



Understanding the link between visual function and brain "wiring" in Cortical/ Cerebral Visual Impairment (CVI)

The Laboratory for Visual Neuroplasticity
Massachusetts Eye and Ear Infirmary
Harvard Medical School

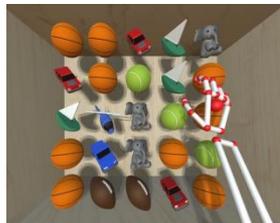


<http://scholar.harvard.edu/merabetlab>

Research Project

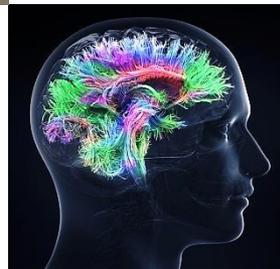
We are interested in investigating how the brain develops and adapts in cortical/ cerebral visual impairment (CVI). Neuroscience research has revealed the remarkable ability of the brain to adapt and "re-wire" itself throughout a lifetime. This is the basis for compensatory behaviors observed in individuals living with blindness and visual impairment.

We are developing new approaches to assess visual function in CVI and using advanced brain scanning techniques such as magnetic resonance imaging (MRI) to help understand the neurological link between visual performance and brain structure and function in CVI.



Virtual reality environments for testing visual functioning including eye movements and reaching skills

Diffusion based MRI Imaging identifying white matter pathways in the brain



Collaborating Centers:

- New England Eye Low Vision Clinic at the Perkins School for the Blind
- Boston Children's Hospital
- Boston University School of Medicine

Your participation will help us better understand how individuals with CVI see and interact with the world around them. We hope that this information will lead to a greater understanding of the structural and functional changes in the brain of individuals with CVI, as well as novel training strategies to aid with enhancing function.

Eligibility:

Aged between 14 and 24 years and have visual impairment consistent with a diagnosis of cortical visual impairment (CVI)

Degree of participation depends on level of comfort of the individual, and may include:

1. Visual function testing using virtual reality and eye tracking measures.
2. MRI scanning sessions (training and scanning).

Participation in all phases of the study is not mandatory, and total compensation is dependent on degree of participation.

For more information, please contact the Laboratory for Visual Neuroplasticity at (617) 573-3794 or visit our website at:

<http://scholar.harvard.edu/merabetlab>

follow us on facebook:  [CVI Neuroplasticity Research Group](https://www.facebook.com/CVINeuroplasticityResearchGroup)

