

ILC2011 - CONFERENCE PROGRAM

Sunday 5th June, 2011

- 15.00 Registration
19.00 Welcome Reception

Monday 6th June, 2011

- 9.00-9.30 **Opening ceremony**
- 9.30-10.00 Plenary lecture**
Wojciech Świącicki, Martin Brummund - The recent history of lupin in agriculture
- 10.00-11.00 Key-note lectures**
- 10.00-10.30 **Colin Hughes** - Multiple continental radiation & ecological correlates of diversification in lupins
- 10.30-11.00 **Karam Singh** - Developing genomic resources for narrow leaf lupin with a focus on seeds
- 11.00-11.30 Coffee break
- 11.30-12.30 Session 1. Taxonomy, biodiversity, ecogeography, and evolution**
Chairs: Jon Clements, Ewa Sawicka-Sienkiewicz
- 11.30-12.00 **Ana Planchuelo** - Reviews of the challenges for understanding the South American *Lupinus* species
- 12.00-12.15 **Kalina Bermúdez Torres** - Chemical and molecular characterization of Mexican *Lupinus* species
- 12.15-12.30 Discussion
- 12.30-14.00 Lunch
- 14.00-16.00 Session 2. Genetics and genomics**
Chairs: Karam Singh, Bogdan Wolko
- 14.00-14.30 **Abdelkader Ainouche** - Comparative analysis of the Symbiotic-RK genomic region between *Lupinus* and model legumes
- 14.30-14.45 **Ivan Maureira-Butler** - Associative mapping of phytic acid and alpha-galactoside content, two key plant anti-nutritionals, in yellow lupin (*L. luteus*)
- 14.45-15.00 **Barbara Naganowska** - Cytogenetic mapping of *Lupinus angustifolius* – towards the integrated genome map
- 15.00-15.15 **Matthew Nelson** - Genetic diversity in *Lupinus angustifolius* investigated through DArT marker genotyping
- 15.15-15.30 **Mario Mera** - Heritability of narrow-leafed lupin seed coat proportion estimated by parent-offspring regression
- 15.30-15.45 **Łucja Przysiecka** – The chalcone isomerase genes of narrow-leafed lupin (*Lupinus angustifolius* L.): sequence identification, characterization, physical and genetic mapping
- 15.45-16.00 Discussion
- 16.00-16.30 Coffee break
- 16.30-18.00 Poster session**
- 16.30-18.00 Satellite Workshop: Understanding the taxonomy of South American lupin species**
Organizer: Ana Maria Planchuelo, National University of Córdoba, Argentina
- 18.00 Dinner

Tuesday 7th June, 2011

9.00-10.00 Key-note lectures

9.00-9.30 **Boguslav Kurlovich** - Breeding of narrow-leafed lupin (*Lupinus angustifolius* L.) for northern European growing conditions

9.30-10.00 **Erik von Baer** - Domestication of Andean lupin (*L. mutabilis*)

10.00-10.30 Coffee break

10.30-12.30 Session 3. Breeding and biotechnology

Chairs: Edzard van Santen, Wojciech Świącicki

10.30-11.00 **Jon Clements** - Heterosis in crop lupin species

11.00-11.15 **Jens Berger** - The late domestication problem of narrow-leafed lupin: strong selection local pressure on a narrow gene pool limits crop potential

11.15-11.30 **Michael Abberton** - Prospects for breeding yellow and narrow leaf lupins for UK conditions

11.30-11.45 **Eicke Rudloff** - EMS-induced mutants – a valuable genetic pool for the breeding of narrow-leafed sweet lupin (*Lupinus angustifolius* L.)

11.45-12.00 **Paolo Annicchiarico** - White lupin tolerance to winter cold, terminal drought and soil lime: patterns of genetic variation and their exploitation in breeding for southern Europe

12.00-12.15 **Magdalena Kroc** – QTL analysis of seed yield components and alkaloid content in *Lupinus angustifolius*

12.15-12.30 Discussion

12.30-14.00 Lunch

14.00-15.45 Session 4. Agro-ecology, farming systems, profitable and sustainable production

Chairs: Michael Abberton, João M. Neves Martins

14.00-14.15 **George Hill** - Too much water is not a good thing

14.15-14.30 **Thomas Coussens** - Weed control in sweet lupins: an ongoing challenge!

14.30-14.45 **Andres C. Ravelo** - Rainfall variability and drought occurrences redefine new lupins crop zones in Argentina

14.45-15.00 **Fred Stoddard** - Introducing blue lupin (*L. angustifolius*) into Finnish cropping systems

15.00-15.15 **Herwart Böhm** - Effects of different row distances and seed rates on yield and quality of blue lupins (*L. angustifolius*) in organic farming

15.15-15.30 **Alexander Tsygutkin** - Prospects for the production of white lupine in the Belgorod region of Russia

15.30-15.45 Discussion

14.00-15.45 Satellite workshop: Lupin genomics perspectives

Organizer: Abdelkader Ainouche, University of Rennes, France

15.45-16.15 Coffee break

16.15-17.45 Poster session

16.15-17.45 Satellite workshop: Possibilities for EU cooperation on *Lupinus mutabilis* in N-Europe

Organizer: Rob van Haren, Kiemkracht, Netherlands

18.00 International Lupin Association – General Assembly

19.30 Dinner

Wednesday 8th June, 2011

8.00-18.00 Field tour to the Research Centre for Cultivar Testing in Słupia Wielka and to Przebędowo and Wiatrowo Breeding Stations.

