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, 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

- Standing member, RRD3 VA Study Section (2025 - present)
- Standing member, Pathophysiology of Eye Diseases 1 NIH/NEI Study Section (2022 - present)
- Elected Member, American Society of Clinical Investigators (2019 - present)
- Elected member, American Ophthalmologic Association (2026 - present)
- 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

- Medical Education: Washington University in St Louis School of Medicine (2004) MO
- 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
- 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, Faruk Hossen, Zhiquan Liu, Grzegorz Walkiewicz, Wenmin Wang, Fan Zhang

Publications

PUBLICATIONS

- **TIGRa: An ultra-compact programmable activator enabling multiplexed and efficient gene regulation.** *Cell stem cell*
  Liu, Z., Chen, S., Wang, W., Zhang, F., Wang, Q., Walkiewicz, G., Hossen, F., Zhou, J., Wang, Y., Sun, Y.
  2026
- **Modeling of Lowe patient-derived induced pluripotent stem cells into trabecular meshwork.** *American journal of ophthalmology*
  Sun, Y., Kowal, T. J., Shen, Y., Zhao, J., Wang, B., Lo, C. H., Lachman, H. M.
  2026
- **Toward a universal neuroprotective strategy for vision preservation.** *Molecular therapy : the journal of the American Society of Gene Therapy*
  Liu, Z., Chen, S., Sun, Y.
  2026
- **Compact transcriptional activators: Therapeutic gene regulation in ocular disease.** *Neural regeneration research*
  Liu, Z., Chuu, L. Y., Chen, S., Sun, Y.
  2026
- **Matrine Reduces Intraocular Pressure in Corticosteroid-Induced Ocular Hypertensive Mouse Eyes.** *Investigative ophthalmology & visual science*
  Zhang, Q., Liu, Z., Chen, S., Wang, Q., Lo, C. H., Ning, K., Zhao, J., Shen, Y., Liton, P. B., Sun, Y.
  2025; 66 (11): 18
- **Precise Correction of the Pde6b-L659P Mutation Causing Retinal Degeneration with Minimum Bystander Editing by Advanced Genome Editing Tools.** *Research (Washington, D.C.)*
  Liu, Z., Chen, S., Sun, Y.
  2025; 8: 0770
- **Pathophysiology of intraoperative floppy iris syndrome: An unsettled debate.** *Survey of ophthalmology*
  Shen, Y., Frauches, R., Zhao, J., Lo, C. H., Ning, K., Chen, S., Liu, Z., Zhang, F., Sun, Y.
  2025
- **Matrine Reduces Intraocular Pressure in Corticosteroid-induced Ocular Hypertensive Mouse Eyes**
  Shen, Y., Zhang, Q., Liu, Z., Chen, S., Wang, Q., Lo, C., Ning, K., Zhao, J., Liton, P. B., Sun, Y.
  ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2025
- **Gene therapy for ocular hypertension using hfCas13d-mediated mRNA targeting.** *PNAS nexus*
  Chen, S., Liu, Z., Lo, C. H., Wang, Q., Ning, K., Zhang, Q., Zhao, J., Shen, Y., Sun, Y.
  2025; 4 (6): pgaf168
- **Precise Correction of the Pde6b-L659P Mutation Causing Retinal Degeneration via Base and Prime Editing**
  Liu, Z., Chen, S., Zhao, J., Sun, Y.
  CELL PRESS.2025
- **Effect of Brimonidine on Retinal Ganglion Cell Function by in vivo Calcium Imaging of Optic Nerve Crush in Mice.** *Experimental eye research*
  Li, T., Kowal, T. J., Zhao, J., Li, L., Wang, Q., Ning, K., Lo, C. H., Liu, Z., Shen, Y., Yu, J., Jin, H., Sun, Y.
  2025: 110355
- **Class I PI3Ks activate stretch-induced autophagy in trabecular meshwork cells.** *Cellular and molecular life sciences : CMLS*

Shim, M. S., Sim, E. J., Betsch, K., Desikan, V., Su, C. C., Pastor-Valverde, D., Sun, Y., Liton, P. B.
2025; 82 (1): 82

