

**The 4th Asia-Pacific Congress of
Sericulture and Insect Biotechnology
Busan, Korea**



Abstract submission extended to March 10, 2015

Thank you very much for your support and concern for the meeting! The deadline for abstract submission will be extended to March 10, 2015. Abstract should be submitted to ikkim81@chonnam.ac.kr. The detailed guideline for abstract submission is explained in this file, along with an example abstract. Early submission is particularly important to ensure proper handling of presenter's abstract.

Abstract Submission

Guidelines for Abstract submission

○ Deadline

- ▶ All abstracts (Keynote, Sericulture, Insect Biotechnology, Young Scholar, and poster sessions) should be submitted on or before **March 10, 2015**.

○ Where to submit

- ▶ All abstracts are required to submit to Professor Iksoo Kim (E-mail: ikkim81@chonnam.ac.kr)
- ▶ The e-mail title for abstract submission should be "Abstract submission for APSEI2015". Because the abstracts will be received via an e-mail address of a local committee member, there is a high chance of confusion with spam mails, if any file name is allowed. Thus, authors are required to mail with the designated title.

○ **How to prepare**

- ▶ All abstracts should be written in English.

- ▶ The abstract must be in the Microsoft Word format. The title of the paper should be 14 font-sized Times New Roman and the Name and Address must be centered with 11 font-sized Times New Roman. The main text should be single-spaced, in 12 font-sized Times New Roman with 3-5 Key words at the end. The number of words in the abstract should be maximum of 500 words.

- ▶ The margins for the each side is approximately 2.5 cm, which is equivalent to approximately 0.98 inch.

- ▶ At the top of the abstract authors should decide whether the presentation is oral and poster. And then authors should select whether the presentation is Keynote, Sericulture, Insect Biotechnology, or Young Scholar session in oral presentation or Sericulture or Insect Biotechnology session in poster presentation.

- ▶ An example file is attached in this file.

○ **Review of Abstracts**

All submissions will be reviewed in terms of quality and relevance to the Congress by subject experts. The notification will be directed only to the corresponding author soon after submission.

Oral (Keynote, Sericulture, Insect Biotechnology, Young Scholar), Poster (Sericulture, Insect Biotechnology)
Antibacterial Activity of Peptides Synthesized Based on the *Bombus ignitus*
abaecin, A Novel Proline-Rich Antimicrobial Peptide

Seong Ryul Kim¹, Yong Soo Choi¹, Iksoo Kim^{2*}

¹Department of Agricultural Biology, National Institute of Agricultural Science & Technology, Suwon
441-100, Korea

²College of Agriculture and Life science, Chonnam National University, Gwangju 500-757, Korea

Abaecin is a largest member of the Abaecin is a largest member of the proline-rich antimicrobial peptide family found only in the hymenopterans. A cDNA of abaecin was previously isolated and cloned from *Bombus ignitus*: the mature peptide of *Bombus ignitus* abaecin was composed of 39 amino acid residues. In the present study, we determined the antibacterial effect of *B. ignitus* abaecin synthesized at several lengths against several bacteria by radial diffusion assay. The 37-mer peptide (Ab37) inhibited the growth of Gram-negative bacteria *Escherichia coli* ML-35, *Pseudomonas aeruginosa* and *Salmonella typhimurium*, but showed limited inhibitory activity toward Gram-positive bacteria, except for *Micrococcus luteus*. The truncated 26-mer peptide (Ab26), which was synthesized after truncating some amino acid residues at both N-terminus and C-terminus from the Ab37 peptide, still showed equivalent antibacterial activity to the Ab37. On the other hand, several further truncated peptides exhibited lower activity than did Ab37 peptide

Key words: Abaecin, Antimicrobial peptide, *Bombus ignitus*, Antibacterial activity