

Stanford



Yang Sun, MD, PhD

Professor of Ophthalmology

CLINICAL OFFICE (PRIMARY)

- Stanford Byers Eye Institute

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Bio

BIO

Dr. Yang Sun MD.PhD. is a Professor of Ophthalmology at Stanford University School of Medicine. Dr. Sun is a clinician-scientist with clinical specialty in glaucoma medical and surgical management, as well as cataract surgery. He practices at both Byers Eye Institute at Stanford as well as Palo Alto VA medical center. He is the Laurie Kraus Lacob Faculty Scholar at Stanford Child Health Research Institute. Dr. Sun received his BA in Biophysics from Johns Hopkins University, followed by a MD.PhD. degree from Washington University School of Medicine. He completed Ophthalmology residency at Stanford University and a prestigious Heed fellowship at University of Michigan, Ann Arbor. He has been continuously funded by National Eye Institute and Veterans Administration. Dr. Sun's research in glaucoma has also been funded by American Glaucoma Society, Lowe Syndrome Association, Knights Templar Eye Foundation, and Matilda Ziegler Foundation. Dr. Sun holds several U.S. patents on novel regulators of eye pressure and is the primary investigator on a number of glaucoma clinical trials. He is a member of Stanford BioX faculty and he was recently elected as a member of American Society of Clinical Investigators.

Dr. Sun studies pediatric diseases of congenital glaucoma and retinal degeneration, in particular with Lowe syndrome and Joubert syndrome. In the laboratory, Dr. Sun's team uses advanced technologies of patient-based iPS cells, CRISPR gene editing, optogenetics, and functional retinal imaging to discover mechanism of disease and develop new treatments for these blinding diseases.

CLINICAL FOCUS

- Glaucoma Specialist

ACADEMIC APPOINTMENTS

- Professor - University Medical Line, Ophthalmology
- Member, Bio-X
- Member, Maternal & Child Health Research Institute (MCHRI)
- Member, Wu Tsai Neurosciences Institute

ADMINISTRATIVE APPOINTMENTS

- Vice Chair, Academic Affairs, Ophthalmology, (2022- present)

HONORS AND AWARDS

- Laurie Kraus Lacob Faculty Scholar in Pediatric Translational Medicine, Child Health Research Institute (9/2018-8/2023)
- Translational Vision Summit finalist, ARVO (2017)
- American Glaucoma Society MAPS award, AGS (2012)
- Starr Shulman Travel fellowship, California Ophthalmology Society (2009)
- Heed Fellow, Heed Ophthalmic Foundation (2009)
- William Ellis Research Prize, Washington University in St. Louis (2005)
- Spencer T Olin Fellowship, Washington University in St. Louis (2003)
- Barry Goldwater Scholarship, U.S. Congressional Goldwater Scholarship foundation (1998)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Member, International Society for Eye Research (2016 - present)
- Member, Association for Research in Vision and Ophthalmology (2008 - present)
- Member, American Academy of Ophthalmology (2009 - present)
- Member, American Glaucoma Society (2009 - present)

PROFESSIONAL EDUCATION

- Residency: Stanford University Ophthalmology Residency (2009) CA
- Fellowship: University of Michigan Dept of Ophthalmology (2010) MI
- Internship: St Louis University School of Medicine (2006) MO
- Medical Education: Washington University in St Louis Registrar (2004) MO
- Board Certification: Ophthalmology, American Board of Ophthalmology (2011)
- Board Certification, Ophthalmology, American Board of Ophthalmology (2011)
- Fellowship, University of Michigan, Ann Arbor , Glaucoma (2010)
- Internship, St. Louis University (2006)
- Residency, Stanford University (2009)
- PhD, Washington University in St. Louis , Molecular Cell Biology (2004)
- MD, Washington University in St. Louis , Medicine (2004)

PATENTS

- Yang Sun. "United States Patent 941,601 Targeting Primary Cilia in Glaucoma Treatment", Aug 30, 2016

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

We are interested in the role of inositol phosphatases in eye development and disease, using both animal models and human disease tissue. We are a translational laboratory seeking to understand the basic function of proteins as well as developing therapeutic strategies for clinical trials.

