

Let's meet again

Trends in Biotechnology: the SIB group perspectives

Naples, June 23 - 24 2022



AULA degli AFFRESCHI

Complesso Sant'Andrea delle Dame
Dipartimento di Medicina Sperimentale
Università della Campania "Luigi Vanvitelli"
via L. De Crechio, 7 - Napoli

June 23, 2022

13:30 **Registration**

14:00 **Welcome**

Prof. Chiara Schiraldi, SIB Biotechnology Group coordinator

Institutional greetings

Prof. Gianfranco Nicoletti, Rector of the University of Campania “Luigi Vanvitelli”

Prof. Marcellino Monda, Director Dept. Experimental Medicine

Introduction

Prof. Marina Porcelli, SIB Board, Prof. Raffaele Porta, Past president SIB,
Prof. Marco Moracci Biotechnology Group past coordinator SIB

14:30 **Opening Lecture**

Prof. Mauro Magnani: “Biotechnology in a changing world: discovery, developments, finance, and regulatory issues”

15:00 - 16:00 **Session 1. Biotechnological platforms for pharmaceutical, nutraceutical and cosmeceutical applications - part I**
Chairs: Prof. Mauro Magnani, Prof. Chiara Schiraldi

15:00 - 15:10 Dr. Mariarita Brancaccio “Dermo-protective properties of marine derived sulphur-containing histidine compounds”

15:10 - 15:20 Dr. Michele Menotta “Biotech approaches for the development of new therapeutic agents in the treatment of Ataxia Telangiectasia”

15:20 - 15:30 Dr. Ilaria Favuzzi “Development of an oral mucosa model useful to characterize drug delivery systems for the oral lichen planus treatment”

15:30 - 15:40 Dr. Roberta Iacono “Pharmacological enhancement of the human acid α -glucosidase by allosteric chaperones”

15:40 - 15:50 Dr. Tania Vanzolini “Development of new biological drugs for the treatment of fungal infections”

15: 50- 16:00 Dr. Rosa Gaglione “Novel bioactive peptides identified in a protein from human plasma to counteract bacterial infections”

Discussion

16:05 - 16:20 **Coffee break**

16:20 - 17:10 **Session 1. Biotechnological platforms for pharmaceutical, nutraceutical and cosmeceutical applications - part II**

Chairs: Prof. Rosario Ammendola, Prof. Marina Porcelli

16:20 - 16:30 Dr. Esther Imperlini “Investigating potential applications of antimicrobial peptides as therapeutic agents against antibiotic resistance”

16:30 - 16:40 Dr. Laura Mosca “S-Adenosylmethionine delivery by nanodiamonds: a promising strategy for tumor therapy”

16:40 - 16:50 Dr. Flora Cozzolino “Identification and Functional Characterization of *Toxoneuron nigriceps* Ovarian Proteins Involved in the Early Suppression of Host Immune Response”

16:50 - 17:00 Dr. Marianna Caterino “Mucopolysaccharidosis IIIB: a multiOMIC study”

17:00 - 17:10 **PhD students short presentations**

17:00 - 17:05 Federica Biancucci “Multi Omics approaches in therapeutic developments”

17:05 - 17:10 Zhanna Romanyuka “Yeast Display platform for the molecular evolution of biotherapeutics”

Discussion

17:10 - 18:30 **Session 2. Industrial Biochemistry, integrated biotechnological processes from renewable resources to added value products - part I**
Chairs: Prof. Gianluca Molla, Dr. Donatella Cimini

17:15 - 17:35 Prof. Gianluca Molla “Exploiting evolved poly(ethylene terephthalate) hydrolyzing enzymes for a sustainable plastic recycling”

17:35 - 17:45 Dr. Odile Francesca Restaino “*Posidonia oceanica* egagropili as renewable source useful to increase the biotechnological production of melanin by *Streptomyces roseochromogenes*”

17:45 - 18:55 Dr. Alberto Alfano “Ultrafiltration of buffalo whey to recover valuable fractions usable in probiotic growth and value products”

17:55 - 18:05 Dr. Sergio D’Ambrosio “Biotechnological process development for probiotics production and exopolysaccharides purification”

18:05 - 18:15 Dr. Paola Imbimbo “Microalgae as factory of high added bioproducts”

18:15 - 18:25 **PhD students short presentations**

18:15 - 18:20 Filippo Molinari “Sustainable production of vanillin and cis, cis-muconic acid using whole cell biocatalysts”

18:20 - 18:25 Eugenia Messina “Metabolic Engineering of the non-conventional yeast *Yarrowia lipolytica* for the biotechnological production of chemicals through the manipulation of mitochondrial transporters”

Discussion

Free evening

June 24, 2022

8:30 **Welcome**

Prof. Paolo Pedone, membro del Consiglio Universitario Nazionale -
Rappresentante Professori Ordinari Area Scienze Biologiche

