and Gallbladder	Laboratory Instructor	Medicine	15
	2009 - 2010	Endocrine Pathology	Laboratory Instructor	Medicine	30
	2010 - present	UCSF Pathology: Grossing Head and Neck Specimens	1 hour lecture annually	Medicine	20
	2010 - present	UCSF Pathology: Introduction to Cytopathology	1 hour lecture annually	Medicine	20
	2011 - present	UCSF OHNS Grand Rounds: Head and Neck Pathology	Lecture series, 1 hour lecture/quarter	Medicine	20

	Academic Yr	Course No. & Title	Teaching Contribution	School	Class Size
	2012 - 2013	Pathology of the Ovary and Endometrium	Laboratory Instructor	Medicine	30
	2013 - present	GAP Lab: Prostate Cancer	Laboratory Instructor	Medicine	40
	2013 - 2014	Pathology of the Ovary and Endometrium	Laboratory Instructor	Medicine	30
	2013 - 2015	UCSF Radiology Fellows Conference: Ultrasound-guided FNA procedures with an emphasis on technique	1 hour lecture annually	Medicine	20
	2013 - present	UCSF Radiation Oncology Grand Rounds: Head and Neck Pathology for Radiation Oncologists	1 hour lecture annually	Medicine	12
	2014 - 2016	UCSF Pathology: Head and Neck Pathology - Frozen Section Conference	1 hour practical conference	Medicine	
	2016 - 2017	GAP Lab: Breast Cancer	Laboratory Instructor	Medicine	40
	2018 - 2019	MS1 ABC (Ischemic Heart Disease, Lung Disease, Lung Cancer)	Small group instructor, 3 sessions of two hours	Medicine	14
	2019 - 2019	UCSF Pathology: HPV testing for Head and Neck cancer	1 hour lecture	Medicine	15
	2019 - 2019	MS1 Ground School (Ischemic injury, Inflammation, Neoplasia)	Small group instructor, 3 sessions of 2 hours	Medicine	14

	Academic Yr	Course No. & Title	Teaching Contribution	School	Class Size
	2019 - 2019	MS1 ABC (Ischemic Heart Disease, Lung Disease, Lung Cancer)	Small group instructor, 3 sessions of 2 hours	Medicine	14
	2020 - 2020	MS1 Ground School (Ischemic injury, Inflammation, Neoplasia)	Small group instructor, 3 sessions of 2 hours	Medicine	12
	2020 - 2020	MS1 ABC (Ischemic Heart Disease, Lung Disease, Lung Cancer)	Small group instructor, 3 sessions of 2 hours	Medicine	12
	2021 - 2021	MS1 Ground School (Ischemic injury, Inflammation, Neoplasia)	Small group instructor, 3 sessions of 2 hours.	Medicine	10
	2021 - 2021	MS1 ABC (Ischemic Heart Disease, Lung Disease, Lung Cancer)	Small group instructor, 3 sessions of 2 hours.	Medicine	10
	2022 - 2022	MS1 Ground School (Inflammation, Neoplasia)	Small group instructor, 2 session of 2 hours.	Medicine	12
	2022 - 2022	MS1 ABC (Ischemic Heart Disease, Lung Disease, Lung Cancer)	Small group instructor, 3 sessions of 2 hours	Medicine	12

INFORMAL TEACHING

- 2007 - 2008 Informal teaching and supervision of pathology residents performing and interpreting FNA biopsies, 180 hours/year as a clinical fellow
- 2008 - present Daily teaching during signout sessions with fellows and residents rotating on surgical pathology and cytology services.
- 2008 - present Weekly microscope-based cytology teaching conference with pathology residents and surgical pathology fellows.
- 2008 - present Monthly cytopathology teaching conference and journal club for cytopathology fellows and residents rotating on cytology service.

