

## CURRICULUM VITAE

**Name:** Emily K Chan, MD PhD

**Position:** Assistant Professor of Clinical Pathology, Step 3  
Pathology  
UCSF Department of Pathology

**Address:** 398 Upload Road  
Redwood City, CA 94162  
714-726-5635  
Email: emily.chan@ucsf.edu

### EDUCATION

2002 - 2006	University of California, Berkeley	BA	Molecular and Cell Biology	
2006 - 2015	New York University School of Medicine	MD	Medicine	
2008 - 2013	New York University Sackler Institute	PhD	Developmental Genetics	Jeremy Nance
2015 - 2018	University of California, San Francisco	Resident	Anatomic Pathology	
2017 - 2018	University of California, San Francisco	Acting Fellow	Surgical Pathology	

### LICENSES, CERTIFICATION

2017	License A146845, Medical Board of California
2018	Diplomate of the American Board of Pathology (Anatomic Pathology)

### PRINCIPAL POSITIONS HELD

2017 - 2018	University of California, San Francisco	Chief Resident	Anatomic Pathology
2018 - 2019	University of California, San Francisco	Clinical Instructor	Anatomic Pathology
2019 - present	University of California, San Francisco	Assistant Professor of Clinical Pathology	Anatomic Pathology

**OTHER POSITIONS HELD CONCURRENTLY**

2021 - present	University of California, San Francisco	Grand Rounds Director	Anatomic Pathology and Laboratory Medicine
2021 - present	University of California, San Francisco	Member	Helen Diller Family Comprehensive Cancer Center
2021 - present	University of California, San Francisco	GU Subspecialty Fellowship Director	Anatomic Pathology

**HONORS AND AWARDS**

2002	Regents' Scholarship	University of California, Berkeley
2005	Biology Fellows Program Semester Research Grant (Mentor: John Coates)	University of California, Berkeley
2005	Most Outstanding Poster Award, MCB Fall Honors Research Symposium	University of California, Berkeley
2007	Summer Scholarship for Medical Students (Mentor: Joel Ernst)	Infectious Diseases Society of America
2008	Award for Academic Excellence and Achievement	American Society of Clinical Pathology
2011	3rd place poster prize, 18th International C. elegans Meeting	Genetics Society of America
2012	Poster Award, Skirball Annual Retreat	New York University Skirball Institute
2015	New York University School of Medicine International Health Program Travel Grant (Mentor, Grant Searchfield)	New York University School of Medicine
2016	Chief Resident, Department of Pathology	San Francisco VA Medical Center
2016	Pathologist in Training Travel Award, 92nd Annual AANP Meeting	American Association of Neuropathologists
2017	Chief Resident, Department of Pathology	San Francisco General Hospital
2017	Pathologist in Training Travel Award, USCAP Annual Meeting	United States and Canadian Academy of Pathology

2017	Visiting scholar. Genitourinary pathology. Mentor: Victor Reuter. 1 month.	Memorial Sloan Kettering Cancer Center
2018	Visiting scholar. Genitourinary pathology. Mentor Jesse McKenney. 1 month.	Cleveland Clinic

## KEYWORDS/AREAS OF INTEREST

Anatomic pathology, genitourinary pathology.

## CLINICAL ACTIVITIES

### CLINICAL ACTIVITIES SUMMARY

My primary clinical mission is to provide high-quality diagnostic surgical pathology services with a subspecialty focus in genitourinary (GU) pathology. As an assistant clinical professor, I currently serve as attending pathologist for the GU subspecialty service for UCSF patients. I also provide expert second opinion diagnostic consultation for physicians and patients requesting UCSF GU pathologist input on difficult/challenging cases. In addition, I provide on-call daytime and evening frozen section services at the UCSF Mission Bay campus. I also service the urologic oncology tumor board and daily GU Pathology Consensus conference. In addition to direct clinical care, I provide clinical oversight and supervision to surgical pathology residents, fellows, and physician assistants in performing their clinical duties, including gross specimen management, intraoperative specimen evaluation, and final diagnostic evaluation and reporting.

