



Brassica 2008 - Lillehammer - Norway

8 - 12th September 2008

Brassica2008 Proposed timetable

(updated 3 September 2008)

Monday 8 September

- 09:00-12:30 **Phylogenomics workshop**
Organisers: Martin Lysak and Eric Schranz
- 12:30 Lunch
- Opening Session**
Chair: João Silva Dias
- 14:00 Opening
- 14:30 *Rune Blomhoff: (Keynote)*
"Health effects of dietary plants"
- 15:10 *Matthijs Dekker and Ruud Verkerk: (Keynote)*
"Delivering Health Promoting Compounds to Consumers – QACCP chain analysis and modelling of Glucosinolates in Brassica Vegetables"
- 17:00 **Welcome reception at Maihaugen open air museum**

Tuesday 9 September

- Session A1-Genetic resources, diversity and domestication**
Chair: Chris Pires
- 08:30 *Guusje Bonnema, Dunia Pino Del Carpio, Jianjun Zhao, Anna Artemyeva, Joao Paulo: (Keynote)*
"Genetic diversity in Brassica rapa"
- 09:10 *A.N. Ignatov, A.M. Artemieva and K. Hida:*
"Origin and Expansion of Cultivated Brassica Rapa in Eurasia: Linguistic Facts"
- 09:30 *Dunia Pino Del Carpio, Ric de Vos, Joao Paulo, Gerard van der Linden and Guusje Bonnema:*
"Association Mapping of Metabolites and Developmental Traits in Brassica rapa"
- 09:50 *Wu Xiaoming, Lu Guangyuan, Chen Biyun, Xu Kun and Gao Guizhen:*
"Rapeseed Elite Core Collection: a High-Resolution Platform for Genetic Dissection of Important Traits by Linkage Disequilibrium"
- 10:10 *Dave Pink, Graham Teakle, Guy Barker, Charlotte Allender, Dave Astley:*
"Assessing biodiversity in brassica genetic resource collections through development of diversity fixed foundation sets"
- 10:30 Coffee
- Session B1 -Human health related qualities/functional foods + Post-harvest and quality**
Chair: Matthijs Dekker
- 11:00 *Albena Dinkova-Kostova: (Keynote)*
The effectiveness of the isothiocyanate sulforaphane in chemoprotection
- 11:40 *Maria Traka: (Keynote)*
"Broccoli consumption interferes with prostate cancer progression: Mechanisms of action"
- 12:20 *Jessica Endrigkeit, Xingxing Wang, Chunyu Zhang, Jinling Meng and Christian Jung:*
"Development of Functional Markers for Tocopherol Content in Brassica napus"
- 12:40 Lunch



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Session C1 - Agronomy and diseases, incl. sustainable production and organic farming

Chair: Richard Meadow

- 14:00 *Kristian Thorup-Kristensen: (Keynote)*
Brassicas in sustainable production and organic farming
- 14:40 *Voorrips, R.E., Steenhuis-Broers, G., Tiemens-Hulscher, M. and Lammerts van Bueren, E.T.:*
"Earliness, Leaf Surface Wax and Sugar Content Predict Varietal Differences for Thrips Damage in Cabbage"
- 15:00 *J. E. Petkowski, E. Minchinton, Fiona Thomson, R. Faggian and D. Cahill:*
"Races of *Albugo candida* Causing White (Rust) Blister on Brassica Vegetables in Australia"
- 15:20 *Bousset L., Ribulé A. and Picault H:*
"A Quick and Easy but Precise Method for a Quantitative Assessment of Disease Severity: Application to Phoma Stem Canker Leaf Spots on Oilseed Rape"
- 15:40 Coffee
- 16:00 **Poster Sessions**
- 19:00 **Clubroot workshop**
Organiser: Geoff Dixon

