

# PROGRAM



جامعة الإمارات العربية المتحدة  
United Arab Emirates University

## FIRST UAEU SYMPOSIUM ON BIOLOGICAL SCIENCES “GENOMICS & BIOINFORMATICS”

November 13-15, 2016

United Arab Emirates University, Al Ain, UAE



### Organized by

Department of Biology, College of Science &  
Khalifa Center for Genetic Engineering and Biotechnology  
United Arab Emirates University

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**DAY 1: SUNDAY, NOVEMBER 13, 2016**

**Location:** Hilton Al Ain

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|-------------------|---|
| 5:00 pm – 6:00 pm | <b>REGISTRATION</b>   |
| 6:00 pm – 6:15 pm | <b>WELCOME ADDRESS</b><br><i>Dr Khaled Amiri</i><br><i>Chairman, Organizing Committee</i>             |
| 6:15 pm – 6:30 pm | <b>OPENING ADDRESS</b><br><i>Prof Mohamed Albaili</i><br><i>Vice Chancellor, UAE University</i>       |
| 6:30 pm – 7:30 pm | <b>PLENARY LECTURE</b><br><i>Prof Eduardo Blumwald</i><br><i>University of California, Davis, USA</i> |
| 7:30 pm – 9:30 pm | <b>DINNER</b>   |

**DAY 2: MONDAY, NOVEMBER 14, 2016**  
Location: IT Building, United Arab Emirates University

**SESSION 1: GENOMICS**

Chairs: Dr Khaled Hazzouri & Dr Pere Arús

9:00 am – 9:50 am	<b>KEYNOTE LECTURE</b> K1. Disruptive technologies for understanding and improving disease resistance in crop plants <b>Prof Richard Michelmore</b> <i>University of California, Davis, USA</i>
9:50 am – 10:20 am	<b>INVITED TALK</b> I1. New genomics-based approaches for perennial crop breeding: peach as an example <b>Dr Pere Arús</b> <i>Center for Research in Agricultural Genomics, Barcelona, Spain</i>
10:20 am – 10:40 am	<b>COFFEE BREAK</b>
10:40 am – 11:10 am	<b>INVITED TALK</b> I2. Building genomic tools for plant breeding: Our experiences improving red clover, ryegrass, and Bracharia <b>Dr José de Vega-Bartol</b> <i>The Genome Analysis Center, Norwich, UK</i>
11:10 am – 11:40 am	<b>INVITED TALK</b> I3. Redox strategies for crop improvement <b>Dr Pavel Kerchev</b> <i>Ghent University, Ghent, Belgium</i>
11:40 am – 11:55 am	O1. Whole genome re-sequencing of date palms yields insights into diversification of a fruit tree crop <b>Dr Khaled Hazzouri</b> <i>New York University, Abu Dhabi, UAE</i>
11:55 am – 12:10 pm	O2. Genomics and transcriptomic profiles of imatinib resistance in gastrointestinal stromal tumor <b>Dr Asmaa Elzawahry</b> <i>National Cancer Center, Japan</i>
12:10 pm – 1:40 pm	<b>LUNCH &amp; POSTER PRESENTATIONS</b>

## SESSION 2: TRANSCRIPTOMICS

Chairs: Dr Synan AbuQamar & Dr R. Manimekalai

1:40 pm – 2:30 pm

### KEYNOTE LECTURE

K2. Genetic characterization of salinity tolerance traits to increase salinity tolerance of crops

**Prof Mark Tester**

*King Abdullah University of Science and Technology, Saudi Arabia*

2:30 pm – 3:00 pm

### INVITED TALK

I4. Alternative splicing in FMR1 premutation carrier

**Prof Flora Tassone**

*University of California, Davis, USA*

3:00 pm – 3:30 pm

### INVITED TALK

I5. Transcriptomics to unravel functional markers for crop improvement

**Dr R. Manimekalai**

*Sugarcane Breeding Institute, Indian Council of Agricultural Research, Coimbatore, India*

3:30 pm – 4:00 pm

### COFFEE BREAK

4:00 pm – 4:15 pm

O3. A genome-wide identification of the miRNAome and transcriptome in response to salinity stress in the date palm tree (*Phoenix dactylifera* L.)

