Memorias del Primer Congreso Internacional de Biotecnología e innovación - ICBi 2018

Meeting Report of the First International Congress of Biotechnology and Innovation - ICBi 2018

The First International Congress of Biotechnology and Innovation, held in Lima- Peru from July 9 to 12, 2018, was organized by the Laboratory of Mycology and Biotechnology "Marcel Gutiérrez-Correa" (LMB-MGC) of La Molina National Agrarian University (UNALM).

Organizing Committee

President: Gretty K. Villena, Ph.D. in Biological Sciences and Engineering, https://orcid.org/0000-0001-8123-3559
Vice-President: Ilanit Samolski, Ph.D. in Biotechnology, https://orcid.org/0000-0002-1883-7795
Secretary: Maria Lucila Hernández Macedo, Ph.D. in Cellular and Structural Biology, https://orcid.org/0000-0003-1050-9807

Scientific Committee

Universidad Nacional Agraria La Molina

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Gustavo Gutiérrez Reynoso, Ph.D. in Animal Breeding and Genetics, https://orcid.org/0000-0002-1896-0048
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Raul Blas Sevillano, Ph.D. in Biological Engineering and Agronomic Sciences, https://orcid.org/0000-0003-3378-4035
Rosa A. Espejo Joya, Ph.D. in Biology, https://orcid.org/0000-0003-3436-7516
Rosana Sonia Chirinos Gallardo, Ph.D. in Biological Engineering and Agronomic Sciences, https://orcid.org/0000-0002-9045-7471

Universidad Nacional Mayor de San Marcos

Pablo Ramírez Roca, Ph.D. in Sciences, https://orcid.org/0000-0001-9309-7021
Ruth Hortensia García de La Guarda, Ph(c) in Biological Sciences, https://orcid.org/0000-0003-4801-5642
Scientific Program

The scientific program (Appendix 1) was divided into four sections. The first two sections corresponded to different biotechnological areas according to their application: i) Agricultural and Animal Biotechnology and ii) Industrial and Environmental Biotechnology. The third section covered different Molecular Tools Applied to Biotechnology and, finally, the fourth focused on Innovation in Biotechnology in the region.

The Congress not only sought to promote Biotechnology and Innovation in Peru, but also to contribute to the interaction with researchers and innovators from other countries. Therefore, the four sections included diverse conferences offered by about 50 scientists and specialists from 14 different countries (Appendix 1). Each section was closed with a Round Table focused on discuss the Current Situation and Perspectives of the area in Peru.

Participants

ICBi 2018 was attended by 150 registered participants from various countries such as Peru, Brazil, Chile and Bolivia. Participants presented 37 Oral Communications and 44 Posters which were grouped according to the first 3 sections (Supplementary material S1). The best oral communications and posters were awarded.

Theoretical-Practical Courses

A total of five specialized theoretical-practical courses were offered before and after the Congress, with approximately 20 participants per course: i) Analysis of Transcriptomic data: RNA-Seq, ii) Bioprospecting of Soil Microorganisms, iii) Applications of Raman – AFM Microscopy, iv) Gene Editing in Fungi and Yeasts: CRISPR-Cas9 and v) Metagenomics: Identifications of OTUs by Illumina Next Generation Sequencing Technology (Table 1).

Financing and Sponsorship

Most of the budget to carry out ICBi 2018 came from the registration fees of the participants. Support was also received from 17 companies and an NGO, which had the opportunity to show their products and services on stands (Table 2).

<table>
<thead>
<tr>
<th>Course</th>
<th>Duration (days)</th>
<th>Specialist</th>
<th>Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analysis of Transcriptomic data: RNA-Seq</td>
<td>2</td>
<td>MSc. Hugo Valdivia</td>
<td>BioScience App (Peru)</td>
</tr>
<tr>
<td>Bioprospecting of Soil Microorganisms</td>
<td>3</td>
<td>Dr. Doris Zuñiga, Dr. Marcia Toro, Dr. Ernesto Ormeño, Dr. Katty Ogata</td>
<td>Laboratory of Microbial Ecology and Biotechnology (LEMYB-UNALM)</td>
</tr>
<tr>
<td>Applications of Raman – AFM Microscopy</td>
<td>1</td>
<td>Dr. Fernando Vargas</td>
<td>Witec (Germany)</td>
</tr>
<tr>
<td>Gene Editing in Fungi and Yeasts: CRISPR-Cas9</td>
<td>2</td>
<td>Dr. John Wyrick , Dr. Jakob Blæsbjerb</td>
<td>Washington State University, Technical University of Denmark</td>
</tr>
<tr>
<td>Metagenomics: Identifications of OTUs by Illumina Next Generation Sequencing Technology</td>
<td>5</td>
<td>Guillermo Trujillo</td>
<td>GenLab del Perú</td>
</tr>
</tbody>
</table>
In addition, ICBi 2018 was supported by academic and scientific sponsors such as Research Vice-Rectorate and Faculty of Sciences of the UNALM, the Peruvian Society of Biochemistry and Molecular Biology, whose members participated in the selections of the works presented, and Revista Peruana de Biología, responsible for preparing a Special Number dedicated to the Congress.