Tour organizers: Poznań Plant Breeders Branch in Wiatrowo and Plant Breeders Smolice Branch in Przebędowo

Thursday 9th June, 2011

9.00-10.00 Key-note lectures

9.00-9.30 **Marcello Duranti** - Lupin seed proteins as multipurpose nutri/functional ingredients for healthy foods

9.30-10.00 **Ricardo B. Ferreira** - An edible, lupin-derived, plant analeptic and universal fungicidal polypeptide

10.00-10.30 Coffee break

10.30-12.00 Session 5. Lupins for human and animal nutrition and health

Chairs: Marcello Duranti, Eleonora Lampart-Szczapa

10.30-11.00 **Anna Arnoldi** - The nutraceutical properties of lupin seed: focus on proteins and peptides

11.00-11.15 **Alexander Artyukhov** - Efficient approaches to protein problem solution

11.15-11.30 **David McNaughton** - The use of forage lupins as an alternative to imported soya in UK livestock systems

11.30-11.45 **Magdalena Zielińska-Dawidziak** - Immunogenic and allergenic properties of blue lupine seeds subjected to technological processes

11.45-12.00 Discussion

10.30-12.00 Satellite workshop: Non-nutrient substances in lupins: friends or enemies?

Organizer: Michael Wink, University of Heidelberg, Germany

12.00-13.30 Lunch

13.30-15.00 Session 6. Biochemistry and metabolomics

Chairs: Ricardo B. Ferreira, Maciej Stobiecki

13.30-14.00 **Michael Wink** - Lupin alkaloids - what can we learn from 30 years of research?

14.00-14.15 **Piotr Kachlicki** - Polyphenolic secondary metabolites profiles in lupine species from Mexico

14.15-14.30 **Alessio Scarafoni** - Massive secretion of de novo-synthesized chitinase during germination: a defense role only?

14.30-14.45 **Malgorzata Kasproicz-Potocka** - The impact of yeast fermentation on chemical composition of lupin seeds

14.45-15.00 Discussion

13.30-15.00 Satellite workshop: The role of lupin products in human nutrition

Organizer: Ana Maria Planchuelo, National University of Córdoba, Argentina

15.30-18.30 Visit to the Museum of Agriculture in Szreniawa

19.00 Conference Gala Dinner in Szczepowice Palace

Friday 10th June, 2011

9.00-10.00 Key-note lectures

- 9.00-9.30 **Craig Atkins** - Macromolecule composition of phloem exudates from white lupin (*Lupinus albus* L.)
- 9.30-10.00 **Brigitte Ruge-Wehling** - Anthracnose resistance in narrow-leafed lupin
- 10.00-10.30 *Coffee break*

10.30-12.00 Session 7. Physiology, plant development and symbiosis

Chairs: Craig Atkins, Janusz Prusiński

- 10.30-11.00 **Cezary Mądrzak** - Rhizobial symbionts of lupins grown in Poland
- 11.00-11.15 **Galina Gataulina** - Photosynthetic characteristics, development pattern and yield formation of *Lupinus albus* cultivars
- 11.15-11.30 **Sławomir Borek** - Regulation of storage lipid accumulation and storage lipid breakdown in seeds of yellow (*Lupinus luteus* L.), white (*Lupinus albus* L.) and Andean lupine (*Lupinus mutabilis* Sweet)
- 11.30-11.45 **Luis Rey** - *Lupinus mariae-josephi*, a new lupin endemic of soils with active lime and high pH in South Eastern Spain, is nodulated by a new bacterial lineage within *Bradyrhizobium* genus
- 11.45-12.00 Discussion
- 12.00-13.30 Lunch

13.30-15.45 Session 8. Diseases, pests, and tolerance to abiotic stresses

Chairs: Brigitte Ruge-Wehling, Małgorzata Jędrzycka

- 13.30-14.00 **Iwona Morkunas** - The role of signal molecules in defense response of yellow lupine to *Fusarium oxysporum*
- 14.00-14.15 **Bernhard Saal** - Characterization of soil-borne root and stem rot diseases in narrow-leafed lupin cultivation in northeast Germany and development of screening methods for resistance breeding
- 14.15-14.30 **Michał Książkiewicz** - Genes identified by screening of narrow-leafed lupin genome with probes based on MFLP-derived markers linked to disease resistance traits
- 14.30-14.45 **Vladislav Kuptsov** - Use of microbiological method and genotypic diversity in the breeding of *Lupinus luteus* and *Lupinus mutabilis* for tolerance to anthracnose
- 14.45-15.00 **Kevin Dewitte** - Diseases of lupins and their control under Belgian growing conditions
- 15.00-15.15 **Kathrin Ströcker** - Host preferences by the lupin weevils *Sitona gressorius* and *S. griseus* among lupin genotypes
- 15.15-15.30 **Łukasz Wojtyła** - Proteomic changes in lupine mitochondria in response to salinity
- 15.30-15.45 Discussion

15.45 Closing remarks