

Foreword:

After the 1st edition of the "Geneva Chemistry and Biochemistry Days" which was organised in June 2011, the Section de chimie et biochimie, University of Geneva, makes it a permanent event with its 2nd edition.

This event is aimed at giving our students who are close to finishing their PhD studies the opportunity to present their research to a large audience from academia and industry.

Four distinguished lecturers will enrich the programme. They have been invited by the Departments of our School (Département de chimie minérale, analytique et appliquée, Département de chimie organique, Département de chimie physique, Département de biochimie) and will seek to illustrate the breadth and quality of chemical and biochemical research in the world today.

This 2-day symposium is now becoming the annual *Geneva rendez-vous* between chemists and biochemists from academia and the industry. The event will help stimulate fruitful discussions between young and advanced researchers, and give our students the opportunity to further prepare their professional careers.

We believe that it will give our guests an opportunity to appreciate the high quality of the different aspects of fundamental research performed in our School.

We hope that you will enjoy the lectures and interactions!



Prof. Alexandre Alexakis
Président de la Section de chimie et biochimie

Steering and organising committee:

Prof. Alexandre Alexakis	alexandre.alexakis@unige.ch Président de la Section de chimie et biochimie
Prof. Alan F. Williams	alan.williams@unige.ch Directeur du Département de chimie minérale, analytique et appliquée
Prof. Stefan Matile	stefan.matile@unige.ch Directeur du Département de chimie organique
Prof. Eric Vauthey	eric.vauthey@unige.ch Directeur du Département de chimie physique
Prof. Marcos González-Gaitán	marcos.gonzalez@unige.ch Directeur du Département de biochimie

PROGRAMME – THURSDAY 19 JANUARY 2012:

Session 1 – Morning		
Chairmen: Prof. E. Peter Kündig + Dr Hans Hagemann		
09:00-09:15	Prof. Alexandre Alexakis	Welcome message Introduction
09:15-10:15	Prof. Dr Manfred T. Reetz Philipps-Universität Marburg	Laboratory Evolution of Stereoselective Enzymes: A Prolific Source of Catalysts for Asymmetric Reactions
10:15-10:30	Coffee break Main hall of Sciences II	
10:30-10:50	Mr Daniel Emery	DFT Study of Anion- π Interactions in Context of Anion Transport and Organocatalysis
10:50-11:10	Mr Alastair Cunningham	Bottom-Up Fabrication and Optical Properties of Metallic Nanoparticle Structures
11:10-11:30	Ms Chrystelle Montagne	Endocytosis and Cell Fate Decision in <i>Drosophila</i> Intestinal Stem Cells
11:30-11:50	Mr Chandan Dey	Synthesis of Oxindoles and Aza-Oxindoles
11:50-12:10	Ms Vincenza D'Anna	Vibrational and Structural Characterization of Borohydrides
12:10-14:00	Lunch (invited lecturers + PhD students of day 1) Restaurant-pizzeria Sole Mio, boulevard Carl-Vogt	
Session 2 – Afternoon		
Chairmen: Prof. Jean Gruenberg + Prof. Corinne Vebert		
14:00-14:20	Mr Daniel Müller	Asymmetric Conjugate Additions of Alkenyl-Alanes to 2,3-Dehydro-4-Piperidones
14:20-14:40	Mr Pradip Chakraborty	Spin Switching Dynamics in the Mixed Crystals of 2D Polymers $[Zn_{1-x}Fe_x(bbtr)_3](ClO_4)_2$ and $[Fe(bbtr)_3](BF_4)_2$
14:40-15:00	Ms Charlotte Gehin	Screening of Dynamic Amphiphiles as siRNA Delivery System in Mammalian Cells
15:00-15:20	Mr Andrea Fin	Synthesis of Responsive Fluorescent Probes and Dynamic Amphiphiles for Biological Applications
15:20-15:40	Mr William Herzog	3-Components Systems for Proton-Coupled Electron Transfer
15:40-16:00	Coffee break Main hall of Sciences III	
16:00-16:20	Ms Lilit Aboshyan Sorgo	Energy Transfer Up-Conversion (ETU) of Light at the Molecular Level
16:20-16:40	Mr Hailing Li	Enyne Chlorides: New Substrates for Copper-Catalyzed Asymmetric Allylic Alkylation
16:40-17:40	Prof. Dr Ari Helenius ETH Zürich	How Viruses Enter their Host Cells
17:40-19:00	Verre de l'amitié Main hall of Sciences III	
19:00-	Banquet (speakers + chairmen + organisers)	

PROGRAMME – FRIDAY 20 JANUARY 2012:

Session 3 – Morning		
Chairmen: Prof. Alan F. Williams + Prof. Reika Watanabe		
09:00- -10:00	Prof. Dr Hansjörg Grützmacher ETH Zürich	Metal Ligand Cooperativity: From Hydrogen Transfer Reactions to Organometallic Fuel Cells
10:00- -10:20	Coffee break <div>Main hall of Sciences III</div>	
10:20- -10:40	Ms Dipshikha Banerjee	Chiral <i>N</i> -Heterocyclic Carbenes in Asymmetric Gold Catalysis and in Synthesis of NHC-Borane Complexes
10:40- -11:00	Mr Giovanni Li Manni	Split-CAS: A Strategy to Enlarge the Orbital Space in Multiconfigurational Calculations
11:00- -11:20	Mr Mohammadali Foroozandeh	HSQC with Broadband Homonuclear Decoupling in the Carbon Dimension for Uniformly ¹³ C-Enriched Samples
11:20- -11:40	Mr César Beuchat	Using Quantum Chemical and Molecular Dynamics Methods to Study Highly Charged Species in Solution
11:40- -12:00	Mr Dmitry Katayev	Indoline Synthesis <i>via</i> Catalytic Asymmetric Coupling of an Unactivated Methylene Group
12:00- -14:00	Lunch (invited lecturers + PhD students of day 2) <div>Restaurant-pizzeria Sole Mio, boulevard Carl-Vogt</div>	
Session 4 – Afternoon		
Chairmen: Prof. Thomas Bürgi + Dr Andreas Zumbuehl		
14:00- -14:20	Ms Natascha Sattler	Scavenger Receptor are Important for Uptake and Digestion of Bacteria in <i>Dictyostelium</i>
14:20- -14:40	Ms Vesna Markovic	Two-Dimensional Electronic Spectroscopy: Concept, Development and Applications
14:40- -15:00	Mr Pierre Zaffalon	Study of Hydrogen Bond Influence on the Assembly and Packing of the Derivatives of Acylethanolamide
15:00- 15:20	Coffee break <div>Main hall of Sciences III</div>	
15:20- -15:40	Mr Stefan Knoppe	Synthesis, Isolation and Characterization of Thiolate-Protected Chiral Gold Clusters
15:40- -16:00	Ms Jezabel Praz	Evaluation of the Chiral DIANANE Backbone as Ligand for Organolithium Reagent
16:00- 17:00	Prof. Laurence A. Nafie Syracuse University	Vibrational Optical Activity: A New Spectroscopic Tool for Stereo-Molecular Structure Determination
17:00-	Prof. Alexandre Alexakis	Concluding remarks



**UNIVERSITÉ
DE GENÈVE**

FACULTÉ DES SCIENCES
Section de chimie et biochimie

Geneva chemistry and biochemistry days

TH 19 – FR 20 January 2012

Sciences II – auditoire A150

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