Acknowledgment
Organizing Committee wants to thank to.

La Molina National Agrarian University authorities
Dr. Enrique Flores, Rector
Dr. Carmen Velezmono, Research Vice-Rector
Dr. Jorge Alarcón Academic Vice-Rector

Dr. Victor Meza, Faculty of Sciences - Dean
Dr. Cesar López, Biology Department, Director
Dr. Ivonne Salazar, Institutional Image Office - Director

MSc. Segundo Gamarra, Social Extension and Projection Office - Director

Academic and Scientific Sponsors

Peruvian Society of Biochemistry and Molecular Biology (SPBBM)
Peruvian National Council for Science (CONCYTEC)
National Innovation Program for Competitiveness and Productivity (INNÓVATE PERÚ)

Sponsoring companies

Scientific Committee and Evaluation Panel

Support Committee


Luis Enrique Moyano, from i design Perú, for his great work on the web page: www.icbiperu.com
**APPENDIX 1**

**ACADEMIC AND SCIENTIFIC SPONSORS:**

- Revista Peruana de Biología
- Regular & Biotechnología

**SPONSORS:**

- SPBiB
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**WITH THE SUPPORT OF:**

- Revista Peruana de Biología
- VICERRECTORADO DE INVESTIGACIÓN
- BIOTECNOLOGIA LATINA S.R.L
- Sociedad Peruana de Bioquímica y Biología Molecular

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**PROGRAMME ICBi 2018**

**Monday, July 9**

**9:00 - 9:30** Registration

**9:30 - 9:45** Welcoming words from the President of Organizing Committee

**Section I: Agricultural and Animal Biotechnology**

**9:45 - 10:00** Coffee break

**10:00 - 10:45** Keynote Conference: "Genome editing in crop improvement"

- Dr. Paul Chavarriaga
- Centro Internacional de Agricultura Tropical (CIAT), Colombia

**10:45 - 11:05** "Use of genomics in animal breeding and improvement"

- Dr. Mario Poli
- Instituto Nacional de Tecnología Agropecuaria (INTA), Argentina

**11:05 - 11:25** "Evaluation and regulation of genetically modified organisms in Latin America. Considerations"

- Dr. Eduardo Mandujano, Spain

**11:25 - 12:30** Lunch

**12:30 - 13:15** "Biotechnological advances in animal reproduction and genetic improvement"

- Dr. William Vivanco
- Universidad Nacional Agraria La Molina (UNALM), Peru

**13:15 - 13:45** "Genomics of phytopathogenic viruses"

- Dr. Jan Kreuze
- Centro Internacional de la Papa (CIP), Peru

**13:45 - 14:15** "Biotechnological tools for Fusarium wilt study"

- Dr. Mauricio Luna
- Universidad Veracruzana (UV), Mexico

**14:15 - 14:45** Round Table: "Current situation and perspectives of agricultural and animal biotechnology in Peru"

- Dr. Gustavo Gutiérrez, Universidad Nacional Agraria La Molina (UNALM)
- Dra. Martha Valdivia, Universidad Nacional Mayor de San Marcos (UNMSM)
- Dr. César López, Universidad Nacional Agraria La Molina (UNALM)
- Dr. William Roca, Asociación Peruana para el Desarrollo de la Biotecnología (PeruBiotec)

**14:45 - 15:25** Coffee break

**Section II: Industrial and Environmental Biotechnology**

**15:25 - 16:10** Keynote Conference: "Challenges in the implementation of agro-industry by-products based bio-refineries"

