



Jinhwa Lee

1ST Biotherapeutics Inc., South Korea

Selective kinase inhibitors for the treatment of CNS disorders

The kinase inhibitors have been utilized for the treatment of cancers since the discovery of the first drug, Imatinib. To date, there are over 40 kinase inhibitors approved by the US FDA, with a majority of these being small molecules. Despite the rapid growing development of kinase inhibitors for cancer, currently none of these agents are approved for CNS (central nervous system) diseases, mainly due to issues associated with CNS drug discovery. Protein kinases have been identified as potential therapeutic targets in neuronal cells and microglia. Many studies have suggested important roles of protein kinases in neuronal toxicity and microglial activation. Parkinson's disease (PD) is the second most

common neurodegenerative disorder. There are 7-10 million PD patients worldwide. So far there is no disease modifying therapy known. α -Synuclein and Lewy body pathology have been strongly implicated in PD and dementia with Lewy body. Abl (Abelson kinase, c-abl) is activated in various neurodegenerative conditions including AD, PD and ALS. Abl activation is sufficient to trigger neurodegeneration. Abl is activated by neuroinflammation, oxidative stress and mitochondrial dysfunction in neurons and microglia. Here the highlights of our drug discovery program toward the novel treatment of CNS disorders will be addressed along the line.

Biography

Jinhwa Lee completed his PhD from the University of Alabama (1997) and postdoctoral studies from Department of Chemistry and Chemical Biology, Harvard University (1997-1999). He was an investigator at the department of medicinal chemistry at GSK, Collegeville, PA (2000-2005), director at Green Cross (2006-2011), Institut Pasteur Korea (2011-2014), and Handok (2015-2016) in Korea in the field of infectious disease, metabolic syndrome, cancer, and CNS. He has been the CTO of 1ST Biotherapeutics, Inc., a promising biotech in Korea since 2016. He has published more than 55 papers in reputed journals and has invented 18 US patents for drug discovery.

jinhwa_2_lee@hotmail.com

Notes: