

# 2<sup>nd</sup> International Conference on Bio Science and Biotechnology



**BioTech** “Molecular Science for an Innovative Knowledge Era”  
2017  
09<sup>th</sup> – 10<sup>th</sup> March, 2017, Colombo, Sri Lanka



## TECHNICAL PROGRAM

DAY 01 - THURSDAY, 09<sup>TH</sup> MARCH 2017

### INAUGURATION SESSION

Thursday, 09<sup>th</sup> March 2017 | 08.00 to 10.20 (The Gregory Hall)

|               |   |
|---------------|---|
| 08.00 – 08.45 | <b>Conference Registration</b>  |
| 09.00 – 09.15 | <b>Lighting of the Oil Lamp and National Anthem</b>   |
| 09.15 – 09.25 | <b>Welcome Address by the Program Chair</b><br>Mr. Isanka P. Gamage ( <i>Co-Founder &amp; Managing Director - The International Institute of Knowledge Management (TIKM), Sri Lanka</i> ) |
| 09.25 – 09.45 | <b>Speech by the Conference Co - Chair</b><br>Prof. Dinithi Peirs ( <i>Department of Zoology, University of Sri Jayewardenepura, Sri Lanka</i> )  |
| 09.45 – 10.05 | <b>Speech by the Conference Co - Chair</b><br>Dr. Liang Tong ( <i>William R. Kenan, Jr. Professor Department Chair, Department of Biological Sciences, Columbia University, USA</i> )     |
| 10.05 – 10.15 | <b>A Speech by Prof. Sudantha Liyanage</b><br>( <i>Dean, Faculty of Applied Sciences, University of Sri Jayewardenepura, Sri Lanka</i> )  |
| 10.15 – 10.20 | <b>Web Launch</b>   |
| 10.20 – 10.35 | <b>Conference Photograph</b>  |
| 10.35 – 10.55 | <b>Morning Refreshments</b>   |

### KEYNOTE FORUM

Thursday, 09<sup>th</sup> March 2017 | 10.55 to 14.10 (The Gregory Hall)

|               |  |
|---------------|--|
| 10.55 – 11.40 | <b>“Reprogramming Chinese Hamster Ovary (CHO) Cells for the Enhanced Production and Quality of Recombinant Protein Biopharmaceuticals”</b><br>Prof. Mark Smales ( <i>Professor of Industrial Biotechnology, Director of the Industrial Biotechnology, University of Kent, United Kingdom</i> )   |
| 11.40 – 12.25 | <b>“Hydroxyapatite Coated Iron Oxide Nanoparticles (Hap/Ionps) as a Potential Carrier for Anti-Cancer Drug Molecules to Treat Cancer with Multiple Origins”</b><br>Prof. K. M. Nalin de Silva ( <i>Professor of Chemistry, University of Colombo and Science Team Leader, Sri Lanka Institute of Nanotechnology (SLINTEC), Sri Lanka</i> ) |
| 12.25 – 13.25 | <b>Networking Lunch</b>  |
| 13.25 – 14.10 | <b>“Structure and Function of Metabolic Enzymes and Relevance to Human Health”</b><br>Dr. Liang Tong ( <i>William R. Kenan, Jr. Professor Department Chair, Department of Biological Sciences, Columbia University, USA</i> )  |



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## TECHNICAL SESSION 01: BIOCHEMISTRY AND MOLECULAR BIOLOGY 1

Chaired by Dr. N.V Chandrasekharan (*University of Colombo, Sri Lanka*)

Thursday, 09<sup>th</sup> March 2017 | 14.15 to 15.30 (The Gregory Hall)

|               |   |
|---------------|---|
| 14.15 – 14.30 | <b>Molecular Evidence of <i>Helicobacter pylori</i> and <i>Helicobacter suis</i> Infection in Pigs in Nigeria</b><br>Dr. Oladipo Olufemi Omotosho ( <i>University of Ibadan, Nigeria</i> )  |
| 14.30 – 14.45 | <b>Molecular Recognition of Parallel G-Quadruplex DNA by Protoberberine Alkaloid Palmatine Using Nuclear Magnetic Resonance Spectroscopy Techniques: Binding Leads to Thermal Stabilization and Telomerase Inhibition</b><br>Prof. Ritu Barthwal ( <i>Indian Institute of Technology Roorkee, India</i> ) |
| 14.45 – 15.00 | <b>Evaluation of the Antioxidant and Anti-Inflammatory Activities of Hybrid Mango Variety with Natural Mango Varieties in Sri Lanka</b><br>Ms. Anoosheya Kuganesan ( <i>PGIS, University of Peradeniya, Sri Lanka</i> )   |
| 15.00 – 15.15 | <b>Purification of Fucoidan with Anti-Inflammatory Properties Using Enzyme-Assisted Extraction from Sri Lankan Marine Brown Alga: <i>Chnoospora minima</i></b><br>Dr. Kalpa W. Samarakoon ( <i>Industrial Technology Institute, Sri Lanka</i> )   |
| 15.15 – 15.30 | <b>Molecular Characterisation of Pineapple Heart Rot Causal Organisms from Uganda</b><br>Prof. Bosco Bua ( <i>Kyambogo university, Uganda</i> )   |