- Dr. José Texeira
- Universidade do Minho (UMinho), Portugal

**16:10 - 16:30** "Wastewater treatment and value-added compounds production"

- Dr. Mario Kato
- Universidade Federal de Pernambuco (UFPE), Brazil

**16:30 - 17:15** "Ureide metabolism as a novel target to improve abiotic stress resistance in plants"

- Dr. Christopher D. Todd
- University of Saskatchewan (Usask), Canada

**17:15 - 18:00** Round Table: "Marcel Gutiérrez Correa and Biotechnology in Peru"

- Dr. Ernesto Bustamante
- Dr. David Campos, Universidad Nacional Agraria La Molina
- Dr. José Luis Bauer, Universidad Peruana Cayetano Heredia
- Dr. Gianangelo Nava

**18:00** Official Ceremony of Inauguration by the authorities of UNALM

**Tuesday, July 10**

**Section II: Industrial and Environmental Biotechnology**

**9:00 - 9:45** Keynote Conference: "Patents: managment and administration in biotechnological products"

- Mag. Stephany Soto
- MERTZ, Peru

**9:45 - 10:30** Oral Presentations:

- Agricultural and Animal Biotechnology, Auxiliary Room 1
- Industrial and Environmental Biotechnology, Main Auditorium
- Molecular tools applied to Biotechnology, Auxiliary Room 3

**10:30 - 11:00** Coffee break

**11:00 - 11:45** Keynote Conference: "Intellectual Property: "Patent management and administration in biotechnological products"

- Ms. Shefali Suri
- MSBT, Peru

**11:45 - 12:30** Oral Presentations:

- Agricultural and Animal Biotechnology, Auxiliary Room 1
- Industrial and Environmental Biotechnology, Main Auditorium
- Molecular tools applied to Biotechnology, Auxiliary Room 3
**Wednesday, July 11**

### Section III: Molecular Tools Applied to Biotechnology

**08:30 - 10:15** Keynote Conference: "New tools for multiplex immunofluorescence: More colors and more dimensions, faster and easier"
- Dr. Stephen Knox
  - University of Chicago (UCH), USA

**10:15 - 10:45** "Genome edition & Plants"
- Dr. John Wyrick
  - Washington State University (WSU), USA

**10:45 - 11:00** Official break

**11:00 - 11:35** "Characterization of (M)proteins structure and dynamics using high-throughput chromosome conformation capture data"
- Dr. Martial Madou
  - Centre National de la Recherche Scientifique (CNRS), France

**11:35 - 12:05** "Utilization of CRISPR-Cas9 for elucidating secondary metabolites in filamentous fungi"
- Dr. Jakob Blæsbjerg
  - Technical University of Denmark (DTU), Denmark

**12:05 - 12:35** Keynote Conference: "Whole genome sequencing in genetic medicine"
- Dr. Elizabeth McNally
  - Northwestern University (NU), USA

**12:35 - 14:00** Lunch

**14:00 - 16:00** Round Table: Current situation and perspectives of the use of molecular tools applied to Biotechnology in Peru
- Dr. Mónica Santa María
  - Universidad Nacional Autónoma de México (UNAM), Mexico

**14:00 - 14:15** Oral Presentations:
- "Biotechnology in Peru"
  - Dr. Rafael Vázquez-Duhalt
  - Pontificia Universidad Católica del Perú (PUCP)

- "Enzymatic degradation of pesticides. Degradación enzimática de pesticidas"  
  - Dr. Fernando Vargas
  - Pontificia Universidad Católica del Perú (PUCP)

- "Applications of synthetic biology to new antibiotics production"  
  - Dr. Alan A. Blackwell
  - University of Chicago (UCH), USA

**14:15 - 15:00** "Current applications of molecular markers: an opportunity for the development of knowledge and technologies in local genetic resources"  
- Dr. Luke Suding
  - University of Minnesota (UMN), USA

- "Antimicrobial peptides in the human and animal health care: a new approach"  
  - Dr. Mónica Santa María
  - Universidad Nacional Autónoma de México (UNAM), Mexico

- "Current applications of molecular markers: an opportunity for the development of knowledge and technologies in local genetic resources"  
  - Dr. Luke Suding
  - University of Minnesota (UMN), USA