### CLINICAL SERVICES

2018 - present	Genitourinary Subspecialty Surgical Pathology Service - Evaluation and sign-out of UCSF patient surgical, biopsy, and confirmatory, and internal/external consultation specimens	Currently ~ 90 days per year
2017 - present	Surgical Pathology Daytime Frozen Section Services (on-call) at Mission Bay Hospital	rotate with other staff pathologists, ~1 month/year
2019 - present	Surgical Pathology Evening frozen section service - Mission Bay Hospital	~2 weeks/year
2018 - present	Genitourinary Pathology Consensus Conference	1 hour daily
2018 - present	Urologic Oncology Tumor Board Pathologist	2x/month, rotate with other GU staff pathologists
2019 - present	Renal Tumor Board Pathologist	1x/month
2018 - 2021	Head and Neck and Endocrine Subspecialty Surgical Pathology Service - Evaluation and sign-out of UCSF patient surgical, biopsy, and confirmatory, and internal/external consultation specimens	~2 months/year

2017 - 2018	Surgical Pathology Night and Weekend frozen section services at Parnassus Moffitt-Long	~2 week/year
2019 - 2019	Validation of digital signout for genitourinary pathology specimens	~1 month/year

## **PROFESSIONAL ACTIVITIES**

### **MEMBERSHIPS**

2016 - present	United States and Canadian Academy of Pathology
2019 - present	Genitourinary Pathology Society
2019 - present	International Society of Urologic Pathology
2018 - present	Canary Foundation Prostate Program
2018 - present	South Bay Pathology Society
2018 - present	College of American Pathologists
2019 - present	Western Section of the American Urological Association Affiliate Member
2015 - present	American Society for Clinical Pathology
2018 - 2019	American Society of Clinical Oncology
2015 - 2019	California Society of Pathologists

### **SERVICE TO PROFESSIONAL ORGANIZATIONS**

2017 - present	South Bay Pathology Society	UCSF Liaison
2018 - present	Canary Foundation PASS and Prostate Cancer Clinical Trials Monthly Meeting and Annual Face-to-Face Participant	Member
2022 - 2022	International Society of Urologic Pathology	ISUP Bladder Cancer Grading Surveyor
2020 - 2021	International Society of Urologic Pathology	ISUP Grading Workshop Panel Member

### **SERVICE TO PROFESSIONAL PUBLICATIONS**

2020 - 2020	Archives of Pathology and Laboratory Medicine, Ad-hoc Reviewer
2020 - 2020	Histology and Histopathology, Ad-hoc Reviewer
2020 - 2020	BMC Medical Genetics, Ad-hoc Reviewer
2021 - 2021	Journal of Urology, Ad-hoc Reviewer

**INVITED PRESENTATIONS - REGIONAL AND OTHER INVITED PRESENTATIONS**

2017	Southbay Pathology Society Monthly CME Meeting	Case Presenter 4x per speaker year
2018	Southbay Pathology Society Monthly CME Meeting	Case Presenter 2x per speaker year
2018	University of California - Irvine	Invited Speaker - Renal tumors - Old and New
2019	Southbay Pathology Society Monthly CME Meeting	Case Presenter 3x per speaker year
2020	Southbay Pathology Society Monthly CME Meeting	Case Presenter 2x per speaker year
2020	Current Issues in Anatomic Pathology, San Francisco, CA (cancelled/postponed to COVID)	Invited Speaker - Lunch Tutorial Session
2021	Southbay Pathology Society Monthly CME Meeting	Case Presenter 4x per speaker year
2022	Southbay Pathology Society Monthly Meeting	Case Presenter 4x per speaker year
2022	Current Issues in Anatomic Pathology, San Francisco, CA, Nov 4, 2022	Invited Speaker - Practical Issues in Molecular Testing of Renal Tumors

**CONTINUING EDUCATION AND PROFESSIONAL DEVELOPMENT ACTIVITIES**

2017	Southbay Pathology Society monthly meeting, Palo Alto, CA; USCAP 108th Annual Meeting, San Antonio, Texas; UCSF Department of Pathology and Laboratory Medicine Grand Rounds, San Francisco, CA
2018	Southbay Pathology Society monthly meeting, Palo Alto, CA; Southbay Pathology Society annual meeting, Monterey, CA; USCAP 108th Annual Meeting, Vancouver, Canada; GU ASCO Annual Meeting, San Francisco, CA; UCSF Department of Pathology and Laboratory Medicine Grand Rounds, San Francisco, CA
2019	Southbay Pathology Society monthly meeting, Palo Alto, CA; Western Section American Urological Association Annual Meeting, Monterey, CA; USCAP 108th Annual Meeting, National Harbor, MD; UCSF Department of Pathology and Laboratory Medicine Grand Rounds, San Francisco, CA; UCSF Current Issues, San Francisco, CA
2020	Southbay Pathology Society monthly meeting, Palo Alto, CA/virtual; UCSF Department of Pathology and Laboratory Medicine Grand Rounds, San Francisco, CA

