

# The lead selection study of TLR2 targeted antisense oligonucleotide using PNA as a therapeutic agent for Parkinson's Disease (PD)

SEASUN THERAPEUTICS, Inc.



NEUROSCIENCE	Lead
Product Type	ASO (Antisense Oligonucleotide)
Indication	Early PD patients, $\alpha$ -synuclein-related neurodegenerative disease patients
Target	TLR2 (Toll-Like Receptor 2)
MoA(Mechanism of Action)	RNA blockage > Steric hindrance > Block the mRNA-ribosome interaction
Competitiveness	<ul style="list-style-type: none"> <li>• Our Parkinson's Disease PNA drug, which applies platform technology POLIGO™, is an ASO drug that can efficiently deliver to Blood-Brain Barrier (BBB), which dramatically overcomes the low drug delivery efficiency of existing ASOs.</li> <li>• Currently, PD drugs have no other therapeutic options than to alleviate symptoms of the disease and the drugs have side effects such as hallucinations and cell fibrosis, so it is necessary to develop that can fundamentally treat the cause of PD.</li> <li>• TLR2 (Toll-Like Receptor 2), activated by the accumulation of alpha-synuclein, is known to secrete inflammatory cytokines and cytotoxic molecules, and cause the "pyroptosis" which is inflammatory cell death through activation of inflammatory cytokines.</li> <li>• We could suggest the possibility that we can basically treat PD by developing the PNA drug that inhibits TLR2, which has recently been reported as the cause of PD.</li> </ul>
Development Stage	Lead
Route of Administration	Parenteral-Intravenous