**15:00 - 15:30** "Use of NGS and genomic indicators to certify aquaculture origin of fan shells"
- Dr. Edgar Javier Arias Ramírez
  - University of Minnesota (UMN), USA

**15:30 - 16:00** "Scale up and optimization of bio-processes"  
- Dr. Edgar Javier Arias Ramírez
  - University of Minnesota (UMN), USA

**16:00 - 16:10** "Use of RNAs and genomic indicators to certify aquaculture origin of fan shells"
- Dr. Mónica Santa María
  - Universidad Nacional Autónoma de México (UNAM), Mexico

**16:10 - 16:25** Coffee break

**16:25 - 17:05** Keynote Conference: "The interface research and commercial production of entomopathogenic fungi for the biological control of pests"
- Dr. Marcelo Ferrari
  - Universidad de Buenos Aires (UBA), Argentina

**17:05 - 17:30** "Development of molecular tools by in vivo evolution technologies"  
- Dr. Marco Ferrari
  - Biodynamols, Peru

**17:30 - 18:30** Official posters exhibition

**18:30 - 19:00** Official dinner

### Thursday, July 12

### Section IV: Innovation in Biotechnology

**09:00 - 09:45** Keynote Conference: "Platforms for biotechnological production"
- Dr. Inna Matvey
  - Sartorius, Argentina

**09:45 - 10:15** "Strategies for the diagnosis and prevention of major diseases through biotechnological tools"
- Dr. Marcelo Ferrari
  - Universidad de Buenos Aires (UBA), Argentina

**10:15 - 10:45** "Laboratories for the development and commercialization of biotechnological tools"
- Dr. Edgar Javier Arias Ramírez
  - University of Minnesota (UMN), USA

**10:45 - 11:15** "Correlative microscopy AFM-RAMAN in biological applications"
- Dr. Saurabh Singla
  - Yale, Germany

**11:15 - 11:30** Official break

**11:30 - 12:15** "Antimicrobial peptides in the human and animal health care: a new approach"
- Dr. Mónica Santa María
  - Universidad Nacional Autónoma de México (UNAM), Mexico

**12:15 - 12:45** "Use of RNAs and genomic indicators to certify aquaculture origin of fan shells"
- Dr. Mónica Santa María
  - Universidad Nacional Autónoma de México (UNAM), Mexico

**12:45 - 13:00** Official dinner

**13:00 - 13:30** "Single-molecular real-time sequencing (SMRT) to characterize specific transcripts and alleles of alternative mRNA splicing"  
- Dr. Ariel Ponce de León
  - University of Minnesota (UMN), USA

**13:30 - 14:00** Coffee break

**14:00 - 14:30** "Advanced with confidence steps within protein separation processes"  
- Dr. Carlos Bravo
  - Biodynamols, Peru

**14:30 - 15:00** "Single-molecular real-time sequencing (SMRT) to characterize specific transcripts and alleles of alternative mRNA splicing"  
- Dr. Ariel Ponce de León
  - University of Minnesota (UMN), USA

**15:00 - 15:30** "Development of molecular tools by in vivo evolution technologies"  
- Dr. Marco Ferrari
  - Biodynamols, Peru

**15:30 - 16:00** "Official posters exhibition*

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* Posters can be displayed from the first day of the Congress.
PROGRAMA DE PRESENTACIONES ORALES
Martes 20 de Julio 14:45-19:30 hrs

