

2<sup>nd</sup> International Conference and Exhibition on

# MARINE DRUGS AND NATURAL PRODUCTS

June 15-17, 2017 London, UK

## Anticancer activity and mechanism of action of a novel nargenicin A1 derivative

Hye Jin Jung, Jang Mi Han, Dipesh Dhakal and Jae Kyung Sohng

Sun Moon University, South Korea

Discovery of novel biologically active natural products and understanding their modes of action are crucial processes for their development into clinical drugs. The goal of this study is to explore a new natural lead compound for anticancer therapy. Nargenicin A1 is an effective antibacterial compound produced by *Nocardia spp.* CS682 and exhibits significant activity against various Gram-positive bacteria. Recently, novel derivatives of nargenicin A1 were created using a synthetic biology platform. In this study, we performed comparative analysis of the anticancer activities of nargenicin A1 and its derivatives. Among them, an analog significantly suppressed the growth and metastasis of cancer cells. Therefore, this study evaluates *in vitro* and *in vivo* anticancer effect of a novel nargenicin A1 derivative as well as deciphers its cellular action mechanism.

### Biography

Hye Jin Jung is an Assistant Professor in the Department of Pharmaceutical Engineering, Sun Moon University from 2014. She received her PhD in Bioscience and Biotechnology from Sejong University in 2006. She started her Post-doctoral studies from Yonsei University in the area of Chemical Biology. In 2008, she was appointed as a Research Professor of Yonsei Biomolecule Research Initiative (YBRI). She was a Senior Fellow at the Institute for Refractory Cancer Research (IRCR), Samsung Medical Center from 2012 to 2014. She is currently working on discovering novel bioactive small molecules from natural products and deciphering their molecular action mechanisms.

poka96@sunmoon.ac.kr

Notes: