

Biography



**Dr. Claudio Punzo,
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Dr. Punzo graduated from the University of Basel with a Ph.D. in Cell Biology working on *Drosophila* eye development. After his Ph.D. Dr. Punzo joined the laboratory of Professor Constance Cepko for his post-doctoral training at Harvard Medical School. In Dr. Cepko's laboratory he initiated a new line of research based on his interest in retinal degeneration. During his post-doctoral training Dr. Punzo published a seminal finding in which he proposed a new model for the interdependence of cones on rods, a phenomenon that is relevant to vision loss in retinitis pigmentosa.

In 2010, Dr. Punzo joined the University of Massachusetts Medical School as assistant professor. His laboratory continues to focus on his postdoctoral work of prolonging cone photoreceptor survival in inherited retinal degenerative diseases. In particular, the lab focuses on understanding how a metabolic imbalance in photoreceptors affects photoreceptor survival during disease or how it can lead to disease. In this regard, Dr. Punzo found that metabolic adaptations in photoreceptors of mice lead to age-related macular degeneration including, drusen formation, geographic atrophy and choroidal neovascularization. Dr. Punzo has also worked on delivery methods to alter gene expression in the retina in order to develop treatments for various eye diseases. He has worked on several rAAV mediated approaches and more recently has also started developing siRNA-based approaches. The lab is currently developing various therapies for retinal diseases, including retinitis pigmentosa and age-related macular degeneration based on siRNA chemistries that were identified in collaboration with the RNA Therapeutics Institute at the University of Massachusetts Chan Medical School.