

Conference Programme

Sunday 19 March

Registration Desk opens – War Memorial Centre

11.00 am

Research Orchard Tour

2.00-4.00 pm

Afternoon Tea

4.00-5.00 pm

Welcome Reception – Lower Lawn, War Memorial Centre

7.00-7.30 pm

Opening by David Pilkington, Chairman, Prevar Ltd –
Ballroom, War Memorial Centre

7.30-7.40 pm

Opening Remarks

7.40-8.00 pm

BBQ & Reception – Exhibition Hall, War Memorial Centre

8.00-9.30 pm

Monday 20 March

Announcements – Ballroom, War Memorial Centre
8.30-8.35 am

Plenary 1: Bioinformatics and Databases
8.35-10.30 am

Chair: *Erik Rikkerink (HortResearch, Auckland)*

SESSION SPONSOR: HORTRESEARCH

- OP1** *Ross Crowhurst (HortResearch, Auckland)*
8.35-9.20 am
Bio View - an enterprise bioinformatic system for automated analysis and annotation of non-genomic DNA sequence
- OP2** *Margaret Staton (Clemson Univ., SC)*
9.20-10.00 am
Unigene Development and SNP Discovery from Rosaceae Family EST Resources
- OP3** *Angela Baldo (USDA-ARS, Geneva)*
10.00-10.30 am
In silico identification of apple rootstock specific transcripts

Morning tea
10.30-11.00 am

Bert Abbott (Clemson Univ., SC)
Demonstration of GDR database
10.40-10.55 am

Workshop 1: Genomics of Disease Resistance
11.00-1.00 pm

Chair: *Luca Gianfranceschi (Univ. Milan)*

- OP4** *Donna Lalli (Clemson Univ., SC)*
11.00 -11.20 am
A Resistance Gene Map for Prunus
- OP5** *Charles-Eric Durel (INRA, Angers)*
11.20 -11.40 am
Genetic localisation of new major and minor pest and disease resistance factors in the apple genome
- OP6** *Mickael Malnoy (Cornell Univ., Geneva NY)*
11.40-12.00 pm
The role of *Vfa* RGA's at the *Vf* locus in resistance to *Venturia inaequalis*
- OP7** *Erik Rikkerink (HortResearch, Auckland)*
12.00-12.20 pm
Phylogenetic analysis of a large database of apple resistance gene analogues identifies NBS clades conserved in the Rosids
- OP8** *Thomas Debener (Univ., Hannover)*
12.20-12.40 pm
Genetic and genomic analyses of disease resistance genes in roses
- OP9** *Frank Dunemann (Inst. Obstzüchtung, Dresden)*
12.40-12.50 pm

Biodiversity of the apple powdery mildew fungus (*Podosphaera leucotricha*) and interactions with its host

Discussion

12.50-1.00 pm

Lunch

1.00-2.30 pm

Workshop 2: Molecular Markers and Quality Trait Mapping

2.30-4.30 pm

Chair: *Ariel Orellana (University of Andres Bello, Santiago)*

OP10 Henk Schouten (Univ., Wageningen)

2.30-3.00 pm

Quality assessment of the DNA marker technology DArT using *Arabidopsis thaliana*, and application to apple

OP11 Fabrice Foucher (INRA, Angers)

3.00-3.20 pm

Molecular control of recurrent blooming in rose by genetic and genomic approaches

OP12 Elisabeth Dirlewanger (INRA, Bordeaux)

3.20-3.40 pm

Characterisation of several traits affecting flower and fruit in peach (*Prunus persica* L. *Batasch*) and new genetic linkage map

OP13 Luca Gianfranceschi (Univ., Milan)

3.40-4.00 pm

The European project HiDRAS: An innovative multidisciplinary approach to breed High-quality Disease Resistant Apples for a Sustainable Agriculture

OP14 Gayle Volk (USDA-ARS, Ft Collins, CO)

4.00-4.15 pm

Characterization of wild *Malus* populations using genotypic and phenotypic traits

Discussion

4.15-4.30 pm

Concurrent Afternoon tea and Poster Session – Exhibition Hall

4.30-5.30 pm

Topics covered are Bioinformatics and Databases; Disease Resistance; Molecular Markers; Genetic Mapping.

