

## **Ossianix to Present Preclinical Data Demonstrating Best-in-Class Blood Brain Barrier Delivery in Non-Human Primates by Single Domain VNAR Antibodies**

- **Over 30-Fold Increase in Hippocampus Observed -**
- **Results Promising for Delivery of Biological Therapeutics for Neurologic Diseases -**
- **Results to be Presented at Protein & Antibody Engineering Summit - Europe**

Philadelphia, PA, USA, and Stevenage, UK, November 9, 2020 – Ossianix, an antibody engineering company, today announced the results of a non-human primate study demonstrating best-in-class blood-brain barrier (BBB) delivery by single domain antibodies. The Ossianix proprietary VNAR shuttle TXP1 showed efficient transfer into all six regions of the brain examined, with the hippocampus showing an over 30-fold increase in levels of the molecule compared to the control. The TXP1 shuttle was administered at a dose of 1.35 mg/kg by intravenous injection and reached a concentration of 4 nM in the brain after 20 hours. These data will be presented at the [Virtual PEGS Summit Europe](#) meeting on November 11 at 15:40 GMT.

Poor brain delivery is a major barrier in the development of biological therapeutics for neurologic diseases because they are too large to cross the BBB. Developing efficient shuttles that target key transporters such as the transferrin receptor is a necessary step in delivering therapeutic levels of biologic drugs. The VNAR shuttle is a single domain antibody derived from sharks that is significantly smaller than monoclonal antibodies used today as therapeutics.

Previous preclinical studies demonstrated that the TXB2 shuttle, which targets the transferrin receptor, transferred a variety of protein cargoes including antibodies at low therapeutic doses to the central nervous system (CNS) by crossing the BBB, producing high levels in the brain with no safety issues in the mouse model. The observed long plasma pharmacokinetics and lack of side effects such as reticulocyte depletion are differentiating features of the VNAR shuttles.

“These latest results of our VNAR antibody BBB delivery are a truly exciting advancement in our quest to overcome the blood-brain barrier for CNS therapies,”

said Ossianix CEO Frank S. Walsh, PhD. “Our first-generation TXB2 shuttle showed the ability of VNAR for high level CNS delivery, and the TXP1 shuttle allows efficient translation to primates, enabling a fast route to human clinical trials. This versatile TXP1 shuttle is indeed best-in-class as it operates at the dosing range of biologics in humans.”

### **About Ossianix**

Ossianix is an antibody engineering company that utilizes single domain antibodies (VNAR) from the shark to develop novel biopharmaceuticals for a number of therapeutic areas including CNS. The proprietary VNAR platform has allowed the identification of highly potent BBB shuttles that target the transferrin receptor. The company’s lead product is a BBB targeted agonist antibody to the TrkB receptor for Parkinson’s disease. The company was founded by former senior executives from Wyeth and Pfizer and is based in Philadelphia, PA, with research laboratories in Stevenage, UK. For more information please visit [www.ossianix.com](http://www.ossianix.com).

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