



Eti Yoles – Co- PI

- Ph.D., Neurobiology, Bar-Ilan University, Israel, 1990
- COO, ImmunoBrain Checkpoint, 2019-
- Assistant Staff Scientist, Weizmann Institute of Science, Israel, 1993-2000



Michal Schwartz – Co- PI

- Ph.D., Chemical Immunology, Weizmann Institute of Science, Israel, 1977
- Chief Scientist, ImmunoBrain Checkpoint
- Professor of Neuroimmunology, Weizmann Institute of Science, Israel
- CADRO category: Translational Research & Clinical Interventions

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Immunobrain Checkpoint, Inc.
 New York, NY

2020 Part the Cloud Gates Partnership (PTC-G) - \$1,000,000

IBC-Ab002 – Immune checkpoint blockade to combat Alzheimer's Disease

This Phase1 clinical trial will examine whether an antibody targeted to enhance the immune system is safe and is able to induce brain repair processes in individuals with Alzheimer's.

Background

The body's immune system performs several beneficial activities in the brain including the maintenance of healthy brain function. In Alzheimer's, past works have shown specific responses of the immune system may be changed and could be associated with the progression of Alzheimer's. Dr. Eti Yoles, leading the team at Immunobrain Checkpoint, Inc. (IBC), is further advancing a technology developed by Dr. Michal Schwartz, to boost the immune system response that may be impaired in an individual with Alzheimer's. Using genetically engineered Alzheimer's-like mouse models they found that this strategy could reverse loss of cognition as well as reduce disease-related brain changes observed in these mice.

Research Plan

Building on their prior work, IBC's team will conduct a Phase 1 clinical trial in 40 individuals with early Alzheimer's. The participants will be recruited from up to five countries including the Netherlands, Israel and possibly the United Kingdom. The researchers will evaluate the safety of the antibody in the participants. Additionally, the team will perform brain scans, as well as collect and analyze blood and cerebrospinal fluid samples (a biological fluid found in the brain and spinal cord). Using these measures, the researchers will study biological markers (biomarkers) associated with brain changes such as brain inflammation observed in Alzheimer's. They will then prepare for a larger clinical trial.

Impact

If successful, the results may highlight how boosting the activity of the immune system could delay the progression of Alzheimer's and may contribute to understanding of the biology of Alzheimer's.

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