**Sección I: Biotecnología Agrícola y Animal**

Lugar: Sala Auxiliar 1 – Auditorio Principal de la UNALM

<table>
<thead>
<tr>
<th>Horario</th>
<th>Expositor</th>
<th>Código</th>
<th>Título</th>
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<tbody>
<tr>
<td>14:45 - 15:00</td>
<td>Fredy Fabian Domínguez</td>
<td>OBA002</td>
<td>Metagenomic characterization of the intestinal microbial and faecal flora of the pig (Sus scrofa) and probiotic evaluation of lactic acid strains identified molecularly</td>
</tr>
<tr>
<td>15:00 - 15:15</td>
<td>German De La Cruz</td>
<td>OBA03</td>
<td>Potato Genes Candidates for Resistance to <em>Dolobius parvus</em>, identified with AFLP in the radiolarian transcriptomes</td>
</tr>
<tr>
<td>15:15 - 15:30</td>
<td>Joao Adhier-mir De Souza Pacheco</td>
<td>OBA04</td>
<td>Viruses detection in arracacha (Arracacia xanthorrhiza) using Next Generation Sequencing</td>
</tr>
<tr>
<td>15:30 - 15:45</td>
<td>Karina Zapata Villaumé</td>
<td>OBA05</td>
<td>Molecular identification of the microbe associated with blood and gonads of the brown shell <em>Anodra tuberculosa</em></td>
</tr>
<tr>
<td>15:45 - 16:00</td>
<td>Oscar Gómez Quispe</td>
<td>OBA06</td>
<td>Time of conservation under refrigeration of gelified semen of a pig (<em>Sus scrofa</em>).</td>
</tr>
<tr>
<td>16:00 - 16:15</td>
<td>Ana Noremberto Lucchauamani</td>
<td>OBA07</td>
<td>GC-MS analysis of <em>Sacky</em> (<em>Corynebacterium xerosis</em>) BRITTON &amp; ROSE, with an endemic coccus from a Peruvian coastal farm</td>
</tr>
<tr>
<td>16:15 - 16:30</td>
<td>Victor Carhuapoma De La Cruz</td>
<td>OBA08</td>
<td>Antibiotic resistance of <em>Salmonella</em> sp, <em>Escherichia</em> col in babies of <em>Sus scrofa</em> with and without enteropathies diarrheal</td>
</tr>
<tr>
<td>16:30 - 16:45</td>
<td>José Marlyn Zavala Azuñano</td>
<td>OBA09</td>
<td>Isolation and molecular characterization of sulphate-reducing bacteria present in the blood of the bivalve <em>Mussel Anodra tuberculosa</em> (Sowerby 1833) &quot;black shell&quot;</td>
</tr>
<tr>
<td>16:45 - 17:00</td>
<td>Yoel Zegarra Bermúdez</td>
<td>OBA14</td>
<td>Preliminary results on implementation of CRISP/Cas9 system for WSSV receptor-directed mutagenesis in <em>Lupinopsis anomala</em> shrimp smultery</td>
</tr>
<tr>
<td>17:00 - 17:15</td>
<td>Juan Pauro Roque</td>
<td>OBA48</td>
<td>Effect of the inoculation of noma-promoting bacteria in controlled conditions isolated from Peruvian highland soils</td>
</tr>
</tbody>
</table>

**Sección II: Biotecnología Industrial y Ambiental**

Lugar: Auditorio Principal de la UNALM

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<thead>
<tr>
<th>Horario</th>
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<th>Título</th>
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<tr>
<td>14:45 - 15:00</td>
<td>Rosita Castillejo</td>
<td>OBA15</td>
<td>Culture-dependent and independent analysis of bacterial community of an area of contamination and no contaminated with petroleum in Nieva, Amazonas</td>
</tr>
<tr>
<td>15:00 - 15:15</td>
<td>Augusto Casti- llo Calderón</td>
<td>OBA16</td>
<td>Optimization of the environmental parameters of the fermentation of <em>Klyveromyces marxius</em> NRRL-Y-7171 for the production of insulin</td>
</tr>
<tr>
<td>15:15 - 15:30</td>
<td>Emilio Freddy Ybar Villanueva</td>
<td>OBA17</td>
<td>Evaluation of psychochemical and microbiological characteristics of toosh during fermentation</td>
</tr>
<tr>
<td>15:30 - 15:45</td>
<td>Matias Araya</td>
<td>OBA18</td>
<td>Physicochemical characterization and application of biocor as copper bioremediant generated from the kelp <em>Macrocystis pyrifera</em></td>
</tr>
<tr>
<td>15:45 - 16:00</td>
<td>Julio Anaya</td>
<td>OBA19</td>
<td>Studies on the Microbial Degradation of Cyanide: A Functional, Structural, and Bioinformatic approach</td>
</tr>
<tr>
<td>16:00 - 16:45</td>
<td>Verónica Edith Liua Trujillo</td>
<td>OBA20</td>
<td>Evaluation of a bioremediation system for heavy metals based in fungal biomass from Santuario Nacional del Ampay</td>
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</table>

