26G-ISMS06 **Evaluation of Novel Anti-Dengue Candidates Using *In Silico* and *In Vitro* Approaches**

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Dengue virus or DENV belongs to the family Flaviviridae and is mediated by mosquitoes. Most patients appear in tropical and sub-tropical regions. Recently due to the climate change and the increase of global travelers, the regions of DENV infections are no more limited and being enlarged. The infections accompanying with hemorrhagic fever and/or shock syndrome became serious issues, especially when patients were infected by a different serotype of DENV for the second time. Although fruity studies on DENV have been carried out, so far no potent vaccine or antiviral drug has been approved [1]. We reported SK-12 in 2013 as a novel active molecule which is considered to target the interaction between non-structured viral proteins NS2B and NS3 [2]. In the current study, we look back into NS3/NS2B protease, a famous target for anti-Dengue study. We used high-throughput screening technique and *In Silico* studies to search for active candidates from compound libraries obtained from Osaka University. We found several candidates showed anti-DENV activities. Subsequently, these compounds were carefully checked to compare with previously reported molecules. Based on the most promising candidate, a screening of novel commercial libraries were carried out to solve time consume. We will present our results in the poster section and are looking afford for deep discussions.

[1] (One example) Lai H. *et al*. **Bioorg. Med. Chem.** *21* 102–113 2013.
[2] Pambudi S. *et al*. **Biochem. Biophys. Res. Commun.** *440*(3) 393-398 2013.