Prepared: April 10, 2024

University of California, San Francisco

CURRICULUM VITAE

Name: Kevin Lu

Position: New Appointment
Pathology
School of Medicine

Address: 1825 4th Street, M2380
University of California, San Francisco
San Francisco, CA 94158
Email: kevin.lu2@ucsf.edu

EDUCATION

2006 - 2010	University of Iowa	BS	Biochemistry	
2011 - 2020	University of Michigan, Ann Arbor	MD	Doctor of Medicine	
2013 - 2017	University of Michigan, Ann Arbor	PhD	Cellular and Molecular Biology	Yukiko Yamashita

LICENSES, CERTIFICATION

2020	License, California Medical Board, PTL4785
2023	License, California Medical Board, A184980
2023	DEA Certification
2023	Board Certification, Anatomic Pathology, American Board of Pathology

PRINCIPAL POSITIONS HELD

08/2019 - 03/2020	University of Michigan, Ann Arbor	Postdoctoral Fellow	Life Sciences Institute
07/2020 - 06/2022	University of California, San Francisco	Resident	Anatomic Pathology
07/2022 - 06/2023	University of California, San Francisco	Fellow	Anatomic Pathology
07/2022 - present	University of California, San Francisco	Research Fellow/Clinical Instructor	Anatomic Pathology

HONORS AND AWARDS

2006	National Merit Scholar	National Merit Scholarship Corporation

2006	Presidential Scholarship (Full Tuition)	University of Iowa
2006	Provost Scholarship	University of Iowa
2006	Dean's List	University of Iowa
2008	Phi Beta Kappa	University of Iowa
2009	Rhodes Dunlap Scholarship	University of Iowa
2015	Travel Honorarium	Else Kroner-Fresenius Foundation
2016	Rackham Travel Grant	University of Michigan, Rackham Graduate School
2017	Third Place Poster Prize, 36th Annual CMB Symposium	University of Michigan, Department of Cell and Molecular Biology
2017	David and Michelle Kroin Family Scholarship	University of Michigan, Life Sciences Institute
2017	Travel Award	Asia-Pacific Drosophila Research Conference
2017	Future of Science Scholarship	The Keystone Foundation

CLINICAL ACTIVITIES

CLINICAL ACTIVITIES SUMMARY

My prior supervised responsibilities as a Surgical Pathology fellow with a selective focus in Gynecological Pathology fellow included diagnostic evaluation of in-house UCSF gynecologic pathology specimens as well as diagnostically complex/challenging outside cases received in consultation. My independent clinical responsibilities as a fellow included independent signout of intraoperative frozen sections (both general surgical pathology and gynecologic pathology), on-call coverage as the attending surgical pathologist, and weekly presentations and participation in the Gynecologic Oncology Multidisciplinary Tumor Board, Gynecologic Dysplasia Interdepartmental Conference, and Molecular Gynecology Conference. My significant educational responsibilities also included gross specimen evaluation and supervision, intraoperative specimen evaluation and consultation, and educational/signout responsibilities with residents, fellows, and staff.

My current clinical responsibilities as an attending pathologist on the Gynecologic Pathology service at UCSF include signing out a mix of high-volume and high-complexity gynecologic biopsies and resection specimens while simultaneously teaching pathology residents and fellows. In addition, I still maintain all of the aforementioned responsibilities in an expanded role.

CLINICAL SERVICES

2023 - present	UCSF, Anatomic Pathology, Gynecologic Pathology Attending	Approximately 15 weeks per full year

PROFESSIONAL ACTIVITIES

MEMBERSHIPS

2023 - present United States and Canadian Academy of Pathology

2023 - present The International Society of Gynecologic Pathologists

SERVICE TO PROFESSIONAL PUBLICATIONS

2013 - 2017 Associate Member, Faculty of 1000

INVITED PRESENTATIONS - INTERNATIONAL

2015	Else Kroner-Fresenius Foundation Symposium on Adult Stem Cells in Aging, Disease, and Cancer	Poster
2017	4th Annual Asia-Pacific Drosophila Research Conference	Invited Talk

INVITED PRESENTATIONS - NATIONAL

2015	Cold Spring Harbor Laboratory, Stem Cell Biology meeting	Platform
2015	3rd Annual Northeast Regional Chromosome Pairing Meeting	Short Talk
2016	Howard Hughes Medical Institute Scientific Meeting	Poster
2016	Cold Spring Harbor Laboratory, Germ Cells meeting	Platform
2017	Keystone Symposium on Aging and Mechanisms of Aging-Related Disease	Poster

