

FINAL PROGRAMME

SUNDAY – 20 October 2013

- 15:00** **Registration Desk Open; Mounting the Posters**
- 15:30 – 17:00 Conference buses from Bratislava and Vienna arrive at Smolenice Castle
- 18:45 – 19:00 **Opening words - Štefan Janeček**
- 19:00 – 20:00 **ALAMY_5 Keynote Lecture**
Chair: Birte Svensson
Samuel C. Zeeman (Zürich, Switzerland): The roles of amylolytic enzymes in starch metabolism in plants.
- 20:00 – 22:00 **Opening Reception**

MONDAY – 21 October 2013

- 07:30 – 08:30 *Breakfast*
- 08:55 Announcements
- 09:00 – 11:50 **Structure-function relationships in the clan GH-H and related families**
Chair: Pedro M. Coutinho and Eva Nordberg Karlsson
- 09:00 – 09:40 **Alain Buléon (Nantes, France): A synchrotron view of enzymatic hydrolysis and synthesis of starch building blocks.**
- 09:40 – 10:05 **Marie S. Møller (Kgs. Lyngby, Denmark): Insights gained from the crystal structure of the complex of barley limit dextrinase and barley limit dextrinase inhibitor.**
- 10:05 – 10:30 **Alexandra Lipski (Lyon, France): Structural and functional studies of the first described trehalulose hydrolase MutA from *Rhizobium* sp.**
- 10:30 – 11:00 *Coffee/Tea Break and Posters*
- 11:00 – 11:25 **Stephen Bornemann (Norwich, UK): Binding, catalysis and regulation of the anti-TB target GH13_3 GlgE.**
- 11:25 – 11:50 **Claire Moulis (Toulouse, France): Search for new GH-70 α -transglucosylases in lactic acid bacteria diversity dedicated to the synthesis of tailor-made α -glucans.**
- 11:50 – 13:50 *Lunch Break*
- 13:50 – 15:00 **Flash Presentations**
Chair: Nushin Aghajari and Carsten Andersen
- 13:50 – 13:57 **Ema Camacho (Caracas, Venezuela): Role for an α -amylase in the cell wall reorganization of *Paracoccidioides brasiliensis* pathogenic yeast-like phase.**
- 13:57 – 14:04 **Margaret Dah-Tsyr Chang (Hsinchu, Taiwan, China): Characteristics of family 21 carbohydrate binding module in tandem repeat.**
- 14:04 – 14:11 **Olafur Fridjonsson (Reykjavik, Iceland): Amylomic enzymes captured by targeted metagenomics.**

- 14:11 – 14:18 **James H. Geiger** (*East Lansing MI, USA*): **Structure, function and specificity of branching enzyme.**
- 14:18 – 14:25 **Paul R. Gooley** (*Melbourne, VIC, Australia*): **AMP-activated protein kinase β subunit requires internal motion for optimal carbohydrate binding.**
- 14:25 – 14:32 **Or Kakhlon** (*Jerusalem, Israel*): **Searching for efficient therapeutic avenues to treat Adult Polyglucosan Body Disease (APBD) and Lafora Disease (LD) using a high-throughput screening platform.**
- 14:32 – 14:39 **Ryota Kuroki** (*Ibaraki, Japan*): **Substrate-binding mechanism in trehalose producing enzymes elucidated by crystallography.**
- 14:39 – 14:46 **Eva Nordberg Karlsson** (*Lund, Sweden*): **Amylolytic enzymes from new genera isolated via genetic tools: characterization of the first cyclomaltodextrin glucanotransferase from *Carboxydocella* sp.**
- 14:46 – 14:53 **Jean-Philippe Ral** (*Canberra, ACT, Australia*): **Involvement of α -amylases in starch degradation of germinated wheat grain.**
- 14:53 – 15:00 **Casper Wilkens** (*Kgs. Lyngby, Denmark*): **Surface binding sites within α -glucan active enzymes.**
- 15:00 – 16:30 **Poster Session I.**
- 16:30 – 18:55 **Structure-function relationships in the clan GH-H and related families**
Chair: Pierre Monsan and Harry Brumer
- 16:30 – 17:10 **Stephen G. Withers** (*Vancouver, BC, Canada*): **Structural and mechanistic insights into trehalose synthase and new inhibitors for human pancreatic α -amylase.**
- 17:10 – 17:35 **Diana Santelia** (*Zürich, Switzerland*): **The *Arabidopsis AtAMY3* is a unique redox-regulated chloroplastic α -amylase.**
- 17:35 – 18:05 *Coffee/Tea Break and Posters*
- 18:05 – 18:30 **Matthew S. Gentry** (*Lexington, KY, USA*): **Structural mechanisms of starch dephosphorylation.**
- 18:30 – 18:55 **Michael Emes** (*Guelph, ON, Canada*): **Multiple phosphorylation sites on starch branching enzyme isoforms regulate specific protein-protein interactions.**
- 19:00 – 22:00 *Supper (eventually at the court of the Castle) with a music*

TUESDAY – 22 October 2013

- 07:30 – 08:30 *Breakfast*
- 08:55 *Announcements*
- 09:00 – 10:20 **Starch- and glycogen-binding domains as CBM families**
Chair: Matthew Gentry
- 09:00 – 09:40 **Nicole Koropatkin** (*Ann Arbor, MI, USA*): **CBMs enhance starch sensing and acquisition by human gut symbionts.**
- 09:40 – 10:20 **David Stapleton** (*Melbourne, VIC, Australia*): **The AMP-activated protein kinase uses a unique CBM48 to associate with glycogen particles.**
- 10:20 – 10:50 *Coffee/Tea Break and Posters*