Teaching

STANFORD ADVISEES

Postdoctoral Faculty Sponsor

Siyu Chen, Zhiqian Liu, Chien Hui Lo, Veronica Ning, Qing Wang, Qi Zhang, Jingyu Zhao

Publications

PUBLICATIONS

- **Base editing correction of OCRL in Lowe syndrome: ABE-mediated functional rescue in patient-derived fibroblasts.** *Human molecular genetics*
Chen, S., Lo, C. H., Liu, Z., Wang, Q., Ning, K., Li, T., Sun, Y.
2024
- **Compartmentalized ciliation changes of oligodendrocytes in aged mouse optic nerve.** *Journal of neuroscience research*
Ning, K., Tran, M., Kowal, T. J., Mesentier-Louro, L. A., Sendayen, B. E., Wang, Q., Lo, C. H., Li, T., Majumder, R., Luo, J., Hu, Y., Liao, Y. J., Sun, et al
2024; 102 (1): e25273
- **Crosstalk between the mTOR pathway and primary cilia in human diseases.** *Current topics in developmental biology*
Prosseda, P. P., Dannewitz Prosseda, S., Tran, M., Liton, P. B., Sun, Y.
2023; 155: 1-37
- **Differential expression of PIEZO1 and PIEZO2 mechanosensitive channels in ocular tissues implicates diverse functional roles.** *Experimental eye research*
Zhu, Y., Garcia-Sanchez, J., Dalal, R., Sun, Y., Kapiloff, M. S., Goldberg, J. L., Liu, W. W.
2023: 109675
- **Unleashing the potential of CRISPR multiplexing: Harnessing Cas12 and Cas13 for precise gene modulation in eye diseases.** *Vision research*
Bigini, F., Lee, S. H., Sun, Y. J., Sun, Y., Mahajan, V. B.
2023; 213: 108317
- **RGC-specific ATF4 and/or CHOP deletion rescues glaucomatous neurodegeneration and visual function.** *Molecular therapy. Nucleic acids*
Fang, F., Liu, P., Huang, H., Feng, X., Li, L., Sun, Y., Kaufman, R. J., Hu, Y.
2023; 33: 286-295
- **Comparison of Ophthalmologist and Large Language Model Chatbot Responses to Online Patient Eye Care Questions.** *JAMA network open*
Bernstein, I. A., Zhang, Y. V., Govil, D., Majid, I., Chang, R. T., Sun, Y., Shue, A., Chou, J. C., Schehlein, E., Christopher, K. L., Groth, S. L., Ludwig, C., Wang, et al
2023; 6 (8): e2330320
- **Shear stress induces autophagy in Schlemm's canal cells via primary cilia-mediated SMAD2/3 signaling pathway.** *Autophagy reports*
Shim, M. S., Dixon, A., Nettesheim, A., Perkumas, K. M., Stamer, W. D., Sun, Y., Liton, P. B.
2023; 2 (1)
- **Differential effects of SARM1 inhibition in traumatic glaucoma and EAE optic neuropathies.** *Molecular therapy. Nucleic acids*
Liu, P., Chen, W., Jiang, H., Huang, H., Liu, L., Fang, F., Li, L., Feng, X., Liu, D., Dalal, R., Sun, Y., Jafar-Nejad, P., Ling, et al
2023; 32: 13-27
- **Hardwiring tissue-specific AAV transduction in mice through engineered receptor expression.** *Nature methods*
Zengel, J., Wang, Y. X., Seo, J. W., Ning, K., Hamilton, J. N., Wu, B., Raie, M., Holbrook, C., Su, S., Clements, D. R., Pillay, S., Puschnik, A. S., Winslow, et al
2023
- **Effect of Brimonidine on Retinal Ganglion Cell Function by in vivo Calcium Imaging in Glaucoma Mice Model**
Li, T., Wang, Q., Lo, C., Ning, K., Majumder, R., Sun, Y.
ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2023
- **Safety and Target Engagement of Complement C1q Inhibitor ANX007 in Neurodegenerative Eye Disease: Results from Phase I Studies in Glaucoma.** *Ophthalmology science*
Sun, Y., Wirta, D., Murahashi, W., Mathur, V., Sankaranarayanan, S., Taylor, L. K., Yednock, T., Fong, D. S., Goldberg, J. L.
2023; 3 (2): 100290
- **Schlemm's canal cell induces autophagy in response to shear stress via primary cilia-mediated SMAD2/3 signaling pathway**
Sim, M., Dixon, A., Nettesheim, A., Perkumas, K., Stamer, W., Sun, Y., Liton, P.
ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2023
- **Cilia-associated wound repair mediated by IFT88 in retinal pigment epithelium.** *Scientific reports*

