Venue: Reims Convention Center, France

SUNDAY March 28, 2010

14:00 – 18:00  Registration
               Mounting of posters

16:00 – 18:00  Welcome Reception Cocktail to Lignobiotech One Symposium

MONDAY March 29, 2010

08:00 – 08:15  Opening

08:15 – 12:10  SESSION 1 – FUNDAMENTALS OF LIGNOCELLULOSIC ENZYMES AND
               TRANSFORMATION MECHANISMS

Chairpersons: Michael J. O’Donohue, INRA/INSAToulouse University,
              France and Angel T. Martinez, CSIC, Madrid, Spain

08:15  Keynote lecture
      Harry Gilbert, Complex Carbohydrate Research Center, University of
             Georgia, USA
      How complete is our understanding of plant cell wall deconstruction

09:00  Harry Brumer, Royal Institute of Technology, Stockholm, Sweden
      Weakening walls: harnessing structure-function relationships of
             polysaccharide-active enzymes for biomass applications
09:20 Franz St John, Forest Products Laboratory, US Forest Service, Madison, USA
Ligand bound crystal structures identify the molecular interactions involved in the unique substrate specificity of glycosyl hydrolase family 30 glucuronoxylan xylanohydrolases

09:40 Takashi Watanabe, Kyoto University, Japan
Characterization of surface carbohydrates in pretreated woody biomass by fluorescent-labeled CBMs and cellulosic bioethanol production via ethanologenic bacteria

10:00 Balint Sipos, Budapest University of Technology and Economics, Budapest, Hungary
Mechanism of the positive effect of poly(ethylene glycol) addition on conversion and enzyme adsorption in enzymatic hydrolysis of lignocelluloses

10:20 – 10:50 Coffee break

10:50 Gabriel Paës, INRA/Reims University, France
Coupling robotics and molecular modelling techniques to understand putative functional motion of the thumb-loop in GH-11 xylanase from Thermobacillus xylanilyticus

11:10 Imen Boukari, INRA/Reims University, Reims, France
Fusion of a cellulose binding module with a GH11 endoxylanase: impact on the hydrolysis of insoluble lignocellulosic substrates

11:30 Raphael Lamed, Tel Aviv University, Israel
Biomass sensing via trans-envelope carbohydrate-binding proteins, divergent family 3 CBMS, and processive enzymes in Clostridium thermocellum

11:50 Craig B. Faulds, CSIS, Madrid, Spain
Feruloyl esterases at the carbohydrate-lignin interface

12:10 – 14:00 Lunch

14:00 – 16:00 SESSION 1 – FUNDAMENTALS OF LIGNOCELLULOSIC ENZYMES AND TRANSFORMATION MECHANISMS (following)

14:00 Giovanni Sannia, University of Naples Federico II, Italy
Fungal laccases: versatile tools for lignocellulose transformation

14:20 André Ferraz, Universidade de São Paulo, Brazil
Linoleic acid peroxidation and lignin degradation initiated by enzymes and Fe3+-reducing compounds produced by Ceriporiopsis subvermispora

14:40 Ligia O. Martins, Instituto de Tecnologia Química e Biológica, Oeiras, Portugal
Enzymatic oxidation of lignin-based compounds by bacterial cota-laccase
15:00  **Angel T. Martinez**, CSIC, Madrid, Spain  
Pleurotus *versatile peroxidase*

15:20  **Claudia Crestini**, Integrated Biorefinery Research Center, Tor Vergata University, Roma, Italy  
*Polyelectrolytes coated coimmobilised laccase and horseradish peroxidase in lignin oxidation*

15:40  **Andrew T. Smith**, University of Sussex, UK  
*Engineering lignin peroxidase activity into Coprinus cinereus peroxidase requires a specialised oxidation site involving a redox active Trp radical*

16:00 –17:45  **Coffee Break**

**POSTER SESSION**

17:45 – 19:30  **Cathedral Visit**  
*Departure from the Reims Convention Center*

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**TUESDAY March 30, 2010**

08:00 – 08:15  **Opening**

08:15 – 12:10  **SESSION 2 – MICROBIAL GENOMICS AND BIOTECHNOLOGY**  
*Chairpersons: Arsène Isambert, Ecole Centrale, Paris, France and Thomas W. Jeffries, USDA Forest Products Laboratory, Madison, USA*

