

Calcium-binding to L-plastin and regulation of actin-bundling: development of new anti-metastasis drugs?

L-plastin is normally only expressed in white blood cells. It is a multi-domain protein made up of EF-hand motifs and CH domains, that is responsible for actin-bundling. When solid tumour cells become metastatic, they also start to express high levels of L-plastin, and this allows these cells to move through the body and invade other tissues to establish new tumours. The actin-bundling activity of L-plastin is regulated by the two calcium-binding EF-hand motifs of the protein. In this talk a molecular level structural explanation for this regulatory mechanism will be offered. Moreover I will explain why this part of L-plastin may be a good target for the development of future anti-cancer metastasis compounds.

2018. 8. 3 (Fri.)

Time / 16:30~17:30

Place / Room N308, Main Building 3F
School of Science, HOKKAIDO UNIV.

Special Guest Prof. for HSI



Speaker

Bio-NMR Centre and Metabolomics Research Centre
University of Calgary, CANADA

Professor Hans J. VOGEL

Because of the increasing resistance of pathogenic bacteria against commonly used antibiotics new strategies are clearly needed. Antimicrobial peptides, also known as host-defense peptides, offer a potential alternative. However they are quite expensive to produce and in the host they may be good substrates for proteolytic degradation. In this talk I will show that biosynthetic production of antimicrobial peptides in *E.coli* is entirely feasible. Moreover, the introduction of various unnatural amino acids can improve their bactericidal activity and simultaneously can give rise to the creation of protease resistant peptides.

Laboratory of Protein Science Seminar Antimicrobial peptides, biosynthesis and altered chemistries

2018.8/6

Mon.

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Advance Reservations Not Required

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