

Singh Biotechnology LLC



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MINIATURE ANTIBODY IS CURATIVE FOR AUTOIMMUNE UVEITIS

Tampa, Florida: Singh Biotechnology today announced in collaboration with Dr. Charles Egwuagu's laboratory at the National Eye Institute (NEI) the demonstration of efficacy and safety of SBT-100 in an experimental autoimmune uveitis (EAU) model. This is the model for human uveitis which is the third leading cause of vision limitation and blindness in the U.S.A. SBT-100 is a miniature antibody and is about 1/10th the size of a normal antibody. SBT-100 has been created to penetrate the cell membrane, blood brain barrier, and blood retina barrier (BRB) which normal antibodies cannot penetrate. In the studies at the NEI/NIH, SBT-100 crossed the BRB to inhibit STAT3 activation and suppress pathogenic Th17 and Th1 cells. This work also showed SBT-100 significantly inhibited inflammatory cytokines such as IL-17, IFN-gamma, GM-CSF, IL-1-alpha, and earlier work showed significant inhibition of VEGF and IL-6 by SBT-100. Finally, SBT-100 also significantly suppressed the transcription factor RORgamma-t in the pathogenic CD4+ T cells.

Dr. Sunanda Singh Founder and CEO of Singh Biotechnology said, "The elegant work performed at Dr. Egwuagu's laboratory suggests SBT-100 may be used to treat human uveitis and perhaps other diverse diseases that are mediated by Th17 and/or Th1 cells such as rheumatoid arthritis, inflammatory bowel diseases, psoriasis, multiple sclerosis, graft-versus-host disease (GVHD), dry eye disease, age related macular degeneration, NASH, idiopathic pulmonary fibrosis, and scleroderma". The work was supported in part by the National Eye Institute Intramural Research Program grant numbers EY000350-21 and EY000372-20. Further collaboration between Singh Biotechnology and Dr. Egwuagu's laboratory will now focus on treating experimental autoimmune encephalitis (EAE) which is the model for human multiple sclerosis, and GVHD with SBT-100. The news comes in the wake of many recent initiatives and accomplishments for **SBT-100** including Orphan Drug Designation for osteosarcoma and pancreatic cancer. *Frontiers In Immunology* is the official journal of the International Union of Immunological Societies and a leading journal in the field which publishes rigorously peer-

reviewed research. Publication of these findings in Frontiers in Immunology attests to the therapeutic potential of SBT-100.

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