



Brassica 2018 July 1-4 21st Crucifer Genetics Conference Saint-Malo, FRANCE



Program

The Brassica 2018 will take place at the **Palais du Grand Large, Saint Malo** (<http://www.pgl-congres.com/en/>)

SUNDAY, JULY 1

- 16:00 - 20:00** Registration – *Palais du Grand Large, Grand Large Hall*
Setting up posters – *Grand Large Hall*
- 18:30 - 20:00** Welcome reception – *Grand Large Hall*

MONDAY, JULY 2

- 08:00 - 08:30** Registration – *Du Trouin Hall*

Chateaubriand Auditorium

- 08:30 - 09:00** **Opening of the conference** Pr. Grégoire Thomas
Mr. Jean-Marc Roué
- 09:00 - 09:45** **Opening lecture: Plant functional genomics: from data to crops** Pr. Dave Edwards

09:45 - 12:30 **Session 1: Genome organization and genome editing**
(Chairs: J. Batley & E. Schranz)
Chateaubriand Auditorium

- 09:45 - 10:15 **Keynote S1:** Phylogenomic synteny analysis for understanding the evolution of crucifers Pr. Eric Schranz

10:15 - 10:45 *Coffee break – Grand Large Hall*

Oral presentations S1

- 10:45 - 11:05 **S1-O-01:** Population genomic analyses identify signatures of selection and loci associated with agronomic traits in *Brassica napus* Shengyi Liu
- 11:05 - 11:25 **S1-O-02:** Cytonuclear interactions remain stable during allopolyploid evolution despite repeated whole-genome duplications Julie Ferreira de Carvalho
- 11:25 - 11:45 **S1-O-03:** Application of Oxford Nanopore technologies sequencing to Brassica genome improvement Isobel Parkin
- 11:45 - 12:05 **S1-O-04:** An easy and efficient CRISPR/Cas9 platform for targeted mutagenesis in allotetraploid oilseed rape Chao Li
- 12:05 - 12:30 **Flash presentations S1**
- S1-F-01:** Visualising genome structural variation in *Brassica napus* Zhesi He
- S1-F-02:** Structural and functional evolutionary dynamics of duplicated genes and genomes in nascent and natural *B. napus* Mathieu Rousseau-Gueutin
- S1-F-03:** High-quality *de novo* assembly of the cauliflower genome Ning Guo

- 12:30 - 14:00 *Lunch – J. Cartier Rotunda*

14:00 - 17:15	Session 2: Genetic diversity, epigenetics, breeding and biotechnology (Chairs: G. Bonnema & A-M. Chèvre) <i>Chateaubriand Auditorium</i>	
14:00 - 14:30	Keynote S2.1: Ancient polyploidy, genetic variation, and domestication of <i>Brassica rapa</i> crops	Dr. Michael S. Barker
	Oral presentations S2	
14:30 - 14:50	S2-O-01: <i>Brassica</i> allotripleoids, a solution to deal with hampered meiotic recombination	Alexandre Pelé
14:50 - 15:10	S2-O-02: From diploids to a huge diversity ready-to-use for oilseed rape breeding	Anne-Marie Chèvre
15:10 - 15:30	S2-O-03: Translational research into meiotic recombination: more than mere validations	Eric Jenczewski
15:30 - 15:50	S2-O-04: Transcriptome and organellar genome sequencing elucidate the origin and diversification of allotetraploid <i>Brassica napus</i>	An Hong
15:50 - 16:20	<i>Coffee break – Grand Large Hall</i>	
16:20 - 16:40	S2-O-05: Towards a dynamic model of the floral transition in Brassica	Richard J. Morris
16:40 - 17:10	Flash presentations S2	
	S2-F-01: Expanding the gene pool of <i>Brassica napus</i> and exploiting its genetic diversity	Dandan Hu
	S2-F-02: The Brassica A, B and C genomes: interspecific hybridisation, chromosome pairing, and the potential for crop improvement	Annaliese S. Mason
	S2-F-03: Genome wide association mapping for traits related to winter hardiness and vernalization requirement in winter oilseed rape	Jan-Christoph Richter
	S2-F-04: Characterization of disease resistance genes in the <i>Brassica napus</i> pangenome	Aria Dolatabadian

17:15 - 18:30 *Poster session (S1-S2-S3) – Grand Large Hall*

18:00 - 20:00	Workshop NUE – Bouvet Room	
	<ul style="list-style-type: none"> Breeding of oilseed rape for sustainable agriculture: Assessing 25 years of breeding progress Genetic and molecular determinants of nitrogen use efficiency in winter oilseed rape The key role of SAG12 cysteine protease in nitrogen remobilization associated with leaf senescence 	<p>Andreas Stahl</p> <p>Erwan Corlouer</p> <p>Maxence James</p>