Harbour Cruise – Hawke's Bay Wine Country Cat

7.00-11.00 pm

Tuesday 21 March

Announcements – Ballroom, War Memorial Centre
8.30-8.35 am

Plenary 2: Rosaceae Biology

8.35-10.30 am

Chair: *Ian Ferguson (HortResearch, Auckland)*

SESSION SPONSOR: MORST

OP15 *Amy Iezzoni (Michigan State Univ., E. Lansing, MI)*
8.35-9.00 am

Self-compatibility in tetraploid sour cherry (*Prunus cerasus*) results from the accumulation of non-functional S-haplotypes

OP16 *Kim Snowden (HortResearch, Auckland)*

9.00-9.25 am

Genetic control of plant branching

OP17 *Evelyne Costes (INRA, Montpellier)*

9.25-9.50 am

Wide range QTL analysis for complex architectural traits in a one-year-old apple progeny

OP18 *James Olmstead (Michigan State Univ., E. Lansing, MI)*

9.50-10.10 am

Fruit size QTL in sweet cherry: Cell number is under stronger genetic control than cell size

OP19 *Jean-Marc Celton (HortResearch, Palmerston N.)*

10.10-10.30 am

Genetic mapping of DW1, a locus required for dwarfing of apple scions by M9 rootstock

Morning tea

10.30-11.00 am

Plenary 3: Functional Genomics- System Approaches

11.00-1.00 pm

Chair: *Schuyler Korban (Univ. Illinois, Urbana, IL)*

SESSION SPONSOR: NSF-OISE

OP20 *Ingo Hein (SCRI, Invergowrie-Dundee)*

11.00-11.40 am

Microarray-based gene expression studies of dormancy phase transition in raspberry (*Rubus idaeus* L.) buds

OP21 *Rozemarijn Dreesen (Catholic Univ., Leuven)*

11.40-12.10 pm

Transcriptomics of ripening in apple as a tool to improve apple quality traits

OP22 *Robert Schaffer (HortResearch, Auckland)*

12.10-12.35 pm

Microarray analysis of ripening in Apple (cultivar Royal Gala)

OP23 *Abhaya Dandekar (Univ. California, Davis, CA)*

12.35-1.00 pm

Systems approach to the functional analysis of apple fruit quality

Lunch

1.00-2.30 pm

Workshop 3: Functional Genomics - Candidate Gene Approaches

2.30-4.30 pm

Chair: *Bert Abbott (Clemson Univ., SC)*

OP24 *Cameron Peace (Univ. California, Davis)*

2.30-2.50 pm

Fruit softening in *Prunus*: progress and prospects of the candidate gene approach

OP25 *Kanji Isuzugawa (Yamagata Gen. Ag. Res. Centre)*

2.50-3.10 pm

In vitro flowering of transgenic pears (*Pyrus communis* L.) expressing CiFt, a citrus ortholog of the Arabidopsis FT gene

OP26 *Peter Hirst (Purdue Univ., W. Lafayette, IN)*

3.10-3.30 pm

Explaining natural variation in apple fruit size in terms of cell production and cell cycle gene expression

OP27 *Andrew Allan (HortResearch, Auckland)*

3.30-3.50 pm

The MYB transcription factors of Apple: a family of genes involved in controlling a wide range of fruit tree responses

OP28 *Nobuhiro Kotoda (NIFTS-NARO, Morioka)*

3.50-4.10 pm

Reduction of juvenile phase in apple by transgenic approaches

Discussion

4.10-4.30 pm

Concurrent Afternoon tea and Poster Session - Ballroom

4.30-5.30 pm

Topics covered Trait Mapping, Comparative Genomics, Rosaceae Biology, Functional Genomics.

Conference Dinner – Mission Estate Winery

7.00-12.00 am

Wednesday 22 March

Announcements – Ballroom, War Memorial Centre
8.30-8.35 am

Plenary 4: Rosaceae - a Multi-species Genomics System 8.35-10.30 am

Chair: *Elisabeth Dirlewanger (INRA, Bordeaux)*

OP29 *Tatyana Zhebentyayeva (Clemson Univ., SC)*
8.35-9.15 am
The peach physical/genetic map database: a tool
for Rosaceae genomics

OP30 *Bart Janssen (HortResearch, Auckland)*
9.15-9.55 am
Microarray analysis of Fruit Development in Apple

OP31 *Vladimir Shulaev (Virginia State Univ., Blacksburg, VI)*
9.55-10.30 am
Insertional mutagenesis as a functional genomics
tool in Strawberry (*Fragaria vesca*)