**Dr Mahmoud Yaish**

*Sultan Qaboos University, Oman*

4:15 pm – 4:30 pm

O4. De novo transcriptome analysis of non-model plant *Andrographis paniculata* using mRNA-Seq data for gene discovery and marker identification

**Mr Vivek Chadramohan**

*Siddaganga Institute of Technology, India*

4:30 pm – 4:45 pm

O5. Identification of genes involved in responses to environmental stress using reverse genetic approaches

**Dr Synan AbuQamar**

*United Arab Emirates University, UAE*

4:45 pm – 6:30 pm

### WORKSHOP

**(Selected participants only due to space limitations)**

W1. From FASTQ to BAM: accurate alignment of short reads and references

**Dr José de Vega-Bartol**

*The Genome Analysis Center, Norwich Research Park, Norwich, UK*

**DAY 3: TUESDAY, NOVEMBER 15, 2016**  
Location: IT Building, United Arab Emirates University

**SESSION 3: SYSTEMS BIOLOGY**

Chairs: Dr Ghada Al-Kafaji & Dr Roderic Guigó

9:00 am – 9:50am	<b>KEYNOTE LECTURE</b> K3. Unraveling metabolic pathways regulating fruit ripening <b>Prof Eduardo Blumwald</b> <i>University of California, Davis, USA</i>
9:50 am – 10:20 am	<b>INVITED TALK</b> I6. The human transcriptome across tissues and individuals <b>Dr Roderic Guigó</b> <i>Center for Genomic Regulation, Barcelona, Spain</i>
10:20 am – 10:40 am	<b>COFFEE BREAK</b>
10:40 am – 11:10 am	<b>INVITED TALK</b> I7. Cross-talk between intragenic epigenetic modifications and exon usage across developmental stages of human cells <b>Dr Siba Shanak</b> <i>The Arab American University, Jenin, Palestine</i>
11:10 am – 11:25 am	O6. Circulating microRNA-126 in peripheral whole blood as a potential biomarker for type 2 diabetes-related vascular complications <b>Dr Ghada Al-Kafaji</b> <i>Arabian Gulf University, Bahrain</i>
11:25 am – 11:40 am	O7. Rice root germin-like protein 2 gene promoter (OsRGLP2) is responsive to different plant signaling molecules in potato <b>Dr Tariq Mahmood</b> <i>Quaid-i-Azam University, Islamabad, Pakistan</i>
11:40 am – 11:55 am	O8. From dissecting complex networks in Arabidopsis to revealing new developmental mechanisms and adaptive strategies in date palm <b>Dr Ikram Blilou</b> <i>Wageningen University, Netherlands</i>
12:00 pm – 1:30 pm	<b>LUNCH &amp; POSTER PRESENTATIONS</b>