## TECHNICAL SESSION 02: BIO SCIENCE ENGINEERING 1

Chaired by Prof. Mark Smales (*Professor of Industrial Biotechnology, Director of the Industrial Biotechnology, University of Kent, United Kingdom*)

Thursday, 09<sup>th</sup> March 2017 | 15.35 to 16.50 (The Gregory Hall)

|               |   |
|---------------|---|
| 15.35 – 15.50 | <b>Study on Bacterial Cellulose Production from Fruit Juices</b><br>Dr. Maria Kosseva ( <i>University of Nottingham Ningbo China, China</i> )   |
| 15.50 – 16.05 | <b>In Vitro Anti-Inflammatory and Antibacterial Activities of Endolichenic Fungus <i>Daldinia eschscholzii</i> Isolated from <i>Parmotrema</i> sp. Inhabiting the Hakgala Forest</b><br>Mr. A M R Chamara ( <i>Institute of Chemistry Ceylon, Sri Lanka</i> ) |
| 16.05 – 16.20 | <b>Production and Detection of L-(+)-Lactic Acid Using Cassava as the Low Cost Fermentation Medium for the Synthesis of Biodegradable Polymers as Orthopedic Devices</b><br>Ms. Saranya Selvaraj ( <i>Industrial Technology Institute, Sri Lanka</i> )        |
| 16.20 – 16.35 | <b>Study of Neem and Tulsi for Antioxidant, Heavy Metals and Aflatoxin Analysis</b><br>Mr. Abdul Razzaq ( <i>Institute of Molecular Biology and Biotechnology, Pakistan</i> )   |
| 16.35 – 16.50 | <b>Evaluation of Expression of Putative Nitrate Transporter Genes and Nitrate Content in Lettuce in Open Field and Greenhouse</b><br>Ms. Nessrine Razgallah ( <i>The Higher Agronomic Institute of Chott-Mariem/University of Sousse, Tunisia</i> )           |
| 16.50 – 17.10 | <b>Evening Refreshments</b>   |



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|                  |   |
|------------------|---|
| 19.00<br>Onwards | Conference Networking Dinner with cultural Show @ Raja Bojun hosted by TIKM |
|------------------|---|

**DAY 02 - FRIDAY, 10<sup>TH</sup> MARCH 2017**

## TECHNICAL SESSION 03: BIOINFORMATICS

Chaired by Dr. Helani Munasinghe (*University of Sri Jayewardenepura, Sri Lanka*)

Friday, 10<sup>th</sup> March 2017 | 09.00 to 09.45 (The Gregory Hall)

|               |  |
|---------------|--|
| 09.00 – 09.15 | <b>Construct a High-Density Genetic Map and Its Application to Genetic Regulation Analysis for Yield and Fiber Quality Traits</b><br>Prof. Yuan Youlu ( <i>Institute of Cotton Research, Chinese Academy of Agricultural Sciences, China</i> ) |
| 09.15 – 09.30 | <b>Analysis of Genetic Diversity of <i>Nai miris (Capsicum chinense Jacq)</i> Using Simple Sequence Repeat Markers</b><br>Ms. N. H. L. D. L. D. Nanayakkara ( <i>University of Peradeniya, Sri Lanka</i> )                                     |
| 09.30 – 09.45 | <b>Molecular Based Identification of an Endemic Fresh Water Fish Species from River Ravi in Punjab, Pakistan</b><br>Dr. Asma Karim ( <i>Government College of Science, Pakistan</i> )  |

|               |                      |
|---------------|----------------------|
| 09.45 – 10.05 | Morning Refreshments |
|---------------|----------------------|

## TECHNICAL SESSION 04: BIO SCIENCE ENGINEERING 2 (Cont....)

Chaired by Dr. Charitha Goonasekara (*General Sir John Kotelawala Defence University, Sri Lanka*)