- **Optineurin-facilitated axonal mitochondria delivery promotes neuroprotection and axon regeneration.** *Nature communications*
  Liu, D., Webber, H. C., Bian, F., Xu, Y., Prakash, M., Feng, X., Yang, M., Yang, H., You, I. J., Li, L., Liu, L., Liu, P., Huang, et al
  2025; 16 (1): 1789
- **dCasMINI-mediated therapy rescues photoreceptors degeneration in a mouse model of retinitis pigmentosa.** *Science advances*
  Wang, Q., Xu, X., Chen, S., Lu, R., Li, L., Lo, C. H., Liu, Z., Ning, K., Li, T., Kowal, T. J., Wang, B., Hartnett, M. E., Wang, et al
  2024; 10 (51): eadn7540
- **Consensus Recommendations for Studies of Outflow Facility and Intraocular Pressure Regulation Using Ex Vivo Perfusion Approaches.** *Investigative ophthalmology & visual science*
  Acott, T. S., Fautsch, M. P., Mao, W., Ethier, C. R., Huang, A. S., Kelley, M. J., Aga, M., Bhattacharya, S. K., Borras, T., Bovenkamp, D., Chowdhury, U. R., Clark, A. F., Dibas, et al
  2024; 65 (14): 32
- **All-in-one AAV-mediated Nrl gene inactivation rescues retinal degeneration in Pde6a mice.** *JCI insight*
  Liu, Z., Chen, S., Lo, C. H., Wang, Q., Sun, Y.
  2024
- **Defective Neurogenesis in Lowe Syndrome is Caused by Mitochondria Loss and Cilia-related Sonic Hedgehog Defects.** *bioRxiv : the preprint server for biology*
  Lo, C. H., Chen, S., Zhao, J., Liu, Z., Wang, B., Wang, Q., Kowal, T. J., Sun, Y.
  2024
- **Efficient Rescue of Retinal Degeneration in Pde6a Mice by Engineered Base Editing and Prime Editing.** *Advanced science (Weinheim, Baden-Wurttemberg, Germany)*
  Liu, Z., Chen, S., Davis, A. E., Lo, C. H., Wang, Q., Li, T., Ning, K., Zhang, Q., Zhao, J., Wang, S., Sun, Y.
  2024: e2405628
- **Development of electronic health record based algorithms to identify individuals with diabetic retinopathy.** *Journal of the American Medical Informatics Association : JAMIA*
  Breeyear, J. H., Mitchell, S. L., Nealon, C. L., Hellwege, J. N., Charest, B., Khakharia, A., Halladay, C. W., Yang, J., Garriga, G. A., Wilson, O. D., Basnet, T. B., Hung, A. M., Reaven, et al
  2024
- **Primary cilia formation requires the Leigh syndrome-associated mitochondrial protein NDUFAF2.** *The Journal of clinical investigation*
  Lo, C. H., Liu, Z., Chen, S., Lin, F., Berneshawi, A. R., Yu, C. Q., Koo, E. B., Kowal, T. J., Ning, K., Hu, Y., Wang, W. J., Liao, Y. J., Sun, et al
  2024; 134 (13)
- **Adaptive selection at G6PD and disparities in diabetes complications.** *Nature medicine*
  Breeyear, J. H., Hellwege, J. N., Schroeder, P. H., House, J. S., Poisner, H. M., Mitchell, S. L., Charest, B., Khakharia, A., Basnet, T. B., Halladay, C. W., Reaven, P. D., Meigs, J. B., Rhee, et al
  2024
- **Comparing a Head-Mounted Smartphone Visual Field Analyzer to Standard Automated Perimetry in Glaucoma: A Prospective Study.** *Journal of glaucoma*
  Wang, S. K., Tran, E. M., Yan, W., Kosaraju, R., Sun, Y., Chang, R. T.
  2024
- **Gene Therapy for Glaucoma using CRISPR/Cas13d in mice**
  Chen, S., Liu, Z., Lo, C., Sun, Y.
  ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2024
- **Employing plasmid-based CRISPR-hyperdCas12, CasRx, and prime editing systems for in vivo gene manipulation in the mouse retina**
  Li, L., Hamed, L., Liu, Z., Deng, B., Sun, Y., Wang, S.
  ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2024
- **Expression of PIEZO1 and PIEZO2 Mechanosensitive Ion Channels in the Ocular Anterior Segment.**
  Garcia-Sanchez, J., Zhu, Y., Dalal, R., Sun, Y., Kapiloff, M., Goldberg, J., Liu, W. W.

ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2024

- **Efficient prevention of retinal degeneration in Pde6a mice by all-inone AAV-mediated Nrl gene editing**
  Liu, Z., Chen, S., Lo, C., Wang, Q., Sun, Y.
  ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2024
- **Optineurin-facilitated axonal mitochondria delivery promotes neuroprotection and axon regeneration.** *bioRxiv : the preprint server for biology*
  Liu, D., Webber, H. C., Bian, F., Xu, Y., Prakash, M., Feng, X., Yang, M., Yang, H., You, I., Li, L., Liu, L., Liu, P., Huang, et al
  2024
- **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
- **NMNAT2 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.
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