Morning tea
10.30-11.00 am

Concurrent Workshops 4-6, Rosaceae Sub-family
11.00-1.00 pm

Workshop 4: Maloideae **Ballroom**

Venue:

Chair: *Eric Van de Weg (Univ. Wageningen)*

OP32 *Schuyler Korban (Univ. Illinois, Urbana, IL)*
11.00-11.15 am
Development of a genome-wide physical map of apple genome

OP33 *Eric Van de Weg (Univ. Wageningen)*
11.15-11.30 am
Pedigree Genotyping: Pedigree-based approaches
to multiple crosses allow allele mining and detection
of epistasis among QTLs

OP34 *Herb Aldwinckle (Cornell Univ., Geneva, NY)*
11.30-11.45 am
Genetic transformation of apple without use of a selectable marker

OP35 *Toshiya Yamamoto (NIFTS, Univ. Tsukuba)*
11.45-12.00 pm
Genome Mapping in Pear

Discussion
12.00-1.00 pm

**Workshop 5: Prunoideae
Breakout Room 2**

Venue:

Chair: *Amy Iezzoni (Michigan State Univ., E. Lansing MI)*

- OP36 *Ariel Orellana (Univ. Andres Bello, Santiago)*
11.00-11.25 am
The Chilean peach functional genomics initiative, a progress report
- OP37 *Père Arús (IRTA, Cabrils)*
11.25-11.50 am
Microsatellite transportability across Rosaceae crops
- OP38 *Ryutaro Tao (Kyoto Univ.)*
11.50-12.10 pm
Self-compatible peach has mutant versions of the S-locus genes
- OP39 *Carlos Romero (IVIA, Moncada, Valencia)*
12.10-12.30 pm
Loss of pollen functions analysis in two self-compatible selections of apricot (*Prunus armeniaca* L.) Evidence of a new pollen component involved in the SI mechanism

Discussion
12.30-1.00 pm

**Workshop 6: Rosoideae
Breakout Room 1**

Venue:

Chair: *Fabrice Foucher (INRA, Angers)*

- OP40 *Tom Davis (Univ. New Hampshire, Durham, NH)*
11.00-11.25 am
Sequence samples and gene pairs haplotypes in strawberry
- OP41 *Arnaud Bovy (Univ. Wageningen)*
11.25-11.50 am
Metabolomics screening of the biochemical diversity in strawberry fruit
- OP42 *Irene Tierny (SCRI, Invergowrie-Dundee)*
11.50-12.15 pm
Molecular Breeding for root rot resistant raspberries suitable for low input growing systems

Discussion
12.15-1.00 pm
General discussion on development of common resources for Rosoideae

Lunch
1.00-2.30 pm

**Workshop 7: The Future of Rosaceae Genomics
2.30-5.45 pm**

Co-Chairs :
*Père Arús (IRTA, Cabrils),
Sue Gardiner (HortResearch, Palmerston N.),
Vladimir Shulaev (Virginia State Univ., Blacksburg, VI)*

Discussion
2.30-4.15 pm

Afternoon Tea
4.15-4.30 pm

Discussion
4.30-5.45 pm

The 4th International Rosaceae Genomics Conference
5.45-5.55 pm
Planning discussion

Conference Closing Address
5.55-6.00 pm

HortResearch Visits

Tuesday 14 March – Friday 17 March Pre-conference Workshop for Young Researchers: *HortResearch, 120 Mt Albert Road, Auckland*

Friday, 17 March, 10.30 am – 4.00 pm HortResearch Visit: *HortResearch, 120 Mt Albert Road, Auckland*

Visitors will be able to choose to visit several laboratories and interact with HortResearch staff at the Mount Albert Research Centre in Auckland. Staff at this, the largest HortResearch site, play an active role in most of the research programmes within the institute as a whole and have access to state of the art equipment, for example including the in-house HortResearch micro-array and bioinformatics facilities, a DNA sequencer, and Real-Time PCR equipment. This tour could include short visits to laboratories involved in a number of different areas of research including plant disease resistance genes, plant development, olfactory receptors in apple pests, microsatellite marker mining and development, ester biosynthesis in apple and plant-pathogen interactions.

