

DAILAB-CAFÉ PLUS Series- II (2017)

Presentation Learning for Young Scholars

- DAILAB will hold a **CAFÉ-PLUS (Series-II)** on **Friday, AUGUST 4, 2017- 3:30 JST**
- 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

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Besides honey, honeybees make sticky substance (called propolis/beeh 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. Caffeoyl Acetyl 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 GADD45a 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 esterase), its complex with gamma cyclodextrin (γCD) showed high efficiency 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.

**DBT - AIST International Laboratory
for Advanced Biomedicine**

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Classroom for **A**dvanced & **F**rontier **E**ducation
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CAFE-PLUS

Presentation-**L**earning for **Y**oung **S**cholars

2017, Series – 02 (Round 1)

Thanks for participation!

Speakers	Titles	Affiliation
Moolchand Sigar	Heterologous expression of Granulocyte Colony Stimulating Factor in <i>Pichia pastoris</i>	Indian Institute of Technology Delhi
Supriti Ghosh	Cervical DNA Viral Infections in Asymptomatic Women of Udupi District of Coastal Karnataka	Manipal University, Manipal
Priyanshu Bhargava	Mitochondrial chaperone Mortalin contribution in cancer cell stemness and drug resistance	DAILAB, AIST JAPAN

Winner Supriti Ghosh

Date 4th August 2017
(15:30 ~ 16:45 hrs JST)

Host DAILAB@AIST, Tsukuba, Japan

Winner
**Supriti
GHOSH
MU**



84.5/100

Runner-I
**Moolchand
SIGAR
IITD**



82.5/100

Runner-II
**Priyanshu
BHARGAVA
DAILAB-AIST**



81.0/100

AIST, Japan



Congratulations!

Manipal University, India



IIT-Delhi, India



**University of Sri
Jayawardenepura, Sri Lanka**