08:15  **Keynote lecture**  
**Dan Cullen**, USDA Forest Products Laboratory, Madison, USA  
*Mechanisms of wood decay by Postia placenta and Phanerochaete chrysosporium inferred from comparative transcriptome and secretome analysis*

09:00  **Yinbo Qu**, Shandong University, Jinan, China  
*Genome and transcriptome analysis of cellulase-producing filamentous fungus Penicillium decumbens*

09:20  **Yoichi Honda**, Kyoto University, Japan  
*Genetic transformation and promoter assay systems in selective lignin degrader, Ceriporiopsis subvermispora*

09:40  **Heiko Dietz**, Goethe University, Frankfurt, Germany  
*Genetic engineering of industrial yeast strains for the production of bioethanol and biobutanol from C5 and C6 sugars*
10:00  **Emma Master**, University of Toronto, Canada
Proteomic and transcriptomic analysis of lignocellulose-degrading enzymes in the softwood-degrading fungus, *Phanerochaete carnosa*

10:20 – 10:50  **Coffee break**

10:50  **Romain Fromanger**, INSA/Toulouse University, France
*Candida shehatae* physiology under oxygen control for highly efficient fuel ethanol production from lignocellulosic raw materials

11:10  **Thomas W. Jeffries**, University of Wisconsin, Madison, USA
*Oxygen and carbon source regulation of Pichia stipitis metabolism*

11:30  **William Kenealy**, Organism Development and Bioprocess Research, Lebanon, USA
*Engineering microorganisms for ethanol production from cellulose; Mascoma consolidated bioprocessing*

11:50  **Maurizio Bettiga**, Lund University, Sweden
*Arabinose and xylose fermentation by Saccharomyces cerevisiae engineered with a fungal pentose utilization pathway*

12:10 – 14:00  **Lunch**

14:00 – 15:20  **SESSION 2 – MICROBIAL GENOMICS AND BIOTECHNOLOGY** (following)

14:00  **Annele Hatakka**, University of Helsinki, Finland
*Novel white-rot fungi and their oxidoreductases for lignin conversion found with improved screening methods*

14:20  **Alejandra Omarini**, Public University of Navarre, Pamplona, Spain
*Lignocellulose degradation and ligninolytic enzyme activities of the white rot fungi Polyporus tenuiculus on Poplar sawdust and wheat straw during solid state fermentation*

14:40  **Hirofumi Hirai**, Shizuoka University, Japan
*Homologous expression of novel lignin peroxidases from Phanerochaete sordida yk-624 and ligninolytic properties of these transformants*

15:00  **Vincenzo Lettera**, University of Naples Federico II, Italy
*Endogenous autoregulators influence on Pleurotus ostreatus ligninolytic systems*

15:20 – 18:00  **Coffee Break**

POSTER SESSION
18:30  Departure from the Reims Convention Center
19:00 – 00:00  Visit of Pommery Cellar
              Gala Dinner

WEDNESDAY March 31, 2010

08:00 – 08:15  Opening
08:15 – 12:35  SESSION 3 – INDUSTRIAL APPLICATIONS

Chairpersons: Thierry Stadler, Industrial Agro Resources Cluster, Laon, France and Lisa Viikari, University of Helsinki, Finland

08:15  Keynote lecture
      Michael J. O’Donohue, INRA/INSA/Toulouse University, France
      Strategies for the discovery and engineering of hydrolytic lignocellulosic biomass conversion enzymes

09:00  François Wolfaardt, University of Pretoria, South Africa
      Improvement of groundwood pulp with laccase

09:20  Valérie Meyer, Centre Technique du Papier, Grenoble, France
      Laccase-mediator system as an interesting wood chip pre-treatment to save electrical energy in TMP and CTMP processing

09:40  Frédérique Bertaud, Centre Technique du Papier, Grenoble, France
      A new laccase-cbm chimeric enzyme for efficient bio-bleaching of kraft pulps

10:00  Amanda Fillat, Universitat Politècnica de Catalunya, Terrassa, Spain
      Flax fiber functionalisation with laccase: obtaining antimicrobial papers