INVITED PRESENTATIONS - REGIONAL AND OTHER INVITED PRESENTATIONS

2021	UCSF Anatomic Pathology, Grand Rounds (Mechanisms of Disease)	Talk
2022	UCSF Anatomic Pathology, Grand Rounds (Mechanisms of Disease)	Talk
2023	UCSF Anatomic Pathology, Grand Rounds (Mechanisms of Disease)	Talk
2023	South Bay Pathology Society Monthly Meeting	Talk

UNIVERSITY AND PUBLIC SERVICE

SERVICE ACTIVITIES SUMMARY

Since 2023 I have served on the UCSF Health Equity Council (HEC) as the inaugural Graduate Medical Education representative. The HEC is an interdisciplinary committee represented by senior faculty and administrators from across multiple UCSF graduate and health professional schools, which spearheads data-driven strategic initiatives reporting directly to the UCSF Chief Clinical Officer. The HEC meets monthly and releases progress reports annually.

From 2022-2023 I served as co-organizer for the Research Interest Group (RIG) within the Departments of Pathology and Laboratory Medicine, which aims to provide an avenue for trainees and faculty within the departments to showcase their research programs and receive input from others in the research community. The RIG meets monthly throughout the academic year.

UCSF CAMPUSWIDE

2023 - present	Health Equity Council	Member

DEPARTMENTAL SERVICE

2021 - 2022	Department of Pathology, Next-Generation Technologies Working Group	Member
2022 - 2023	Department of Pathology, Research Interest Group	Co-organizer

CONTRIBUTIONS TO DIVERSITY

CONTRIBUTIONS TO DIVERSITY Contributions to Diversity, Equity & Inclusion Guidance

I believe that encouraging diversity, equity, and inclusion in medicine is important and can take many different forms. My personal experience is rooted in systems-level issues with diversity and health equity, but I also see future opportunities within the UCSF community to pursue academic pathology research that promotes diversity and equity.

My first experience with issues of diversity and health equity in medicine were during medical school as an active member of the Asian-Pacific American Medical Student Association, serving as an executive board member on the local and national organizations. As part of the national executive board, we helped initiate the " Screen at 23" campaign which advocated for evidence-based diabetic screening in Asian and Pacific Islander (API) individuals at lower BMIs. In 2015, the American Diabetes Association lowered the BMI cutoff for diabetes screening specifically for API individuals.

As a fellow at UCSF, I have been serving as the inaugural graduate medical education representative on the Health Equity Council (HEC). The HEC serves to identify data-driven health disparities at UCSF Health and offer direct strategic guidance and advisement to the UCSF Chief Clinical Officer. The council is composed of senior faculty and staff leaders at UCSF representing multiple departments and schools (including the Schools of Medicine and Nursing). The current initiatives involve equitable access to language interpretation services for patients throughout UCSF Health and affiliated institutions. My experience has been eye-opening in terms of learning about the tools for identifying and targeting issues of equity within an extremely large complex health system. It has also been invaluable in reminding me that while not all systems-level issues of health equity apply directly to the field of Pathology, we can still play a part in our role as physicians.

As a future member of the UCSF academic medical community I intend on completing the UCSF Diversity, Equity, and Inclusion Champion training, and becoming involved with the career mentorship committee of the UCSF chapter of the Asian-Pacific American Medical Student Association.

TEACHING AND MENTORING

TEACHING SUMMARY

My interest in graduate medical education is something that developed out of an enjoyment of teaching and from my own initial struggles as a new trainee. As someone who entered Anatomic Pathology residency with relatively little preparation and almost a decade removed from medical school histology, I developed a teaching approach based on my own most effective learning experiences that emphasizes three components: 1) Encouraging a safe learning environment 2) Simplifying complex concepts and 3) An emphasis on active over passive learning.

As a fellow and clinical instructor at UCSF, I participated actively in formal and informal clinical education that embodied the core components discussed above. I proactively made myself available for consultation in the gross room to residents and staff, and discussed diagnostic criteria and nuance with residents and fellows at the microscope while attempting to nurture a comfortable environment. As a fellow at UCSF, I also spearheaded regular trainee-led slide sessions that provided opportunities for residents and fellows of all levels to practice peer-to-peer teaching in an informal environment (embodying the “ see one, do one, teach one” philosophy). These slide sessions were well-attended, extremely well-reviewed, and became something that junior and senior trainees regularly looked forward to.

