



# LignoBiotech-IV Programme

(8 keynotes, 25 min each, and 43 oral talks, 15 min each, plus 5 min questions)

## Sunday, 19th June

### REGISTRATION AND WELCOME RECEPTION

Residencia de Estudiantes, CSIC.  
c/Pinar, 21-23. 28006 Madrid

The **Symposium Scientific Sessions** will take place from Monday to Wednesday at the **CSIC downtown Campus** (c/Serrano 117)

## Monday, 20th June

### SESSION-1 on *Microbial transformation of lignocellulose: Classic and "omic" approaches*

Chairs: **Kristiina Hilden** (University of Helsinki, Finland) and **Sana Raouche** (INRA-Aix Marseille Université, France)

Keynote lecture 1: **David Hibbett** (Clark University, Worcester, Massachusetts, USA) "Lessons from the trees: Phylogenomic insights into mechanisms of fungal lignocellulolysis"

- 0.1 **Ronald P. de Vries** (CBS-KNAW Fungal Biodiversity Centre, Utrecht, Netherlands) "Fungi display high diversity in their strategies for lignocellulose conversion"
- 0.2 **Antonio G. Pisabarro** (Universidad Pública de Navarra, Pamplona, Spain) "Complementarity of the genomics, transcriptomics and proteomics studies to obtain a complete picture of the mechanisms of fungal transformation of lignocellulose"
- 0.3 **David Cannella** (University of Copenhagen, Denmark) "Light-driven enzymatic degradation of lignocellulose by pigments and a metalloenzyme"
- 0.4 **Olga V. Koroleva** (Bach Institute of Biochemistry, Moscow, Russian Federation) "Secretome analysis of *Trametes hirsuta* 072 cultivated on media containing lignin and lignocellulose"

*Poster session I (odd numbers) and coffee*

- 0.5 **Guillermina Hernández-Raquet** (University of Toulouse, France) "Dynamic of

proteins and microorganisms during wheat straw transformation by microbial consortia"

- 0.6 **Taina Lundell** (University of Helsinki, Finland) "Mechanisms of wood-decay and conversion of lignocellulose through functional genomics of white-rot phlebioid fungi"
- 0.7 **Barry Goodell** (Virginia Polytechnic Institute and State University, Blacksburg, USA) "Catalytic chemistries and the evolution of a non-enzymatic lignocellulose deconstruction system in wood degrading fungi"

*Lunch*

### SESSION-2 on *Lignocellulolytic enzymes: Molecular and biochemical studies*

Chairs: **Félix Gonçalves de Siqueira** (Embrapa Agroenergia, Brasília, Brazil) and **Martin Hofrichter** (TU Dresden, Zittau, Germany)

Keynote lecture 2: **Vincent G.H. Eijsink** (Norwegian University of Life Sciences, As, Norway) "Structure, function and applications of lytic polysaccharide monooxygenases"

- 0.8 **Emma Master** (University of Toronto, Canada) "Characterizing lignocellulolytic enzymes through surface analysis techniques"
- 0.9 **Yitzhak Hadar** (The Hebrew University of Jerusalem, Rehovot, Israel) "Versatile peroxidase 1 has key role in *Pleurotus ostreatus* ligninolytic system under Mn<sup>2+</sup> deficiency"
- 0.10 **André Ferraz** (Escola de Engenharia de Lorena, USP, São Paulo, Brazil) "Wood decay basidiomycetes as a source of hydrolytic enzymes"

*Coffee*

- 0.11 **Lindsay D. Eltis** (The University of British Columbia, Vancouver, Canada) "The emergence of bacterial ligninases"

- 0.12 **Eric Gelhaye** (Université de Lorraine, Vandoeuvre-les-Nancy, France) "Glutathione transferases in degradation of lignocellulosic materials"
- 0.13 **Christiane Liers** (TU Dresden, Zittau, Germany) "Bifunctional glycoside hydrolase 78 from *Xylaria polymorpha* stimulates lignocellulose biomass hydrolysis"
- 0.14 **Daniel Kracher** (BOKU, Vienna, Austria) "Molecular calisthenics of cellobiose dehydrogenase drive oxidative cellulose degradation"
- 0.15 **Craig B. Faulds** (INRA-Aix Marseille University, France) "Characterization of plant cell wall-acting esterases: the effect of ionic liquids on ferulic acid release from corn stover"