Wednesday 10 September

Session D1- Comparative & Applied Genomics

Chair: Graham King

- 08:30 *Christopher D. Town, J. Chris Pires, Andrew J. Paterson and Ian Bancroft: (Keynote)*
Comparative Genomics of the Brassicaceae: sequence relationships within the genus Brassica and to close relatives including Arabidopsis and Sisymbrium.
- 09:10 *Véronique Sarilar, Céline Ridel, Agnès Rousselet, Matthieu Falque, Jean-Claude Letanneur, Frédérique Eber, Anne-Marie Chèvre, Philippe Brabant and Karine Alix:*
"What is the Impact of Allopolyploidy on Transposable Elements? A Structural Approach on Newly Synthesized *Brassica napus* Allotetraploids"
- 09:30 *HyeRan Kim, Su Ryun Choi, Jina Bae, Md. Jamil Hossain, Seo Yeon Lee, Van Dan Nguyen, Mina Jin, Chang Pyo Hong, Dal Hoe Koo, Beom-Seok Park, Jae Wook Bang and Yong Pyo Lim:*
"Sequenced BAC Anchored Reference Genetic Map that Reconciles with Individual Ten Chromosomes of Brassica rapa"
- 09:50 *Graham J. King, Stephen Amoah, Jacqueline Barker, Pierre Carion, Clare Hopkins, Smita Kurup, Sarah Usher:*
"Investigating epigenetic variation in Brassica crop genomes"



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Session F1- Trait genetics

Chair: Gussje Bonnema

M. Hirai: (Keynote)

- 10:10 "Mapping of various traits in *Brassica rapa* and *Raphanus sativus*"
- 10:50 Coffee
- 11:20 *Morris, K., Clay, H.A., Dent, K.C., Barker, G. and Finch-Savage, W.E.:*
"Seed Vigour in *Brassica oleracea*: Using Natural Variation to Identify Candidate Genes"
- 11:40 *Peter Berry, Graham Teakle, John Foulkes, Bonington Campus, Philip White and John Spink:*
"Breeding for improved nitrogen use efficiency in oilseed rape"
- 12:00 *Christian Obermeier, Bashir Hosseini, Wolfgang Friedt and Rod Snowdon*
"Serial Analysis of Gene Expression (SAGE) during *Brassica napus* seed development"
- 12:20 *Carol Ryder, Guy Barker, Graham Teakle, James Lynn, David Pink, Jean-Charles Deswarte, Graham Farquhar, Philip White and Andrew Thompson:*
"Water-Use-Efficiency Genes in *Brassica oleracea*"
- 12:40 Lunch
- ### **Session C2 - Agronomy and diseases, incl. sustainable production and organic farming**
- Chair: Roger Rimmer*
- 14:00 *Thierry Rouxel, Isabelle Fudal, Guillaume Daverdin, Lilian Gout, Francis Parlange¹, Jean-Noel Aubertot², Marie H el ene Balesdent (Keynote):*
"Genome Structure and Cultural Practices Impact Mechanisms and Speed of Molecular Evolution of the Avirulence Alleles in the Stem Canker Pathogen *Leptosphaeria maculans*"
- 14:40 Sponsor talk from Yara
- 15:00 *Richard Meadow:*
"Controlling Root-flies in Brassica Vegetables Using Exclusion Fences"
- 15:20 *Sampa Das:*
"Interaction Between *Allium Sativum* Leaf Agglutinin and Mustard Aphid Borne Symbionin Protein : A Crop Protection Tool"
- 15:40 *A-C. Wallenhammar, L.E. Anderson and E. Stoltz:*
"Crop establishment and strategies to reduce weeds and volunteers in organic rape seed production"
- 16:00 Coffee
- 16:20 *Wang Xin, Li Xixiang, Wu Qingjun, Wang Haiping, Shen Di and Zhang Youjun:*
"Studies on the Evaluation Methods and the Mechanism of Resistance of Chinese Cabbage (*Brassica campestris* L.) to Diamondback Moth(*Plutella xylostella*)"



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Session A2 - Genetic resources, diversity and domestication

Chair: John Einset

- 16:40 *Federico Iniguez-Luy: (Keynote)*
"Genetic resources, diversity and domestication"
- 17:20 *Terezie Mandáková and Martin A. Lysak:*
"Karyotype Evolution in n=7 Species from Different Crucifer Tribes"
- 17:40 *Anne Laperche, Cyril Falentin, Geoffrey Wagner, Gilles Boutet, Pascal Glory, Alain Label, Maria J. Manzanares-Dauleux, and Michel Renard:*
"Structure of genetic diversity and elaboration of core collections in *Brassica oleracea*"
- 19:00 Symposium Dinner at Lillehammer Hotel

Thursday 11 September

Session A2- continuation

- 08:30 *Wolfgang Ecke, Rosemarie Clemens and Heiko C. Becker:*
"Analysis of Linkage Disequilibrium in Canola-Quality Winter Rapeseed (*Brassica napus* L.)"