- Ning, K., Bhuckory, M. B., Lo, C. H., Sendayen, B. E., Kowal, T. J., Chen, M., Bansal, R., Chang, K. C., Vollrath, D., Berbari, N. F., Mahajan, V. B., Hu, Y., Sun, et al
2023; 13 (1): 8205
- **Glaucoma and Myopia: Diagnostic Challenges.** *Biomolecules*
Sun, M. T., Tran, M., Singh, K., Chang, R., Wang, H., Sun, Y.
2023; 13 (3)
 - **Gonioscopy-assisted transluminal trabeculotomy for open-angle glaucoma with failed incisional glaucoma surgery: two-year results.** *BMC ophthalmology*
Wang, Y., Zhang, W., Xin, C., Sang, J., Sun, Y., Wang, H.
2023; 23 (1): 89
 - **Influence of Age, Gender, and Wait-Times On Public Online Ratings of Glaucoma Physicians in the United States.** *Journal of glaucoma*
Kim, J. Y., Francisco, R., Wang, J., Liu, J. J., Stephenson, N. J., Khalil, C. B., Kim, D. H., Nguyen, A. X., Youn, G. M., Sun, Y., Wu, A. Y.
2023
 - **Characterization of Primary Cilia Formation in Human ESC-Derived Retinal Organoids.** *Stem cells international*
Ning, K., Luo, Z., Kowal, T. J., Tran, M., Majumder, R., Jarin, T. M., Wu, A. Y., Goldberg, J. L., Sun, Y.
2023; 2023: 6494486
 - **Cellular and subcellular optogenetic approaches towards neuroprotection and vision restoration.** *Progress in retinal and eye research*
Wood, E. H., Kreymerman, A., Kowal, T., Buickians, D., Sun, Y., Muscat, S., Mercola, M., Moshfeghi, D. M., Goldberg, J. L.
2022; 101153
 - **Longitudinal in vivo Ca²⁺ imaging reveals dynamic activity changes of diseased retinal ganglion cells at the single-cell level.** *Proceedings of the National Academy of Sciences of the United States of America*
Li, L., Feng, X., Fang, F., Miller, D. A., Zhang, S., Zhuang, P., Huang, H., Liu, P., Liu, J., Sredar, N., Liu, L., Sun, Y., Duan, et al
2022; 119 (48): e2206829119
 - **Epigenetics in glaucoma: a link between DNA methylation and neurodegeneration.** *The Journal of clinical investigation*
Liu, W. W., Sun, Y.
2022; 132 (21)
 - **Clinical characteristics of high myopia in female carriers of pathogenic RPGR mutations: a case series and review of the literature.** *Ophthalmic genetics*
Tran, M., Kolesnikova, M., Kim, A. H., Kowal, T., Ning, K., Mahajan, V. B., Tsang, S. H., Sun, Y.
2022: 1-9
 - **Structural and Metabolic Imaging after Short-term Use of the Balance Goggles System in Glaucoma Patients: A Pilot Study.** *Journal of glaucoma*
Sun, M. T., Beykin, G., Lee, W. S., Sun, Y., Chang, R., Nunez, M., Li, K. Z., Knasel, C., Rich, C., Goldberg, J. L.
2022
 - **Loss of Cilia in Uveal Melanoma: Implications for Diagnosis**
Heiferman, M., Ning, K., Song, E., Kowal, T., Dryden, I., Tran, M., Dalal, R., Chu, P., Mruthyunjaya, P., Lin, J., Sun, Y.
ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2022
 - **Distribution Of Primary Cilia In hESC-Derived Retinal Organoid**
Jarin, T., Ning, K., Luo, Z., Kowal, T., Li, B., Hu, Y., Wu, A. Y., Goldberg, J. L., Sun, Y.
ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2022
 - **NMNAT2 and NAD(+) are Downregulated in Glaucomatous RGCs and Overexpression of NMNAT2 Rescues Glaucomatous Neurodegeneration**
Liu, D., Fang, F., Zhuang, P., Feng, X., Liu, P., Huang, H., Li, L., Chen, W., Liu, L., Sun, Y., Jiang, H., Ye, J., Hu, et al
ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2022
 - **Neuroprotection of SARM1 Inhibition in Traumatic and Glaucomatous but not in EAE Optic Neuropathies**
Liu, P., Huang, H., Chen, W., Fang, F., Li, L., Feng, X., Liu, L., Liu, D., Dalal, R., Sun, Y., Ling, K., Rigo, F., Hu, et al
ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2022
 - **Defective Microtubule-Based Transporters Alter Basal mTORC1 And Akt Signaling in Lowe Syndrome Patient-Derived Cells**
Wang, Q., Wang, B., Kowal, T., Hu, Y., Sun, Y.
ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2022