## Tuesday, 21st June

### **SESSION-3** on *Lignocellulose structure and biosynthesis engineering*

*Chairs:* **Aymerick Eudes** (Joint BioEnergy Institute, Emerville, CA, USA) and **Jose Carlos del Río** (INRAS, CSIC, Sevilla, Spain)

Keynote lecture 3: **John Ralph** (University of Wisconsin, Madison, USA) "Designer lignins: Inspirations from Nature"

- 0.16 **Silvia Fornalé** (CRAG, Barcelona, Spain) "Effect on cell wall polymers and degradability in maize mutants lacking lignin 3'- and 5'-o-methyl-transferases"
- 0.17 **Yuji Tsutsumi** (Kyushu University, Fukuoka, Japan) "*In vitro* evaluation of the lignin forming ability of plant peroxidases involved in lignification"
- 0.18 **Sofía Valenzuela** (Universidad de Concepción, Chile) "Genomic selection in a cloned breeding population of *Eucalyptus globulus* in Chile"
- 0.19 **Yuki Tobimatsu** (Kyoto University, Japan) "Delineating lignin biosynthetic pathway in monocots: A rice o-methyltransferase involved in the formation of syringyl and tricin lignin components in rice cell walls"

*Poster session II (even numbers) and coffee*

### **SESSION-4** on *Engineering lignocellulolytic enzymes*

*Chairs:* **Anne S. Meyer** (Technical University of Denmark, Lyngby) and **Willen J.H. Van Berkel** (Wageningen University, The Netherlands)

Keynote lecture 4: **Huimin Zhao** (University of Illinois, Urbana, USA) "Microbial synthesis of fuels and chemicals via synthetic biology"

- 0.20 **Miguel Alcalde** (ICP, CSIC, Madrid, Spain) "Directed evolution of ligninolytic oxidoreductases"
- 0.21 **Richard J. Ward** (Universidade de São Paulo, Brazil) "Chimeragenesis for improving catalytic performance of lignocellulolytic enzymes"

### *Lunch*

- 0.22 **Isabel Pardo** (CIB, CSIC, Madrid, Spain) "Re-designing the binding pocket of laccase for better oxidation of natural phenols of interest"
- 0.23 **Yong Hwan Kim** (Kwangwoon University, Seoul, Korea) "Rational design of lignin peroxidase through an efficient intramolecular electron transfer"
- 0.24 **Francisco J. Ruiz-Dueñas** (CIB, CSIC, Madrid, Spain) "Peroxidase rational design using fungal genomic information"
- 0.25 **Vânia Brissos** (ITQB, Oeiras, Portugal) "Improved bacterial DyP peroxidase from *Pseudomonas putida* MET 94 for aromatic compounds degradation"

### *Coffee*

### **SESSION-5** on *Bioprocess engineering for industrial and environmental application*

*Chairs:* **Bernard Kurek** (INRA URCA, Reims, France) and **Diego Moldes** (Universidad de Vigo, Spain)

Keynote lecture 5: **Bruce E. Dale** (Michigan State University, USA) "Ammonia pretreatment of cellulosic biomass for biofuels and other products: Scientific and process engineering fundamentals"

- 0.26 **Kristiina Kruus** (VTT, Espoo, Finland)  
"Comparison of four pre-treatment methods for lignocellulosics"
- 0.27 **Takashi Watanabe** (Kyoto University, Japan)  
"Analysis of molecular interaction of peptides with lignin for lignocellulosic biorefinery"
- 0.28 **Brigitte Chabbert** (INRA, Reims, France)  
"Tracking dynamics of flax retting by evolution in stem architecture, cell wall structure, and biological activities"
- 0.29 **Rajeev Ravindran** (Dublin Institute of Technology, Dublin, Ireland)  
"Metal chloride assisted plasma pretreatment strategy of lignocellulose for the production of amylase"