- 2008 - 2016 Monthly head and neck/oral pathology conference in collaboration with the Department of Oral Pathology for surgical pathology and oral pathology faculty and trainees.
- 2017 - present 0.5 day/week teaching head and neck pathology to medical students in the Multidisciplinary IDS 130.09 Head and Neck Cancer CIEx
- 2017 - present 1 day/month teaching surgical pathology to medical students in Pathology 150.03 Elective
- 2017 - present 1 day/month teaching FNA biopsy and cytopathology to medical students in “Demystifying Pathology” for core clerkship year

MENTORING SUMMARY

My primary mentoring focus is the development of expertise in head and neck diseases among our senior residents and fellows in pathology and cytopathology. In addition to this, I assumed a mentorship role for Dr. Sarah Calkins, now an associate professor in our department who developed her subspecialty focus in head and neck pathology under my supervision. Finally, I continue to pursue research projects with pathology trainees. I mentored of Dr. Lucy Han, a former cytopathology fellow, who presented our research as a platform at the American Society of Cytopathology Annual Meeting and was a finalist for the Warren R. Lang Resident MD Physician Award.

POSTDOCTORAL FELLOWS AND RESIDENTS MENTORED

Dates	Name	Fellow	Mentor Role	Faculty Role	Current Position
2008 - 2009	Joan Bernard	Cytopathology	Co-Mentor/Clinical Mentor	Mentor	Associate Professor, Sacramento VA Medical Center, Mather, CA
2008 - 2009	Veronica Velasco	Cytopathology	Career Mentor, Co-Mentor/Clinical Mentor	Mentor	Faculty, University Medical Center of El Paso, Oklahoma City, OK
2009 - 2010	Stephanie McAlhany	Cytopathology	Co-Mentor/Clinical Mentor	Mentor	Private practice

Dates	Name	Fellow	Mentor Role	Faculty Role	Current Position
2009 - 2010	Poonam Vohra	Cytopathology	Project Mentor	Mentor	Associate Professor, San Francisco General Hospital
2010 - 2011	Maria Serrano-Correa	Cytopathology	Co-Mentor/Clinical Mentor	Mentor	Private practice
2010 - 2011	Rena Yu	Cytopathology	Co-Mentor/Clinical Mentor	Mentor	Private practice
2011 - 2012	Khaing Win	Cytopathology	Co-Mentor/Clinical Mentor	Mentor	Private practice
2011 - 2012	Nancy Ciao	Cytopathology	Project Mentor	Mentor	Private practice
2011 - 2012	Vijay George	Research in Cytopathology	Research/Scholarly Mentor, Project Mentor	Mentor	Private practice
2012 - 2013	Sara Barcia	Cytopathology	Co-Mentor/Clinical Mentor	Mentor	Private practice
2012 - 2013	Brandie Firetag	Cytopathology	Co-Mentor/Clinical Mentor	Mentor	Private practice
2012 - 2015	Dianna Ng	Research in Cytopathology	Research/Scholarly Mentor, Project Mentor	Mentor	Associate Professor, Memorial Sloan Kettering Cancer Center, New York, NY
2012 - 2015	Thuy Can	Research in Cytopathology	Project Mentor	Mentor	Private Practice

Dates	Name	Fellow	Mentor Role	Faculty Role	Current Position
2017 - 2018	Shweta Agarwal	Head and Neck Pathology	Project Mentor	Mentor	Associate Professor, University of New Mexico Medical Center, Albuquerque, NM
2017 - 2019	Lucy Han	Research in Head and Neck Pathology	Project Mentor	Mentor	Private practice
2021 - 2022	Lauren Eversmeyer	Cytopathology	Co-Mentor/Clinical Mentor	Mentor	Private practice
2021 - 2022	Carlos De La Sancha Verduzco	Cytopathology	Co-Mentor/Clinical Mentor	Mentor	Assistant Professor, ZSFG, San Francisco, CA
2022 - 2023	Hannah Lee	Cytopathology	Co-Mentor/Clinical Mentor	Mentor	Molecular pathology fellow
2022 - 2023	Daniel Qazi	Cytopathology	Co-Mentor/Clinical Mentor	Mentor	Clinical instructor, UCSF
2023 - 2024	Constance Chen	Cytopathology	Co-Mentor/Clinical Mentor	Mentor	Cytopathology fellow
2023 - 2024	Nebil Mohammed	Cytopathology	Co-Mentor/Clinical Mentor	Mentor	Cytopathology fellow