## SESSION 4: BIOINFORMATICS/PROTEOMICS

Chairs: Dr Rabah Iratni & Dr Marek Mutwill

1:30 pm – 2:20 pm	<b>KEYNOTE LECTURE</b> K4. Strategies for building and annotating high quality genome sequences <b>Dr Ivo Gut</b> <i>Centro Nacional de Análisis Genómico, Barcelona, Spain</i>
2:20 pm – 2:50 pm	<b>INVITED TALK</b> I8. Gene module multiplication drives pathway expansion in plants <b>Dr Marek Mutwill</b> <i>Max Planck Institute of Molecular Plant Physiology, Potsdam, Germany</i>
2:50 pm – 3:20 pm	<b>INVITED TALK</b> I9. Dissection of climacteric fruit ripening using genetic and genomic resources in melon <b>Dr Jordi Garcia-Mas</b> <i>Center for Research in Agricultural Genomics, Barcelona, Spain</i>
3:20 pm – 3:40 pm	<b>COFFEE BREAK</b>
3:40 pm – 4:10 pm	<b>INVITED TALK</b> I10. The 1000 Arab Genome: Characterizing the genome of ethnic groups in UAE. <b>Dr Habiba Alsafar</b> <i>Khalifa University Center for Biotechnology, Abu Dhabi, UAE</i>
4:10 pm – 4:25 pm	O9. Integrated genomic analysis of the human mitochondrial transcriptome <b>Dr Youssef Idaghdour</b> <i>New York University, Abu Dhabi, UAE</i>
4:25 pm – 4:40 pm	O10. Anti-breast cancer activity of carnosol in vivo and in vitro and in silico analysis of its target interactions <b>Dr Rabah Iratni</b> <i>United Arab Emirates University, UAE</i>
4:40 pm – 6:15 pm	<b>WORKSHOP</b> W2. Current and upcoming DNA sequencing technologies <b>Prof Richard Michelmore</b> <i>University of California, Davis, USA</i>
6:15 pm – 6:30 pm	<b>CLOSING ADDRESS</b> <b>Dr Khaled Amiri</b> <i>Chairman, Organizing Committee</i>

## POSTERS

- P1. Using of whole genome bisulfite sequencing (WGBS) to identify gene expression profile regulated by cytosine methylation under salinity stress in date palm  
**Miss Ibtisam Rashid Said Al Harrasi**  
*Sultan Qaboos University, Oman*
- P2. Comparative genomics study for *Acidithiobacillus ferrooxidans*  
**Dr Rajesh Patel**  
*Hemchandracharya North Gujarat University, India*
- P3. Analysis of Mendelian randomization studies of biomarkers and type 2 diabetes: observations from analysis  
**Dr Nadia Hussain**  
*Al Ain University of Science and Technology, UAE*
- P4. Identification of Arabidopsis candidate genes in response to biotic and abiotic stresses using comparative microarrays.  
**Mr Arjun Sham**  
*United Arab Emirates University, UAE*
- P5. Expression profiling of Arabidopsis WRKY33 mutants in response to *Botrytis cinerea*  
**Ms Shamma Al-Shamsi**
- P6. CRELD1 gene may predispose the risk of atrioventricular septal defects in Down Syndrome patients of North Indian origin  
**Ms Ambreen Asim**  
*Sanjay Gandhi Post Graduate Institute of Medical Sciences, India*
- P7. Identification of premutation and grayzone FMR1 carrier status in reproductive age women by TP-PCR  
**Mrs Deepika Delsa Dean**  
*Sanjay Gandhi Post Graduate Institute of Medical Sciences, India*
- P8. Novel NR112 mutations as probable cause of intellectual disability  
**Dr Inusha Panigrahi**  
*PGIMER, India*
- P9. Genetic characterization of *Epinephelus marginatus* in the Mediterranean Sea: Contribution of microsatellite markers  
**Miss Aziza Elgid**  
*INSTM, Tunisia*
- P10. Novel mutation in family with WNT 1- related osteoporosis  
**Dr Siyaram Didel**  
*PGIMER, India*
- P11. Analysis of CGG repeat status at FMR1 gene in premature ovarian insufficiency cases: A study from SGPGIMS, Lucknow  
**Dr Sarita Agarwal**  
*Sanjay Gandhi Post Graduate Institute of Medical Sciences, India*
- P12. Metagenomic Analysis of Soil Microbes and Risk Assessment of Transgenic Cotton in Northern Karnataka, India using DGGE and ARDRA techniques  
**Dr Devarajan Thangadurai**  
*Karnatak University, India*
- P13. BS-Seq analysis pipeline for targeted next generation sequencing data  
**Mr P Sandeep Mallya**  
*Manipal University, Manipal, India*