*Conference Gala dinner (Hotel Miguel Angel)*

### Wednesday, 22nd June

**SESSION-6** on *Pulp and paper, functional materials and new bioproducts*

*Chairs: Ljubica Tasic* (State University of Campinas, Brazil) and *Teresa Vidal* (Universitat Politècnica de Catalunya, Barcelona, Spain)

Keynote lecture 6: **Henrik Lund** (Novozymes, Bagsvaerd, Denmark)  
"Expanding the use of enzymes in the pulp and paper industry"

- 0.30 **Francisco I.J. Pastor** (University of Barcelona, Spain)  
"Diversity of xylanases: application in biomass upgrading"
- 0.31 **Marion Thébault** (Wood K Plus, Linz, Austria)  
"The integration of lignins into phenolic resins for paper impregnation uses"
- 0.32 **Simo Sarkanen** (University of Minnesota, Saint Paul, USA)  
"Plastics with 85–100% levels of lignin from softwoods and wheat straw"
- 0.33 **Berdine Coetzee** (Sappi Technology Centre, Pretoria, South Africa)  
"Optimisation of refiner configuration for endoglucanase-treated pulps"

*Poster Session III (free session & poster awards) and coffee*

**SESSION-7** on *Biofuels and bioenergy from biomass*

*Chairs: Elia Tomás-Pejó* (IMDEA-Energía, Madrid, Spain) and *André Ferraz* (Escola de Engenharia de Lorena, USP, São Paulo, Brazil)

Keynote lecture 7: **Valdeir Arantes** (Escola de Engenharia de Lorena, USP, São Paulo, Brazil)  
"Perspective on opportunities in integrating high-value products into a biofuel-driven biorefinery"

- 0.34 **Alicia Prieto** (CIB, CSIC, Madrid, Spain)  
"Craft beer sidestreams for biofuels production"
- 0.35 **Jorge Rencoret** (IRNAS, CSIC, Seville, Spain)  
"Pretreatment of wheat straw with laccase mediator system degrades lignin and improves saccharification"

*Lunch*

- 0.36 **Thomas Pielhop** (ETH, Zurich, Switzerland)  
"Steam explosion pretreatment of lignocellulosic biomass – the effect of the explosion on enzymatic digestibility"
- 0.37 **Sung Ok Han** (Korea University, Seoul, Korea)  
"Enhanced hydrolysis of lignocellulosic biomass by designer nanoscale enzyme complexes for biofuel production"
- 0.38 **Eulogio Castro** (University of Jaén, Spain)  
"Stand alone evaluation of the energetic potential of various lignocellulosic residues in Colombia"

*Coffee*

**SESSION-8** on *Lignocellulose-based industrial chemistry*

*Chairs: Paul Christakopoulos* (Luleå University of Technology, Sweden) and *Mads A.T. Hansen* (Borregaard, Sarpsborg, Norway)

Keynote lecture 8: **Gregg Beckham** (NREL, Golden, USA)  
"Producing chemicals from biomass: A few short stories on upgrading sugars and lignin"

- 0.39 **Regis Teixeira Mendonca** (Universidad de Concepción, Chile) "Development of lignin derivate products for mining industry applications"
- 0.40 **Atsushi Kaiho** (Nippon Kayaku Co., Tokyo, Japan) "Control of thermodynamic properties of lignin-based epoxy resin by selective chemical modification"
- 0.41 **David B. Hodge** (Michigan State University, USA) "Lignin properties contributing to monomer yields during simultaneous biomass delignification and lignin depolymerization in H-donating solvents"
- 0.42 **Pilar Llorente** (Bio-Based Industries-EU, Brussels, Belgium)"Towards a biobased fuel and chemical sector in Europe"

