

TIKOMED'S ILB® restores brain energy metabolism following severe traumatic brain injury in the rat demonstrated in data published by the journal Antioxidants

Viken – 14th September 2020 – A new study on TIKOMED's lead drug candidate, ILB®, addressing one of the underlying causes of neurodegeneration in acute and chronic diseases was published in Antioxidants today. The data from the rodent model studying severe traumatic brain injury (sTBI), showed that a single post-injury injection of ILB® has beneficial effects on the metabolic damages caused by sTBI.

"This very important result of the beneficial effect of ILB® on post-impact brain metabolism was obtained using a single dose of the drug administered in a window of time compatible with clinical situations encountered in TBI patients. It is clear why the results of this study appear of great relevance for future applications in the clinical setting for the treatment of TBI patients," said Professor Giuseppe Lazzarino, Principle Investigator and Professor at University of Catania, Department of Biomedical and Biotechnological Sciences.

Traumatic brain injuries result in both short and long-term effects on individuals, their families, and society and their financial cost is enormous. To date, there are no satisfying pharmacological treatments capable of decreasing mortality/morbidity and improving recovery of sTBI patients.^{1,2}

"TBI is a silent epidemic with limited treatment options currently available, so this research provides real hope that effective drugs can be developed to protect and repair the damaged tissue. The demonstration that ILB® has profound restorative effects on disrupted energy balance in the injured brain provides the foundation for future clinical trials that could reduce mortality and enhance functional recovery of people with this devastating condition", said Co-Author Ann Logan, Scientific Director at Neuregenix and former Professor of Molecular Neuroscience at the University of Birmingham.

This study provides evidence that the therapeutic administration of ILB® after sTBI dose-dependently improves brain metabolism, inhibits oxidative/nitrosative stress and avoids the depletion of low molecular weight antioxidants, clearly indicating that ILB® represents a promising therapeutic agent to decrease the tissue damage associated with sTBI.

"These results are a significant success for TIKOMED as they demonstrate ILB®'s potential to boost self-repair and protection, enabling neurons to regain lost functions even in an acute neurodegenerative disease such as TBI. We remain confident in our ongoing clinical studies with ILB® in acute and chronic degenerative neurological diseases and look forward to the opportunity of presenting additional study results validating ILB®'s unique effects and mechanism of action", said Anders Kristensson, CEO of TIKOMED.

Traumatic brain injury (TBI) is one of the most common acute neurodegenerative diseases and represents the leading cause of death for those under 45 years of age in Western countries.

Depending on the severity of the symptoms, evaluated by the Glasgow Coma Scale, TBI is classified as mild (mTBI) and moderate or severe (sTBI). Severe TBI is characterized by a high mortality rate and those who survive often suffer from profound disabilities with permanent impairment of cognitive, physical and psychosocial functions, associated with a diminished or altered state of consciousness and inability to be independent, work correctly and maintain social relationships.¹

About ILB®

TIKOMED'S patented drug candidate, ILB®, addresses the underlying causes of neurodegeneration in acute and chronic diseases. ILB® targets multiple cellular pathways responsible for the loss of neuron structure and function in the neurodegenerative disease processes, boosting self-repair and protection mechanisms, enabling neurons to regain lost functions.

TIKOMED

TIKOMED AB is a privately, owned company based in Viken, Sweden. TIKOMED is developing therapeutics for treating acute and chronic degenerative neurological and ophthalmic diseases (ILB® program) and an infusion product for improving outcomes in cell therapies (IBSOLVMIR® program). Please visit www.tikomed.com

Antioxidants is an international peer-reviewed open access journal published monthly online by MDPI. For full study details please access the publication <https://www.mdpi.com/2076-3921/9/9/850>

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