Thursday 23 March, 10.00 am - 3.00 pm *HortResearch, Tennent Drive, Palmerston North*

Research activities located at the Palmerston North Research Centre include: plant gene mapping (apple, *Prunus*, and raspberry) for pest/disease resistance traits, fruit quality and dwarfing. Anonymous markers identified using our high throughput technology and candidate genes selected from the EST database on the basis of sequence homologies and expression studies carried out at Mt Albert are mapped as microsatellites, SNPs or SCARs. We will demonstrate the automated DNA extraction system developed here. This mapping team carries out all the MAS screens for the pipfruit breeders. Other Palmerston North researchers working on Rosaceae genomics are studying the reduction of generation time in apple, architectural modelling, flavour chemistry, antioxidants as health compounds as well as the development and use of monoclonal antibodies.

Friday 24 March 2006, 10.30 am – 4.00 pm *HortResearch, Old Mill Road, Motueka, Nelson*

The visit to the HortResearch centre in Motueka near Nelson will cover the breeding and applied genetics programmes of four crops each with their own specific breeding objectives:

- Hop (seedless triploid cultivars of high alpha types with good bittering properties and aroma types with good flavour characteristics)
- Berryfruit (pest and disease-resistant low chill raspberries and boysenberries with high quality fruit for the fresh market or for processing)
- Pear (new types that have crisp and juicy flesh textures with novel flavours and a long storage and shelf life by combining European, Japanese (Nashi) and Chinese pear)
- Kiwifruit (green-fleshed and yellow-fleshed cultivars, and some novel types including some with edible (hairless) coloured skin)

Post-conference Activity: Thursday 23 March, 3.30 pm – Friday 24 March, 3.00pm

NSF / MORST U.S.- N.Z., ROSACEAE GENOMICS PARTNERSHIP WORKSHOP

Biocommerce Centre, Tennent Drive, Palmerston North (participants will be escorted from HortResearch reception)

Posters session 1
Exhibition Hall

Monday 20 March

4.30 – 5.30 pm

Bioinformatics and databases

- A1 Chillpeach: a functional genomics database to understand peach chilling injury
Antonio Granell, C.H. Crisosto, Cristina Martí, T.M. Gradziel, Javier Forment, and C.P. Peace
- A2 Creation of a new versatile database for linking molecular and phenotypic information of apple (*Malus x domestica* Borkh.) : the HiDRAS 'AppleBreed Database'
A. Antofie, M. Lateur, R. Oger1, A. Patocchi, C.E. Durel, W.E. Van de Weg
- A3 Computational Analysis of Putative Resistance Gene Analogs in Raspberry
Angela M. Baldo, Suren Samuelian, Courtney A Weber
- A4 Bioinformatic Advances In The Chilean Nectarine Functional Genomics Consortium
Meisel, L., Vizoso, P., Latorre, M., Saba, J., Loira, N., Tittarelli, A., Martinez, V., Vargas, C., Maldonado, J., Caroca, R., Bugueño, M., Segovia, S., Morales, A. and Silva, H
- A5 GDR: A Database Resource for Comparative Genomics in Rosaceae
Sook Jung, Margaret Staton, Stephen Ficklin, Ilhyung Cho, Albert Abbott and Dorrie Main

Disease resistance

- A6 Development of resistance to bacterial and fungal diseases by over-expressing the apple gene *MpNPR1* in apple
M. Malnoy, E.E. Borejsza-Wysocka, Q. Jin, S. He, and H.S. Aldwinckle
- B1 Increasing resistance to *Erwinia amylovora* in apple by silencing apple *DIPM* genes
E.E. Borejsza-Wysocka, M. Malnoy, X. Meng, J. Bonasera, S.V. Beer and H.S. Aldwinckle
- B2 Identification of SSRs linked to sharka resistance on apricot by mapping approach. Application on marker assisted selection
Jose Miguel Soriano, Elsa Vera-Ruiz. Santiago Vilanova, Donna A. Lalli, Gerardo Llácer, Albert G. Abbott, Carlos Romero and Maria L. Badenes.
- B3 Map-based cloning of the avirulence gene *avrVg* of *Venturia inaequalis*
Broggini G, Patocchi A, Le Cam B, Parisi L, Gessler C
- B4 Cloning and Characterization of Resistance Gene Analogs from Roses
Anja Hattendorf, Thomas Debener
- B5 Molecular research for breeding disease resistant apple cultivars with high fruit quality
Frank Dunemann, Anastassia Boudichevskaja and Silke Lesemann
- B6 Diversity and characterization in USDA *Malus* and tetraploid cherry germplasm collections in Geneva, NY
Philip L. Forsline, Gennaro Fazio, Herb Aldwinckle, Amy F. Iezzoni, and Gayle M. Volk
- C1 Evaluation of horticulturally elite *Malus sieversii* germplasm for apple scab resistance genes using phenotypic and marker-based screening
James Luby, Karen Hokanson, Phil Forsline, Herb Aldwinckle, Herb Gustafson, Sue Gardiner, Rosalie Bone, Michael Cook and Vincent Bus
- C2 Cloning and linkage mapping of new NBS-LRR resistant gene candidates and identification of markers associated to susceptibility to *Fusicoccum* canker in almond (*Prunus dulcis*)