*Closing ceremony*

## List of Posters

- P.1 **Manuel Alfaro** (Universidad Pública de Navarra, Pamplona, Spain) "Genomics, transcriptomics and proteomics analyses reveal a high lignocellulose degradation capacity of the basidiomycete fungus *Macrolepiota fuliginosa*"
- P.2 **João R. M. Almeida** (Embrapa Agroenergy, Brasília, Brazil) "New microbial strains for production of fuels and chemicals from lignocellulose"
- P.3 **Jans Alzate-Morales** (Universidad de Talca, Chile) "A molecular study of the binding mechanisms of veratryl alcohol to *P. chrysosporium* lignin peroxidase: Insights into its redox mediator role"
- P.4 **George E. Anasontzis** (INRA-Aix Marseille Université, France) "Characterization of gh131 family members from different fungal lifestyles"
- P.5 **Luana M. Andrade** (Verdartis Desenvolvimento Biotecnológico, Ribeirão Preto, Brazil) "Enzyme production to refining and pulp bleaching"
- P.6 **Takuma Araki** (Nagaoka University of Technology, Japan) "Transcriptional regulatory system for the biodegradation of lignin-derived aromatics in *Sphingobium sp.* strain SYK-6"
- P.7 **Valdeir Arantes** (Escola de Engenharia de Lorena, USP, São Paulo, Brazil) "Screening enzymes for production of cellulose nanocrystals"
- P.8 **Iván Ayuso** (CIB, CSIC, Madrid, Spain) "Enzymes from the Jurassic: recreation of lignin peroxidase evolution in the laboratory"
- P.9 **Antonio O. Ballesteros** (ICP, CSIC, Madrid, Spain) "Transformation of birchwood xylan into prebiotic xylo-oligosaccharides by the synergistic action of two endoxylanases"
- P.10 **Ignacio Ballesteros** (CIEMAT, Madrid, Spain) "Barley straw fractionation for sugars production"
- P.11 **José M. Barrasa** (Universidad de Alcalá, Madrid, Spain) "Lignin biodegradation in the genomic era"
- P.12 **Alba Blázquez** (Universidad de Alcalá, Madrid, Spain) "Degradation of micropollutants using *Penicillium oxalicum* mediated systems"
- P.13 **Susana Camarero** (CIB, CSIC, Madrid, Spain) "Directed evolution in yeast of a highly stable chimeric laccase"
- P.14 **Juan Carro** (CIB, CSIC, Madrid, Spain) "Enzymatic conversion of plant-derived furanoid compounds into renewable building blocks"
- P.15 **Eulogio Castro** (Universidad de Jaén, Spain) "Comparison of ultrasound assisted pretreatment for agricultural residues"
- P.16 **Sara Ceccherini** (Aalto University, Finland) "Development of rheology-based measurement technique for cellulose reactivity"
- P.17 **Esperanza Cortés** (Universidad de Huelva, Spain) "Formulation and characterization of oleogels based on epoxide-functionalized lignin"
- P.18 **Marianne Daou** (INRA-Aix Marseille University, France) "Production and characterisation of fungal peroxidases and H<sub>2</sub>O<sub>2</sub>-producing oxidases implicated in the breakdown of lignocelluloses"
- P.19 **Silvio S. da Silva** (Escola de Engenharia de Lorena, USP, São Paulo, Brazil) "Biosurfactants production from lignocellulosic feedstocks: a novel approach for biorefineries"
- P.20 **Felipe de Salas** (CIB, CSIC, Madrid, Spain) "Computational-aided design of a high-redox potential laccase for improved oxidation of arylamines"
- P.21 **Eduardo Díaz** (CIB, CSIC, Madrid, Spain) "Unraveling the lignin degradation network in *Pseudomonas putida* KT2440"