- **Differences in primary cilia amongst retinal ganglion cell subtypes**

Kowal, T., Dhande, O., Ning, K., Wang, B., Wang, Q., Liu, W., Berbari, N., Hu, Y., Sun, Y.
ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2022

- **In Vivo Evaluation of Naive and Diseased RGC Activities at Single-Cell Level**

Li, L., Fang, F., Feng, X., Zhang, S., Miller, D., Zhuang, P., Huang, H., Liu, P., Liu, J., Sredar, N., Liu, L., Sun, Y., Duan, et al
ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2022

- **Increased ciliary length of oligodendrocytes in anterior optic nerve with ageing**

Tran, M., Ning, K., Kowal, T., Majumder, R., Wang, Q., Hu, Y., Liao, Y., Sun, Y.
ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2022

- **Age-Associated Changes in Astrocytes Cilia of Mouse Retina and Optic Nerve**

Majumder, R., Ning, K., Kowal, T., Wang, Q., Tran, M., Wang, B., Hu, Y., Liao, Y., Sun, Y.
ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2022

- **IFT88 Mediates Cilia-Associated Wound Repair in Retinal Pigment Epithelium**

Ning, K., Bhuckory, M., Kowal, T., Chen, M., Bansal, R., Palanker, D. V., Vollrath, D., Berbari, N., Mahajan, V. B., Hu, Y., Sun, Y.
ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2022

- **Distribution of prototypical primary cilia markers in subtypes of retinal ganglion cells. *The Journal of comparative neurology***

Kowal, T. J., Dhande, O. S., Wang, B., Wang, Q., Ning, K., Liu, W., Berbari, N. F., Hu, Y., Sun, Y.
2022

- **Advances in Ophthalmic Optogenetics: Approaches and Applications. *Biomolecules***

Prosseda, P. P., Tran, M., Kowal, T., Wang, B., Sun, Y.
2022; 12 (2)

- **Consensus Recommendation for Mouse Models of Ocular Hypertension to Study Aqueous Humor Outflow and Its Mechanisms. *Investigative ophthalmology & visual science***

McDowell, C. M., Kizhatil, K., Elliott, M. H., Overby, D. R., van Batenburg-Sherwood, J., Millar, J. C., Kuehn, M. H., Zode, G., Acott, T. S., Anderson, M. G., Bhattacharya, S. K., Bertrand, J. A., Borras, et al
2022; 63 (2): 12

- **MNAT2 Is Downregulated in Glaucomatous RGCs and RGC-Specific Gene Therapy Rescues Neurodegeneration and Visual Function. *Molecular therapy : the journal of the American Society of Gene Therapy***

Fang, F., Zhuang, P., Feng, X., Liu, P., Liu, D., Huang, H., Li, L., Chen, W., Liu, L., Sun, Y., Jiang, H., Ye, J., Hu, et al
1800

