

WAI T. WONG

wai@tiresiasbio.com

415.336.4612

linkedin.com/in/wai-t-wong

BIOPHARMA CONSULTANT

Formulate Drug Development Strategy | Advance Research Programs at the Bench and Clinic Strategy Planning | Project Management | Data Analysis | Market Research

Clinical Trial Planning & Management | Scientific & Clinical Communication

PROFESSIONAL EXPERIENCE

TIRESIAS BIOPHARMA CONSULTING, LLC, Half Moon Bay, CA

2024 – present

Single-member consulting agency for ophthalmology biopharma drug development.

Provide consulting services covering (1) drug development strategy in ophthalmology, (2) preclinical development from concept to IND, (3) early and late phase clinical development, (4) evaluation of competitive landscape and individual programs/assets, and (5) practitioner perspective as ophthalmologist and retinal specialist. Expertise derived from >25 years of experience in eye research spanning preclinical and clinical spheres, experience as independent investigator and tenured faculty at the NIH, VP-level leader in drug development in pharma, and >20 years of experience as physician and practitioner. Highly cited author of >150 publications and expert communicator and speaker at >100 lectures. Current consulting clientele includes pharma, biotech, academic/incubator startups, venture capital.

JOHNSON AND JOHNSON (J&J), INNOVATIVE MEDICINE, Brisbane, CA

2020 – 2024

Fortune 500, US multinational, pharmaceutical, and medical technologies corporation.

Vice President (VP), Head of Retinal Discovery

2020 – 2024

Developed and executed preclinical drug development strategy for retinal diseases. Delivered drug discovery pipeline, from concept to clinical translation. Built and led preclinical scientific research team. Managed external research partnerships and KOL relationships.

- Provided scientific and strategic direction to external partnership and investment opportunities for JNJ, including guiding due-diligence activities, serving as primary in-house scientific expert in retina diseases.
 - Mentored start-up companies in JNJ incubator ecosystem (JLABS) as designated JPAL mentor / liaison.
 - Efforts supported strategic company acquisitions and investments in external partnerships for retinal indications.
- Directed new comprehensive preclinical strategy, aligned with company's R&D objectives. Identified and prioritized novel therapeutic targets and drug delivery platforms. Initiated and advanced 10+ programs on diverse platforms (small and large molecules, oligonucleotides, and gene therapy), generating multiple-modality preclinical pipeline in ophthalmology.
- Established and supervised internal cross-functional collaborations across therapeutic areas and functional teams. Advanced internal asset from different indication to clinical translation in retinal diseases. Coordinated efforts, instituting novel drug-delivery platforms for ophthalmology.
- Championed creation of intellectual property (IP) assets, including filing multiple patents, safeguarding innovations created internally in pipeline programs.
- Raised company profile and involvement in new area of retina disease. Built strong networks with scientific leaders and entrepreneurs in retina by leveraging previous experience as scientific leader and KOL, earning recognition for J&J as major pharma player in this indication space.

Interim Retina Disease Area Stronghold (DAS) Strategy Leader

2021

Oversaw all aspects of strategy generation in retina diseases, including preclinical and clinical development, external collaborations, and business development, while concurrently serving as Head of Retinal Discovery. Led Retinal DAS on formulating / presenting combined strategy to higher management, gaining approval.

NATIONAL EYE INSTITUTE (NEI), NATIONAL INSTITUTES OF HEALTH (NIH), Bethesda, MD 2005 – 2020
Primary agency of US government responsible for biomedical and public health research in eye health and vision research.

Senior Investigator, Section on Neuron-Glia Interactions in Retinal Disease 2007 – 2020
Tenured faculty in NIH intramural program and attending retinal specialist physician at NIH Clinical Center, world's largest research hospital. Member of physician-scientist faculty, leading independent translational research program and team.

