

BIOGRAPHICAL SKETCH

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NAME:

Tiannan Wang

POSITION TITLE:

MD./Ph.D. Assistant Professor of Clinical Pathology

eRA COMMONS USERNAME (credential, e.g.): Tiannanw

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)*

INSTITUTION AND LOCATION	DEGREE (if applicable)	Completion Date MM/YYYY	FIELD OF STUDY
Liaoning Medical University, CHINA	M.D.	7/1995-6/2000	Medicine
Zhejiang University, CHINA	Ph.D.	2/2004-6/2007	Biomedical Engineering
University of Missouri-Columbia, MO		7/2014-6/2015	Pathology Internship
Loma Linda University Health, CA		7/2015-6/2018	Pathology Residency
University of Southern California, CA		7/2018-6/2019	Cytopathology Fellowship
University of Pittsburgh Medical Center, PA Magee-Womens Hospital		7/2019-6/2020	Women's Health Instructorship

A. Personal Statement

I am a board certified anatomic and clinical pathologist, subspecialized in cytopathology and breast/gynecologic pathology, my professional goal is to be an academic pathologist with a scientific focus on the diagnosis and classification of gynecologic malignancies, providing clinically relevant diagnostic and prognostic information for breast cancer through translational research.

B. Positions and Honors**Position and Employment**

2000-2003	Physician Cardiologist	Liaoning Medical College, China
2019-2020	Pathology Faculty Staff	University of Pittsburgh Medical Center, Magee-Womens Hospital, Pittsburgh, PA
2020-present	Assistant Professor of Pathology	University of Southern California, Los Angeles, CA

Professional Membership and Committee

2023-2024 **Chinese American Pathologists Association (CAPA)**- Subcommittee Member of Digital Pathology
Subcommittee Member of Breast Pathology

2015- 2020	Los Angeles Society of Pathologist (LASOP)
2015- 2020	College of American Pathologists (CAP)
2015- 2019	American Society of Clinical Pathology (ASCP)
2015- Present	California Society of Pathologist (CSP)
2016- Present	American Society of Cytopathology (ASC)
2017-Present	United States and Canadian Academy of Pathology (USCAP)

B. Scientific Contributions and Academic Activities:

Editorial Board:

Frontiers in Oncology - Gynecological Oncology- Guest Editor

Frontiers in Immunology- Guest Editor

Clinical Pathology & Research Journal- Associate Editor

Peer-Reviewed Publications (H-Index: 16; Total Citation: 1200)

