HUMAN BLOOD-BRAIN BARRIER TARGETING ANTIBODIES

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The Invention

UW-Madison researchers have identified new antibodies and related single-chain antibody fragments (scFvs) that bind and transport across the brain vasculature. These promising antibodies were discovered using in vivo phage screening methods in combination with the inventors' previously disclosed iPSC-derived BBB models. The scFvs selectively bind to brain endothelial cell membranes and can be conjugated to an active payload (e.g., drug, antisense oligonucleotide, etc.). Upon binding, the scFv and its conjugated payload is endocytosed into the endothelial cell. As a result, these scFvs could enable highly-selective, noninvasive drug delivery to the brain and central nervous system (CNS).

Additional Information

For More Information About the Inventors

- Eric Shusta

Tech Fields

- Drug Delivery : Other drug delivery technologies

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