**Sección III: Herramientas Moleculares Aplicadas a la Biotecnología**

Lugar: Sala Auxiliar 2 – Auditorio Principal de la UNALM

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</thead>
<tbody>
<tr>
<td>14:45 - 15:00</td>
<td>María Fernanda Dávila Pabón</td>
<td>OMB28</td>
<td>Genetic diversity and population structure of <em>Persea</em> americana Mill. at northwestern Mexico</td>
</tr>
<tr>
<td>15:00 - 15:15</td>
<td>Jesús Minaya Higuera Rubio</td>
<td>OMB29</td>
<td>Bioinformatic analysis of polyphenoloxidase coding genes in avocado (Persea americana Mill.)</td>
</tr>
<tr>
<td>15:15 - 15:30</td>
<td>Rosalva Carolina Valdez Agramán</td>
<td>OMB30</td>
<td>Bioinformatic analysis of orthologs sequences to <em>HMGR, VTE1</em> and <em>VTE3</em> in avocado (Persea americana) genes</td>
</tr>
<tr>
<td>15:30 - 15:45</td>
<td>Juan Pablo Valenzuela Apodaca</td>
<td>OMB31</td>
<td>Identification of SNP molecular markers associated to grain yield, oil and protein content for the development of corn hybrids in Mexico</td>
</tr>
<tr>
<td>15:45 - 16:00</td>
<td>Elizabeth Patián Anticuna</td>
<td>OMB32</td>
<td>Influence of vaginal birth on the content of lactic-acid bacteria with probiotic potential in <em>meconium</em> of human neonates</td>
</tr>
<tr>
<td>16:00 - 16:45</td>
<td>Mónica Criollo Joaquín</td>
<td>OMB41</td>
<td>Design and evaluation of DNA vaccines against the <em>Tai- plaze Virus</em> (Tev) in <em>Oerostoma rotundum</em> from Peru</td>
</tr>
<tr>
<td>16:45 - 17:00</td>
<td>Benoit Dringer</td>
<td>OMB44</td>
<td>GIMCS; applications in pathogen diagnostic of aquatic species cultivated in Peru</td>
</tr>
<tr>
<td>16:30 - 16:45</td>
<td>Wilfredo Evangelista Falcón</td>
<td>OMB56</td>
<td>Difference in Long Range Communication of the Sec- ond PDZ Domain of Protein Tyrosine Phosphatase</td>
</tr>
<tr>
<td>16:45 - 17:00</td>
<td>Diana Pac- la Lopéz Velendia</td>
<td>OMB60</td>
<td>Metagenomic analysis of genes that code for the pho- notype of resistance to beta-lactam antibiotics in a Columbian natural park</td>
</tr>
<tr>
<td>17:00 - 17:15</td>
<td>José Miguel Carpio Carpio</td>
<td>OMB71</td>
<td>Specific allele PCR and RFLP as molecular techniques for the diagnosis of anticonvulsant resistance in epileptic patients</td>
</tr>
<tr>
<td>17:15 - 17:30</td>
<td>Gladys Ciahuaiteco</td>
<td>OMB93</td>
<td>Grupos bacterianios asociados a la decomposición micro- cobián de anchoveta peruana (<em>Engraulis ringens</em>) identi- ficados por metagenómica dirigida al gen 16S rRNA</td>
</tr>
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</table>
Sección I: Biotecnología Agrícola y Animal

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<tr>
<th>Expositor</th>
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<tbody>
<tr>
<td>Natali Ríos Castro</td>
<td>PBAA013</td>
<td>Molecular characterization of bacteria associated with the microalgae Isochrysis galbana and Chlorella gracilis, used in the culture of the mollusk Argopecten purpuratus</td>
</tr>
<tr>
<td>Silvia Agüero Casuso</td>
<td>PBAA049</td>
<td>Fertilization of Pijayo with Egojo Sludge and Potentially Toxic elements in the edible part</td>
</tr>
<tr>
<td>Carlos Eduardo Villanueva Aguilar</td>
<td>PBAA062</td>
<td>&quot;In vitro&quot; culture of meristems of four varieties of Dianthus caryophyllus L. Standard carvation</td>
</tr>
<tr>
<td>Ricardio Montanosinos</td>
<td>PBAA072</td>
<td>Development of downstream purification processes of recombinant glycoprotein G obtained from insect cells: a proof of concept</td>
</tr>
<tr>
<td>Silvia Agüero Aguilier</td>
<td>PBAA094</td>
<td>Bromizothiazolon sp. with high potential for phosphorus solubilization in lupinsus siliquum c.p. Smith “Jera”</td>
</tr>
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Sección II: Biotecnología Industrial y Ambiental