- 2021 Southbay Pathology Society monthly meeting, virtual; Southbay Annual Meeting, virtual; USCAP 110th Annual Meeting, virtual; UCSF Department of Pathology and Laboratory Medicine Grand Rounds, San Francisco, CA
- 2022 Southbay Pathology Society monthly meeting, virtual/Palo Alto, CA; GU ASCO Annual Meeting, San Francisco, CA; UCSF Department of Pathology and Laboratory Medicine Grand Rounds, San Francisco, CA; USCAP 111th Annual Meeting, Los Angeles, CA; UCSF Department of Pathology and Laboratory Medicine Grand Rounds, San Francisco, CA; UCSF Current Issues, San Francisco, CA

## **CONTRIBUTIONS TO DIVERSITY**

### **CONTRIBUTIONS TO DIVERSITY Contributions to Diversity, Equity & Inclusion Guidance**

I am a UCSF Differences Matter Diversity, Equity and Inclusion (DEI) Champion and have completed both in person and regular online training modules and therefore have been equipped with tools to address bias and discrimination in my daily clinical practice. My clinical activities include diagnostic pathology services that meet the needs of diverse and underserved patient populations within the UCSF patient population and includes keeping up to date with rare and uncommon disease entities. I present cases that highlight cultural and linguistic competency at the CME-accredited monthly Southbay Pathology Society meetings. I participate in recruitment of new trainees to the UCSF Pathology department and also educate a diverse group of trainees and visiting scholars that come through our program. I also provide consultation services to the ASCP Telepathology Global Health Initiative, providing free genitourinary subspecialty expertise to underserved patients in Muhimbili and Kilimanjaro. In my continuing education activities, I frequently attend lectures and learn about research focused on minority or underserved populations to improve my awareness of the potential biases that can occur in my clinical and research practices.

## **TEACHING AND MENTORING**

### **TEACHING SUMMARY**

I teach residents, fellows, and medical students during clinical signout, educating on the essentials of surgical pathology, particularly in genitourinary pathology. This includes gross and histologic specimen assessment, preparation of pathology reports, frozen section evaluation and confirm and consultation evaluation and reporting. I provide the orientation for the head and neck and genitourinary subspecialty services every 4 week block. I provide teaching in the format of our daily genitourinary consensus and educational conferences and also have prepared and shared slide review set and digital slide sets which are actively used by the residents throughout the year. I have also given slide sessions in the Fellows Teaching Conference series.

### **MENTORING SUMMARY**

I have mentored multiple trainees in successful presentations at the Southbay Pathology Society monthly meetings. In the past year I also successfully mentored two trainees in research projects which both led to accepted abstracts at USCAP Annual Meetings and Publications. I have mentored multiple trainees in establishing their career pathways. I serve

on the mentoring list for both the Department of Pathology Mechanisms of Disease/Grand Rounds conference and for the Department of Pathology Wellness Committee.

## RESEARCH AND CREATIVE ACTIVITIES

### RESEARCH AND CREATIVE ACTIVITIES SUMMARY

My primary research centers on clinico-pathologic correlations in genitourinary pathology with the aim of improving the molecular classification of renal tumors; as well as investigating current and new prognostic and diagnostic markers for prostate and urinary bladder grading. Current research focuses on clinical-pathologic correlations in genitourinary pathology as well as digital applications in genitourinary pathology. This past year, I have mentored a trainee to an accepted platform presentation for the 2022 USCAP Annual Meeting and am co-author to 4 additional abstracts. I have co-authored 10 peer-reviewed articles in the last year, including three first/senior authorships. I have ongoing collaborations with our UCSF urologists, uro-oncologists and radiation oncologists and well as with Prostate cancer researchers within the Canary Foundation, NRG Oncology and others.