Friday, 10<sup>th</sup> March 2017 | 10.05 to 11.50 (The Gregory Hall)

|               |  |
|---------------|--|
| 10.05 – 10.20 | <b>Semiochemical Activity in <i>Gliricidia sepium</i> on the Behavior of Low Country Wood Termite <i>Glyptotermes dilatatus</i></b><br>Ms. C. Weththasinghe ( <i>Institute of Chemistry Ceylon, Sri Lanka</i> )              |
| 10.20 – 10.35 | <b>Kinetic Model Development on Source-Separated Organic Waste for Ethanol Production by <i>S. Cerevisiae</i> Strain</b><br>Mr. Valeriy Bekmuradov ( <i>Ryerson University, Canada</i> )                                     |
| 10.35 – 10.50 | <b>Development in the Analytical Methods for the Detection of <i>Escherichia coli</i> as a Biomarker in Microbial Contamination of Water</b><br>Ms. Fathima Ashoora Najeebdeen ( <i>BMS - School of Science, Sri Lanka</i> ) |
| 10.50 – 11.05 | <b>Investigation of Cu<sup>2+</sup> Tolerance in <i>Bacillus flexus</i> Strains Isolated from an Industrial Effluent in Sri Lanka</b><br>Ms. A. R. I. De Silva ( <i>University of Colombo, Sri Lanka</i> )                   |



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|               |  |
|---------------|--|
| 11.05 – 11.20 | <b>A Versatile Bioanode with Improved Current Density and the Coulombic Efficiency through a Cascade Reaction</b><br>Dr. Muhammad Nadeem Zafar ( <i>University of Gujrat, Pakistan</i> )   |
| 11.20 – 11.35 | <b>Diversity of Heterofermentative Autochthonous <i>Lactobacillus</i> Strains in Spontaneously Fermented Buffalo Curd from Kanthale, Sri Lanka</b><br>Ms. Dilumi Bimaya Wickramaratne ( <i>University of Kelaniya, Sri Lanka</i> ) |
| 11.35 – 11.50 | <b>Determination of Bioactive Compounds of <i>Piper longum</i></b><br>Ms. P. D. T. C. P. Peramuna ( <i>Institute of Chemistry Ceylon, Sri Lanka</i> )  |

## POSTER SESSION

Chaired by Dr. Liang Tong (*William R. Kenan, Jr. Professor Department Chair, Department of Biological Sciences, Columbia University, USA*)

Friday, 10<sup>th</sup> March 2017 | 11.50 to 12.10 (The Gregory Hall)

|               |   |
|---------------|---|
| 11.50 – 12.10 | <b>Kinetics of the Enzymatic Hydrolysis of Cellulose in Coconut Coir Pre-Treated Via Sonication</b><br>Dr. Maria Kosseva ( <i>University of Nottingham Ningbo China, China</i> )  |
|               | <b>Assessment of Nutritional Composition and Antinutritional Factors of Chickpea Core Germplasm</b><br>Mr. Ajay Kumar Gautam ( <i>Jiwaji University, India</i> )  |
|               | <b>Nanotechnology Based Targeted Drug Delivery System in Breast Cancer Therapy</b><br>Ms. Eduppulige Dulanga Muthumal Weerathunga ( <i>Business Management School of Science, Sri Lanka</i> )   |
|               | <b>Molecular Markers Analysis in Glioblastoma</b><br>Dr. Adnan Ali ( <i>Aga Khan University, Pakistan</i> )   |
|               | <b>The Effect of Hormone and Nano Material Treatments on Seed Germination of Box Tree</b><br>Prof. Seyed Mohsen Hosseini ( <i>Tarbiat Modares University, Iran</i> )  |
|               | <b>Protein - Protein Interaction Analysis of Mitochondrial Cytochrome B (Cytb) Enzyme in <i>Drosophila melanogaster</i></b><br>Samin Seddigh ( <i>College of Agriculture, Varamin-Pishva Branch, Islamic Azad University, Varamin, Iran</i> ) |
|               | <b>Electron Transfer Studies between New Fad-Dependent Glucose Dehydrogenase and Different Osmium Polymers (Applications in Biosensors and Biofuel Cells)</b><br>Iqra Aslam ( <i>Govt. College University Faisalabad, Pakistan</i> )          |

|               |                         |
|---------------|-------------------------|
| 12.10 – 13.10 | <b>Networking lunch</b> |
|---------------|-------------------------|



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## TECHNICAL SESSION 05: BIOMEDICINE ENGINEERING

Chaired by Prof. Mark Smales (*Professor of Industrial Biotechnology, Director of the Industrial Biotechnology, University of Kent, United Kingdom*)

