



HUMAN BLOOD-BRAIN BARRIER MODEL FOR IMMUNOLOGICAL STUDIES

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The Invention

A research collaboration between UW-Madison and the University of Bern has resulted in a new protocol for generating cells that can be used to better model the response and behavior of immune cells in the brain. The protocol is based on endothelial cells derived from human iPSC, which are further differentiated to brain microvascular endothelial-like cells (BMECs) using an extended protocol. The result are BMECs having improved characteristics, including immune phenotype markers (i.e., expression of ICAM-1, P-selectin, and VCAM-1) and desirable barrier properties (i.e., moderate TEER, flat cellular morphology, and preferred junction architecture). In sum, this protocol and resulting cells provide a model that faithfully reproduce the required molecular repertoire needed for the study of immune cell trafficking across the blood-brain barrier (BBB).

Additional Information

For More Information About the Inventors

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Tech Fields

- [Drug Discovery & Development : Disease models](#)
- [Pluripotent Stem Cells : Differentiation](#)

For current licensing status, please contact Jennifer Gottwald at jennifer@warf.org or 608-960-9854