FACULTY MENTORING

Dates	Name	Position while Mentored	Mentor Type	Mentoring Role	Current Position
2014 - 2023	Sarah Calkins	Assistant Professor	Co-Mentor/Clinical Mentor	Head and Neck subspecialist	Private Practice

Dates	Name	Position while Mentored	Mentor Type	Mentoring Role	Current Position
2017 - 2019	Rebecca Wolsky	Assistant Professor	Career Mentor	Primary career mentor	Assistant Professor, University of Colorado Health Sciences Center, Aurora, CO
2019 - present	Yue Peng	Staff Pathologist, SFVA	Career Mentor	Primary career mentor	Private practice

RESEARCH AND CREATIVE ACTIVITIES

RESEARCH AND CREATIVE ACTIVITIES SUMMARY

My current research efforts have been in a collaboration with Dr. Patrick Ha, a head and neck surgeon with particular interest in the molecular pathogenesis of adenoid cystic carcinoma and squamous cell carcinoma of the head and neck. Together we have collected pathologic and clinical data for over 100 cases of adenoid cystic carcinoma treated at UCSF over the last 20 years. Representative benign and neoplastic tissues from these cases have been assembled into tissue micro arrays (TMAs) which will allow for characterization of critical genetic changes, such as Myb translocation, as well as characterization of proteins up- and down-regulated in salivary neoplasia. The ability to correlate histologic, genetic and immunophenotypic data with clinical outcomes for these patients will be an unprecedented contribution to understanding of adenoid cystic carcinoma. A similar effort is underway to create TMAs of squamous cell carcinoma of the oral cavity.

RESEARCH AWARDS - PAST

1. Mentor Dharsee (PI)
Muhimbili University of Health and Allied Sciences- 05/2/2018 05/2/2019
UCSF Cancer Collaboration Pilot Award
\$ 7,950 total

Establishment of P16 immunohistochemical testing for head and neck cancer patients at Muhimbili University affiliated hospitals.

I have assumed mentorship of Dr. Marie Claire Ndayisaba, a pathologist in training at Muhimbili University of Health and Allied Sciences, Dar Es Salaam, Tanzania as she has secured a pilot award to pursue immunohistochemical testing of head and neck cancer specimens for treatment and prognostic purposes. I have provided control tissues for the laboratory and will continue to oversee the technical and interpretive aspects of implementation.

