

## W0311

**X-ray Crystallographic Study of CBL3-interacting Protein, C38 from *Arabidopsis thaliana*.** Eun young Park<sup>1</sup>, Seung-Ick Oh<sup>1</sup>, Jeong Sheop Shin<sup>1</sup>, Kyung-Nam Kim<sup>2</sup>, Hyun Kyu Song<sup>1</sup>, <sup>1</sup>School of Life Sciences and Biotechnology, Korea Univ., Korea, <sup>2</sup>Dept. of Biology, Sejong Univ., Korea.

In the cytoplasm of plant cells, the alteration of Ca<sup>2+</sup> concentration induces signal transduction. This alteration is caused by many extra-cellular stresses including light, biotic, and abiotic stress factors. CBLs (Calcinuerin B-Like protein family) are small proteins in *Arabidopsis thaliana* that interact with CIPKs (CBL-Interacting Protein Kinases) under the influence of this alteration. CBL3 is one of these CBL family proteins, known to SOS3 like calcium-binding protein 6. Recently we have identified a new target of the CBL3 protein, which is designated to C38 using a yeast-two hybrid screening system. C38 interacts with CBL3 in a calcium dependent manner. We have determined the crystal structure of C38 at 1.5 Å resolution in the product complex state. Based on our structural studies, characterization of the enzymatic function of C38 is in progress. In addition, some of our biochemical data confirm the *in vitro* complex formation between CBL3 and C38.