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<tr>
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<tbody>
<tr>
<td>Mango Traditional</td>
<td>PHMB003</td>
<td>Apterio-based biosensors for the direct detection of infectious microorganisms</td>
</tr>
<tr>
<td>Luis Miguel Páez</td>
<td>PHMB034</td>
<td>Genetic screening for proteins that confer resistance to UV radiation or oxidants in Saccharomyces cerevisiae</td>
</tr>
<tr>
<td>Raquel Marine</td>
<td>PHMB036</td>
<td>An in vitro assay to identify NAD+, FAD or CoA as components of the capping structures of RNA</td>
</tr>
<tr>
<td>Ana Elena Sánchez</td>
<td>PHMB039</td>
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Sección III: Herramientas Moleculares Aplicadas a la Biotecnología

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Welcome to the First International Congress of Biotechnology and Innovation, July 9 - 12, 2018

by Gretty K. Villena, President of ICBi

Dear colleagues, young researchers and students

It is an honor for us to welcome you to the First International Congress of Biotechnology and Innovation, ICBi 2018, organized by the National Agrarian University La Molina (UNALM) and the Laboratory of Mycology and Biotechnology "Marcel Gutiérrez-Correa" (LMB).

As a country, in recent years Peru has experienced positive economic changes, further development and the first efforts to boost scientific research and innovation begin to be noticed. Certainly, the investment in Science and Technology is not yet comparable with that of other Latin American countries. However, we are aware that as researchers we also have a social and moral commitment to the scientific and economic development of the country. Many young scientists have returned to the country and many others have been trained here, and the expectations for contributing effectively to the country are enormous. The research carried out in recent years in the country is translating into innovations and ventures. We must not stop this initial advance.

As a University, we have managed to prioritize research efforts and improve installed capacity and infrastructure in Biotechnology. Nowadays, UNALM has modern Biotechnology Laboratories and this gives us a unique opportunity to join efforts in developing basic and applied Biotechnology research as development instruments and effective contribution to the productive sector.

In this context, following the example and joining the efforts of our professors and mentors, we have decided to organize the First edition of the International Congress of Biotechnology and Innovation, ICBi 2018. It is time to promote Biotechnology and Innovation in Peru, it is time to promote more strongly the interaction between researchers and innovators in Latin America and other countries of the world.

It is time to encourage new generations of researchers and students to be actively involved in the different areas of biotechnology.

Also, it is a very special occasion to, through this event, pay tribute to who was a tireless researcher and promoter of Biotechnology in Peru, Dr. Marcel Gutiérrez Correa, professor at UNALM. We are motivated by the next inauguration of the new building of the Laboratory of Mycology and Biotechnology that he founded, and that he could not see concluded. The LMB will be named after him and will be our best legacy.

The scientific program of ICBi 2018 is organized in conferences in the sections of Agricultural and Animal Biotechnology, Industrial and Environmental Biotechnology as well as the section of Molecular Tools used in Biotechnology. We have also included the innovation section to publicize the experiences of technological development in biotechnology in the region.

The organization of this event could not be possible without the support of committed people and institutions. We appreciate the academic sponsorship of UNALM, the Vice-Rectorate for Research and the Faculty of Science of UNALM. CONCYTEC and Innovate who help us with networking the ICBi 2028.

To the Peruvian Society of Biochemistry and Molecular Biology for their support in the Scientific Committee.

To the Revista Peruana de Biología, for the academic support and endorsement in the edition and publication of the Book of abstracts of the Congress.
To the companies that have supported us to make this effort viable.

I personally thank the Organizing Committee, the Vice President and the Secretary of the Organizing Committee of the ICBi 2018 and the Support Committee for their commitment and unswerving effort in organizing this event.

To our Latin American and foreign guests, we will have the pleasure of receiving you in our historic capital, surrounded by archeological sites, with its colonial architecture declared a World Heritage Site by UNESCO, and its very well recognized gastronomy.

Thank you very much to all of you for the effort in preparing your lectures, posters and oral presentations and for making this event a reality.

Finally, we hope that this initiative will be replicated in our country or abroad and that ICBi 2021 is a reality. We will work hard on that goal.

Thank you

Gretty K. Villena, Ph.D
President, ICBi 2018
Lima, Peru