- **Drug delivery to the anterior segment of the eye: a review of current and future treatment strategies. *International journal of pharmaceutics***

Mofidfar, M., Abdi, B., Ahadian, S., Mostafavi, E., Desai, T. A., Abbasi, F., Sun, Y., Manche, E. E., Ta, C. N., Flowers, C. W.
2021: 120924

- **Primary Cilia in Amacrine Cells in Retinal Development. *Investigative ophthalmology & visual science***

Ning, K., Sendayen, B. E., Kowal, T. J., Wang, B., Jones, B. W., Hu, Y., Sun, Y.
2021; 62 (9): 15

- **Gender Gap in the Award Recipients of the Association for Research in Vision and Ophthalmology**

Ratan, S., Anne Xuan-Lan Nguyen, Biyani, A., Trinh, X., Sun, Y., Saleh, S., Wu, A.
ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2021

- **OCRL regulates lysosome positioning and mTORC1 activity through SSX2IP-mediated microtubule anchoring. *EMBO reports***

Wang, B., He, W., Prosseda, P. P., Li, L., Kowal, T. J., Alvarado, J. A., Wang, Q., Hu, Y., Sun, Y.
2021: e52173

- **Optogenetic Modulation of Intraocular Pressure in a Glucocorticoid-Induced Ocular Hypertension Mouse Model. *Translational vision science & technology***

Kowal, T. J., Prosseda, P. P., Ning, K., Wang, B., Alvarado, J., Sendayen, B. E., Jabbehdari, S., Stamer, W. D., Hu, Y., Sun, Y.
2021; 10 (6): 10

- **Optogenetic Modulation of Intraocular Pressure in a Glucocorticoid-Induced Ocular Hypertension Mouse Model *TRANSLATIONAL VISION SCIENCE & TECHNOLOGY***

Kowal, T. J., Prosseda, P. P., Ning, K., Wang, B., Alvarado, J., Sendayen, B. E., Jabbehdari, S., Stamer, W., Hu, Y., Sun, Y.
2021; 10 (6)

- **Chronic mild and acute severe glaucomatous neurodegeneration derived from silicone oil-induced ocular hypertension.** *Scientific reports*
Fang, F., Zhang, J., Zhuang, P., Liu, P., Li, L., Huang, H., Webber, H. C., Xu, Y., Liu, L., Dalal, R., Sun, Y., Hu, Y.
2021; 11 (1): 9052

- **Ab Interno vs. Ab Externo Microcatheter-Assisted Circumferential Trabeculotomy in Treating Patients With Primary Open-Angle Glaucoma.** *Frontiers in medicine*
Zhang, W., Wang, Y., Xin, C., Sun, Y., Cao, K., Wang, H., Wang, N.
1800; 8: 795172

- **Gender of Award Recipients in Major Ophthalmology Societies.** *American journal of ophthalmology*
Nguyen, A. X., Ratan, S., Biyani, A., Trinh, X. V., Saleh, S., Sun, Y., Wu, A. Y.
2021

- **Neuronal NMNAT2 Overexpression Does Not Achieve Significant Neuroprotection in Experimental Autoimmune Encephalomyelitis/Optic Neuritis.** *Frontiers in cellular neuroscience*
Liu, P., Huang, H., Fang, F., Liu, L., Li, L., Feng, X., Chen, W., Dalal, R., Sun, Y., Hu, Y.
2021; 15: 754651

- **An Open-Label Phase Ib Study to Evaluate Retinal Imaging After Short-term Use of the Balance Goggles System (BGS) in Patients with Glaucoma**
Li, Z., Knasel, C., Nunez, M., Beykin, G., Goldstein, A., Fisher, A. C., Singh, K., Sun, Y., Chang, R. T., Lee, W., Goldberg, J.
ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2020

- **Comparison of Virtual Reality (PalmScan VF2000) Visual Fields Analyzer with Humphrey Visual Field in Glaucoma Patients**
Tran, E., Wan, L., Yan, W., Sun, Y., Chang, R.
ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2020

- **Optogenetic stimulation of phosphoinositides reveals a critical role of primary cilia in eye pressure regulation.** *Science advances*
Prosseda, P. P., Alvarado, J. A., Wang, B., Kowal, T. J., Ning, K., Stamer, W. D., Hu, Y., Sun, Y.
2020; 6 (18): eaay8699