### PEER REVIEWED PUBLICATIONS

1. Chakraborty R, O'Connor SM, **Chan E**, Coates JD. Anaerobic degradation of benzene, toluene, ethylbenzene, and xylene compounds by Dechloromonas strain RCB. *Appl Environ Microbiol*. 2005 Dec; 71(12):8649-55. PMID: 16332859.
2. **Chan E**, Nance J. Mechanisms of CDC-42 activation during contact-induced cell polarization. *J Cell Sci*. 2013 Apr 01; 126(Pt 7):1692-702. PMID: 23424200.
3. Armenti ST, **Chan E**, Nance J. Polarized exocyst-mediated vesicle fusion directs intracellular lumenogenesis within the *C. elegans* excretory cell. *Dev Biol*. 2014 Oct 01; 394(1):110-21. PMID: 25102190.
4. **Chan E**, Bollen AW, Sirohi D, Van Ziffle J, Grenert JP, Kline CN, Tihan T, Perry A, Gupta N, Solomon DA. Angiocentric glioma with MYB-QKI fusion located in the brainstem, rather than cerebral cortex. *Acta Neuropathol*. 2017 Aug 03. PMID: 28776091.
5. **Chan E**, Balassanian R, Tabatabai ZL, Lou H, Vohra P. Improved diagnostic precision of urine cytology by implementation of The Paris System and the use of cell blocks. *Cancer Cytopathology*. 2018. 126(9):809-816). PMID: 30203925.
6. Rabban JT, **Chan E**, Mak J, Zaloudek C, Garg K. Prospective Detection of Germline Mutation of Fumarate Hydratase in Women With Uterine Smooth Muscle Tumors Using Pathology-based Screening to Trigger Genetic Counseling for Hereditary Leiomyomatosis Renal Cell Carcinoma Syndrome: A 5-Year Single Institutional Experience. *Am J Surg Pathol*. 2019 May;43(5):639-655. PubMed PMID: 30741757.
7. **Chan E**, Rabban, JT, Mak J, Zaloudek C, Garg K. Detailed morphologic and immunohistochemical characterization of myomectomy and hysterectomy specimens from women with Hereditary Leiomyomatosis and Renal Cell Carcinoma syndrome (HLRCC). *Am J Surg Pathol*. 2019 Sep; 43(9):1170-1179. PubMed PMID: 31162287.
8. Larson AR, Kemmer J, Formeister E, El-Sayed I, Ha P, George J, Ryan W, **Chan E\***, Heaton C\*. Beyond Depth of Invasion: Adverse Pathologic Tumor Features in Early Oral Tongue Squamous Cell Carcinoma. *Laryngoscope*. 2019 Aug 14. [Epub ahead of print] PubMed PMID: 31411752.

9. Lau HD, Chan E, Fan AC, Kunder CA, Williamson SR, Zhou M, Idrees MT, Maclean FM, Gill AJ, Kao CS. A Clinicopathologic and Molecular Analysis of Fumarate Hydratase-deficient Renal Cell Carcinoma in 32 Patients. *Am J Surg Pathol*. 2020 01; 44(1):98-110. PMID: 31524643
10. Cox RM, **Chan E**, Sangoi AR, Zou Y, McKenney JK. STAT6 Monoclonal Antibody is Highly Specific for the Distinction between Solitary Fibrous Tumour and Prostatic Stromal Proliferations. *Histopathology*. 2020 Mar;76(4):625-626. PubMed PMID: 31498908.
11. **Chan E**, Stohr BA, Croom NA, Cho SJ, Garg K, Troxell ML, Higgins JP, Bean GR. Molecular Characterization of Metanephric Adenomas Beyond BRAF: Genetic Evidence for Potential Malignant Evolution. *Histopathology*. 2020 Feb 17. [Epub ahead of print] PubMed PMID: 32064677.
12. Greenland NY, Cowan JE, Zhang L, Carroll PR, Chan E, Stohr BA, Simko JP. Expansile cribriform Gleason pattern 4 has histopathologic and molecular features of aggressiveness and greater risk of biochemical failure compared to glomerulation Gleason pattern 4. *Prostate*. 2020 May;80(8):653-659. PMID: 32220141.
13. **Chan E**, Garg K, Stohr BA. Integrated immunohistochemical and molecular analysis improves diagnosis of high-grade carcinoma in the urinary bladder of patients with prior radiation therapy for prostate cancer. *Mod Pathol*. 2020 Sep;33(9):1802-1810. PMID: 32313185.
14. King ROC, Singh Shekhawat G, King C, **Chan E**, Kobayashi K, Searchfield GD. The Effect of Auditory Residual Inhibition on Tinnitus and the Electroencephalogram. *Ear Hear*. 2020 Aug 3;42(1):130-141. doi: 10.1097/AUD.0000000000000907. PMID: 32769434.
15. Anderson JA, Matoso A, Murati Amador BI, Cheng L, Stohr BA, **Chan E**, Osunkoya AO. Invasive poorly differentiated adenocarcinoma of the bladder following augmentation cystoplasty: a multi-institutional clinicopathological study. *Pathology*. 2020 Sep 17:S0031-3025(20)30889-8. doi: 10.1016/j.pathol.2020.07.005. Epub ahead of print. PMID: 32951908.
16. van Leenders GJLH, van der Kwast TH, Grignon DJ, Evans AJ, Kristiansen G, Kweldam CF, Litjens G, McKenney JK, Melamed J, Mottet N, Paner GP, Samaratinga H, Schoots IG, Simko JP, Tsuzuki T, Varma M, Warren AY, Wheeler TM, Williamson SR, Iczkowski KA; **ISUP Grading Workshop Panel Members**. The 2019 International Society of Urological Pathology (ISUP) Consensus Conference on Grading of Prostatic Carcinoma. *Am J Surg Pathol*. 2020 Aug;44(8):e87-e99. PMID: 32459716.
17. Sangoi AR, **Chan E**, Stohr BA, Kunju LP. Invasive plasmacytoid urothelial carcinoma: A comparative study of E-cadherin and P120 catenin. *Hum Pathol*. 2020 Aug;102:54-59. doi: 10.1016/j.humpath.2020.07.006. Epub 2020 Jul 13. PMID: 32673685.
18. Greenland NY, Cowan JE, **Chan E**, Carroll PR, Stohr BA, Simko JP. Prostate biopsy histopathologic features correlate with a commercial gene expression assay's reclassification of patient NCCN risk category. *Prostate*. 2020 Dec;80(16):1421-1428. doi: 10.1002/pros.24072. Epub 2020 Sep 18. PMID: 32946625.
19. de Kouchkovsky I, Zhang L, Philip EJ, Wright F, Kim DM, Natesan D, Kwon D, Ho H, Ho S, **Chan E**, Porten SP, Wong AC, Desai A, Huang FW, Chou J, Oh DY, Pruthi RS, Fong L, Small EJ, Friedlander TW, Koshkin VS. TERT promoter mutations and other prognostic factors in patients with advanced urothelial carcinoma treated with an immune checkpoint inhibitor. *J Immunother Cancer*. 2021 05; 9(5). PMID: 33980590. PMCID: PMC8118032