- Key opinion leader (KOL) consultant and subject matter expert (SME) to large pharma, including:
 - Roche, Basel, Switzerland (2018): Invited speaker on SME workshop panel. Provided expert opinion on microglia biology and neuroinflammation in retinal diseases and guidance on preclinical ophthalmology drug development pipeline and strategy.
 - Novartis Institutes for Biomedical Research, Cambridge, MA (2019): Delivered invited lecture on retinal diseases and coached on preclinical ophthalmology drug development pipeline. Appointed to Scientific Advisory Board for Novartis Ophthalmology (did not serve).
- Recruited and led preclinical research team that generated track record of impactful articles on neuroinflammatory mechanisms underlying retinal disease. Productivity was reflected in 150+ highly cited publications in basic, translational, and clinical research in ophthalmology.
 - 14K+ citations; h-index = 66; Google Scholar <https://scholar.google.com/citations?user=39PHRdwAAAAJ&hl=en>
- Directed and supervised clinical research activities, as primary and lead investigator; oversaw design, operation, and analysis of Ph1/2 and Ph3 clinical protocols and studies. Acted as primary point person for medical monitoring, oversight, review, and interpretation of clinical trials data.
- Participated in grant review committees, as established academic leader. Organized international meetings and scientific symposia. Invited lecturer at Grand Rounds in ophthalmology departments of major institutions and delivered named lectures (100+ speaking engagements).
- Provided clinical care, as board-certified attending physician and retinal specialist, to patients with retina diseases at NIH Clinical Center for 12+ years; served as clinical preceptor in NEI Medical Retina Fellowship, supervising and training 20+ clinical retinal fellows, including current retinal specialists and KOLs in retinal field.
- Received awards, including:
 - 10th Sayer Vision Research Lecture and Award, from NEI, for research advances in vision science (2017).
 - TransAmerica Lecturership, from Department of Ophthalmology, University of California at San Francisco (UCSF), for research advances in ophthalmology (2015).
 - Young Investigator Award, from Macula Society, for advances in clinical treatment of eye disorders (2014).

Medical Retina Fellow 2005 – 2007
Obtained clinical and research training in medical retina with leaders in clinical research (Frederick Ferris, Emily Chew).

EDUCATION

Doctor of Philosophy (PhD Neuroscience), Washington University School of Medicine, St. Louis, MO

Doctor of Medicine (MD), Washington University School of Medicine, St. Louis, MO

Bachelor of Science (BS), Biology, Massachusetts Institute of Technology (MIT), Cambridge, MA

Bachelor of Science (BS), Chemical Engineering, Massachusetts Institute of Technology (MIT), Cambridge, MA

CERTIFICATION / LICENSES

Full License, Medical Physician and Surgeon, State of Pennsylvania (2005 – Present)

Diplomate, American Board of Ophthalmology (ABO) <https://abop.org/physician/?id=28915&bl=true> (2007 – Present)

PATENTS / PUBLICATIONS

Selected from 150 patents, articles and reviews / (full list referenced [Google scholar link](#))

- Emily Ying Chew, Zhiyong Lu, Tiarnan Keenan, **Wai T Wong**, Yifan Peng, Chen Qingyu, Elvira Agrón. “*Methods and systems for predicting rates of progression of age-related macular degeneration.*” US20230093471A1, filed Feb 18, 2021, patent pending.
- **Wong, Wai. T.**, Xu Wang, Lian Zhao, Wenxin Ma. “Selective estrogen-receptor modulators (SERMs) confer protection against photoreceptor degeneration.” U.S. Patent Filed: U.S. Patent Application Number PCT / US2017/046359, Filed 10 Aug 2017, issued 22 Jun 2021.
- Keenan TDL, Bailey C, Abraham M, Orndahl C, Menezes S, Bellur S, Arunachalam T, Kangale-Whitney C, Srinivas S, Karamat A, Nittala M, Cunningham D, Jeffrey BG, Wiley HE, Thavikulwat AT, Sadda S, Cukras CA, Chew EY, **Wong WT**. Phase 2 Trial Evaluating Minocycline for Geographic Atrophy in Age-Related Macular Degeneration: A Nonrandomized Controlled Trial. *JAMA Ophthalmol.* 2024; 142:345-355.
- Fleckenstein M, Keenan TDL, Guymer RH, Chakravarthy U, Schmitz-Valckenberg S, Klaver CC, **Wong WT**, Chew EY. Age-related macular degeneration. *Nat Rev Dis Primers.* 2021; 7:31.
- Silverman, SM, Ma, W, Wang, X, Zhao, L, **Wong. WT**. C3- and CR3-dependent microglial clearance protects photoreceptors in retinitis pigmentosa. *J. Exp. Med.*, 2019,216:1925-1943.
- Silverman, S. M., **Wong, W.T.** Microglia in the Retina: Roles in Development, Maturity, and Disease. *Annual Reviews in Vision Science*, 2018; 4:45-77. doi: 10.1146/annurev-vision-091517-034425.
- Zhang, Y, Zhao, L, Wang, X, Ma, W, Lazere, A, Qian, H.-h, Zhang, J, Abu-Asab, M., Fariss, R.N., Roger, J.E., **Wong, WT**. Repopulating microglia restore endogenous organization and function under CX3CL1-CX3CR1 regulation. *Science Advances*, 2018, 21;4:eaap8492.