PEER REVIEWED PUBLICATIONS

1. Christopher Sasseti, **Annemieke van Zante** and Steven D. Rosen. 2000. Identification of endoglycan, a member of the CD34/podocalyxin family of sialomucins. *The Journal of Biological Chemistry*. 275:9001-10. doi:10.1074/jbc.275.12.9001
2. Diana Palmeri, **Annemieke van Zante**, Chiao-Chain Huang, Stefan Hemmerich and Steven D. Rosen. 2000. Vascular endothelial junction-associated molecule, a novel member of the immunoglobulin superfamily, is localized to intercellular boundaries of endothelial cells. *The Journal of Biological Chemistry*. 275:19139-45. doi:10.1074/jbc.M003189200
3. Stefan Hemmerich, Annette Bistrup, Mark Singer, **Annemieke van Zante**, Jin Kyu Lee, Durwin Tsay, Nancy Ruddle and Steven D. Rosen. 2001. Sulfation of L-selectin ligands by an HEV-restricted sulfotransferase regulates lymphocyte homing to lymph nodes. *Immunity*. 15:237-247. doi:10.1016/S1074-7613(01)00188-1
4. Jin Kyu Lee, Annette Bistrup, **Annemieke van Zante** and Steven D. Rosen. 2002. Activities and expression pattern of the carbohydrate sulfotransferase GlcNAc6ST-3 (I-GlcNAc6ST): Functional implications. *Glycobiology*. 13:245-254. doi:10.1093/glycob/cwg018
5. **Annemieke van Zante**, Jean-Marc Gauguet, Annette Bistrup, Durwin Tsay, Ulrich H. von Andrian and Steven D. Rosen. 2003. Lymphocyte-HEV interactions in lymph nodes of a sulfotransferase-deficient mouse. *The Journal of Experimental Medicine*. 198:1289-1300. doi:10.1084/jem.20030057
6. Roman Nawroth, **Annemieke van Zante**, Sara Cervantes, Michael McManus, Matthias Hebrok and Steven D. Rosen. 2007. Extracellular sulfatases, elements of the Wnt signaling pathway, positively regulate growth and tumorigenicity of human pancreatic cancer cells. *PLoS ONE*. 2:e392. doi:10.1371/journal.pone.0000392
7. Hassan Lemjabbar-Alaoui, **Annemieke van Zante**, Mark Singer, Qing Xue, Yang Qing, Durwin Tsay, Biao He, David Jablons and Steven D. Rosen. 2010. Sulf-2, a heparan sulfate endosulfatase, promotes human lung carcinogenesis. *Oncogene*. 29:635-646. doi:10.1038/onc.2009.365
8. Steve A. Miller, **Annemieke van Zante** and Brian S. Schwartz. 2010. Cytologic Evaluation Can Predict Microbial Culture Results for Infectious Causes of Pulmonary Nodules in Patients Undergoing Fine Needle Aspiration Biopsy. *Diagnostic Microbiology and Infectious Disease*. 68:330-333. doi:10.1016/j.diagmicrobio.2010.08.005
9. Hanayo Arata-Kawai, Mark S. Singer, Annette Bistrup, **Annemieke van Zante**, Yang-Qing Wang, Yuki Ito, Xingfen Bao, Stefan Hemmerich, Minoru Fukuda and Steven D. Rosen. 2011. Functional contributions of N- and O-glycans to L-selectin ligands in murine and human lymphoid organs. *The American Journal of Pathology*. 178:423-433. doi:10.1016/j.ajpath.2010.11.009
10. Edward Mannina, Sunanda Pejavar, Christine Glastonbury, **Annemieke van Zante**, Steven Wang and Sue Yom. 2011. Bilateral Tonsillar Involvement Diagnosed via Staging PET/CT in a Head and Neck Cancer Patient. *International Journal of Otolaryngology*. 2011:928240. doi:10.1155/2011/928240

11. Kevin Huoh, **Annemieke van Zante** and David Eisele. 2011. Extramedullary Plasmacytoma of the Tonsil. *Case Reports in Otolaryngology*. 2001:430809. doi:10.1155/2011/430809
12. Chien Chen, Steven Wang, **Annemieke van Zante** and Sue Yom. 2011. Stepwise Regional and Distant Progression of Recurrent Pleomorphic Adenoma. *Journal of Otolaryngology-Head & Neck Surgery*. 40:E5-10. doi:10.2310/7070.2010.100104
13. Nandini Patel, **Annemieke van Zante** and Christine Glastonbury. 2011. Oncocytoma: The vanishing parotid mass. *American Journal of Neuroradiology*. 32:1703-1706. doi:10.3174/ajnr.A2569
14. Natalie Shaubie Lui, **Annemieke van Zante**, Steven D Rosen, David M Jablons and Hassan Lemjabbar-Alaoui. 2012. SULF2 expression by immunohistochemistry and overall survival in oesophageal cancer: a cohort study. 2012. *BMJ Open*. 2:e001624. doi:10.1136/bmjopen-2012-001624
15. Joseph Chang, Tuan-Jen Fang, Katherine Yung, **Annemieke van Zante**, Theodore Miller, Soha Al-Jurf Sarah Schneider and Mark Courey. 2012. Clinical and Histologic Predictors of Voice and Disease Outcome in Patients with Early Glottic Center. *The Laryngoscope*. 122:2240-2247. doi:10.1002/lary.23501
16. Brandon Prendes, Gerald Kangelaris, **Annemieke van Zante** and Steven J. Wang. 2011. Pilomatricoma masquerading as metastatic squamous cell carcinoma. *Grand Rounds*. 12:17-22
17. Poonam Vohra, Britt-Marie Ljung, Theodore Miller, Eun-Sil Hwang and **Annemieke van Zante**. 2012. Paget's disease of the breast masquerading as squamous cell carcinoma on cytology: A case report. *Diagnostic Cytopathology*. 40:1015-1018. doi:10.1002/dc.21712
18. Akeesha Shaw, Robin LeGallo, **Annemieke van Zante**, Henry Fierson, Stacey Mills, Kenneth Berean, Mark Mentrikoski and Edward Stelow. 2013. EWSR1 Genetic Rearrangements in Salivary Gland Tumors: A Specific and Very Common Feature of Hyalinizing Clear Cell Carcinoma. *American Journal of Surgical Pathology*. 37:571-578. doi:10.1097/PAS.0b013e3182772a15
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65. DNA Methylation Profiling Distinguishes Adamantinoma-like Ewing Sarcoma from Conventional Ewing Sarcoma, *Modern Pathology*, Accepted.

