



Charles William Ryan

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Bio

BIO

I was born and raised in Syracuse, New York. I first attended Onondaga Community College, where I developed a fascination with the development of complex biological systems, and then transferred to Syracuse University where I completed my B.S. in biochemistry. I next attended the University of Michigan MD/PhD program, where I used in-vitro models of human neurodevelopment to study the role of epigenetic marks in guiding neurogenesis. While at Michigan, I became interested in the prospect of harnessing in-vitro differentiation to cultivate functional tissues that can be transplanted to replace what is lost in degenerative conditions. Ophthalmology, with its microsurgical access to functionally critical cell layers, is well-positioned to capitalize on this emerging field of science to treat degenerative conditions. I am humbled and incredibly thankful to have the opportunity to pursue this aim as a SOAR resident at Stanford.

Publications

PUBLICATIONS

- **Safety and tolerability of RPESC-RPE transplantation in patients with dry age-related macular degeneration: Low-dose clinical outcomes.** *Cell stem cell*
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- **Bilateral acute macular neuroretinopathy following influenza A infection** *IDCASSES*
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- **Ophthalmology at the Veterans Health Administration: How Sex and Other Factors Affect Salary** *Journal of Academic Ophthalmology*
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- **A novel interaction between RNA m⁶A methyltransferase METTL3 and RREB1** *BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS*
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● **Identifying the Gene Regulatory Network of the Starvation-Induced Transcriptional Activator Nla28** *JOURNAL OF BACTERIOLOGY*

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● **Deciphering multi-way interactions in the human genome** *NATURE COMMUNICATIONS*

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● **Functional organization of the maternal and paternal human 4D Nucleome** *SCIENCE*

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● **Predicting severe outcomes in Covid-19 related illness using only patient demographics, comorbidities and symptoms** *AMERICAN JOURNAL OF EMERGENCY MEDICINE*

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● **Cellular reprogramming: Mathematics meets medicine** *WIRES MECHANISMS OF DISEASE*

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