- P14. Prediction of transcription factor binding sites in differentially expressed genes for water stress in rice mediated by *Pseudomonas fluorescens*  
**Mrs Abida P.S.**  
*Kerala Agricultural University, India*
- P15. Identifying a novel deletion mutation in exon 3 of phenylalanine hydroxylase (PAH) gene in phenylketonuria (PKU) patients of UAE population.  
**Dr Muhammad Shahid Nazir**  
*University of Modern Sciences, UAE*
- P16. Genome-wide analysis revealed that DNA methylation is a dynamic regulator of salt and osmotic stress in rice  
**Dr Fiaz Ahmad**  
*Bahauddin Zakariya University, Pakistan*
- P17. Identification of superior buffalo bulls for increasing milk production through genome analyses  
**Miss Saher Islam**  
*University of Veterinary & Animal Sciences, Lahore, Pakistan*
- P18. Morphology, physiology and microenvironment determine the morphogenetic potential of cell types of leaf callus of pearl millet cultivars.  
**Dr T.V.R. Lakshmi**  
*University of Modern Sciences, UAE*
- P19. Whole genome sequencing and gene annotation of almond (*Prunus dulcis*)  
**Ms Sumisha Habeeb**  
*UAE University, UAE*
- P20. Evaluation of suitable reference genes in date palm (*Phoenix dactylifera* L.) under drought and salinity stress for quantitative real-time PCR  
**Mr Himanshu Vishwas Patankar**  
*Sultan Qaboos University, Oman*
- P21. Overexpression, purification & antimicrobial activity of recombinant human  $\beta$  defensin 3  
**Dr Zaigham Abbas**  
*University of Punjab, Pakistan*
- P22. Construction, expression and purification of thymosin  $\alpha$ 1-Azu28 fusion protein for targeted cancer therapy  
**Mr Muhammad Shahbaz Aslam**  
*University of Punjab, Pakistan*
- P23. Testimony of *rbcL* and *matK* loci for eight United Arab Emirates native plant species  
**Dr Alagappan Kumarappan**  
*University of Modern Sciences, UAE*
- P24. Using novel remote sensing approaches and carbon isotope discrimination to predict drought tolerance in IPT transgenic creeping bentgrass in the field  
**Dr Ramzi Belkhoja**  
*Khalifa Center for Genetic Engineering and Biotechnology, UAE*
- P25. Anti-malarial drug discovery using integrative biology and systems biology  
**Dr Vishal Mevada**  
*Hemchandracharya North Gujarat University, India*



- P26. In-silico design of inhibitors for Cyclin Dependent Kinase 2 molecule in Breast Cancer: a computational approach  
**Mrs Sreejisha P.S.**  
*United Arab Emirates University, UAE*
- P27. Synthesized novel Fmoc-2-aminothiozole: protective against cadmium induced apoptosis, teratogenic effect on zebrafish (*Danio rerio*) embryos and molecular docking studies  
**Ms Vaishnavi M**  
*Siddaganga Institute of Technology, India*
- P28. Structural insights into the polypharmacological activity of dietary flavonols on serine/threonine kinases  
**Ms Bincy Baby**  
*UAE University, UAE*
- P29. Inhibiting non-receptor tyrosine kinases associated with prostate cancer using polypharmacological natural compounds  
**Ms Priya Antony**  
*UAE University, UAE*
- P30. Bioinformatic methodologies reveal metagenomic Depiction of Indian hot springs' microbial community  
**Dr Pravin Dudhagara**  
*Veer Narmad South Gujarat University, India*
- P31. Advanced Statistical Methods in Genetic Association studies  
**Dr Suresh Kumar Sharma**  
*Panjab University, Chandigarh, India*
- P32. eHealth applications for clinical genetics  
**Dr Muhammad Jawad Hashim**  
*United Arab Emirates University, UAE*
- P33. Artificial intelligence (AI), genomics and personalized medicine  
**Mr Shaheen N Shah**  
*Genomics Central, India*