1. Yang H, **Wang T**, Zheng X. Decreasing expression of alpha 1C calcium L-type channel subunit mRNA in rat ventricular myocytes upon manganese exposure. *Journal of Biochemical and Molecular Toxicology*. 20(4):159, 2006. PMID: 16906520.
2. **Wang T**, Yan M, Li J, Zheng X. The role of iNOS-derived NO in the antihypertrophic actions of B-type natriuretic peptide in neonatal rat cardiomyocytes. *Molecular and Cellular Biochemistry*. 302(1-2):169, 2007. PMID: 17487460.
3. **Wang T**, Ge Y, L Ji, Zeng X, Zheng X. B-type natriuretic peptide enhances mild hypoxia-induced apoptotic cell death in cardiomyocytes. *Biological & Pharmaceutical Bulletin*. 30(6):1084, 2007. PMID: 17541158.
4. Ding S*, **Wang T***, Cui W, Haydon P. Photothrombosis ischemia stimulates a sustained astrocytic Ca²⁺ signaling in vivo. *Glia*. 57(7):767, 2009. PMID 18985731.
5. Xie Y*, **Wang T***, Ding S. Specific disruption of astrocytic Ca²⁺ signaling pathway in vivo by adeno-associated viral transduction. *Neuroscience*. 21:2073, 2010. PMID: 20736051.
6. **Wang T**, Cui W, Xie Y, Zhang W, Ding S. Controlling the volume of the focal cerebral ischemic lesion through Photothrombosis. *American Journal of Biomed. Sci.* 2 (1):33, 2010. Corpus ID: 44939764.
7. Zhang W, Xie Y, **Wang T**, Bi J, Li H, Zhang LQ, Ye SQ, Ding S. Neuronal protective role of PBEF in a mouse model of cerebral ischemia. *Journal of Cerebral Blood Flow & Metabolism*. 30(12):1962, 2010. PMID: 20485294.
8. McCauley M, **Wang T**, Mike E, Herrera J, Beavers DL, Huang TW, Ward CS, Skinner S, Percy AK, Glaze DG, Wehrens X, Neul J. Pathogenesis of lethal cardiac arrhythmias in Mecp2 mutant mice: implication for therapy in Rett syndrome. *Science Translational Medicine*. 3 (113):113ra, 2011. PMID: 22174313.
9. **Wang T**, Wehrens X. Enhanced impact of SCN5A mutation associated with long QT syndrome in fetal splice isoform. *Heart Rhythm*. 9(4):598, 2012. PMID 22138134.
10. Li N, **Wang T**, Wang W, Wehrens X. Inhibition of CaMKII phosphorylation of RyR2 prevents induction of atrial fibrillation in FKBP12.6 knockout mice. *Circulation Research*. 110(3):465, 2012. PMID 22158709.
11. Gurha P, Goodger C, **Wang T**, Ramirez MO, Drumond AL, van Dongen S, Chen Y, Bartonicek N, Enright AJ, Lee B, Kelm RJ Jr, Reddy AK, Taffet GE, Bradley A, Wehrens XH, Entman ML, Rodriguez A. Targeted deletion of microRNA-22 promotes stress-induced cardiac dilation and contractile dysfunction. *Circulation*. 125(22):2751, 2012. PMID: 22570371.

