



4th International Glucosinolate Conference 2017

Scientific Program

Sunday, September 17, 2017

- 15.30 Registration
- 17.30 **Welcome**
Chair: *Monika Schreiner*
- 17.30 – 17.45 **Conference Opening**
Claudia Herok, Ministry of Sciences, Research and Cultural Affairs of Brandenburg
- 17.45 – 18.30 **Keynote: Glucosinolate Breakdown**
Ute Wittstock, TU Braunschweig
- 18.30 – 20.00 **Get together**

Monday, September 18, 2017

- Session 1** **Molecular and Genetic Aspects of Glucosinolate**
Chair: Barbara Halkier & N.N.
- 9.00 – 9.40 **Keynote: Transporter engineering reduces anti-nutritional glucosinolates in *Brassica* oilseeds.**
Hussam Hassan Nour-Eldin, University of Copenhagen, Denmark
- 9.40 – 10.00 Accumulation of defence compounds in phloem-cap cell requires NPF transporters
Deyang Xu
- 10.00 – 10.20 The metabolic network of tryptophan-derived defence compounds in *Arabidopsis*
Teresa Müller
- 10.20 – 10.40 Function and evolution of indole glucosinolate modification pathways
Jürgen Kroymann
- 10.40 – 11.10 **Coffee Break**

- 11.10 – 11.30 Glutathione S-transferase class-tau member 13 is essential for the PENETRATION2 myrosinase-mediated immune pathway of indole glucosinolate metabolism in *Arabidopsis*
Paweł Bednarek
- 11.30 – 11.50 ER bodies provide a defense system using glucosinolates in Brassicaceae plants
Kenji Yamada
- 11.50 – 12.10 Glucosinolate hydrolysis products acting as DAMPs: physiological and molecular responses
Ane Kjersti Vie
- 12.10 – 12.30 Tissue specific engineering of glucosinolate pathway in *Brassica juncea* for higher nutritional value and uncompromised defense response
Naveen Chandra Bisht
- 12.30 – 13.30 Lunch**
- 13.30 – 13.50 Flowering Locus C (FLC) is a potential major regulator of glucosinolate content across developmental stages of *Aethionema arabicum* (Brassicaceae)
Eric Schranz
- 13.50 – 14.10 Different myrosinases, different functions
Ryohei Thomas Nakano
- 14.10 - 14.20 Water Break**
- Session 2 Glucosinolates and Ecology**
Chair: Nicole van Dam & N.N.
- 14.20 – 15.00 **Keynote: Glucosinolates and coevolution of plants and insects**
Franziska Beran, MPI for Chemical Ecology, Jena
- 15.00 – 15.20 How can a chewing insect sequester glucosinolates?
Theresa Sporer
- 15.20 – 15:40 Detoxification of *p*-hydroxybenzyl glucosinolate by *Spodoptera littoralis* via mercapturic acid pathway
Anton Shekhov
- 15.40 – 16.10 Coffee Break**

- 16.10 – 16.30 Metabolism of glucosinolates and other activated plant chemical defenses by phloem feeders
Daniel Vassão
- 16.30 – 16.50 Optimal defence perspective of systemic induced glucosinolates against root herbivory by generalist insects
Tomonori Tsunoda
- 16.50 – 17.10 Effects of narrow-band and broad-band UV-B on glucosinolate accumulation in *Arabidopsis thaliana* genotypes and resistance traits
Inga Mewis
- 17.10 – 17.30 Biosynthesis, evolution and function of aromatic glucosinolates in *Barbarea*
Niels Agerbirk
- 19.00 Conference Dinner**

Tuesday, September 19, 2017

Session 3

Glucosinolates in Agro- and Food Systems

Chairs: Ruud Verkerk, Marian McKenzie

- 9.00 – 10.00 Poster flashes
- 10.00 – 10.40 **Keynote: Food Design for healthier products – *Brassica* vegetables as food ingredients**
Teresa Oliviero, Wageningen University, The Netherlands
- 10.40 – 11.00 The fate of glucosinolates during processing of *Brassica* vegetables.
Franziska Hanschen
- 11.00 – 11.30 Coffee Break**
- 11.30 – 11.50 *Eruca sativa* from an underutilized oilseed crop to innovative products for health and agrofood industry
Eleonora Pagnotta
- 11.50 – 12.10 Plant and bacterial endophytes – Partners in plant ozone stress mitigation?
Susanne Baldermann

- 12.10 – 12.30 Differential roles of glucosinolates and camalexin in *Agrobacterium*-mediated transformation efficiencies
Po-Yuan Shih
- 12.30 – 13.30 Lunch**
- 13.30 – 13.50 Broccoli cell cultures as biofactories to enhance the production of glucosinolates
Maria Angeles Pedreño
- 13.50 – 14.10 Microbial production of glucosinolates – Which way to go?
Christoph Crocoll
- 14.10 – 15.15 Poster Session and Coffee break**
- 15.30 Culinary Excursion**

Wednesday, September 20, 2017

- Session 4 Glucosinolates and Human Health**
Chairs: Anna Kipp & Kang Mo Ku
- 9.00 – 9.40 **Keynote: Elicitation of glucosinolate biosynthesis and the impact on human health**
Melanie Wiesner-Reinhold, IGZ, Großbeeren
- 9.40 – 10.00 Selenium metabolism in brassicas: how does this affect the glucosinolates and human health?
Marian McKenzie
- 10.00 – 10.20 Myrosinase-Glucosinolate tandem as a ligation tool
Arnaud Tatibouet
- 10.20 – 11.00 Poster Session and Coffee Break**
- 11.00 – 11.20 Isothiocyanates from the edible plant nasturtium and the induction of protective pathways in type 2 diabetes
Valentina Guzmán-Pérez
- 11.20 – 11.40 Pharmacokinetics of glucosinolates – a bottomless pit?
Carla Kühn



- 11.40 – 12.00 Are raw vegetables healthier than cooked ones? Cancer preventive potential of *Brassica carinata* - a randomized controlled human crossover intervention trial
Evelyn Lamy
- 12.00 – 12.20 Comparing cooked and raw broccoli efficacy for colon health
Elizabeth Jeffery
- 12.20 – 12.30 Closing Remarks**
- 12.30 – 13.30 Lunch and Departure**