- P.22 **Claire Dumon** (Université de Toulouse-INRA-CNRS, France) "Hemicellulolytic potential of invertebrate microbiome for biorefinery"
- P.23 **Ricardo Durán** (Universidad de Concepción, Chile) "Molecular markers into a forest tree program: new technologies, discoveries, approaches and uses"
- P.24 **Pavel Dvořák** (CNB, CSIC, Madrid, Spain) "Expanding *Pseudomonas putida* catalytic power with synthetic cellulosomes"
- P.25 **Aymerick Eudes** (Joint BioEnergy Institute, Emeryville, CA, USA) "Exploiting the substrate promiscuity of hydroxycinnamoyl-coa:shikimate hydroxycinnamoyl transferase to reduce lignin"
- P.26 **María das Gracas Felipe** (Escola de Engenharia de Lorena, USP, São Paulo, Brazil) "Biosurfactants production by *Guehomyces pullulans* and *Cryptococcus laurentii* on hemicellulosic hydrolysate of sugarcane straw"
- P.27 **María das Gracas Felipe** (State University of West Paraná, Cascavel-PR, Brazil) "Ethanol production by *Kluyveromyces marxianus* using vacuum fermentation system"
- P.28 **Elena Fernández-Fueyo** (Delft University, The Netherlands) "A critical evaluation of manganese-peroxidase subfamilies"
- P.29 **Patricia Ferreira** (Universidad de Zaragoza, Spain) "Aromatic stacking interactions govern catalysis in aryl-alcohol oxidase"
- P.30 **Ursula Fillat** (INIA-CIFOR, Madrid, Spain) "Role of endophytic fungus *Hormonema sp.* in lignocellulosic biorefineries: biofuels production and paper pulp manufacture"
- P.31 **Patricia Gómez de Santos** (ICP, CSIC, Madrid, Spain) "Synthesis of human drug metabolites (HDMs) by unspecific peroxygenases evolved in the laboratory"
- P.32 **Félix Gonçalves de Siqueira** (Embrapa Agroenergia, Brasília, Brazil) "Evaluation of the cellulases activity from white-rot fungi growth on cellulose carbon source"
- P.33 **Félix Gonçalves de Siqueira** (Embrapa Agroenergia, Brasília, Brazil) "Lignocellulosic enzyme activities in white rot basidiomycetes cultivated in biodiesel industry wastes as carbon source"
- P.34 **Pablo González** (ITAINNOVA, Zaragoza, Spain) "Cellulosic matrix nanocomposites with magnetic properties"
- P.35 **Mads A.T. Hansen** (Borregaard, Sarpsborg, Norway) "D-mannose isolated from Norway spruce"
- P.36 **Manuel Hernández** (Universidad de Alcalá, Madrid, Spain) "Alkali-lignin solubilization from wheat straw by *Streptomyces* strains for oleogels development"
- P.37 **Yudai Higuchi** (Nagaoka University of Technology, Japan) "Investigation of the catabolic pathway for acetovanillone in *Sphingobium sp.* strain SYK-6"
- P.38 **David Ibarra** (INIA-CIFOR, Madrid, Spain) "Evaluating side-stream lignins from olive tree pruning-based industry: a FTIR and 2D-NMR study"
- P.39 **Aurélia Imbert** (INRA, Université de Lorraine, Vandoeuvre-Lès-Nancy, France) "Production of furfural by hydrolysis of beech wood"
- P.40 **Chijioke J. Joshua** (Joint BioEnergy Institute, Emeryville, CA, USA) "Characterization of PW-L02, a water-soluble amphiphilic nano-polymer from 'non-derivatized' lignin extract"
- P.41 **Ichiro Kamei** (University of Miyazaki, Japan) "Bamboo Refinery: Production of phenolic compounds from lignin by catalytic hydrogenation and fermentation of xylose"
- P.42 **Naofumi Kamimura** (Nagaoka University of Technology, Japan) "Essential aldehyde dehydrogenases for lignin degradation in *Sphingobium sp.* strain SYK-6"
- P.43 **Miriam Kellock** (VTT, Espoo, Finland) "Effect of pretreatment severity on the enzymatic hydrolysis of spruce and wheat straw"