- Pedro Barros, Madalena Martins, Ma Rong-Cai, Pere Arús and M. Margarida Oliveira
- C3 Resistance to Prune dwarf virus can result from RNA mediated gene silencing
Helena Raquel, Tiago Lourenço and M. Margarida Oliveira
- C4 Efforts to elucidate mechanisms and genetics of fire flight resistance in apple
Andreas Peil, Frank Dunemann, Tania Garcia, Klaus Richter, Bodo Trognitz, Viola Hanke and Henryk Flachowsky
- C5 Studies on apple disease resistance genes
Joseph Mafofo and D. Jasper G. Rees
- C6 Genetic analysis of resistance to apple scab (*Venturia inaequalis*) in apple, (*Malus x domestica* Borkh)
R. Maharaj, T Koopman, M.M. van Dyk, M.K. Soeker, M.C. Selala, S. Booi, Z.E. Simayi, I.F. Labuschagné and D.J.G. Rees
- D1 Genetic analysis of resistance to powdery mildew (*Podosphaera leucotricha*) in apple (*Malus x domestica* Borkh.)
Z. Simayi, M.M. van Dyk, M.C. Selala, M.K. Soeker, S. Booi, R. Maharaj, I.F. Labuschagné and D.J.G. Rees
- D2 Genetic analysis for resistance to Woolly Apple Aphid in apple rootstock breeding populations
M.C. Selala, M.M. van Dyk, M.K. Soeker, S. Booi, R. Maharaj, Z.E. Simayi, I.F. Labuschagné and D.J.G. Rees
- D3 Identification and genetic characterisation of *Vdr1*, a new major scab resistance gene from the apple cultivar 'Dülmener Rosenapfel'
V. Freslon, V. Bus, I. Gianfranceschi, A. Patocchi, C.E. Durel
- D4 Apple homologues of the tobacco *hsc203j* gene
Peter Murphy, Erik Rikkerink and Kim Plummer
- D5 Mapping of the apple scab resistance gene *Vb* from Hansen's baccata #2
Erdin N., Tartarini S., Broggin G.A.L., Gennari F., Sansavini S., Gessler C., Patocchi A.
- D6 Molecular Markers Linked to Disease Resistance Genes in Pear
Shingo Terakami, Yoshihiko Adachi, Norio Takada, Yutaka Sawamura, Akihiko Sato, Toshio Hirabayashi, Yoshihiko Sato, Chikako Nishitani and Toshiya Yamamoto

Molecular markers

- E1 Genotyping and identification of sweet cherry cultivars using SSR markers
Tadashi Takashina, Narumi Matsuda, Tetsuya Kimura and Toshiya Yamamoto
- E2 Construction of kiwifruit BAC contig maps by overgo hybridization and their use for the targeted region around the sex locus
Elena Hilario, Tiffany Bennell, Lena Fraser, Mark McNeilage, Ross Crowhurst, Erik Rikkerink, and Elspeth MacRae
- E3 Genetic diversity of apple rootstocks combining EST-based and anonymous nuclear microsatellite markers
Fazio G. and Baldo A
- E4 Microsatellite markers amplification across *Actinidia* species
G. K. Tsang, L. G. Fraser, M. A. McNeilage, H. N. De Silva
- E5 *Prunus* Genetic Resources and Research at the Davis California National Clonal Germplasm Repository