20. Sangoi AR, Kimm SY, **Chan E**. VCL-ALK renal cell carcinoma in adult patient without sickle cell trait, *Human Pathology: Case Reports*, Volume 25, 2021.
21. Chen CV, Croom NA, Simko JP, Stohr BA, **Chan E**. Differential Immunohistochemical and Molecular Profiling of Conventional and Aggressive Components of Chromophobe Renal Cell Carcinoma: Pitfalls for Diagnosis. *Hum Pathol*. 2021 Nov 17. PMID: 34800526
22. **Chan E**, Stohr BA, Butler RS, Cox RM, Myles JL, Nguyen JK, Przybycin CG, Reynolds JP, Williamson SR, McKenney JK. Papillary Renal Cell Carcinoma With Microcystic Architecture Is Strongly Associated With Extrarenal Invasion and Metastatic Disease. *Am J Surg Pathol*. 2021 Sep 9. PMID: 34881751.
23. Greenland NY, Cooperberg MR, Wong AC, **Chan E**, Carroll PR, Simko JP, Stohr BA. Molecular risk classifier score and biochemical recurrence risk are associated with cribriform pattern type in Gleason 3+4=7 prostate cancer. *Investig Clin Urol*. 2022 Jan;63(1):27-33. doi: 10.4111/icu.20210262. PMID: 34983120; PMCID: PMC8756156.
24. Chou J, Trepka K, Sjöström M, Egusa EA, Chu CE, Zhu J, **Chan E**, Gibb EA, Badura ML, Contreras-Sanz A, Stohr BA, Meng MV, Pruthi RS, Lotan Y, Black PC, Porten SP, Koshkin VS, Friedlander TW, Feng FY. TROP2 Expression Across Molecular Subtypes of Urothelial Carcinoma and Enfortumab Vedotin-resistant Cells. *Eur Urol Oncol*. 2022 Feb 22:S2588-9311(21)00215-7. doi: 10.1016/j.euo.2021.11.005. Epub ahead of print. PMID: 35216942.
25. Fuchs TL, Maclean F, Turchini J, Vargas AC, Bhattarai S, Agaimy A, Hartmann A, Kao CS, Ellis C, Bonert M, Leroy X, Kunju LP, Schwartz L, Matsika A, Williamson SR, Rao P, Divatia M, Guarch R, Algaba F, Balancin ML, Zhou M, Samaratunga H, da Cunha IW, Brimo F, Ryan A, Clouston D, Aron M, O'Donnell M, **Chan E**, Hirsch MS, Moch H, Pang CY, Wah C, Yin W, Perry-Keene J, Yilmaz A, Chou A, Clarkson A, van der Westhuizen G, Morrison E, Zwi J, Hes O, Trpkov K, Gill AJ. Expanding the clinicopathological spectrum of succinate dehydrogenase-deficient renal cell carcinoma with a focus on variant morphologies: a study of 62 new tumors in 59 patients. *Mod Pathol*. 2021 Dec 23. doi: 10.1038/s41379-021-00998-1. Epub ahead of print. PMID: 34949766.
26. **Chan E**, McKenney JK, Hawley S, Corrigan D, Auman H, Newcomb LF, Boyer HD, Carroll PR, Cooperberg MR, Klein E, Fazli L, Gleave ME, Hurtado-Coll A, Simko JP, Nelson PS, Thompson IM, Tretiakova MS, Troyer D, True LD, Vakar-Lopez F, Lin DW, Brooks JD, Feng Z, Nguyen JK. Analysis of separate training and validation radical prostatectomy cohorts identifies 0.25 mm diameter as an optimal definition for "large" cribriform prostatic adenocarcinoma. *Mod Pathol*. 2022 Feb 10. doi: 10.1038/s41379-022-01009-7. Epub ahead of print. PMID: 35145197.
27. Sangoi AR, **Chan E**, Abdulfatah E, Stohr B, Nguyen JK, Trpkov K, Siadat F, Hirsch MS, Falzarano S, Udager AM, Priya L. p53 Null Phenotype is a "Positive Result" in Urothelial Carcinoma in Situ. *Modern Pathology*. Accepted 2022.
28. Natesan D, Zhang L, Martell HJ, Jindal T, Devine P, Stohr B, Espinosa-Mendez C, Grenert J, Van Ziffle J, Joseph N, Umetsu S, Onodera C, Turski M, **Chan E**, Desai A, Aggarwal R, Wong A, Porten S, Chou J, Friedlander T, Fong L, Small EJ, Sweet-Cordero A, Koshkin VS. APOBEC Mutational Signature and Tumor Mutational Burden as Predictors of Clinical Outcomes and Treatment Response in Patients With Advanced Urothelial Cancer. *Front Oncol*. 2022 Mar 7;12:816706. doi: 10.3389/fonc.2022.816706. PMID: 35321431.
29. Sangoi AR, Maclean F, Mohanty S, Hes O, Daniel R, Lal P, Canete-Portillo S, Magi-Galluzzi C, Cornejo KM, Collins K, Hwang M, Falzarano SM, Feely MM, Dababneh M,