8:45 - 10:15 **Session 2. Industrial Biochemistry, integrated biotechnological processes from renewable resources to added value products - part II**
Chairs: Prof. Marco Moracci, Prof. Daria Monti

8:45 - 8:55 Dr. Salvatore Fusco “Mesophilic and thermophilic microbial consortia isolated from a biogas plant secrete thermostable xylanases”

8:55 - 9:05 Dr. Antonino Biundo “Selective biocatalytic hydration of fatty acids from waste cooking oils for hydroxy fatty acids and polyester”

9:05 - 9:15 Dr. Martina Aulitto “A Bio-Sustainable Recovery of cellulose from Agri-Food Residues”

9:15 - 9:25 Dr. Federica De Lise “Xyloglucan Oligosaccharides Hydrolysis by Exo-Acting Glycoside Hydrolases from Hyperthermophilic Microorganism *Saccharolobus solfataricus*”

9:25 - 9:35 Dr. Andrea Strazzulli “Discovery of novel glycoside hydrolases from (hyper)thermophilic consortia as potential tools for second-generation biorefineries”

9:35 - 9:45 Dr. Vittoria Monaco “What Antarctic Plants Can Tell Us about Climate Changes”

9:50 - 10:10 **PhD students short presentations**

9:50 - 9:55 Miriam Carbonaro “From hot pool to enzyme discovery: a new multifunctional GH9 enzyme from *Alicyclobacillus mali*”

9:55 - 10:00 Flora Salzano “*Alicyclobacillus mali* FL18 as a novel source of thermophilic Glycosyl hydrolases: characterization of a new B-xylosidase”

10:00 - 10:05 Emanuela Maresca “Kombucha production from agri-food residues”

10:05 - 10:10 Andrea Salini “Chasing plastizymes from the microbiota of a wastewater treatment plant”

Discussion

10:15 - 10:30 **Coffee break**

10:30 - 12:00 **Session 3. Biopolymers: from biotechnology to bioengineering**
Chairs: Prof. Loredana Mariniello, Dr. Annalisa La Gatta

10:30 - 10:50 Prof. Giulio Gherzi “Synthesis of recombinant collagenases, their applications in regenerative medicine”

10:50 - 11:00 Dr. Seyedeh Fatemeh Mirpoor “Argan (*Argania spinosa* L.) protein-based films for cosmeceutical applications”

11:00 - 11:10 Dr. Marianna Abate “Novel Nanotechnology-based approaches for the delivery of tumor suppressor miRNAs in cancer therapy”

11:10 - 11:20 Dr. Paola Cicatiello “Multitasking adhesive protein for biotechnological applications”

11:20 - 11:30 Dr. Antonietta Stellavato “Anti-inflammatory effect of exopolysaccharides on co-culture models of macrophage-Like and enterocyte”

11:30 - 11:40 Dr. Valentina Vassallo “Un sulfated biotechnological chondroitin bioactivity in vitro model of pathological synoviocytes”

11:45 - 11:55 **PhD students short presentations**

11:45 - 11:50 Michela Famiglietti “Antioxidant and antimicrobial activity of edible films made of Dried Olive Leaf Extract and Chitosan”

11:50 - 11:55 Sondos Hejazi “Potential applications of low molecular weight fractions of poly- γ -glutamic acid as matrix components of biodegradable materials”

Discussion

12:00 - 13:00 **Trends in Industrial Biotechnology: projects, facilities, experiences by different perspectives**

Chairs: Prof. Chiara Schiraldi (Coordinator), Dr. Amleto D’Agostino (BioTekNet)

12:00 - 12:10 Dr. Mauro Di Fenza “IBISBA-IT, the first Italian research infrastructure for industrial biotechnology accessible to the wider research community”

12:10 - 12:25 Dr. Alessandro Ruggiero (IBSA-CH)- Italy-Switzerland-China “From Research in the lab to Industrial development: a roadmap for success”

12:25 - 12:30 Dr. Amleto D’Agostino, BioTekNet SCpA (President)

12:30 - 12:45 Final discussion and **Awards to best young presenting authors**

12:45 - 13:00 Closing remarks and future perspectives for the SIB Biotechnology group

13:00 - 14:00 **Light lunch**

GOOD BYE

Workshop gruppo Biotecnologie SIB- Società Italiana di Biochimica Italian Society of Biochemistry

Scientific Committee

Prof. Chiara Schiraldi (Coordinator)

Prof. Rosario Ammendola

Prof. Mauro Magnani

Prof. Marco Moracci

Prof. Loredano Pollegioni

Prof. Marina Porcelli

Organizing committee

Prof. Chiara Schiraldi (Coordinator)

Dr. Alberto Alfano

Dr. Donatella Cimini

Dr. Annalisa La Gatta

Dr. Mariarita Brancaccio (responsible Biotech Group Young Section)

Supporting team

Dr. Sergio D'Ambrosio

Dr. Valentina Vassallo

Dr. Laura Mosca