REVIEW ARTICLES

1. **Annemieke van Zante** and Steven D. Rosen. 2003. Sulfated endothelial ligands for L-selectin in lymphocyte homing and inflammation. *Biochemical Society Transactions*. 31:313-317. doi:10.1042/BST0310313
2. **Annemieke van Zante** and Richard Jordan. 2011. Salivary Duct Carcinoma: Pathologic and clinical features of a diagnostically challenging tumor. *Pathology Case Reviews*. 16:152-157. doi:10.1097/PCR.0b013e3182248a1a
3. Elham Khanafshar and **Annemieke van Zante**. 2011. Parathyroid carcinoma: Problems in Diagnosis. *Pathology Case Reviews*. 16:158-161. doi:10.1097/PCR.0b013e3182248a5b
4. Richard Jordan and **Annemieke van Zante**. 2011. Oropharyngeal carcinoma: A unique HPV associated tumor of the head and neck. *Pathology Case Reviews*. 16:174-177. doi:10.1097/PCR.0b013e3182248b4f
5. **Annemieke van Zante**, Patrick Ha, and Marc Philippe Pusztaszeri. 2020. The Milan System for Reporting Salivary Gland Cytopathology: Benefits and Cautions. *American Journal of Surgical Pathology: Reviews and Reports*.

BOOKS AND CHAPTERS

1. "Thyroid Cytopathology: Benefits and Problems" in *Clark Textbook of Endocrine Surgery*, 3rd ed. 2015. O. Clark, Q-Y. Duh, and E. Kebebew, Eds.
2. "Salivary Gland FNA" in *Gland-Preserving Salivary Surgery: A Problem-Based Approach*. 2017. M.B. Gillespie, R.R. Walvekar, B.M. Schaitkin and D.W. Eisele, Eds.

3. Contributor to "Adenoid Cystic Carcinoma" in Classification of tumors of salivary glands in World Health Organization Classification of Tumours. 2017. Pathology and Genetics of Head and Neck Tumours. IARC Press.
4. "Detection Methods for Human Papilloma Virus (HPV) in Head and Neck Cancers" in Textbook of Oral Cancer - Prevention, Diagnosis and Management. 2020. Saman Warnakulasuriya and John Greenspan, Eds.

OTHER PUBLICATIONS

1. **Annemieke van Zante** and Richard Jordan. 2011. Editorial: Head and Neck Pathology. Pathology Case Reviews. 16:139-140.
2. **Annemieke van Zante** and Britt-Marie Ljung. Commentary. 2016, Fine Needle Aspiration vs. Core Needle Biopsy: Reconsidering the Evidence of Superiority. Cancer Cytopathology. 124(12), 853-856. doi:10.1002/cncy.21788
3. Ronald Balassanian, Dianna Ng and **Annemieke van Zante**. Editorial. 2019. Stop Using Expired Plasma for Cell Blocks. Cancer Cytopathology. doi.org/10.1002/cncy.22204

SIGNIFICANT PUBLICATIONS

1. **Annemieke van Zante**, Jean-Marc Gauguet, Annette Bistrup, Durwin Tsay, Ulrich H. von Andrian and Steven D. Rosen. 2003. Lymphocyte-HEV interactions in lymph nodes of a sulfotransferase-deficient mouse. The Journal of Experimental Medicine. 198:1289-1300.

