

The marine-derived compounds WY11 and WY24 protect against on Parkinson's disease

Wen-Ya Yang (楊雯雅)¹, Chien-Wei Feng (馮健瑋)², Ping-Jyun Sung (宋秉鈞)³,
Zhi-Hong Wen (溫志宏)^{1,2}

¹Department of Marine Biotechnology and Resources, National Sun Yat-sen University

²Doctoral Degree Program in Marine Biotechnology, National Sun Yat-sen University and Academia Sinica

³Graduate Institute of Marine Biotechnology, National Dong Hwa University

Parkinson's disease (PD), a progressive neurodegenerative disorder affecting about 2% of the population over the age of 60 years, characterized by tremor, rigidity, bradykinesia, and gait impairment. So far, very few pharmacological agents have been isolated or developed that effectively inhibit the progression of PD. Therefore, there is an urgent need to find a novel PD drug. Our studies to make use of *in vivo* and *in vitro* model to find the marine-derived compounds with neuroprotective activity. In the *in vitro* system, we evaluated the cell viability of human neuroblastoma SH-SY5Y cell line after the treatment of 6-hydroxydopamine as an *in vitro* model of dopaminergic neurons for Parkinson's disease (PD) research and to determine the neuroprotective effect of marine-derived compounds. In the *in vivo* system, we treated zebrafish with 6-OHDA in the absence or presence of the compounds to assess the protective effect.