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CLINICAL OFFICE (PRIMARY)

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Bio

CLINICAL FOCUS

- Molecular Pathology
- Anatomic and Clinical Pathology

PROFESSIONAL EDUCATION

- Medical Education: Medical College of Georgia at Augusta University (2011) GA
- Board Certification, American Board of Pathology , Molecular Genetic Pathology (2022)
- Board Certification: Clinical Pathology, American Board of Pathology (2022)
- Residency: Stanford University Pathology Residency (2022) CA
- Fellowship: Stanford University Pathology Fellowships (2021) CA
- Medical Education: Emory University Medical School (2018) GA
- M.D., Emory University (2018)
- Ph.D., Georgia Institute of Technology , Biomedical Engineering (2015)
- B.S., University of California, Berkeley , Bioengineering (2009)

Publications

PUBLICATIONS

- **Potential pitfalls in multiplex PCR-based next-generation sequencing: a case-based report.** *Journal of clinical pathology*
  Tung, J. K., Devereaux, K. A., Erdmann, A. L., Schrijver, I., Zehnder, J., Suarez, C. J.
  2022

- **Detection of cryptogenic malignancies from metagenomic whole genome sequencing of body fluids.** *Genome medicine*
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- **Validation of a Next-Generation Sequencing-based T-Cell Receptor Gamma Gene Rearrangement Diagnostic Assay: Transitioning from Capillary Electrophoresis to Next-Generation Sequencing.** *The Journal of molecular diagnostics : JMD*
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2021

- **Accurate detection and quantification of FLT3 internal tandem duplications in clinical hybrid capture next-generation sequencing data.** *The Journal of molecular diagnostics : JMD*
  Tung, J. K., Suarez, C. J., Chiang, T., Zehnder, J. L., Stehr, H.
  2021

- **Improved trafficking and expression of luminopsins for more efficient optical and pharmacological control of neuronal activity.** *Journal of neuroscience research*
  Zhang, J. Y., Tung, J. K., Wang, Z., Yu, S. P., Gross, R. E., Wei, L., Berglund, K.
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- **Motoneuron activity is required for enhancements in functional recovery after peripheral nerve injury in exercised female mice.** *Journal of neuroscience research*
  Jaiswal, P. B., Tung, J. K., Gross, R. E., English, A. W.
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- **Comparison of the Accula SARS-CoV-2 Test with a Laboratory-Developed Assay for Detection of SARS-CoV-2 RNA in Clinical Nasopharyngeal Specimens.** *Journal of clinical microbiology*
  Hogan, C. A., Garamani, N. n., Lee, A. S., Tung, J. K., Sahoo, M. K., Huang, C. n., Stevens, B. n., Zehnder, J. n., Pinsky, B. A.
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- **An N-terminal BRAF deletion accounting for acquired resistance to RAF/EGFR inhibition in colorectal cancer.** *Cold Spring Harbor molecular case studies*
  Tung, J. K., Neishaboori, N. n., Haraldsdottir, S. n., Suarez, C. J.
  2020

- **Optochemogenetic Stimulation of Transplanted iPS-NPCs Enhances Neuronal Repair and Functional Recovery after Ischemic Stroke.** *The Journal of neuroscience : the official journal of the Society for Neuroscience*
  Yu, S. P., Tung, J. K., Wei, Z. Z., Chen, D., Berglund, K., Zhong, W., Zhang, J. Y., Gu, X., Song, M., Gross, R. E., Lin, S. Z., Wei, L.
  2019; 39 (33): 6571-6594

- **A Machine Learning Approach to Characterize the Modulation of the Hippocampal Rhythms Via Optogenetic Stimulation of the Medial Septum.** *International journal of neural systems*
  Park, S., Laxpati, N. G., Gutekunst, C., Connolly, M. J., Tung, J., Berglund, K., Mahmoudi, B., Gross, R. E.
  2019: 1950020

- **Impact of underfilling heparinized collection tubes on ionized calcium measurements.** *Clinica chimica acta; international journal of clinical chemistry*
  Tung, J. K., Bowen, R. A.
  2019

- **Chemically activated luminopsins allow optogenetic inhibition of distributed nodes in an epileptic network for non-invasive and multi-site suppression of seizure activity.** *Neurobiology of disease*
  Tung, J. K., Shiu, F. H., Ding, K., Gross, R. E.
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- **C3 transferase gene therapy for continuous conditional RhoA inhibition.** *Neuroscience*
  Gutekunst, C. A., Tung, J. K., McDougal, M. E., Gross, R. E.
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- **Optogenetic Approaches for Controlling Seizure Activity.** *Brain stimulation*
  Tung, J. K., Berglund, K., Gross, R. E.
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- **A therapeutic HIV-1 vaccine enhances anti-HIV-1 immune responses in patients under highly active antiretroviral therapy.** *Vaccine*
  Tung, F. Y., Tung, J. K., Pallikkuth, S., Pahwa, S., Fischl, M. A.
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- **Bioluminescence imaging in live cells and animals.** *Neurophotonics*
  Tung, J. K., Berglund, K., Gutekunst, C. A., Hochgeschwender, U., Gross, R. E.

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- **Combined Optogenetic and Chemogenetic Control of Neurons.** *Methods in molecular biology (Clifton, N.J.)*
  Berglund, K., Tung, J. K., Higashikubo, B., Gross, R. E., Moore, C. I., Hochgeschwender, U.
  2016; 1408: 207-25
- **Inhibitory luminopsins: genetically-encoded bioluminescent opsins for versatile, scalable, and hardware-independent optogenetic inhibition.** *Scientific reports*
  Tung, J. K., Gutekunst, C. A., Gross, R. E.
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- **Decreasing lactate level and increasing antibody production in Chinese Hamster Ovary cells (CHO) by reducing the expression of lactate dehydrogenase and pyruvate dehydrogenase kinases.** *Journal of biotechnology*
  Zhou, M., Crawford, Y., Ng, D., Tung, J., Pynn, A. F., Meier, A., Yuk, I. H., Vijayasankaran, N., Leach, K., Joly, J., Snedecor, B., Shen, A.
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