- 10:50 – 11:15 **ALAMY_5 Special Lecture - Focus on chitinases**
Chair: Marc J.E.C. van der Maarel
Takayuki Ohnuma (*Nara, Japan*): **Substrate binding and catalytic mechanism of family GH19 chitinases.**
- 11:15 – 12:00 **Award Ceremony**
Chair: Birte Svensson
- 11:20 – 12:00 **ALAMY_5 Lifetime Achievement Award Lecture**
Richard Haser (*Lyon, France*): **Into the third dimension of glycosidases for contributing to understand and exploit their functions.**
- 12:00 – 13:30 *Lunch Break*
- 13:30 – 23:00 **Trip outside the Smolenice Castle** (including a dinner)
- ~13:30 *Conference buses leave the Castle*
- 14:00 – 16:00 *Wine tasting - Fedor Malík & Syn, s.r.o. - a family viniculture in the city of Modra*
- 17:00 – 18:30 *Free time in the Old Town (the historic centre) of Bratislava - the capital of Slovakia*
- 19:30 – 22:00 *Dinner - Hotel Majolika, Modra*
- ~ 23:00 *Arrival at the Smolenice Castle*

WEDNESDAY – 23 October 2013

- 07:30 – 08:30 *Breakfast*
- 08:55 *Announcements*
- 09:00 – 10:45 **Structure-function relationships in families GH31, GH126 and GH57**
Chair: Stephen G. Withers
- 09:00 – 09:40 **Harry Brumer (*Vancouver, BC, Canada*): A new α -transglucosidase from glycoside hydrolase family 31.**
- 09:40 – 10:20 **Elizabeth Ficko-Blean (*Roscoff, France*): The structure and function of a novel α -amylase produced by the pathogenic bacterium *Clostridium perfringens*.**
- 10:20 – 10:45 **Kwang-Hyun Park (*Daejeon, South Korea*): Structural features underlying selective exo-maltogenic cleavage of a novel GH57 enzyme from *Pyrococcus* sp. ST04.**
- 10:45 – 11:15 *Coffee/Tea Break and Posters*
- 11:15 – 12:20 **Novel family GH13 subfamilies**
Chair: Takashi Kuriki
- 11:15 – 11:55 **Birte Svensson (*Kgs. Lyngby, Denmark*): Analysis of surface binding sites within GH13 and GH77.**
- 11:55 – 12:20 **Dessy Natalia (*Bandung, Indonesia*): Novel raw starch-degrading GH13 amylases from marine bacteria.**
- 12:20 – 14:00 *Lunch Break*
- 14:00 – 15:30 **Poster Session II.**
- 15:30 – 17:55 **Human health and gut microflora**
Chair: Nushin Aghajari & Samuel C. Zeeman
- 15:30 – 16:10 **B. Mario Pinto (*Burnaby, BC, Canada*): Modulation of starch digestion for slow glucose release through “togglng” of activities of mucosal α -glucosidases.**
- 16:10 – 16:35 **Maher Abou Hachem (*Kgs. Lyngby, Denmark*): Recent insight into α -glucan metabolism in probiotic bifidobacteria and lactobacilli.**

- 16:35 – 17:05 *Coffee/Tea Break and Posters*
- 17:05 – 17:30 **Takashi Furuyashiki (Osaka, Japan): Enzymatically synthesized glycogen improves intestinal microbiota and lipid metabolism.**
- 17:30 – 17:55 **Narayanan Ramasubbu (Newark, NJ, USA): Probing the interaction of human salivary α -amylase and amylase binding protein A (AbpA) of *Streptococcus gordonii*.**
- 17:55 – 19:00 *Refreshment Break*
- 19:00 – 20:00 **ALAMY_5 Banquet Lecture**
Chair: Birte Svensson
Pierre Monsan (Toulouse, France): From sucrose to starch, thanks to GH Family 13 enzymes.
- 20:00 – 24:00 **Symposium Banquet with Poster Awards**

THURSDAY – 24 October 2013

- 07:30 – 08:30 *Breakfast*
Vacation of the rooms - Removing the Posters
- 08:55 *Announcements*
- 09:00 – 10:30 **Industrial aspects of starch processing**
Chair: Marc J.E.C. van der Maarel
- 09:00 – 09:40 **Asfia Qureshi (San Diego, CA, USA): Use of archaeal amylases in industry and insight into structural features conferring thermal stability.**
- 09:40 – 10:05 **Carsten Andersen (Bagsvaerd, Denmark): Enzyme development for conventional biofuel.**
- 10:05 – 10:30 **Robert G. Gilbert (Brisbane, QLD, Australia): A new method for investigating the active domain of starch/glycogen synthesis/degradation enzymes.**
- 10:30 – 11:00 *Coffee/Tea Break*
- 11:00 – 11:50 **Structure-function relationships in the clan GH-H and related families**
Chair: Pedro M. Coutinho
- 11:00 – 11:25 **Marta Martinez-Garcia (Groningen, The Netherlands): Structure of the storage α -glucan from the thermoacidophilic red alga *Galdieria sulphuraria*.**
- 11:25 – 11:50 **Jun-ichi Abe (Kagoshima, Japan): Functional properties of GlgX from *Synechocystis* sp. PCC6803.**
- 11:50 – 12:20 **ALAMY_5 Closing Lecture**
Chair: Pierre Monsan
Nushin Aghajari (Lyon, France): Structure and function relationship studies of a GH97 glycoside hydrolase.
- 12:20 – 12:30 **Closing words - Štefan Janeček**
- 12:30 – 13:30 *Lunch and Farewell*
- 12:30 – 13:00 The 1st Conference Bus leaves for Bratislava and Vienna
13:30 – 14:00 The 2nd Conference Bus leaves for Bratislava and Vienna