Harik L, Tretiakova M, Akgul M, Manucha V, **Chan E**, Kao CS, Siadat F, Arora K, Barkan G, Cheng L, Hirsch M, Lei L, Wasco M, Williamson SR, Acosta AM. Granulomas associated with renal neoplasms: A multi-institutional clinicopathological study of 111 cases. *Histopathology*. 2022 May;80(6):922-927. doi: 10.1111/his.14633. Epub 2022 Mar 29. PMID: 35347739.

30. Ding CC, Chan S, Mak J, Umetsu SE, Simko JP, Ruiz-Cordero R, Saunders T, **Chan E**. An exploration in pitfalls in interpreting SDHB immunohistochemistry. *Histopathology*. 2022 May 11. Epub ahead of print. PMID: 35546442.
31. Zhao N, Chopra S, Trepka K, Wang Y, Sakhamuri S, Hooshdaran N, Kim H, Zhou J, Leung K, Egusa E, Zhu J, Zhang L, Foye A, Sriram R, **Chan E**, Seo Y, Feng, F Small E, Chou J, Wells J, Aggarwal R, and Evans M. CUB domain containing protein 1 (CDCP1) is a target for radioligand therapy in castration resistant prostate cancer including PSMA null disease. *Clinical Cancer Research*. Accepted 2022.
32. Wu R, Babik J, Russel M, Van Zante A, **Chan E**. Not your usual tonsillitis: Lesson for recognizing primary tonsillar syphilis. *Histopathology*. Accepted 2022.

## REVIEW ARTICLES

1. Chan E, Nguyen JK. Cribriform prostate cancer, where definition and size matters. *Diagnostic Histopathology*. Vol 28 Iss 6, 273-279. Invited Review

## OTHER PUBLICATIONS

1. Mechanisms of Rho GTPase activation during radial polarization of the early *C. elegans* embryo. 2013. PhD dissertation.

## CONFERENCE ABSTRACTS

1. Chakraborty, R, Chan, E, Cruz, K, Weber, K, Shang, C, Coates, J.D. Microbial oxidation of humic substances under thermophilic conditions. American Society of Microbiology 105th General Meeting. 2005. Poster presentation.
2. Chan, E, Connor, S, DuBois, J, Igarashi, R, Hernandez, J, Coates, JD. A colorimetric perchlorate bioassay based on the purified perchlorate reductase. American Society of microbiology 106th General Meeting. 2006. Poster presentation.
3. Chan, E., Cotter, J., Tang, V., Huang, E. ARID1A, member of the SWI/SNF chromatin remodeling complex, guides early neuron development in the human cerebral cortex. AANP Abstract, 2016, published *J Neuropathol Exp Neurol* (2016) 75 (6): 567-616. Platform presentation.
4. Chan, E., Tabatabai, ZL., Vohra, P. "Paris System-Like" Approach and Cell Block Utilization in Urine Cytology. USCAP Abstract, 2017, published *Mod Pathol* 30 (supple2),/ > 2017. Poster presentation.
5. Chan, E., Rabban, J. Residual Tubal Carcinoma Following Neoadjuvant Chemotherapy in Advanced Stage Pelvic High Grade. USCAP abstract, 2017, published *MOD Pathol* 30/> (Supple 2), 2017. Poster presentation.
6. Chan, E., Rabban, J., Garg, K. Patients with HLRCC have multiple leiomyomas with heterogeneous morphology that often show retained staining for Fumarate Hydratase. USCAP Abstract, 2018. Platform presentation.

