DAILAB-CAFÉ PLUS Series- II (2017)
Presentation Learning for Young Scholars

- DAILAB will hold a **CAFÉ-PLUS (Series-I)** on **Friday, AUGUST 4, 2017**
- Aim of the CAFÉ-PLUS is to offer chance to Young Scholars to present their work and train them for "Clear/Crisp/Careful/Concise/Conclusive" presentations.
- 4 candidates will be selected based on their submitted abstracts from DAILAB-Tsukuba and Satellite CAFEs – *IIT-Delhi, Hanyang University, Peking Medical University, Brawijaya University, USJP Sri Lanka and Manipal University*. We will be connected by Skype as always.
- Each presenter will be given 13 mins (10 min presentation + 3 min QA).
- Experts from the team of DAILAB mentors will evaluate the presentations and give comments on how to improve it further from various aspects.
- **Best Presenter of DAILAB-CAFÉ PLUS** will be selected and issued a certificate and a memento.
- Winners of four CAFÉ-PLUS series (I-IV) will compete in **CAFÉ-EXPRESS (EXtraordinary PREsenter Selection Series)** and awarded an international academic trip.
  - **Deadline of Application = July 24, 2017 (5 PM JST)**
  - **Please apply by sending Abstract (format shown here)**

Anticancer activity in honeybee propolis: functional insights to the bioactives, bioactivities and bioavailability

Priyanshu Bhargava[1,2], Nupur Nigam[1,2], Yoshiyuki Ishida[3], Keiji Terao[3], Sunil C Kaul[1] and Renu Wadhwa[1*]

[1]Drug Discovery & Assets Innovation Lab, DBT-AIST International Laboratory for Advanced Biomedicine (DAILAB), National Institute of Advanced Industrial Science & Technology (AIST), Central 5-41, 1-1-1 Higashi, Tsukuba - 305 8565, Japan; [2]Graduate School of Life & Environmental Sciences, University of Tsukuba, Ibaraki - 305 8575, Japan; [3]CycloChem Co., Ltd., 7-4-5 Minatojima-minamimachi, Chuo-ku, Kobe – 650 0047, Japan

*E-mail: renu-wadhwa@aist.go.jp

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Besides honey, honeybees make sticky substance (called propolis/bee glue) by mixing saliva with pine tree resin and other botanical sources. It is known to be rich in bioactivities of which the anticancer activity is most studied. Caffeic Acid Phenethyl Ester (CAPE) is a key anticancer component in New Zealand propolis. We investigated the molecular mechanism of anticancer activity of CAPE. cDNA array performed on the control and CAPE-treated breast cancer cells revealed an activation of DNA damage signaling, involving upregulation of GADD45α and p53 tumor suppressor proteins. Bioinformatics and molecular docking analyses revealed that CAPE is capable of disrupting mortalin-p53 complexes. We provide experimental evidence and demonstrate that CAPE induced disruption of mortalin-p53 complexes and led to nuclear translocation and activation of p53 resulting in growth arrest in cancer cells. Furthermore, CAPE-treated cells exhibited downregulation of mortalin and several other key regulators of cell migration accountable for its anti-metastasis activity. Of note, we found that whereas CAPE was unstable in the culture medium (as it gets degraded into caffeic acid by secreted esterases), its complex with gamma cyclodextrin (γCD) showed high efficacy in anti-tumor and anti-metastasis assays *in vitro* and *in vivo*. Furthermore, γCD increased the anticancer potential of supercritical extracts of Brazilian propolis that is rich in Artepillin-C (in contrast to the New Zealand propolis that contains CAPE as a major bioactive compound). The data proposes that γCD significantly enhances the anticancer activity of honeybee propolis.