E. Stover, M. Aradhya, C. Weeks, P Forsline

Genetic mapping

- E6 Development of Marker Assisted Selection Technology for Apple and Pear Breeding in South Africa
Maria M. van Dyk, M. Khashief Soeker, M. Callies Selala, Zolani Simayi, Sonwabo Booï, Ramsey Maharaj, Lizex Hüsselmann, Marlene G. du Preez, Iwan F. Labuschagné and D. Jasper G. Rees
- F1 SSR genetic linkage map of sweet cherry (*Prunus avium*)
Dirlewanger E., Capdeville G., Tauzin Y., Cosson P., Laigret F., Claverie J.
- F2 The construction of an almond linkage map using morphological and SSR markers on Nonpariel x Lauranne population
Iraj Tavassolian, Brent Kaiser, Michelle Wirthensohn, Margaret Sedgely and Chris Ford
- F3 EST mapping of apple
Takanori Ueda, Megumi Igarashi, Yoshie Abe, Yoshimichi Hatsuyama, Tomoyuki Kon, Tomoko Fukasawa-Akada, Tsuyoshi Kudo, Takashi Sato and Masahiko Suzuki
- F4 Alignment of sweet cherry linkage groups with the *Prunus* reference map
James Olmstead and Amy lezzoni

Posters session 2 Ballroom

Tuesday 21 March

4.30 – 5.30 pm

Trait Mapping

- G1 SNP discovery in apple genes: application for red color
David Chagné, Charmaine Carlisle, Richard Volz, Andrew Allan, Richard Espley, Roger Hellens, Ross Crowhurst, Susan Gardiner
- G2 Genetic Analysis Of Temperate Fruit Quality And Health In The New European Project ISAFRUIT
Pere Arus, J.M. Audergon, S. Sansavini, F. Laurens, F. Dunemann, D-E. Durel, W.E. van de Weg, E. Dirlewanger, M. Lahaye and Y. Lespinasse
- G3 The development of linkage genetic map for chilling requirement in peach
Shenghua Fan, Douglas Bielenberg, Tetyana Zhebentyayeva, Greg Reighard, Albert G. Abbott
- G4 MAS: Development of AFLP Markers in *Prunus persica* Diagnostic for Response to the Peach Tree Short Life Syndrome
A. V. Blenda, W. P. Wechter, G. L. Reighard, W. V. Baird, and A. G. Abbott
- G5 Marker assisted selection (MAS) for fruit shape in peach (*Prunus persica*): flat or round
Liese A, Cosson P, Capdeville G, Fouilhoux L, Tauzin Y, Renaud C, Moing A, Dirlewanger E
- G6 Identification of DNA markers closely linked to Pale green lethal in apple
Yoshimichi Hatsuyama, Yoshie Abe, Tomoko Fukasawa-Akada, Tomoyuki Kon, Megumi Igarashi, Takanori Ueda, Tsuyoshi Kudo, Takashi Sato and Masahiko Suzuki
- H1 Genetic map and markers for *Prunus* associated with response to the Peach Tree Short Life syndrome

A.V. Blenda, I. Verde, L.L. Georgi, G.L. Reighard, S. D. Forrest, M. Muñoz-Torres, W.V Baird, A.G. Abbott

H2 Breeding functional apples; identification of QTL's for mean vitamin C contents of fruit skin and flesh

Davey M.W., Razavi, F., and Keulemans W.

H3 Marker-assisted selection tools for internal breakdown resistance in peach
E.A. Ogundiwin, C.P. Peace, T.M. Gradziel, A.M. Dandekar, F.A. Bliss, and C.H.

Crisosto

H4 Genetic mapping of fruit quality traits in apples (*Malus x domestica* Borkh.)
M.K. Soeker, M.M. van Dyk, M.C. Selala, S. Booi, R. Maharaj, Z.E. Simayi, I.F. Labuschagné and D.J.G. Rees

H5 Genetic Analysis of Red Pigmentation in Bon Rouge Pears
S. Booi, M.M. van Dyk, Z.E. Simayi, R. Maharaj, M.C. Selala, M.K. Soeker, M.G. du Preez and D.J.G. Rees

H6 An Investigation of the Molecular Mechanism Underlying the Production of Anthocyanin in 'Bon Rouge' (*Pyrus communis*, L) pear trees and their green reverted sports

Marlene G du Preez, M James Sehata and D Jasper G Rees

I1 Functional mapping and genomics approaches for the study of aroma determination in peach (*Prunus persica*)

Francesca Barale, Alberto Vecchietti, Claudia Ortugno, Barbara Lazzari, Albert Abbott, Francesco Salamini and Carlo Pozzi

