

**APPLICATION FOR AKCSE**

**RESEARCH SHOWCASE**

1. **Your Information**

Name (first, middle initial, last name):

Title:

Affiliation:

Affiliation address:

E-mail:

Telephone:

1. **Presentation Type (select one)**

□ Research Outcome Presentation (Paper, Patent, etc.)

□ R&D Proposal Presentation (*i.e.,* formerly Research Day Proposal)

□ Research Promotion (Introduction of Research Area, Lab, etc.)

1. **Research Area (you may select more than one)**

□ Clean Technology □ Nano Technology (and convergence research)

□ Information Technology □ Bio Technology

□ Smart Electronics Technology □ Robots

□ Hydrogen Vehicles □ Autonomous Vehicles

□ Metallic Materials □ Ceramics

□ Others \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. **Relevant Funding Agency and Korean Research Institutes**

(1) Potential Funding Agency (you may select more than one)

□ KEIT (Korea Evaluation Institute of Industrial Technology)

□ IITP (Institute of Information & Communications Technology Planning & Evaluation)

□ KIAT (Korea Institute for Advancement of Technology)

□ KETEP (Korean Energy Technology Evaluation and Planning)

□ KIMST (Korea Institute of Marine Science and Technology Promotion)

□ KAIA (Korea Agency for Infrastructure Technology Advancement)

□ Other (specify): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 (2) Korea Government Research Institutes (KGRIs) (you may specify more than one):

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. **Abstract and Biography**

Please use the sample format provided.

***Please return this form by email no later than May 10th, 2022 to the technical program chair (sskim@ucalgary.ca and*** ***ckc@akcse.org). You may include figures in the abstract. Please also include your picture in your biography.***

**Dr. Chul Bum Park**

**Professor/Tier 1 Canada Research Chair in Microcellular Plastics**

***Photo Required***

***Times New Roman, 11-pt, single spaced. Maximum-150 words***

Dr. Park received his Ph.D. from MIT in 1993. He is a Professor and the holder of Tier 1 Canada Research Chair in Microcellular Plastics at University of Toronto. As a Fellow of the Royal Society of Canada, the Korean Academy of Science and Technology, and 6 other professional societies, he is an accomplished scientist with an international recognition in the area of polymer foaming. He received numerous awards including the KY Lo Medal from the Engineering Institute of Canada this year. He is the author or co-author of over 500 publications including 20 patents and 200 journal papers. He received numerous honors and awards in his career including the recent NSERC Strategic Network Grant. He is the Editor-in-Chief of the Journal of Cellular Plastics. He has been serving as the conference chair, the technical program chair, and symposium chair for various conferences including Biofoams, FOAMS TopCon, and Polymer Processing Society Conferences. E-mail park@mie.utoronto.ca

**Cyclolinopeptides Compounds as Chemotherapy Agents[[1]](#footnote-1)**

**Jin-Hee Chang1, Martin J.T. Reaney2,3, Youn Young Shim2,3\***

*1College of Life Sciences and Biotechnology, Korea University, Seoul, Korea, 2Department of Plant Sciences, Univ. of Saskatchewan, SK, Canada, 3Prairie Tide Chemicals Inc., Saskatchewan, Canada*

***Maximum-250 words***

Flax (*Linum usitatissimum* L.) seed has been associated with numerous health benefits. The flax plant synthesizes an array of biologically active cyclic peptides or cyclolinopeptides (CLs) from two ribosome-derived precursors. CLA for instance, suppresses immunity, induces apoptosis in human epithelial cancer cell lines, and inhibits T-Cell proliferation. The mechanism of action of CLA is unknown. The immunosuppressive activity of CLs and analogues make them potential value-added natural products of flaxseed and should lead to further investigation of their biological activity. Microarray and gene expression analysis indicate that CLs exert their activity, in part, through induction of apoptosis. Responses to CL exposure include: 1) induction of heat shock protein (HSP) 70A production in *Caenorhabditus elegans*. Exposure of nematode cultures to CLA (0.1 µM and 10.0 µM) induced a 30% increase in the production of the HSP 70A protein, while a 3.5-fold increase was induced in the culture treated with 1.0 µM of CLA; 2) induction of apoptosis in human lung epithelial cancer lines; and 3) modulation of regulatory genes in apoptosis in human lung epithelial cancer lines. These diverse activities indicate that CLs could induce apoptosis in cancer cells or act as versatile platforms to deliver a variety of biologically active molecules for cancer therapy. \*Corresponding author; E-mail younyoung.shim@ usask.ca

1. **Title of the abstract:** upper and lower case, bold, centered, font Times New Roman 14 pt. Enter one clear line before the authors.

**Author(s’) name(s):** first name (full), middle name (or initials, if used), last name (surname, family name), and without title or occupation, bold, centered, font Times New Roman, 11 pt. For multiple authors, type superscript numbers after the last letter of the author's names. Enter one clear line after the authors.

**Affiliation:** italic, upper and lower case, centered, Times New Roman, 11 pt. Provide the complete mailing address of affiliation, including the province and country names of each affiliation. For multiple authors at different affiliations, type superscript numbers in front of the first letter of each author's address. Enter one clear line after the affiliation.

**Corresponding author**: Clearly indicate who will handle correspondence at all stages of publication for CKC 2019 proceeding booklet. [↑](#footnote-ref-1)