12. Gurha P, **Wang T**, Larimore AH, Sassi Y, Abreu-Goodger C, Ramirez MO, Reddy AK, Engelhardt S, Taffet GE, Wehrens X, Antony Rodriguez. MicroRNA-22 promotes heart failure through coordinate suppression of PPAR/ERR-nuclear hormone receptor transcription. *PLOS One*. 8(9):e75882, 2013. PMID 24086656.
13. Kirchhof P, Marijon E, Fabritz L, Li N, Wang W, **Wang T**, Schulte K, Hanstein J, Schulte JS, Vogel M, Mougenot N, Laakmann S, Fortmueller L, Eckstein J, Verheule S, Kaese S, Staab A, Grote-Wessels S, Schotten U, Moubarak G, Wehrens XH, Schmitz W, Hatem S, Müller FU. Overexpression of CAMP-response element modulator causes abnormal growth and development of the atrial myocardium resulting in a substrate for sustained atrial fibrillation in mice. *International Journal of Cardiology*. 166(2):366, 2013. PMID 22093963.
14. Sayali D, **Wang T**, Manzano EJ, Yoo S, Lee J, Chiang DY, Ryan N, Respress JL, Yechoor VK, Wehrens X. Effects of CaMKII-mediated phosphorylation of ryanodine receptor type 2 on islet calcium handling, insulin secretion and glucose tolerance. *PLOS One*. 8(3):e58655, 2013. PMID: 23516528.
15. Wu SP, Cheng CM, Lanz RB, **Wang T**, Respress JL, Ather S, Chen W, Tsai SJ, Wehrens X, Tsai MJ, Tsai SY. Atrial identity is determined by a COUP-TFII regulatory network. *Developmental Cell*. 25(4):417-426, 2013. PMID: 23725765.
16. Respress JL, Gershovich P, **Wang T**, Reynolds JO, Skapura DG, Sutton JP, Miyake CY, Wehrens X. Long-term simulated microgravity causes cardiac RyR2 phosphorylation and arrhythmias in mice. *International Journal of Cardiology*. Oct 20; 176(3):994–1000, 2014. PMID: 25227892.
17. Yang X*, **Wang T*** Lin X, Yue X, Wang Q, Wang G, Fu Q, Ai X, Chiang DY, Miyake CY, Wehrens X, Chang J. Genetic deletion of Rnd3/RhoE results in mouse heart calcium leakage through upregulation of protein kinase a signaling. *Circulation Research*. 116(1):e1-e10, 2015. PMID: 25348166.
18. Xue L, Zuppan C, **Wang T**, Kheradpour A, Rowsell E, Wang J. Plasma Cell Myeloma Type Post Transplant Lymphoproliferative Disorder in an 18-Month-old Heart Transplant Recipient: Case Report and Review of the Literature. *Journal of Pediatric Hematology and Oncology*, 42(3): e170-e173. 2020. PMID: 31094907.
19. Wang Z*, **Wang T***, Yang J, Wang W, Zhang L, Su X, Wang Z, Zhang H, Song J, Lv, W, Wang J, Zhao C, Hao M. Diagnostic Yield and Performance of a Large Population-Based Cervical Cancer Screening Program in High-Risk Rural China. *Journal of Cancer*. 11 (13):4000-4006, 2020. PMID: 32328203.
20. Ashman D, Zhang H, Li J, Austin M, **Wang T**, Pradhan,D, Zhao C. HPV detection Rates and Histopathologic Follow-up of Patients with HSIL Cytology in a Large Academic Women's Hospital Laboratory. *Journal of the American Society of Cytopathology*. 2020. 9(6):550-555. PMID: 32475726.
21. Zhang H, Pradhan D, **Wang T**, Ashman D, Zhao C. Immediate Histologic Correlation in Women with ASC-US Cytology and Positive High-Risk HPV: A Retrospective Review of 6000 Cases in a Large Academic Women's Hospital. *Cancer Cytopathology*. 2020.128 (11): 852-859. PMID: 32639689.
22. **Wang T**, Pradhan D, Zhang H, Ashman D, Zhao C. Clinical Performance of the Aptima HPV Assay in 4196 Women with Positive High-Risk HPV and ASC-US Cytology: A Large Women Hospital Experience. *Diagnostic cytopathology*, 2021. 49(1):5-10. PMID: 32857920.
23. Baskota S*, **Wang T***, Zhao C. Performance of Follow-Up High Risk HPV Testing and Co-Testing in Post-Treatment Surveillance of Women with Cervical Adenocarcinoma in-Situ. *Journal of Lower Genital Tract Disease*, 2021. 25(1):38-42. PMID: 33284146
24. Li A, Li J, Austin RM, **Wang T**, Ashman D, Zhang H, Matsko J, Zhao C. Aptima HPV messenger RNA testing and histopathologic follow-up in women with HSIL cytology: A study emphasizing additional review of HPV-negative cases. *Cancer Cytopathol*. 2021. 129(8):622-631. PMID: 33764649.

