



## Mohajeet Balveer Bhuckory

Instructor, Ophthalmology

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### Bio

#### ACADEMIC APPOINTMENTS

- Instructor, Ophthalmology

#### Publications

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#### PUBLICATIONS

- **Reversible isomerization of rhodopsin imaged in a living eye with phase-sensitive OCT**  
Zhuo, Y., Li, H., Bhuckory, M., Palanker, D.  
ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2025
- **Response of the degenerate retina to electrical stimulation is affected by residual photoreceptors**  
Ly, K., Pham-Howard, D., Bhuckory, M., Goldstein, A., Jensen, N., Palanker, D.  
ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2025
- **Scaffold on photovoltaic prosthesis replicates the human subretinal debris layer for preclinical studies in rats**  
Bhuckory, M., Shin, A., Ly, K., Mamchik, V., Jensen, N., Devaud, Q., Pham-Howard, D., Goldstein, A., Palanker, D.  
ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2025
- **Retinal thermal deformations measured with phase-sensitive optical coherence tomography in vivo.** *Light, science & applications*  
Zhuo, Y., Bhuckory, M., Li, H., Hattori, J., Pham-Howard, D., Veysset, D., Ling, T., Palanker, D.  
2025; 14 (1): 151
- **Enhancing prosthetic vision by upgrade of a subretinal photovoltaic implant in situ.** *Nature communications*  
Bhuckory, M. B., Monkongpitukkul, N., Shin, A., Kochnev Goldstein, A., Jensen, N., Shah, S. V., Pham-Howard, D., Butt, E., Dalal, R., Galambos, L., Mathieson, K., Kamins, T., Palanker, et al  
2025; 16 (1): 2820
- **3D electronic implants in subretinal space: Long-term follow-up in rodents.** *Biomaterials*  
Bhuckory, M. B., Wang, B. Y., Chen, Z. C., Shin, A., Pham-Howard, D., Shah, S., Monkongpitukkul, N., Galambos, L., Kamins, T., Mathieson, K., Palanker, D.  
2024; 311: 122674
- **On selectivity of neural stimulation with subretinal photovoltaic implants**  
Goldstein, A., Jensen, N., Wang, B., Bhuckory, M., Palanker, D. V.  
ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2024
- **Transcriptional and Translational Profiling of Reactive Muller Glia Following Cell-type specific Retinal Injury**  
Ashouri, M., Bhuckory, M., Xia, X., Nahmou, M., Tsien, C., Huie, E., Li, B., Cameron, E., Wang, S., Palanker, D. V., Goldberg, J.  
ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2024
- **Mapping the retinal resistivity with electrical impedance tomography for modeling of retinal stimulation**

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- Shah, S., Goldstein, A., Chen, Z., Vasireddy, P., Bhuckory, M., Palanker, D. V.  
ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2024
- **Replacement of a subretinal prosthesis with a higher-resolution array improves grating acuity in the same animal**  
Bhuckory, M., Monkongpitukkul, N., Shin, A., Goldstein, A., Shah, S., Pham-Howard, D., Dalal, R., Galambos, L., Kamins, T., Palanker, D. V.  
ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2024
  - **Long-term integration of the retina with 3D implants: structure and function**  
Wang, B., Bhuckory, M., Chen, Z., Shin, A., Galambos, L., Mathieson, K., Kamins, T., Palanker, D. V.  
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
  - **Retinal absorption measurements for laser therapy through interferometric imaging of the thermal expansion**  
Veysset, D., Zhuo, Y., Hattori, J., Bhuckory, M., Pandiyan, V., Sabesan, R., Palanker, D. V.  
ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2022
  - **3-dimensional subretinal prosthesis with single-cell resolution**  
Bhuckory, M., Chen, Z., Shin, A., Wang, B., Galambos, L., Kamins, T., Palanker, D. V.  
ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2022
  - **Retinal integration with a subretinal honeycomb-shaped prosthesis**  
Bhuckory, M., Chen, Z., Wang, B., Huang, T., Galambos, L., Shin, A., Kamins, T., Palanker, D. V.  
ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2021
  - **Dynamic Transcriptional and Translational Profiling of Reactive Muller Glia Following Retinal Injury**  
Ashouri, M., Bhuckory, M., Nahmou, M., Hay, S., Knasel, C. M., Cameron, E. G., Wang, S., Palanker, D. V., Goldberg, J. L.  
ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2021
  - **Optically configurable confinement of electric field with photovoltaic retinal prosthesis**  
Chen, Z., Wang, B., Bhuckory, M., Huang, T., Galambos, L., Mathieson, K., Kamins, T., Palanker, D. V.  
ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2021
  - **Subretinal monopolar photovoltaic arrays provide pixel size-independent stimulation threshold and 40  $\mu$  m resolution under spatiotemporal modulation**  
Wang, B., Bhuckory, M., Chen, Z., Huang, T., Galambos, L., Mathieson, K., Kamins, T., Palanker, D. V.  
ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2021
  - **Titration for selective RPE therapy using a continuous line scanning laser**  
Bhuckory, M., Flores, T., Shao, X., Dalal, R., Palanker, D. V.  
ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2019