I performed and interpreted the key experiments characterizing both the in vitro and in vivo function of L-selectin ligands in a mouse deficient in a critical sulfotransferase. I was the primary author of this publication.

2. Poonam Vohra, Britt-Marie Ljung, Theodore Miller, Eun-Sil Hwang and **Annemieke vanZante**. 2012. Paget's disease of the breast masquerading as squamous cell carcinoma on cytology: A case report. Diagnostic Cytopathology. 40:1015-1018.

I was the senior author of this case report. I mentored the primary author, a fellow in cytopathology, through the process of literature review, writing, and publication.

3. Margaret J. Zhou, **Annemieke van Zante**, Ann A. Lazar, Eli R. Groppo, Adam A. Garsa, William R. Ryan, Ivan H. El-Sayed, David W. Eisele and Sue S. Yom. 2017. Squamous Cell Carcinoma of Unknown Primary of the Head and Neck: " Low-Risk" Prognostic Factors Comparable to Those Defining Oropharyngeal Cancer. Head and Neck.

I was the primary pathologist involved in characterization of a group of squamous cell carcinomas of unknown origin with metastasis in the head and neck region. This publication emphasizes that pathologic analysis can identify tumors in this group which have a good prognosis.

4. Carole Fakhry, William Westra, Steven Wang, **Annemieke van Zante**, Yuehan Zhang, Eleni Rettig, William R. Ryan, Patrick K. Ha, Alicia Wentz, Wayne Koch, Jeremy D. Richmon, David W. Eisele and Gypsyamber D' Souza. 2017. The prognostic role of gender, race and human papillomavirus in oropharyngeal and non-oropharyngeal head and neck squamous cell carcinoma. *Cancer*. 1;123(9): 1566-1575. doi:10.1002/cncr.30353

I contributed to a large, retrospective, multi-institutional study of squamous cell carcinoma of the head and neck. This study included more than 850 patients and found that HPV status influences survival for tumors originating in the oropharynx, but not at other subsites.

5. Jason W. Chan, Iwei Yeh, Ivan H. El-Sayed, Alain P. Algazi, Christine M. Glastonbury, Patrick K. Ha, Sue S. Yom, **Annemieke van Zante**. 2018. Ultraviolet light-related DNA damage mutation signature distinguishes cutaneous from mucosal or other origin in head and neck squamous cell carcinoma of unknown primary site. *Head and Neck*.

I was the primary pathologist involved in the novel application of next generation sequencing to definitively establish cutaneous origin for squamous cell carcinoma of the head and neck. This publication is the first description of this molecular testing strategy in determining origin of squamous cell carcinoma of unknown primary.

6. **Annemieke van Zante**, Flanagan MB, Floyd AD, Johnson DN, Manucha V, McGrath CM, VandenBussche CJ, Griffith CC; American Society of Cytopathology Clinical Practice Committee. High-risk human papillomavirus testing in cytology aspiration samples from the head and neck part 2: a survey of the American society of cytopathology community. *J Am Soc Cytopathol*. 2022 Jun 22:S2213-2945(22)00062-X. doi: 10.1016/j.jasc.2022.06.005. Epub ahead of print. PMID: 35850973.