Session F2 -Trait genetics

- Chair: Graham Teakle
- 08:50 *Steven J. Franks: (Keynote)*
"Trait genetics: Ecological genetics and adaptation to climate change in natural population of *Brassica rapa*"
- 09:30 *Falentin Cyril, Barret Pierre, Brégeon Michel, Lucas Marie-Odile, Deschamps Max, Leprince Françoise, Fournier Marie-Thérèse, Delourme Régine and Renard Michel:*
"Identification of fad2 and fad3 Mutations and Development of Allele-Specific Markers for High Oleic and Low Linolenic Acid Content in Rapeseed (*Brassica napus* L.)"
- 09:50 *John Einset:*
"Gene Discovery For Chilling Stress Determinants in Arabidopsis"

Session B2 - Human health related qualities/functional foods (Bii) + Post-harvest and quality

- Chair: Richard Mithen
- 10:10 *Monika Schreiner and Angelika Krumbein: (Keynote)*
"Glucosinolates in *Brassica* vegetables – affected by altered gas composition and other elicitor applications"
- 10:50 Coffee
- 11:20 *Caroline S. M. Furniss, Richard N. Bennett, James R. Bacon, Gwen LeGall and Richard F. Mithen:*
"Biological Activity of Broccoli on Human Colon Caco-2 Cells"
- 11:40 *Magnor Hansen, Anne-Berit Wold, Liv Berge, Gunnar B. Bengtsson and Grethe Iren Borge:*
"Red cabbage, a vegetable rich on health-related glucosinolates"
- 12:00 *Britta Harbaum, Eva Maria Hubbermann and Karin Schwarz:*
"Phenolic Compounds in Chinese *Brassica* Vegetables"
- 12:20 *Villatoro-Pulido, M.M., Font, R., Romero-Jiménez, M., Anter, J., Muñoz-Serrano, A., Alonso-Moraga, A., Del Río-Celestino, M.:*
"Genotoxicity and Antigenotoxicity Testing of Rocket (*Eruca sativa* (Mill.) Thell) in the *Drosophila* Wing Somatic Mutation and Recombination Test"
- 12:40 Lunch



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Session G1 - Brassica Breeding and Genetic improvement, incl. Transgenics

Chair: Dave Pink

14:00 *Keynote: Tom Osborn*

14:40 *Branca F., Acciarri N., Argento S., Sabatini E., Chiarenza G.L. and Ciriaci T.:*
"Improvement of the Italian landraces of pigmented cauliflower to diversify production"

15:00 *Matthew N. Nelson, Marie-Claire Castello, Annaliese E. Mason, Linda Thomson, Guijun Yan and Wallace A. Cowling:*
"High Frequencies of Unreduced Gametes and Recombination in Male Meioses in *Brassica napus* L. x *B. carinata* Braun Interspecific Hybrids"

15:20 *Martine Leflon, Frédérique Eber, Laurie Grandont, Liudmila Chelysheva, Eric Jenczewski and Anne Marie Chèvre: (Not conformed)*
"Variation of crossover rates due to the ploidy level and genetic factor in interspecific hybrids between the tetraploid *Brassica napus* and *B. rapa*, one of its diploid progenitor"

15:40 Coffee

16:10 *Dauvergne X., Salmon A., Hadj-Arab H., Pourtau N., Eber F., Letanneur J.C., Pouilly N., Huteau V., Coriton O., Lucas M.O., Duffé P., Szadkowski E., Belcram H., Huneau C., Chalhoub B., Albertin W., Marmagne A, Brabant P., Thiellement H., Alix K, Jenczewski E., Chèvre A.M.:*

"Structural and Functional Modifications in *Brassica napus* Synthetic Forms Vary with Progenitors Genotype and the Way Polyploids are Formed"

16:30 *Franziska Wespel and Heiko Becker:*
"Rapeseed as a Model to Analyse "Fixed Heterosis" in Allopolyploid Plants"

Session D2 - Comparative & Applied Genomics

Chair: Chris Town

16:50 *Soo-Jin Kwon and Beom-Seok Park: (Keynote)*
"An understanding of *Brassica* Genome based on Comparative Genomics with *Arabidopsis* : Sequencing progress of Chromosome 1 and 2"

17:30 *Yan Long, Minqin Shao, Wei Xia, Jing Wang and Jinling Meng*
"Genome Distribution of DNA Methylation Loci and its relationship with important Agronomic Traits in Oilseed *Brassica* "

17:50 Concluding remarks and closing

19:00 - 21:00 **META-PHOR metabolomics workshop**

Organiser: Robert Hall

Friday 12th September

08:15 - 1700 Excursion