In the future my plans are to continue refining methods for applying my core educational values, and engage in clinical teaching to an even broader audience. At the pathology trainee level at UCSF, I want to formalize the peer-to-peer teaching sessions at the microscope I previously started, which encourage active trainee engagement and more thorough understanding through the act of teaching. I want to leverage the unique position I currently have as an in-transition attending pathologist who still has extant peer relationships with continuing trainees to create the right environment to allow for (lightly) supervised peer-to-peer teaching sessions, with the goal of eventually becoming self-sustaining. At the subspecialty and practicing pathologist level, I plan to actively engage in education-oriented continuing medical education courses (CME) to gain experience and observe effective methods for CME-level teaching which I can integrate into my own future CME courses for practicing pathologists. These courses can include but are not limited to the regular International Academy of Pathology Education Symposium at the USCAP annual meetings and upcoming USCAP interactive microscopy courses in gynecological pathology in 2024.

INFORMAL TEACHING

2023 -	Surgical pathology slide reviews (weekly with residents/fellows at the microscope)
2023 - present	Attending signout and clinical supervision, Gynecologic Pathology service (15 weeks a year)

RESEARCH AND CREATIVE ACTIVITIES

RESEARCH AND CREATIVE ACTIVITIES SUMMARY

I have an extremely rigorous research background of training as a basic scientist with expertise in molecular and cell biology. My doctoral dissertation involved studying the Drosophila (fruit fly) male germline in response to DNA damage and aging, which resulted in expertise in the fields of germ cell biology, stem cell biology, and chromosome/genome biology across

eukaryotic organisms (advisor: Yukiko Yamashita, PhD). My current postdoctoral research includes obtaining expertise in advanced microscopy techniques (including selective plane illumination microscopy/light sheet microscopy, and others) and bioengineering. My funding history includes grants from the NIH, and support from the Howard Hughes Medical Institution and other private foundations.

My developing clinical research interests include bridging clinical questions from patient-derived research with basic science investigators and concepts, on the strength of interdepartmental relationships and collaborations. My relationships with individuals in the UCSF Department of Urology have already resulted in several productive collaborations, and my goal is to continue developing relationships with collaborators from other clinical and basic science departments.

RESEARCH AWARDS - PAST

1. F30 AG050398-01A1 — PI — 100 % effort — Lu (PI)
   National Institute on Aging — 03/01/2016 — 08/01/2017
   Nucleolar fragmentation in Drosophila germline stem cells during aging. — $ 34267 direct/yr 1 — $ 51401 total
   Nucleolar fragmentation and ribosomal DNA instability as a conserved mechanism/feature of aging among eukaryotes which contributes to organismal tissue stem cell aging.
   Conceptualization, experimentation, data analysis, writing, review

2. T32 HD079342-05 — Trainee — 100 % effort — Moenter (PI)
   National Institute of Child Health and Human Development — 07/01/2014 — 03/01/2016
   Career Training in Reproductive Biology — $ 41121 direct/yr 1 — $ 68535 total
   Career and academic training in areas of reproductive biology, including additional training in graduate certificate programs.
   Experimentation

PEER REVIEWED PUBLICATIONS

1. 2011 — Yi S, Sahni N, Daniels KJ, Lu KL, Huang G, Garnaas AM, Pujol C, Srikantha T, Soll DR. Utilization of the mating scaffold protein in the evolution of a new signal transduction pathway for biofilm development. mBio. 2011 Jan 11;2(1):e00237-10. doi: 10.1128/mBio.00237-10. PMID: 21221248; PMCID: PMC3018282.

2. 2011 — Yi S, Sahni N, Daniels KJ, Lu KL, Huang G, Srikantha T, Soll DR. Self-induction of a/a or α/ α biofilms in Candida albicans is a pheromone-based paracrine system requiring switching. Eukaryot Cell. 2011 Jun;10(6):753-60. doi: 10.1128/EC.05055-11. Epub 2011 Apr 15. PMID: 21498642; PMCID: PMC3127667.

