Awareness Seminar on EU Research and Innovation Programme Horizon-2020

Sharing Successful Grant Experience at CIIT

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Outline

• Introduction-I & 2
• Proposal Submission
• Review Process
• Biosciences Project Details
• EE Project Details
• Q&A
Demand for meat has tripled in the developing world in four decades, while egg consumption has increased sevenfold, driving a huge expansion of large-scale animal operations. By 2050 we'll need to feed two billion more people. How can we do that without overwhelming the planet?

FOOD SECURITY
Halal Product Industry: 3-trillion US$  
Halal Meat Sector: $600 Billion  
Pakistan’s Contribution: $115 Million

HEALTH SECURITY (VACCINES)  
Global Market by 2020  
>20 Billion US$  
North America & Europe: ~68%
Introduction (1/2)

**Horizon2020**

- European Union's largest *multinational* funding programme for innovation and research
- Universities & research organisations world-wide can participate in Horizon2020 activities by responding to *calls for proposals*
- Provides opportunities to researchers and innovators in third world countries to jointly work with EU counterparts

Introduction (2/2)

![Horizon2020 Diagram]
Proposal Submission

I. Obtain participant identification code (PIC) for your organization to access EU participant portal:

II. Find your partners

III. Respond to call by Submitting proposal before deadline

IV. Evaluation by experts

V. Grant agreement

Review Process

Grants submitted to appropriate panel

Nominate referees carefully, use overseas

Referees (between 2 to 12)

Response

Grants scored

Triage (cut off 70%)

Board can rescue/relegate e.g. anomalous reviews

Board meeting
Review Process (Continued)

- Board meeting
  - 2 members assigned to present

- Each grant reviewed
  - Discussions based on 2 members and refs’ comments.

- Score recommended by 2 members
  - Score 0 to 5 (flawed to internationally excellent)

- Ranking of grants

- Final cut off & carry over

Why do grants fail?

- Not exciting:
  - not timely
  - not tackling a key issue
  - not high priority for EUH2020
  - no clear benefit

- Not convincing:
  - flimsy hypothesis/lack of rationale
  - applicant track record - “Credibility”
  - lack of key pilot data

- High risk:
  - untested system
  - entire work plan depends on success of first objective
  - key reagents not yet available

- Fatally flawed… rare
EU-H2020

- LIST OF PARTICIPANTS: FINDING APPROPRIATE PARTNERS

- Specific objectives and the relevance of the research and innovation project to the scope of the call and in relation to the "state of art". Methodological approach highlighting the types of research and innovation activities proposed and their originality.

Inter/multidisciplinary types of knowledge involved, if applicable

- Work Package List
- Impact
- Implementation
EU-H2020
Work Package Description

- Activity Type
- Participant Name
- Objectives: O1-O?
- Description of Work: Tasks T1-T?
- Deliverables D1-?

Project - 645693 – McTABLE – Advanced Bioinformatics for Genome and Metagenome and Discovery of Novel Biocatalist from Extremophiles: Implications for Improving Industrial Processes-2015

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<th>European Partners</th>
<th>NON-EU Partners</th>
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<td>Univ. Cambridge</td>
<td>ComSats Institute of IT</td>
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<td>Univ. Milano Bicocca</td>
<td>Biomolecular Research Genomics SRL</td>
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<td>Univ. Camerino</td>
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Total Project Budget: € 621,000.00

Weblink: http://www.metable.eu/project/node/6
Prof. Dr. Habib Bokhari (habib@comsats.edu.pk)
Project - 690750 – Advancing the state of the art MIMO: The key to the successful evolution of wireless networks (ATOM)

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<tr>
<td>Lancaster University</td>
<td>University of York</td>
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<tr>
<td>United Kingdom</td>
<td>Cyprus</td>
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Total Project Budget: € 904,500.00  
Share of COMSATS IIT: € 97,200.00

Weblink: [http://www.lancaster.ac.uk/scc/sites/atom/index.html](http://www.lancaster.ac.uk/scc/sites/atom/index.html)

Dr. Shurjeel Wyne (shurjeel.wyne@comsats.edu.pk)
Dr. Syed Junaid Nawaz (junaidnawaz@comsats.edu.pk)

Thank you.

Questions?

Emails: habib@comsats.edu.pk
Characterization of biocatalysts of interest, Antifreeze proteins from Antarctic ciliates, Bioremediation potential

**e.g.- Lipases** : Thanks to the secondments from UNIMIB to EPI, new lipases sequences have been characterized from the genome and transcriptome from the psychrophilic ciliate *Euplotes focardi*. These sequences were analysed by bioinformatics tools (molecular modelling, molecular dynamics).

![Molecular dynamics simulation of the lipases from the Antarctic ciliate *Euplotes focardi* and the mesophilic congeneric species *Euplotes crassus*](image)

This analysis demonstrated that the lipase from *E. focardi* is more flexible than that from *E. crassus*.

**b- Superoxide dismutases**

**C-Esterases**