- P.44 **Bernard Kurek** (INRA URCA, Reims France) "Oxidation of lignocelluloses by reactive oxygen species: chemical and enzymatic pathways"
- P.45 **Dolores Linde** (CIB, CSIC, Madrid, Spain) "Asymmetric sulfoxidation by engineering the heme pocket of a dye decolorizing peroxidase"
- P.46 **Chang-Jun Liu** (Brookhaven National Laboratory, New York, USA) "An Engineered Poplar Feedstock with Improved Saccharification Efficiency and Ethanol Yield"
- P.47 **Javier M Loaiza** (University of Huelva, Spain) "*Eucalyptus globulus* biopulping: optimization enzymatic-mediator stage after autohydrolysis treatment"
- P.48 **María López-Iglesias** (Biotechnology Institute of Asturias, Oviedo, Spain) "Synthesis and application of new laccase mediator systems derived from lignin fragments"
- P.49 **Kaisa Marjamaa** (VTT, Espoo, Finland) "Enzymatic modification of lignins for phenolic resoles"
- P.50 **Mara Marques** (ITQB-Universidade Nova de Lisboa, Oeiras, Portugal) "Directed evolution increases activity of hyperthermostable metalloxidases for bulky aromatics"
- P.51 **Carlos Martín** (Umea University, Sweden) "Potential of cassava stems for ethanol production – investigation of sulfuric acid pretreatment"
- P.52 **Ivan Mateljak** (ICP, CSIC, Madrid, Spain) "Engineering a fungal laccase by directed evolution towards higher redox potential"
- P.53 **Hans Mattila** (University of Helsinki, Finland) "Bioconversion of lignocellulose waste materials by *Phlebia* species"
- P.54 **Adriane Milagres** (Escola de Engenharia de Lorena, USP, São Paulo, Brazil) "Enzymatic recovery of xylan from pretreated sugar cane bagasse"
- P.55 **Diego Moldes** (Universidad de Vigo, Spain) "Potential of enzymatic grafting for modification of lignocellulosics"
- P.56 **Antonielle V. Monclaro** (University of Brasília, Brazil) "Optimization of culture medium for production of holocellulose-degrading enzymes from *Aspergillus tamarii*"
- P.57 **Antonio D. Moreno** (Chalmers University of Technology, Gothenburg, Sweden) "Increasing the tolerance of the non-conventional yeast *Candida intermedia* to ethanol and lignocellulose-derived inhibitors"
- P.58 **Sonia Moreno-Pérez** (ICP, CSIC, Madrid, Spain) "Stabilization of a commercial xylanase by surface coating with a multilayer of different polymers"
- P.59 **Line Munk** (Technical University of Denmark, Lyngby, Denmark) "Laccase-catalyzed grafting of mediators onto lignin"
- P.60 **Manuel Nieto** (CIB, CSIC, Madrid, Spain) "Genome sequencing of the lignocellulolytic fungus *Talaromyces amestolkiae*"
- P.61 **Christos Nitsos** (Luleå University of Technology, Sweden) "Lignin isolation from hardwood and softwood using a hybrid organosolv-based pretreatment method"
- P.62 **Rosa Peces** (CIB, CSIC, Madrid, Spain) "Heterologous expression of dye-decolorizing peroxidase from *Irpex lacteus*"
- P.63 **Marta Pérez-Boada** (CIB, CSIC, Madrid, Spain) "Oxidoreductases of industrial interest: the INDOX EU-Project"
- P.64 **Valentina Perna** (Technical University of Denmark, Lyngby, Denmark) "Expression and characterization of laccase from *Ganoderma lucidum* in *Pichia pastoris*"
- P.65 **John Ralph** (University of Wisconsin, Madison, USA) "Identification of 4-O-5-units in softwood lignin via definitive lignin models aS-3nd NMR"