CONFERENCE ABSTRACTS

1. Poster Presenter, Molecular Mechanisms of Leukocyte Trafficking Keystone Meeting. "Genetic Deletion of a High Endothelial Cell-Restricted Sulfotransferase: Effects on L-Selectin Ligand Modification and Lymphocyte Rolling," Steamboat Springs, CO, March 2002.
2. Poster Contributor, The American Laryngological, Rhinological and Otological Society Western Section Meeting. "Chronic Lymphocytic Leukemia Presenting as Vocal Cord Paralysis," Scottsdale, AZ, February 2004.
3. Poster Presenter, United States and Canadian Academy of Pathology Annual Meeting. "Extracellular Sulfatases are Expressed in Pancreatic Ductal Adenocarcinoma and Regulate WNT Signaling and Proliferation," San Diego, CA, February 2007.
4. Poster Contributor, The American Laryngological, Rhinological and Otological Society Western Section Meeting. "Melanoma of the Dorsal Tongue," Las Vegas, NV, January 2009.
5. Poster Contributor, World Conference on Lung Cancer. "Sulf-2, a Heparin Sulfate Endosulfatase, Promotes Human Lung Carcinogenesis," San Francisco, CA, August 2009.
6. Poster Contributor, The American Laryngological, Rhinological and Otological Society Combined Sections Meeting. "Clinical Impact of Human Papillomavirus in Cervical Metastasis from Unknown Primary," Scottsdale, AZ, January, 2011.

7. Poster Contributor, The American Laryngological, Rhinological and Otological Society Combined Sections Meeting. "An Unusual Presentation of a Lingual Dermoid Cyst," Scottsdale, AZ, January, 2011.
8. Poster Contributor, The American Laryngological, Rhinological and Otological Society Combined Sections Meeting. "Pilomatricoma Masquerading as Metastatic Squamous Cell Carcinoma," Scottsdale, AZ, January, 2011.
9. Poster Contributor. The American Laryngological, Rhinological and Otological Society Combined Sections Meeting. "Inter-arytenoid Schwannoma: Case Report and Literature Review," Miami, FL, January, 2012.
10. Poster Contributor. The American Laryngological, Rhinological and Otological Society Combined Sections Meeting. "Characteristics of Oncocytic Lipoadenoma of the Submandibular Gland," Miami, FL, January, 2012.
11. Poster Presenter, United States and Canadian Academy of Pathology Annual Meeting. "The Value of Second Opinion Review of Cytologic Specimens from the Head and Neck," Vancouver, Canada, March, 2012.
12. Poster Contributor, American College of Surgeons' 98th Annual Clinical Congress. "Sulf-2 and Overall Survival in Patients with Esophageal Cancer," Chicago, IL, September, 2012.
13. Poster Presenter, United States and Canadian Academy of Pathology Annual Meeting. "Fine Needle Aspiration of Hodgkin Lymphoma: The UCSF Experience," Baltimore, MD, March, 2013.
14. Poster contributor, The American Laryngological, Rhinological and Otological Society Combined Sections Meeting. "Pleomorphic Adenoma of the Major Salivary Glands: Diagnostic Utility of FNAB and MRI," Orlando, FL, April, 2013.
15. Poster Contributor. American laryngological, Rhinological and Otological Society Combined Sections Meeting. "Kimura Disease of the Parotid Gland Masquerading as a Venolymphatic Malformation," April, 2014.
16. Poster Presenter, United States and Canadian Academy of Pathology Annual Meeting. "Abdominal Fat Pad Aspiration for Diagnosis of Systemic Amyloidosis: A Retrospective Review," San Diego, CA, March, 2014.
17. Poster Contributor, International Federation of Head and Neck Oncologic Societies. "Magnetic Resonance Imaging to Detect Extranodal Extension in Squamous Cell Carcinoma of the Head and Neck." New York, NY, July, 2014.
18. Poster Contributor, International Federation of Head and Neck Oncologic Societies. "Outcomes of Sinonasal Mucosal Melanomas with Endoscopic and Open Resection: Analysis of 20 Patients Treated at UCSF." New York, NY, July, 2014.
19. Poster Contributor, United States and Canadian Academy of Pathology Annual Meeting. "Vascular Invasion, Not Capsular Invasion, Predicts Local Recurrence and Metastasis in Well-Differentiated Follicular Thyroid Carcinoma." Boston, MA, March 2015.
20. Poster Contributor. Multidisciplinary Head and Neck Cancer Symposium. "Differences in the Role of HPV in Squamous Cell Cancers by Gender, Race, Tumor Site, and HPV Detection Method. Scottsdale, AZ, February, 2016.