Friday, 10<sup>th</sup> March 2017 | 13.10 to 14.10 (The Gregory Hall)

|               |  |
|---------------|--|
| 13.10 – 13.25 | <b>Determination of Lung Sound as Normal or Abnormal, Using a Statistical Technique</b><br>Ms. P. K. Githendri Yadushini Siriwardhana & Ms. I.H.H. Liyanage ( <i>General Sir John Kotelawala Defence University, Sri Lanka</i> )     |
| 13.25 – 13.40 | <b>Recent Advancement in Forensic Toxic Drug Analysis by Desorption Electrospray Ionization Mass Spectrometry (DESI-MS)</b><br>Ms. Shara Ahmed ( <i>BMS school of Science, Sri Lanka</i> )   |
| 13.40 – 13.55 | <b>Cotinine Detection in Passive Smokers Exposed to Environmental Tobacco Smoke (ETS)</b><br>Ms. Shadiya Fawzul Ameer ( <i>BMS School of Science, Sri Lanka</i> )  |
| 13.55 – 14.10 | <b>The Use of Analytical Techniques to Detect Toxic Synthetic Drug, Sibutramine, Adulterated in Traditional Herbal Medicines</b><br>Ms. Zeenath Ismail Gadit & Dr. Mathivathani Kandiah ( <i>BMS, School of Science, Sri Lanka</i> ) |

## TECHNICAL SESSION 06: BIOCHEMISTRY AND MOLECULAR BIOLOGY 2 (Cont....)

Chaired by Dr. Anushka Elvitigala (*University of Sri Jayewardenepura, Sri Lanka*)

Friday, 10<sup>th</sup> March 2017 | 14.15 to 15.30 (The Gregory Hall)

|               |   |
|---------------|---|
| 14.15 – 14.30 | <b>Cotton DNA Methylation and Its Analysis under the Salt - and Draught - Stress</b><br>Prof. Dr. Wuwei Ye ( <i>Cotton Research Institute of CAAS, China, China</i> )   |
| 14.30 – 14.45 | <b>A Novel Protocol of Pretreatment Affecting the Kinetic Pathway of Enzymatic Hydrolysis of Delignified <i>Morus serrata</i> (MR)</b><br>Mr. Sibashish Baksi ( <i>Jadavpur University, India</i> )                       |
| 14.45 – 15.00 | <b>Salt Tolerance of Potato: Genetically Engineered with Atriplex Canescens Badh Gene Driven by 3 Copies of Camv35s Promoter</b><br>Dr. Arfan Ali ( <i>Institute of Molecular Biology &amp; Biotechnology, Pakistan</i> ) |
| 15.00 – 15.15 | <b>PCR Based Identification of Cadmium Resistant Determinants in <i>Bacillus megaterium</i> Strain TWSL-4</b><br>Ms. W. M. N. H. Kumari ( <i>University of Colombo, Sri Lanka</i> )                                       |
| 15.15 – 15.30 | <b>Isolation and Characterization of Proteases Enzyme for Dehairing of Animal Skin and Hides</b><br>Mr. Abdul Razzaq ( <i>Institute of Molecular biology and Biotechnology, Pakistan</i> )                                |
| 15.30 – 16.00 | <b>Evening Refreshments</b>   |



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Friday, 10<sup>th</sup> March 2017 | 16.00 to 17.00 (The Gregory Hall)

|               |  |
|---------------|--|
| 16.00 – 16.50 | <b>Conference Concluding and Awarding Ceremony</b>   |
| 16.50 – 17.00 | <b>Vote of Thanks by</b><br>Mr. Duminda Korlagamage ( <i>General Manager - The International Institute of Knowledge Management (TIKM), Sri Lanka</i> ) |

## Saturday, 11<sup>th</sup> March 2017 | Post Conference Tour (Optional)

### Bio Tech 2017 – Co – Chairs

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#### Prof. Dinithi Peris

(University of Sri Jayewardenepura, Sri Lanka)

#### Dr. Liang Tong

(Columbia University, USA)

### Evaluation Panel Members

- Prof. Liang Tong, Columbia University, USA
- Prof. Dinithi Peiris, University of Sri Jayewardenepura, Sri Lanka
- Dr. Chamindri Witharana, University of Colombo, Sri Lanka
- Dr. Prasanna Premadasa, General Sir John Kotelawala Defence University, Sri Lanka
- Ms. Jayani Gunawardene, British College of Applied Studies, Sri Lanka





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## Organizer



## Hosting Partner



University of Sri Jayewardenepura

## Academic Partners



## Media Partner



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