25. Salibay CJ, Zanfagnin V, Miller H, Walia S, Brunette LL, **Wang T**[#]. Borderline Brenner Tumor of the Ovary Coexisting with an Ovarian Mucinous Cystadenoma with Focal Atypical Epithelial Proliferation: A Rare Case with Review of the Literature. *Int J Surg Pathol*. 2021 Feb 26; 1066896921999459. PMID: 33635096.
26. Srivastava P, **Wang T**, Clark B, Yu J, Fine J, Villatoro T, Carter G, Brufsky A, Gorantla V, Puhalla S, Emens L, Basili T, de Silva E, Reis-Filho J. Bhargava R. Clinical-pathologic characteristics and response to neoadjuvant chemotherapy in triple-negative low Ki-67 proliferation (TNLP) breast cancers. *Nature Partner Journal- Breast Cancer. NPJ Breast Cancer*. 2022 Apr 20;8(1):51. PMID: 35444182.
27. Salibay CJ, Chen ZS, Elatre W, Shulman I, Martin SE, **Wang T**[#]. High-risk HPV Testing Improves Accuracy in Detection of CIN2+ Lesions in ASC-H Postmenopausal Women? An Academic Hospital Experiences. *Journal of the American Society of Cytopathology*, 2020, Sep 7: S2213-2945(22)00244-7. PMID: 36270913.
28. Chen ZS, Salibay CJ, Elatre W, Ma Y, Naritoku, W, Martin SE, **Wang T**[#]. Breast Fine Needle Aspiration Considered as the Initial Diagnostic Tool: A Large County Hospital Experience. *Cytopathology*. 2022.33(6): 707-715. PMID: 35869577.
29. **Wang T**, Baloda V, Harinath L, Jones T, Zhang H, Bhargava R, Zhao C. Clinicopathologic diagnosis of dVIN related vulvar squamous cell carcinoma: An extended appraisal from a tertiary women's hospital. *Gynecology and Obstetrics Clinical Medicine*. 2023. <https://doi.org/10.1016/j.gocm.2023.01.004>
30. Zanfagnin V, Lee T, Zhao C, **Wang T**[#].Advances in diagnosis,clinical management,and molecular characterization of ovarian Brenner tumors. *Gynecology and Obstetrics Clinical Medicine*.2023 <https://doi.org/10.1016/j.gocm.2023.01.007>
31. **Wang T**, Zhang H, Liu Y, Zhao C. Updates in Cervical Cancer Screening Guideline, Cytologic Reporting System, and Clinical Management Recommendation. *Journal of Clinical and Translational Pathology*. 2023. In-press. PMID:
32. Cao Q, Goldenberg M, Aron M, **Wang T**[#]. Urinary bladder "melanosis": a case report and review of the literature. *Int J Surg Pathol*. 2023 April 5: 10668969231166301. PMID: 37016968
33. **Wang T**, Hicks D, Zhang H. HER2 in Uterine Serous Carcinoma: Current State and Clinical Perspectives. *American Journal of Clinical Pathology*, in-press
34. Zhong F*, **Wang T**^{*}, Li W, Zhang H, Zeng X, Geisler D, Sui L,.. Zhao C. Concurrent infections with two or multiple hrHPV in women with cervical squamous lesions: HPV type-specific attribution to the risk of CIN2+ lesions. *Journal of Infectious Disease*. Submitted.
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***Equal contribution; #Corresponding author**

Book Chapter:

Pathology of the ovary, Fallopian Tube and peritoneum, Springer, 2nd Edition, 2022

Invited Lectures, Symposia and Keynote Addresses

2017	Grand Rounds	Breast Cancer Clinical and Pathological Update Loma Linda University Pathology, CA
2018	CME Lecture	Extra-gastrointestinal Neuroectodermal Sarcoma Loma Linda University Pathology, CA
2011	Keynote	Inhibition of CaMKII Phosphorylation of RyR2 Prevents Induction of Atrial Fibrillation in FKBP12.6 Knockout Mice. American Heart Association Annual Meeting, Chicago, IL
2020	Invited Lecture	Endometrial Intraepithelial Neoplasm update. Loma Linda University Pathology Reunion, Loma Linda, CA
2020	Platform Presentation	Histologic Follow-ups in Women with ASC-US Cytology and Positive HR HPV testing by HC2, Cervista and Aptima Assay. <i>American Society for Colposcopy and Cervical Pathology Scientific Annual Meeting</i> , Orlando, FL
2022	Faculty Speaker	1st Annual USC Gynecologic Pathology Symposium: Practical Issues in Diagnosis, Keck Hospital of USC, Los Angeles, CA
2023	Faculty Speaker, Moderator	2nd Annual USC Gynecologic Pathology Symposium: Practical Issues in Diagnosis, Keck Hospital of USC, Los Angeles, CA

Abstracts and Presentations:

