

Faculty mentors: Kalanit Grill-Spector

Research supervisor(s):

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Project topic(s): Childhood development of visual cortex

Brief description of scientific issues:

This study examines how visual cortex develops both structurally and functionally during childhood. We are particularly interested in understanding how regions in the brain involved in face recognition and reading change in school-aged children and how this brain development affects behavioral performance. The study will include participation in MRI scans of children as well as in data analysis (mainly of brain anatomy from MRI scans).

Skills required:

- 1) Basic understanding of visual perception and neuroscience
- 2) Knowledge of software tools to identify and segment different brain tissue type such as white and gray matter is an advantage
- 3) Basic coding ability is an advantage
- 4) Prior experience working with school-age children

Skills to be learned:

The student will learn about:

- (i) the anatomy of the human brain,
- (ii) different types of brain tissues,
- (iii) software tools to visual and analyze brain anatomy, and
- (iv) MRI scans of brain function and structure.

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