7. Chan, E., Rabban, J. Topically-treated vulvar high grade squamous intraepithelial lesion: Post-treatment morphology and p16 immunoexpression, correlated with in situ hybridization for high risk human papilloma virus RNA. USCAP. 2018. Poster presentation.
8. Chan E., Garg, K., Stohr, BA. Molecular characterization of histologically high grade tumors involving the urinary bladder in patients who received radiation therapy for prostatic adenocarcinoma. USCAP. 2019. Platform presentation.
9. Chan E., Stohr, BA., Croom, NA., Cho, S., Garg, K., Troxell, ML., Higgins, JP., Bean, GR. Molecular characterization of metanephric adenomas beyond BRAF: Are all benign? USCAP. 2019. Platform presentation.
10. Larson AR, Kemmer J, Formeister E, George J, Ryan W, Heaton C, Chan E. Beyond Depth of Invasion: Adverse Pathologic Tumor Features in Early Oral Tongue Squamous Cell Carcinoma. American Head & Neck Society Annual Meeting, 2019. Poster presentation.
11. Chan E., Cowan JE., Greenland NY., Washington SL., ZUniga KB., Stohr BA., Simko JP., Carroll PR. Expansile Cribriform Pattern in Men with Gleason Score 7 Prostatic Adenocarcinoma on Bopsies in an Active Surveillance Cohort is Associated with Adverse Pathology at Radical Prostatectomy. Western Section American Urological Association Annual Meeting. 2019. Platform presentation.
12. Greenland NY., Cowan JE., Zhang L., Carroll PR., Chan E., Stohr BA., Simko JP. Expansile Cribriform Pattern 4 has Worse Pathologic Outcomes at Prostatectomy than Glomerulation Pattern 4 for Men Treated for Prostate Cancer. Western Section American Urological Association Annual Meeting. 2019. Platform presentation.
13. Philip E., Wright F., Kim D., Kwon D., Ho H., Ho S., Chan E., Porten S., Wong A., Borno H., Desai A., Chou J., Oh D., Aggarwal R., Fong L., Small E., Friedlander T., Koshkin VS. Efficacy of Immune Checkpoint Inhibitors (ICIs) in Rare Histological Variants of Bladder Cancer. GU ASCO. 2020. Poster presentation.
14. Anderson J., Matoso A., Amador BIM., Cheng L., Stohr BA., Chan E., Osunkoya AO. Invasive Poorly Differentiated Adenocarcinoma of the Bladder Status-Post Augmentation Surgery: A Multi-Institutional Study. USCAP. 2020. Poster.
15. Greenland NY., Cowan JE., Chan E., Carroll P., Stohr BA., Simko JP. Molecular Diagnostic-Associated Changes in Prostate Cancer Biopsy NCCN Category are Linked to Histopathologic Features. USCAP. 2020. Platform presentation.
16. Lauw MIS., Stohr BA., Simko JP., Chan EC. Clinical-Pathologic Survey of Neuroendocrine Differentiation in High-Grade Treatment-Naive Prostate Cancer. USCAP. 2020. Poster.
17. Jankowski TP., Bowman S., Simko JP., Stohr BA., Chan EC. Image-Guided Targeted Prostate Bopsies: Impact on Summary Synoptic Reporting. USCAP. 2020. Poster.
18. Divya Natesan, Henry Martell, Patrick Devine, Bradley A. Stohr, James P. Grenert, Jessica Van Ziffle, Nancy M. Joseph, Boris C. Bastian, Sarah E Umetsu, Courtney Onodera, Emily Chan, Arpita Desai, Anthony C. Wong, Sima P. Porten, Jonathan Chou, Terence W. Friedlander, Eric Jay Small, Lawrence Fong, Eric Alejandro Sweet-Cordero, Vadim S Koshkin. Correlation of tumor mutational burden (TMB) with molecular profiling and clinical characteristics in patients with bladder cancer. ASCO Annual Meeting. 2020. Virtual Scientific Program (due to Covid 19)