1. McCauley M, **Wang T**, Ather S, Li N, Bozkurt B, Wehrens X. Ca²⁺/Calmodulin dependent protein kinase II phosphorylation of RyR2 alters the force-frequency relationship in mice. *Journal of Cardiac Failure*. 17(8):S32, 2011.
2. **Wang T**, Perez M, Raza A, Choo E. Significance of Atypia in Fine Needle Aspiration of Salivary Gland Tumor with Features of Pleomorphic Adenoma, *Archives of Pathology & Laboratory Medicine*, 140 (9), pp. e50, 2016.
3. Wang J, **Wang T**, Liu Y, Greas M, Zuppan C and Rowsell E. Blastic Plasmacytoid Dendritic Cell Neoplasm Presenting as General Lymphadenopathy in 23-Year-Old Male. 32nd Congress of the International Academy of Pathology (IAP), 2018.
4. **Wang T**, Raza A, Choo E. A Rare Case of Nonsyndromic Multiple Cystic Pancreatic Neuroendocrine Tumor Diagnosed by Endoscopic Ultrasound-Guided FNA. *American Journal of Clinical Pathology*, 150, 21, 2018.
5. **Wang T**, Cobb C, Deisch J. Cerebellar Metastasis of Prostatic Ductal Adenocarcinoma, Beyond What We Know. *American Journal of Clinical Pathology*. 149, suppl1, 11, 2018.
6. **Wang T**, Denham L, Saukel W, Zuppan C. Malignant Extra-GI Neuroectodermal Tumor. *Archives of Pathology & Laboratory Medicine*, Vol. 143, No.9, pp. e43. 2019.
7. **Wang T**, Zhao C. Histological Follow-up and Aptima HPV mRNA Test Results in 468 Women with HSIL Pap test. The International Papillomavirus Society Annual Meeting 2020 (IPVS).
8. Yousef M, Tosun A, Carter G, Elishaev E, Zhao C, **Wang T**, Chennubhotla S, Fine J. Explainable Artificial Intelligence (xAI) for Safe Breast Core Biopsy Diagnosis Support. USCAP Annual Meeting, Informatics, 2020.
9. Salibay C, Chen Z, Walia S, Yung E, Elatre W, Martin S, **Wang T**[#]. Incidence of high-risk HPV (hrHPV) and follow-up in ASC-H postmenopausal Hispanic women in a County Health System. American Society for Colposcopy & Cervical Pathology (ASCCP) 2021
10. Chen Z, Salibay C, Elatre W, Naritoku W, Ma Y, Martin S, **Wang T**[#]. Breast Fine Needle Aspiration as an Initial Diagnostic Tool: Cytologic, Histologic and Radiologic Correlations in a Large County Hospital. United States and Canadian Academy of Pathology Annual Meeting (USCAP) 2021.

11. Salibay C, Chen Z, Elatre W, Martin S, **Wang T**[#]. A Large Community Hospital Experience: Does High-Risk HPV Testing Improve Accuracy in Detection of CIN2+ Lesions in ASC-H Postmenopausal Women? United States and Canadian Academy of Pathology Annual Meeting (USCAP) 2021.
12. Srivastava P, **Wang T**, Carter G, Clark B, Yu J, Fine J, Villatoro T, Rohit Bhargava. Triple Negative Breast Cancers with Low Ki-67 Proliferation Index: Clinical Pathologic Characteristics and Response to Neoadjuvant Chemotherapy. United States and Canadian Academy of Pathology Annual Meeting (USCAP) 2021.
13. Li A, **Wang T**, Matsko J, Zhao C. Aptima High-Risk HPV mRNA Assay of 939 Women with HSIL Cytology: Epidemiology and Histopathologic Outcomes. United States and Canadian Academy of Pathology Annual Meeting (USCAP) 2021.
14. Najafzadeh P, Gomez N, **Wang T**, Lee R, Walia S. Placental Evaluation in Symptomatic versus Asymptomatic Mothers with SARS-CoV-2 Infection. United States and Canadian Academy of Pathology Annual Meeting (USCAP) 2021.
15. Zanfagnin V, Lee T, Chen Z, **Wang T**, Walia S. Vaginal dermatofibrosarcoma protuberans with fibrosarcomatous changes: a case report. College of American Pathologist Annual Meeting 2021.
16. Ma B, Yung E, Naritoku W, Ma YL, **Wang T**[#]. Diagnostic Performance and Applicable Value of Lymph Node Fine Needle Aspiration Cytology in Breast Cancer Staging. United States and Canadian Academy of Pathology Annual Meeting (USCAP) 2023.