- **Optogenetic stimulation of phosphoinositides reveals a critical role of primary cilia in eye pressure regulation** *SCIENCE ADVANCES*
Prosseda, P. P., Alvarado, J. A., Wang, B., Kowal, T. J., Ning, K., Stamer, W., Hu, Y., Sun, Y.
2020; 6 (18)

- **Defective INPP5E distribution in NPHP1-related Senior-Loken syndrome.** *Molecular genetics & genomic medicine*
Ning, K. n., Song, E. n., Sendayen, B. E., Prosseda, P. P., Chang, K. C., Ghaffarieh, A. n., Alvarado, J. A., Wang, B. n., Haider, K. M., Berbari, N. F., Hu, Y. n., Sun, Y. n.
2020: e1566

- **Mouse gamma-Synuclein Promoter-Mediated Gene Expression and Editing in Mammalian Retinal Ganglion Cells.** *The Journal of neuroscience : the official journal of the Society for Neuroscience*
Wang, Q. n., Zhuang, P. S., Huang, H. n., Li, L. n., Liu, L. n., Webber, H. C., Dalal, R. n., Siew, L. n., Fligor, C. M., Chang, K. C., Nahmou, M. n., Kreymerman, A. n., Sun, et al
2020

- **Oculocerebrorenal syndrome of Lowe: Survey of ophthalmic presentations and management.** *European journal of ophthalmology*
Ma, X. n., Ning, K. n., Jabbehdari, S. n., Prosseda, P. P., Hu, Y. n., Shue, A. n., Lambert, S. R., Sun, Y. n.
2020: 1120672120920544

- **Longitudinal Morphological and Functional Assessment of RGC Neurodegeneration After Optic Nerve Crush in Mouse.** *Frontiers in cellular neuroscience*
Li, L. n., Huang, H. n., Fang, F. n., Liu, L. n., Sun, Y. n., Hu, Y. n.
2020; 14: 109

- **Developmental Distribution of Primary Cilia in the Retinofugal Visual Pathway.** *The Journal of comparative neurology*
Alvarado, J. A., Dhande, O. S., Prosseda, P. P., Kowal, T. J., Ning, K. n., Jabbehdari, S. n., Hu, Y. n., Sun, Y. n.
2020

- **A Reversible Silicon Oil-Induced Ocular Hypertension Model in Mice.** *Journal of visualized experiments : JoVE*

Zhang, J., Fang, F., Li, L., Huang, H., Webber, H. C., Sun, Y., Mahajan, V. B., Hu, Y.
2019

● **A novel inducible and reversible mouse glaucoma model: Silicone Oil-Induced Ocular Hypertension Under-detected (SOHU)**

Zhang, J., Li, L., Huang, H., Webber, H., Li, S., Tang, P., Mahajan, V. B., Sun, Y., Zhang, M., Hu, Y.
ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2019

● **Neuroprotection of Retinal Ganglion Cells by AAV2-gamma-Synuclein Promoter-Mediated CRISPR/Cas9 Gene Editing**

Li, L., Wang, Q., Huang, H., Sun, Y., Goldberg, J. L., Hu, Y.
ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2019

● **The Role of Phosphoinositides in Aqueous Humor Dynamics via Optogenetic Stimulation in the Trabecular Meshwork**

Alvarado, J., Prosseda, P., Ning, K., Kowal, T., Wang, B., Hu, Y., Sun, Y.
ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2019

● **Role of inositol phosphatase OCRL in microtubule nucleation: Implications for Oculocerebrorenal Syndrome of Lowe**

Kowal, T., Wang, B., Prosseda, P., Alvarado, J., He, W., Ning, K., Hu, Y., Sun, Y.
ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2019

● **Characterization of primary cilia in mouse retina during retinal development**

Ning, K., Kowal, T., Chang, K., Alvarado, J., Silva, R., Kreymerman, A., Mahajan, V. B., Hu, Y., Sun, Y.
ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2019