TUESDAY, JULY 3

08:30 - 10:20	Session 2 (continued): Genetic diversity, epigenetics, breeding and biotechnology (Chairs: G. Bonnema & A-M. Chèvre) <i>Chateaubriand Auditorium</i>	
08:30 - 09:00	Keynote S2.2: Exploiting big (sequence) data for understanding trait genetics in rapeseed	Dr. Lenka Havlickova
	Oral presentations S2	
09:00 - 09:20	S2-O-06: Natural occurring epimutation is involved in <i>Arabidopsis</i> quantitative resistance to clubroot	Benjamin Liégard
09:20 - 09:40	S2-O-07: Characterization of epigenetic states in <i>Brassica rapa</i> L.	Ryo Fujimoto
09:40 - 10:00	S2-O-08: Investigating the involvement of histone modifications in the control of effector gene expression in <i>Leptosphaeria maculans</i> , the fungus causing stem canker of oilseed rape	Isabelle Fudal
10:00 - 10:20	S2-O-09: Investigating the vernalisation requirement of oilseed rape: a tale of three genes	Eleri Tudor

10:20 - 10:45 *Coffee break – Grand Large Hall*

10:45 - 14:15	Session 3: Nutrient use efficiency, abiotic stress tolerance (Chairs: C. Möllers & J-C. Avice) <i>Chateaubriand Auditorium</i>	
10:45 - 11:15	Keynote S3: Natural variation in nutrient homeostasis in <i>Arabidopsis</i> and beyond	Pr. Stanislav Kopriva
	Oral presentations S3	
11:15 - 11:35	S3-O-01: Metabolic profiling and functional metabolomics of leaf senescence and abiotic stress responses in oilseed rape	Alain Bouchereau
11:35 - 11:55	S3-O-02: Partitioning of sulfur between primary and secondary metabolism	Anna Koprivova
11:55 - 12:15	S3-O-03: Genome-wide identification and analysis of <i>Hsf</i> gene family in <i>Brassica oleracea</i>	Neeta Lohani
12:15 - 12:35	S3-O-04: Involvement of oilseed rape PI-WSCPs Protease Inhibitors - Water Soluble Chlorophyll Binding Protein in nitrogen management and stress tolerance	Françoise Le Cahérec
12:35 - 14:00	<i>Lunch – J. Cartier Rotunda</i>	
14:00 - 14:15	Flash presentations S3	
	S3-F-01: Simulations for optimizing sulfur fertilization in oilseed rape in the context of increased spring temperatures with the model SuMoToRI	Sophie Brunel-Muguet
	S3-F-02: Exploring the interactive behavior of reduced glutathione and chromium toxicity in allopolyploid <i>Brassica napus</i> as reveal by cell structural insights, protein kinases, and membrane transporters	Rafaqat Ali Gill
14:30 - 17:20	Session 4: Next generation phenotyping, plant growth and development (Chairs: J. Irwin & A. Bouchereau) <i>Chateaubriand Auditorium</i>	
14:30 - 15:00	Keynote S4.1: State-of-the-art and applications of plant phenotyping platforms	Dr. Fabio Fiorani
	Oral presentations S4	
15:00 - 15:20	S4-O-01: Population structure and phenotypic diversity of a <i>Brassica oleracea</i> collection to study the genetic architecture of leaf variation in the diverse vegetable crops	Guusje Bonnema
15:20 - 15:40	S4-O-02: NMR relaxometry monitoring for field phenotyping of nitrogen fertilization responses in <i>Brassica napus</i>	Laurent Leport
15:40 - 16:00	S4-O-03: Phytochrome A signal transduction 1 and CONSTANS-LIKE 13 coordinately orchestrate vegetative branching and flowering in leafy <i>Brassica juncea</i>	Jinghua Yang
16:00 - 16:30	<i>Coffee break – Grand Large Hall</i>	
16:30 - 17:00	Keynote S4.2 The impact of flowering time genes on crop productivity: more than when to flower	Judith Irwin
	Oral presentations S4 (continued)	
17:00 - 17:20	S4-O-04: How does allelic variation of the <i>Brassica rapa</i> domestication gene ARF3-1 affects leaf development	Xiaoxue Sun
17:20 - 17:30	Flash presentation S4	
	S4-F-01: Leveraging field phenomics for advancing <i>Brassica</i> crop improvement	Andrew Sharpe
17:30 - 18:30	<i>Poster session (S4-S5-S6) – Grand Large Hall</i>	
18:00 - 20:00	Workshop Clubroot – Bouvet Room	
	<ul style="list-style-type: none"> Understanding the mechanisms and generational durability of clubroot resistance Exploration of Brassica accessions for resistance to ‘old’ and ‘new’ isolates of <i>Plasmodiophora brassicae</i> in Alberta, Canada Characterization of clubroot resistance in <i>Raphanus</i> 	<p>Gary Peng</p> <p>Rudolph Fredua-Agyeman</p> <p>Elke Diederichsen</p>

