

# 4th

## SYMPOSIUM ON BIOTECHNOLOGY APPLIED TO LIGNOCELLULOSES

June 19-22, 2016



## Welcome to Lignobiotech IV Symposium

On behalf of the organizing committee, we cordially invite you to participate in the 4<sup>th</sup> edition of the International Symposium on Biotechnology applied to Lignocelluloses, to be held in Madrid, Spain, on June 19-22, 2016.

Lignobiotech IV aims to bring together the most recent advances on biotechnology and related sciences applied to the use of biomass as renewable raw material.

From fundamentals to application, the Symposium will cover genomic, biochemical, technological, downstream processing and environmental issues related to the use of biotechnology for the production of biofuels, chemicals and other products from cellulose, hemicellulose, lignin and other lignocellulose components.

### TOPICS IN LIGNOBIOTECH IV

- Lignocellulose structure and biosynthesis engineering
- Microbial transformation of lignocellulose: classic and "omic" approaches
- Lignocellulolytic enzymes: molecular, biochemical studies, protein engineering and synthetic biology
- Bioprocess engineering for industrial and environmental application
- Pulp and paper, functional materials and new bioproducts
- Lignocellulose-based industrial chemistry
- Biofuels and bioenergy from biomass

### KEYNOTE LECTURES

- Gregg T. Beckham. "Producing chemicals from biomass: A few short stories on upgrading sugars and lignin"
- Bruce E. Dale. "Ammonia Pretreatment of Biomass for Biofuels: Scientific and Process Engineering Fundamentals".
- Vincent G.H. Eijsink. "Structure, function and application of lytic polysaccharide monooxygenases".
- David S. Hibbett. "Lessons from the trees: Phylogenomic insights into mechanisms of fungal lignocellulolysis".
- Henrik Lund. "Expanding the use of enzymes in the Pulp and Paper industry".
- John Ralph. "Designer Lignins: Inspirations from Nature"
- Juan L. Ramos. "Metagenomics for Lignocellulosic Biofuels".
- Huimin Zhao. "Converting Lignocellulose to Fuels and Chemicals via Synthetic Biology".

### VENUE

The symposium sessions will take place at the Spanish Research Council (CSIC) downtown Campus, a peaceful place located in the center of Madrid (c/Serrano 117).

Madrid, the capital city of Spain is a modern metropolitan city endowed with a high quality infrastructure while it preserves many of its historic neighborhoods and streets. Madrid landmarks include the Royal Palace, the Royal Theatre, the Retiro Park, the Library building, Plaza Mayor square, Cibeles Palace and Fountain, and the Golden Triangle of Art, comprising the Prado Museum, the Reina Sofía Museum and the Thyssen-Bornemisza Museum.

### ORGANIZING COMMITTEE

Dr. Susana Camarero (Chairwoman)  
Dr. Angel T. Martínez (Chairman)  
Dr. Marta Pérez-Boada  
Dr. María Jesús Martínez  
Dr. Alicia Prieto  
Dr. Francisco Javier Ruiz-Dueñas

Biotechnology for Biomass group  
Centro de Investigaciones Biológicas, CSIC, Spain

### CONTACT

#### Scientific Secretariat

Biotechnology for Biomass group  
CIB, CSIC  
lignobiotech-iv@cib.csic.es

#### Technical Secretariat

Viajes El Corte Inglés  
División de Congresos  
lignobiotech@viajeseci.es

[www.lignobiotech.es](http://www.lignobiotech.es)