● **Oculocerebrorenal Syndrome of Lowe: Characterizations of Ocular Presentation and Management**

Ma, X., Ning, K., Kowal, T., Sun, Y.
ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2019

● **Ocular and systemic presentations of phosphoinositide signaling defects**

Sun, Y.
ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2019

● **Silicone oil-induced ocular hypertension and glaucomatous neurodegeneration in mouse *eLIFE***

Zhang, J., Li, L., Huang, H., Fang, F., Webber, H. C., Zhuang, P., Liu, L., Dalal, R., Tang, P. H., Mahajan, V. B., Sun, Y., Li, S., Zhang, et al
2019; 8

● **Silicone oil-induced ocular hypertension and glaucomatous neurodegeneration in mouse. *eLife***

Zhang, J., Li, L., Huang, H., Fang, F., Webber, H. C., Zhuang, P., Liu, L., Dalal, R., Tang, P. H., Mahajan, V. B., Sun, Y., Li, S., Zhang, et al
2019; 8

● **AKT-dependent and -independent pathways mediate PTEN deletion-induced CNS axon regeneration. *Cell death & disease***

Huang, H., Miao, L., Yang, L., Liang, F., Wang, Q., Zhuang, P., Sun, Y., Hu, Y.
2019; 10 (3): 203

● **AKT-dependent and -independent pathways mediate PTEN deletion-induced CNS axon regeneration *CELL DEATH & DISEASE***

Huang, H., Miao, L., Yang, L., Liang, F., Wang, Q., Zhuang, P., Sun, Y., Hu, Y.
2019; 10

● **Review of Ocular Manifestations of Joubert Syndrome. *Genes***

Wang, S. F., Kowal, T. J., Ning, K., Koo, E. B., Wu, A. Y., Mahajan, V. B., Sun, Y.
2018; 9 (12)

● **Considerations for ophthalmic applications of optogenetics *ACTA OPHTHALMOLOGICA***

Wood, E. H., Kreymerman, A., Sun, Y., Drenser, K. A., Trese, M. T.
2018; 96 (8): E1037

● **Review of Ocular Manifestations of Joubert Syndrome *GENES***

Wang, S. F., Kowal, T. J., Ning, K., Koo, E. B., Wu, A. Y., Mahajan, V. B., Sun, Y.
2018; 9 (12)

● **Coordination of Necessary and Permissive Signals by PTEN Inhibition for CNS Axon Regeneration *FRONTIERS IN NEUROSCIENCE***

Zhang, J., Yang, D., Huang, H., Sun, Y., Hu, Y.

2018; 12

● **Coordination of Necessary and Permissive Signals by PTEN Inhibition for CNS Axon Regeneration.** *Frontiers in neuroscience*

Zhang, J., Yang, D., Huang, H., Sun, Y., Hu, Y.

2018; 12: 558

● **The role of inositol phosphatase OCRL in microtubule nucleation: Implications for Oculocerebrorenal Syndrome of Lowe**

Wang, B., Prosseda, P. P., He, W., Kowal, T., Alvarado, J. A., Ning, K., Sun, Y.

ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2018

● **Ocular and renal phenotypes of NPHP1 deletion in Senior Loken syndrome**

Ning, K., Song, E., Haider, K. M., Ghaffarieh, A., Alvarado, J. A., Sun, Y.

ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2018

● **Optogenetic Regulation of Aqueous Outflow in Mouse Trabecular Meshwork**

Alvarado, J. A., Prosseda, P. P., Luo, N., Wang, B., Ning, K., He, W., Kowal, T., Sun, Y.

ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2018

● **Single particle tracking of nicotinic acetylcholine receptors (AChRs): implication for the pathogenesis of ocular myasthenia gravis (MG)**

He, W., Sun, Y.

ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2018

● **Intraluminal Deposits Found in Glaucoma Tube Shunts Via Anterior Segment Ocular Coherence Tomography** *JOURNAL OF GLAUCOMA*

Alvarado, J. A., Srivastava, V., Sun, Y.

2018; 27 (3): E68–E71

● **Proteomic analysis of the human retina reveals region-specific susceptibilities to metabolic-and oxidative stress-related diseases** *PLOS ONE*

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