21. Poster Contributor. American Society of Clinical Oncology Annual Meeting. "The prognostic role of gender, race and human papillomavirus (HPV) in oropharyngeal squamous cell cancer (OPC) and non-oropharyngeal head and neck squamous cell cancer (non-OP HNC)." Chicago, IL, June. 2016.
22. Poster Contributor. 21st International AIDS Conference (AIDS 2016). "An AIDS Malignancy Consortium Randomized Clinical Trial of Infrared Coagulation (IRC) Ablation versus Deferred Treatment of Intra-Anal High Grade Squamous Intraepithelial Lesions (HSIL) in HIV-infected Subjects: Preliminary Results." Durban, South Africa, July 2016.
23. Poster Contributor. American Head and Neck Society Annual Meeting. "Survival Outcomes for Surgery Alone versus Surgery and Radiation Therapy among Patients with Salivary Adenoid Cystic Carcinoma." San Diego, CA, April 2017.
24. Poster Contributor. American Radium Society Annual Meeting. "Squamous Cell Carcinoma of Unknown Primary of the Head and Neck: Low-Risk Prognostic Factors for Disease Control and Survival Reminiscent of Oropharyngeal Carcinoma." Colorado Springs, CO, May 2017.
25. Platform Contributor, United State and Canadian Academy of Pathology Annual Meeting. "HPV-Related Squamous Cell Carcinoma of the Larynx and Oral Cavity: Clinicopathologic Characterization Including a Novel Warty Variant." National Harbor, MD, March, 2019.
26. Poster Presenter, United States and Canadian Academy of Pathology Annual Meeting. "Utility of p16 Expression for Distinction of HPV-Related Multiphenotypic Sinonasal Carcinoma from Adenoid Cystic Carcinoma." National Harbor, MD, March, 2019.
27. Poster Contributor. Endocrine Society Annual Meeting. "Ectopic thyroid-stimulating hormone-secreting pituitary adenoma of the nasopharynx diagnosed by 68Ga-DOTA-TATE PET/CT." New Orleans, LA, March, 2019.
28. Poster Contributor. American Association of Dental Research. "Clinicopathologic Implications of Beta-catenin and MYB in Adenoid Cystic Carcinoma." Vancouver, Canada, June, 2019.
29. Poster Contributor. United States and Canadian Academy of Pathology Annual Meeting. "The Utility of Next Generation Sequencing in Histologically Challenging Head and Neck Carcinomas." Virtual Meeting, March, 2021.
30. Poster Contributor. American Thyroid Association. "Molecular Profiling of 50,734 Bethesda III-VI Thyroid Nodules by ThyroSeq v3 Genomic Classifier: Implications for Personalized Management." Virtual Meeting, October, 2021.
31. Poster Contributor. United States and Canadian Academy of Pathology Annual Meeting. "A Case Series of Twenty-Four Head & Neck Squamous Cell Carcinoma Patients with Concomitant Small Lymphocytic Lymphoma/Chronic Lymphocytic Leukemia." Los Angeles, CA, March, 2022.
32. Poster Contributor. American Association of Cancer Research Annual Meeting. "Intratumoral (IT) Microdosing of the Investigational SUMOylation Inhibitor TAK-981 in a Phase 0 CIVO Trial Demonstrates the Reactivation of Type I Interferon (IFN1) Signaling in Head and Neck Squamous Cell Carcinoma (HNSCC)." April, 2022. Philadelphia, PA, April, 2022.

33. Platform Contributor. United States and Canadian Academy of Pathology Annual Meeting. "DNA Methylation Profiling Distinguishes Adamantinoma-Like Ewing Sarcoma from Ewing Sarcoma." New Orleans, LA, March, 2023
34. Poster Contributor. American Society of Clinical Oncology Annual Meeting. "Multiplexed trackable intratumor microdosing in a Phase 0 trial provides early mechanistic insight into the activity of the investigational STING agonist TAK-676 alone and in combination in the native tumor microenvironment of patients with head and neck cancer"
35. Poster Contributor. American Society of Cytopathology Annual Meeting. "Risk of Malignancy in Pancreatic Fine Needle Aspiration Biopsies: A Single Institution Experience with PSC and WHO Reporting Systems" Austin, TX, November, 2023