Comparative genomics

I2 Comparing the Linkage Maps of Two Levels of Ploidy in *Fragaria*
B Denoyes-Rothan, M. Rousseau, L. Barrot, E. Lerceteau-Kohler, D. Sargent, D. Simpson, A. Monfort, G. Guerin, Pere Arus

I3 Comparative mapping in the *Rosoideae* tribe : *Fragaria* and *Rosa*
Rousseau M., Hibrand-Saint Oyant L, Foucher F, Barrot L, Lalanne D., Sargent D, Simpson D, Laigret F and Denoyes B

I4 Molecular Characterization of the US Apple Germplasm Collection
Charles Simon

Rosaceae Biology

I5 Using controlled environments to accelerate flowering of *Malus* seedlings
Paul Austin, Cara Norling, Richard Volz, Vincent Bus, Sue Gardiner

I6 Analysis of QTLs affecting dormancy release in apple (*Malus x domestica* Borkh.)
Maria M. van Dyk, M. Callies Selala, Zolani Simayi, Sonwabo Booi, Ramsey Maharaj, M. Khashief Soeker, Iwan F. Labuschagné and D. Jasper G. Rees

J1 The S locus in self-compatible 'Cristobalina' sweet cherry
A.Wünsch, R.Tao, J.I. Hormaza

Functional genomics

J2 Identification of Genes with Modulated Expression During Fruit Development in *Malus x domestica* Borkh
Valeria Soglio, Henk Schouten, Fabrizio Costa, Luca Gianfranceschi

J3 Endopolygalacturonase marker-assisted breeding for novel fruit types in peach
Thomas Gradziel, Cameron P. Peace, and Carlos Crisosto

- J4 Analysis and functional annotation of an expressed sequence tag (EST) collection of apple (*Malus x domestica*)
Ksenija Gasic, D. Orlando Gonzales, Mickael Malnoy, Jyothi Thimmapuram, Lila O. Vodkin, Lei Liu, Herb S. Aldwinckle, Natalie Carroll, Kathryn Orvis, Peter Goldsbrough, Sandra Clifton, Lucinda Clifton, Mike Dante, Shunfang Hou, William Courtney, and Schuyler S. Korban
- J5 Improving the knowledge of apple quality by functional genomics approaches. Perspectives at INRA Angers
F. Wattebled, E. Chevreau, C.E. Durel, F. Laurens
- J6 Functional genomics in *Prunus persica*: proteomic analysis during postharvest and different varieties
Nilo, R., Saffie, C., Baeza, R., Cambiazo, V., Campos, R., Defilippi, B., Gonzalez, M., Meisel, L., Retamales, J., Silva, H, Orellana A.
- K1 The use of zinc transporter genes to improve mineral absorption by apple rootstocks
D. Swietlik¹, C. Vann¹, M. Wisniewski¹, T. Artlip¹, J. Norelli¹ and L. Kochian
- K2 Functional and Applied Genomic Research on Peach and Apple
Dariusz Swietlik, John Norelli, Michael Wisniewski, Carole Bassett, Ralph Scorza, and Ann Callahan
- K3 Identification of *anthocyanidin synthase* gene promoters in apples
Chikako Honda, Benjamin Ewa Ubi, Yusuke Ban, Hideo Bessho, Masato Wada, Shozo Kobayashi and Takaya Moriguchi
- K4 Identification of RFLP markers for ethylene production in ripening fruits of Asian pear
Akihiro Itai
- K5 Genomic cloning of a gene coding for an O-methyltransferase from apple
Yuepeng Han and Schuyler S. Korban
- K6 The application of precocious flowering apple to functional genomics
Nobuhiro Kotoda, Naozumi Mimida, Motoko Suzuki, Chikako Honda, Hiroshi Iwanami and Kazuyuki Abe
- L1 A molecular approach to the adventitious regeneration system and an improved genetic transformation system for functional studies in almond (*Prunus dulcis*)
A. Margarida Santos, Melvin J. Oliver, Milene Costa, Ana Sanchez, Nelson Saibo and M. Margarida Oliveira
- L2 Metabolomics screening of the biochemical diversity in strawberry fruit
Ric de Vos, Bert Meulenbroek, Jan Schaart, Robert Hall, Eleonora D'Amico, Gaetano Perrotta and Arnaud Bovy
- L3 *Fragaria* Genomics at the University of Florida
Amit Dhingra, Philip J. Stewart, Denise Tombolato, Thelma Madzima, Thomas Colquhoun, Leighan Howard and Kevin M. Folta