10:20 – 10:50  Coffee break
10:50  Keynote lecture
       Jan Larsen, Inbicon A/S, Frederica, Denmark
       Production of lignocellulosic bioethanol in pilot and commercial scale

11:35  Michael Paice, FPInnovations Paprican Division, Pointe Claire, Québec, Canada
       Bioconversion of knot rejects from a sulphite pulp mill to ethanol

11:55  Hélène Carrere, INRA, Narbonne, France
       Dilute acid pretreatment of sunflower oil cakes to produce biomethane

12:15  Frédéric Martel, Futurol Project / Procéthol 2G, France
       Futurol Project
12:35 – 14:00  Lunch

14:00 – 14:40  SESSION 3 – INDUSTRIAL APPLICATIONS (following)

14:00  Anna Suurnäki, VTT, Espoo, Finland
Role of lignin activation in laccase catalyzed functionalization of lignin containing materials

14:20  Elisabetta Aracri, Universitat Politècnica de Catalunya, Terrassa, Spain
Xylanase and laccase – aided lignin removal from specialty sisal fibres

14:40 – 17:50  SESSION 4 – FUNDAMENTALS FOR PLANT BUILDING AND DESIGN

Chairpersons: Herman Höfte, INRA, Versailles, France and Michael Paice, FPInnovations Paprican Division, Pointe Claire, Québec, Canada

14:40  Keynote lecture
Stefan Jansson, Umeå Plant Science Centre, Sweden
Natural variation in Populus

15:20  Wout Boerjan, VIB Department of Plant Systems Biology, Gent, Belgium
Systems biology of lignifications

15:40  Lise Jouanin, INRA, Versailles, France
Plant laccases: promising lignin engineering targets to facilitate the lignocellulose to ethanol conversion process

16:00 – 16:30  Coffee break

16:30  Sofia Valenzuela, Universidad de Concepción, Chile
Genomic of Eucalyptus globulus for pulp and biofuels

16:50  Audrey Abot, University of Poitiers, France
Effect of the retting process on hemp (Cannabis sativa) long fibers

17:10  Fernando Dinesh, Swedish University of Agricultural Sciences, Uppsala, Sweden
Application of simons’ stain in characterizing mechanical pulp fibres at the cell wall level for understanding pulp property development

17:30  Tran Le Ngoc Huyen, Amiens University/INRA, Dury, France
Effects of harvest date on the saccharification of Miscanthus giganteus and incorporation of lignocellulosic by-product in cementitious matrix

17:50 – 18:10  Poster competition: prize giving (French specialties), one winner for each session
08:00 – 08:15 Opening

08:15 – 11:50 SESSION 5 – SOCIETAL AND ENVIRONMENTAL ISSUES

Chairpersons: Sylvie Recous, INRA/Reims University, France and Taïna Lundell, University of Helsinki, Finland

08:15 Keynote lecture
Irini Angelidaki, Technical University of Denmark, Kongens Lyngby, Denmark
Biorefinery concept as a sustainable way to produce energy and chemicals from agricultural products

09:00 Carl Houtman, USDA Forest Products Laboratory, Madison, USA
Feasibility of hemicellulose extraction from wood before making thermomechanical pulp

09:20 Martino Nieddu, Reims University, France
Diversity of Biorefineries and doubly green chemistry: an economical approach

09:40 Benoit Gabrielle, INRA/AgroParisTech, France
How to ensure a reliable and sustainable supply of biomass feedstock?

10:20 – 10:50 Coffee break

10:50 Jacob Magid, Copenhagen University, Denmark
Effects of genetic and environmental factors on recalcitrance of winter wheat straw

11:10 Bilal Amin, INRA/Reims University, France
Role of enzymes in the decomposition process in soil: influence of plant residue quality

11:30 Petr Baldrian, Institute of Microbiology ASCR, Praha, Czech Republic
Ecology of cellulose degradation in forest soils

11:50 Take-home message
Next conference announcement

END OF THE LIGNOBIOTECH ONE SYMPOSIUM SESSIONS

12:10 – 14:00 Lunch: buffet or take-away
13:30 – 17:00  **Agro-Industrial Complex (ARD) Visit**  
(pre-registration mandatory)  
www.a-r-d.fr

*Departure at 13:30, back to the convention center at 17:00*