3. 2011 Yi S*, Sahni N*, Daniels KJ*, Lu KL*, Srikantha T, Huang G, Garnaas AM, Soll DR. Alternative mating type configurations (a/α versus a/a or α/α) of Candida albicans result in alternative biofilms regulated by different pathways. PLoS Biol. 2011 Aug;9(8):e1001117. doi: 10.1371/journal.pbio.1001117. Epub 2011 Aug 2. PMID: 21829325; PMCID: PMC3149048. *equal contribution

4. 2017 Lu KL, Yamashita YM. Germ cell connectivity enhances cell death in response to DNA damage in the Drosophila testis. Elife. 2017 08 15; 6. PMID: 28809158. PMCID: PMC5577909

5. 2018 Lu KL, Nelson JO, Watase GJ, Warsinger-Pepe N, Yamashita YM. Transgenerational dynamics of rDNA copy number in Drosophila male germline stem cells. Elife. 2018 02 13; 7. PMID: 29436367. PMCID: PMC5811208

6. 2022 Song H, Weinstein HNW, Allegakoen P, Wadsworth MH, Xie J, Yang H, Castro EA, Lu KL, Stohr BA, Feng FY, Carroll PR, Wang B, Cooperberg MR, Shalek AK, Huang FW. Single-cell analysis of human primary prostate cancer reveals the heterogeneity of tumor-associated epithelial cell states. Nat Commun. 2022 01 10; 13(1):141. PMID: 35013146. PMCID: PMC8748675

7. 2022 Lu KL, Menke JR, Ng D, Ruiz-Cordero R, Marinoff A, Stieglitz E, Gollapudi S, Singh K, Ohgami RS, Vohra P. Cytomorphologic features of pediatric-type follicular lymphoma on fine needle aspiration biopsy: case series and a review of the literature. J Am Soc Cytopathol. 2022 Sep-Oct; 11(5):281-294. PMID: 35843844

8. 2022 Kevin L. Lu, Ryan Sieberg, Rita I. Freimanis, Heather I. Greenwood, Christopher J. Schwartz. Alveolar soft part sarcoma of the pectoralis mimicking a breast mass: A case report. Human Pathology Reports. 2022; 29.

REVIEW ARTICLES

1. 2017 Lu K, Jensen L, Lei L, Yamashita YM. Stay Connected: A Germ Cell Strategy. Trends Genet. 2017 12; 33(12):971-978. PMID: 28947158. PMCID: PMC5701820

SIGNIFICANT PUBLICATIONS

1. 2018 Lu KL, Nelson JO, Watase GJ, Warsinger-Pepe N, Yamashita YM. Transgenerational dynamics of rDNA copy number in Drosophila male germline stem cells. Elife. 2018 02 13; 7. PMID: 29436367. PMCID: PMC5811208

   This manuscript demonstrated for the first time a role for genomic instability of the ribosomal DNA elements in tissue stem cells during organismal aging. It was also the first illustration of the heritability of altered ribosomal DNA copy number/quantity across generations. I was responsible for project conceptualization, formal data analysis, funding acquisition, investigation, methodology, and writing (original draft, reviews, and editing).

2. 2017 Lu KL, Yamashita YM. Germ cell connectivity enhances cell death in response to DNA damage in the Drosophila testis. Elife. 2017 08 15; 6. PMID: 28809158. PMCID: PMC5577909

   This manuscript identified a role for the interconnected syncytial growth of male germ cells in enhancing the cell death response following DNA damage, and offered a proposed mechanistic and evolutionary insight into germ cell hypersensitivity to extrinsic damage. I was responsible for project conceptualization, formal data analysis, funding acquisition, investigation, methodology, and writing (original draft, reviews, and editing).

3. 2022 Lu KL, Menke JR, Ng D, Ruiz-Cordero R, Marinoff A, Stieglitz E, Gollapudi S, Singh K, Ohgami RS, Vohra P. Cytomorphologic features of pediatric-type follicular lymphoma on fine needle aspiration biopsy: case series and a review of the literature. J Am Soc Cytopathol. 2022 Sep-Oct; 11(5):281-294. PMID: 35843844

   This manuscript provided the largest and highest quality case series and most comprehensive review of cytomorphologic features of pediatric-type follicular lymphoma, with proof-of-principle utilization of cytologic specimens to perform the essential diagnostic ancillary testing. I was responsible for case review, image acquisition, literature review, and writing (original draft, reviews, and editing).