19. Divya Natesan, Li Zhang, Henry Martell, Patrick Devine, Bradley Stohr, James Grenert, Jessica Van Ziffle, Nancy Joseph, Boris Bastian, Sarah Umetsu, Courtney Onodera, Emily Chan, Arpita Desai, Sima Porten, Jonathan Chou, Terence Friedlander, Lawrence Fong, Eric Small, Alejandro Sweet-Cordero, Vadim S Koshkin. APOBEC signatures and high tumor mutational burden as predictors of clinical outcomes and response to therapy in patients with urothelial carcinoma. ESMO Virtual Congress 2020.
20. Ivan de Kouchkovsky, Li Zhang, Errol J. Philip, Francis Wright, Daniel M Kim, Divya Natesan, Daniel Kwon, Hansen Ho, Son Ho, Emily Chan, Sima P Porten, Arpita Desai, Franklin Huang, Jonathan Chou, David Yoonsuk Oh, Raj S Pruthi, Lawrence Fong, Eric J Small, Terence W Friedlander, Vadim S Koshkin. TERT promoter mutation as a prognostic marker in patients with advanced urothelial carcinoma treated with immune checkpoint inhibitors. ASCO GU 2021.
21. Chen, C, Croom NA, Stohr BA, Chan E. Clinicopathologic, Immunohistochemical, and Molecular Characterization of Aggressive Chromophobe Renal Cell Carcinomas. USCAP. 2021. Stowell-Orbison/Surgical Pathology/Autopsy Award Poster Session.
22. Tanya Jindal, Li Zhang, Jonathan Chou, David Shui, Sima Porten, Anthony C. Wong, Emily Chan, Bradley Stohr, Ivan de Kouchkovsky, Hala T. Borno, Rohit Bose, Daniel Kwon, Arpita Desai, Rahul Aggarwal, Eric Small, Lawrence Fong, Terence Friedlander, Vadim S Koshkin. Biomarkers predictive of response to enfortumab vedotin (EV) treatment in advanced urothelial cancer (aUC). ASCO GU. 2022. Poster.
23. Emily Chan, Stephanie Pugh, Jeff Simko, Felix Feng, William U. Shipley, Himanshu R. Lukka, Jean-Paul Bahary, Thomas M. Pisansky, Kenneth Lee Zeitzer, Colleen A. Lawton, Jason A. Efsthathiou, Seth A. Rosenthal, Alexander G. Balogh, Rick Lovett, Anthony Wong, Robert T. Dess, Scott McGinnis, Michael Kuettel, Luda DeMora, Howard Sandler. Impact of lymph node yield at prostatectomy on outcomes in NRG/RTOG 9601. ASCO GU. 2022 Poster.
24. Stohr B., Chan E., Anderson J., Matoso A., Amador BIM., Cheng L., Osunkoya AO. Molecular Characterization of Carcinomas Arising in the Urinary Bladder Following Augmentation Cystoplasty: A Multi-Institutional Study. USCAP 2022. Poster.
25. Sangoi AR., Maclean F., Daniel RE., Lai P., Canete-Portillo S., Magi-Galluzzi C., Cornejo KM., Collinss K., Hwang MJ., Mohanty SK., Falzarano SM., Feely M., Dababneh MN., Harik LR., Tretiakova M., Akgul M., Chan E., Manucha V., Siadat F., Arora K., Barkan G., Cheng L., Hirsch MS., Lei L., Wasco MJ., Williamson SR., Acosta AM. Granulomas Associated with Renal Neoplasms: A Multi-Institutional Clinicopathologic Study of 92 Cases. USCAP 2022. Poster.
26. Sangoi AR., Al-Obaidy KI., Cheng L., Kao Chia-Sui., Chan E., Sadasivan S., Alvarado-Cabrero I., Kunju LP., Dhillon J., Tretiakova M., Smith SC., Hess O., Williamson SR. Clear Cell Renal Cell Carcinoma with Psammomatous Calcifications: A Rare Occurrence Mimicking Translocation Carcinoma. USCAP 2022. Poster.
27. Kayraklioglu N., Devine WP., Stohr B., Chan E. Molecular Characterization of High-Risk Human Papilloma Virus-Positive Carcinomas of the Urethra and Urothelial Tract. USCAP 2022. Platform.
28. Sangoi AR, Chan E., Abdulfatah E., Stohr B., Nguyen JK., Trpkov K., Siadat F., Hirsch MS., Falzarano SM., Udager AM., Kunju LP. p53 Null Phenotype is a "Positive Result" in

Urothelial Carcinoma in Situ: A Clinicopathologic and Molecular Study of 25 Cases.  
USCAP 2022. Poster.

29. Greenland NY, Cowan JE, Fasulo V, Maggi M, Chan E, Stohr BA, Simko JP, Shinohara K, Cooperberg MR, Carroll PR, Nguyen HG. Associations of serum-based and urine-based molecular diagnostics with histologic subtyping on prostate biopsy. AUA. 2022-3363. Platform.