- P.66 **Sana Raouche** (INRA-Aix Marseille Université, France) "Pretreatment of wheat straw by white rot fungi: from exploration of fungal biodiversity to lab scale process optimization"
- P.67 **Krithika Ravi** (Lund University, Sweden) "Biological conversion of aromatic compounds by *Pseudomonas putida*"
- P.68 **Rajeev Ravindran** (Dublin Institute of Technology, Ireland) "Response surface methodology approach for simultaneous polyphenol extraction and recalcitrant removal from spent coffee waste using organosolv process"
- P.69 **Rajeev Ravindran** (Dublin Institute of Technology, Ireland) "An investigation on pretreatment strategies to enhance value addition of brewer's spent grain"
- P.70 **Sayani Ray** (Université de Toulouse-INRA-CNRS, France) "Elucidation of a hemicellulolytic cocktail for efficient partial conversion of lignocellulolytic biomass at high solid loading"
- P.71 **Inês C. Roberto** (Escola de Engenharia de Lorena, USP, São Paulo, Brazil) "Xylitol production from rice straw hemicellulose hydrolysate by a thermotolerant strain of *Kluyveromyces marxianus*"
- P.72 **Inês C. Roberto** (Escola de Engenharia de Lorena, USP, São Paulo, Brazil) "Fermentability of alkaline-sulfite pretreated sugar cane bagasse by yeast *Kluyveromyces marxianus*"
- P.73 **María Romero-Fernández** (ICP, CSIC, Madrid, Spain) "Thermo-stabilization of an immobilized endoxylanase by coating with hydrophilic polymers. Production of prebiotic xylo-oligosaccharides from lignocellulosic materials"
- P.74 **Marie-Noëlle Rosso** (INRA-Aix Marseille Université, France) "Selective deconstruction of plant biomass: fungal enzymes active at the onset of solid state fermentation"
- P.75 **Verónica Sáez-Jiménez** (CIB, CSIC, Madrid, Spain) "First evidence on direct oxidation of lignin at a peroxidase tryptophanyl radical"
- P.76 **Davinia Salvachúa** (NREL, Golden, USA) "A proteomics study of bacterial lignin depolymerization and catabolism"
- P.77 **Rogelio Santiago** (Universidad de Vigo, Spain) "Modifying arabinoxylan cross-linkage using conventional breeding"
- P.78 **Ana Serrano** (CIB, CSIC, Madrid, Spain) "Aryl-alcohol oxidase from *Bjerkandera adusta* with quinone reductase activity"
- P.79 **Kenji Takahashi** (Nagaoka University of Technology, Japan) "Isolation and characterization of *Sphingobium sp.* strain SYK-6 genes involved in catabolism of dehydrodiconiferyl alcohol"
- P.80 **Ljubica Tasic** (State University of Campinas, Brazil) "A multistep mild process for preparation of nanocellulose from orange bagasse"
- P.81 **Elia Tomás-Pejó** (IMDEA-Energía, Madrid, Spain) "Hybrid hydrolysis and fermentation: implementing laccase detoxification in the ethanol process"
- P.82 **Morten Tovborg** (Novozymes, Bagsværd, Denmark) "Polysaccharide binding of Ipmo results in a massive drop in electron donor turnover"
- P.83 **Sofía Valenzuela** (Universidad de Concepción, Chile) "Evaluation of different lignin content in Kraft pulps to produce bioethanol"
- P.84 **Susana Valenzuela** (University of Barcelona, Spain) "Screening of new lytic polysaccharide monooxygenases. Evaluation on lignocellulosic material degradation"
- P.85 **Willem J.H. van Berkel** (Wageningen University, The Netherlands) "Optimization of VAO and EUGO for the production of lignin-derived chemicals"
- P.86 **Francisco Vásquez** (Universidad de Concepción, Chile) "Chemo-enzymatic epoxidation of lignin with lipase B"
- P.87 **Sagnite Ventura Cruz** (Tecnológico de Estudios Superiores de Villa Guerrero, Estado de Mexico, Mexico) "Utilization of

lignocellulosic residues from rose stem in films manufacturing"

- P.88 **Teresa Vidal** (Universitat Politècnica de Catalunya, Barcelona, Spain) "Studying modification of dissolving-grade pulp by means of laccase-tempo treatments"
- P.89 **Teresa Vidal** (Universitat Politècnica de Catalunya, Barcelona, Spain) "Up-grading biobleached sulphite pulp with endoglucanase treatments"
- P.90 **Teresa Vidal** (Universitat Politècnica de Catalunya, Barcelona, Spain) "On the use of electrochemistry to study the oxidation kinetics of phenolics catalysed by laccase"
- P.91 **Anne-Maria Wallraf** (RWTH Aachen University, Germany) "Loop engineering with OmniChange led to ionic resistant laccase variant"
- P.92 **Jian Zhao** (Shandong University, Jinan City, China) "Production of bioethanol and chemicals from oil palm empty fruit bunch by bisulfite pretreatment"