<ul style="list-style-type: none"> Two clubroot resistance genes mapped into chromosome A08 of <i>Brassica rapa</i> using bulk segregant RNA sequencing 	Fengqun Yu
<ul style="list-style-type: none"> Influence of nitrogen constraint on quantitative resistance to clubroot in <i>Brassica napus</i> 	Antoine Gravot
<ul style="list-style-type: none"> Mimicking the host regulation of SA: a virulence strategy by the clubroot pathogen <i>Plasmodiophora brassicae</i> 	Hossein Borhan

WEDNESDAY, JULY 4

09:00 - 10:40	Session 5: Seed and product quality, phytochemicals (Chairs: P. Soengas & N. Nesi) <i>Chateaubriand Auditorium</i>	
09:00 - 09:30	Keynote S5: Impacts of multiple constraints on seed quality in rapeseed	Dr. Nathalie Nesi
	Oral presentations S5	
09:30 - 09:50	S5-O-01: Does “Yellow” make sense in oilseed rape?	Christian Möllers
09:50 - 10:10	S5-O-02: Mapping loci controlling fatty acid profiles and contents of oil and protein content by genome-wide association study in <i>Brassica napus</i>	Yuanyuan Zhang
10:10 - 10:30	S5-O-03: Rapeseed meal as alternative to soybean protein for feeding monogastrics	Iwona Bartkowiak-Broda
10:30 - 10:40	Flash presentation S5 S5-F-01: Importance of nutritional components and enrichment in crop breeding	Lim Yong Pyo

10:40 - 11:00 *Coffee break – Grand Large Hall*

11:00 - 12:30	Session 6: Pathogen and insect resistance, biocontrol, crop protection (Chairs: N. Van Dam & S. Strelkov) <i>Chateaubriand Auditorium</i>	
11:00 - 11:30	Keynote S6: Fighting on two fronts. How <i>Brassica</i> species manage aboveground and belowground herbivore resistance	Pr. Nicole Van Dam
	Oral presentations S6	
11:30 - 11:50	S6-O-01: Stress effects on immunity in <i>Brassica oleracea</i>	Hicret Asli Yalcin
11:50 - 12:10	S6-O-02: Genetic analysis of immune responses in <i>Brassica</i> species	Christopher J. Ridout
12:10 - 12:30	S6-O-03: Analysis of the determinants of adaptation of <i>Leptosphaeria maculans</i> ‘brassicae’ to a new host species	Jessica L. Soyler

12:35 - 14:00 *Lunch – J. Cartier Rotunda*

14:00 - 17:15	Session 6 (continued): Pathogen and insect resistance, biocontrol, crop protection (Chairs: N. Van Dam & S. Strelkov) <i>Chateaubriand Auditorium</i>	
	Oral presentations S6	
14:00 - 14:20	S6-O-04: Ignored fungal pathogen sibling – <i>Leptosphaeria biglobosa</i>	Yongju Huang
14:20 - 14:40	S6-O-05: Blackleg fungus and adaptation to resistance genes in canola: epidemiology and evolution from landscape to field plots and back	Lydia Bousset
14:40 - 15:00	S6-O-06: Dissection of gene expression networks involved in <i>Verticillium longisporum</i> resistance in <i>Brassica napus</i>	Harmeet Singh Chawla
15:00 - 15:20	S6-O-07: Field identification of biochemical biomarkers for screening plant resistance to insects: an example from the pollen beetle – oilseed rape interaction	Gaëtan Seimandi Corda
15:20 - 15:40	S6-O-08: Influence of belowground herbivory on dynamics of roots and rhizosphere microbial communities	Morgane Ourry
15:40 - 16:15	<i>Coffee break - Grand Large Hall</i>	
16:15 - 16:50	Flash presentations S6 S6-F-01: Managing blackleg of canola in Canada-Pathogen race dynamics, cultivar resistance and fungicide control S6-F-02: A new playbook: new tools introduced to seed industry and growers in Canada in the blackleg management in Canola	Gary Peng Dilantha Fernando

	<p>S6-F-03: Oilseed rape crop debris and potential spread of <i>Leptosphaeria maculans</i> (phoma stem canker) into China</p> <p>S6-F-04: Molecular dissection of the <i>B. napus</i> A07 gene cluster conveying resistance against the blackleg pathogen <i>Leptosphaeria maculans</i></p> <p>S6-F-05: Genome-based identification of genes involved in pathogen interactions with Brassica crops</p> <p>S6-F-06: Screening of rapeseed mustard germplasm and identification of new donors for biotic stress resistance</p>	<p>Bruce Fitt</p> <p>Hossein Borhan</p> <p>Henrik U. Stotz</p> <p>Rashmi Yadav</p>
17:30 - 19:00	<p>Meeting: 'Idea Cafe_blackleg R-gene nomenclature' <i>Chateaubriand Auditorium</i></p>	
17:15 - 20:00	<p><i>Free time</i></p>	
20:00 - 24:00	<p>Gala dinner <i>J. Cartier Rotunda</i></p>	