**AGENDA**

**RosEXEC Meeting at Plant & Animal Genome XXI** (open meeting)

**Towne Room, NOTE:** This is a different location than last year.

**Town & Country Hotel, San Diego, CA**

**8:00 – 10:00 am Sunday, 13 Jan 2013**

**Skype: Contact JD Swanson for details (**[**jd.swanson@salve.edu**](mailto:jd.swanson@salve.edu)**)**

Welcome

* Chris Dardick, 2013 Chair ([chris.dardick@ars.usda.gov](mailto:chris.dardick@ars.usda.gov))
* JD Swanson, 2013 Vice-Chair [([jd.swanson@salve.edu](mailto:jd.swanson@salve.edu))](mailto:chris.dardick@ars.usda.gov)
* (Gayle Volk), 2013 Secretary
* Self-introductions and sign-up sheet
* Minutes (JD Swanson)
  + Adoption of minutes, October 2012

Membership (current membership table attached)

* Election announcement and swearing-in ceremony
  + New members: Gayle Volk, Stan Hokansen, Des Layne, Michael Wisniewski, and Jud Ward
  + New International liaisons: Dan Sargent and Felicidad Fernandez
  + 2013 Secretary: (Gayle Volk)
* Appreciation for leadership in 2012
  + Jay Norelli, Chair
  + Jim McFerson, immediate past Chair
  + departing Committee members
    - US: John Clark, Kevin Folta, Ksenija Gasic, Amy Iezzoni, and Jim McFerson
    - Intl: Michela Troggio and Thomas Debener
* Election process review
  + Nominations: quality of election depends on recruiting good nominees
    - if you interested in serving, contact JD Swanson with list of people familiar with your work and he will help to solicit a nomination
  + Secretary: starting in 2013 an affirmation of willingness was required
  + underrepresented groups on Committee: industry (currently 2 members)
  + targeted groups for the Committee: new members
    - former RosEXEC members can be nominated 1 yr after end of previous term
  + JD Swanson, 2013 Chair of Governance and Membership Sub-Committee

RosEXEC Expansion

* + In 2012 RosEXEC held some of its annual meetings at ASHS and RGC6 in attempt to expand involvement to Rosaceae community members who do not regularly attend PAG.
  + Was this successful? Should RosEXEC continue these activities? Open discussion.

Proposed Rosaceae gene naming scheme (Sook)

• See attached report (pg. 6-7) by Robert Schaffer (NZ).

Revision of U.S. Rosaceae Whitepaper [**http://rosaceaewhitepaper.wikia.com/wiki/US\_Rosaceae\_Whitepaper**](http://rosaceaewhitepaper.wikia.com/wiki/US_Rosaceae_Whitepaper)

* Brief review of current Whitepaper (see attached outline p 6-7)
* Report from Whitepaper Revision Committee- Very little was accomplished this year. There is a need to re-energize this effort.

Rosaceae Nomenclature

• Update on the classification change of Spiraeoideae to Amygdaloideae in the GenBank taxonomy database (Jay Norelli).

Coordination

* GDR Update(Dorrie Main, Sook Jung)
* Non-research Update (Jim McFerson and other industry experts present)
  + Industry update
  + US Farm Bill Renewal/Specialty Crop Farm Bill Alliance
  + Outlook regarding federal Specialty Crop grant program
    - SCRI
    - SCBGP
    - Regional Centers
  + Extension: Info and tech transfer
  + GMO regulatory & market update (Arctic Apples & HoneySweet Plums; others?)
* Competitive Federal Grant Project Reports
  + Newly funded projects within the Rosaceae
  + RosBREED (Amy, Cameron, Nahla)
    - RosBREED II update
    - Other workshop reports or announcements
  + Other funded AFRI/NSF projects
  + Projects submitted: USDA, NSF, etc.
* International Project Collaborations
  + FruitBreedomics
  + EUBerry

Meeting reports and announcements for upcoming meetings

* Crop Germplasm Committees (CGC)
  + Reports from community on Highlights from 2012
  + Upcoming CGC meetings
* Highlights from ASHS, 7/31-8/03 2012, FL
* Upcoming Meetings
  + ASHS 2013. July 22nd-25th, Palm Desert, CA.
  + RGC7. Seattle, WA
  + Others?

Miscellaneous

* Current status of other Subcommittee
  + Phenotyping
  + Enabling technologies
  + QTL nomenclature
* Other?

Adjourn: 10:00 am

OTHER POSSIBLE TOPICS FOR DISCUSSION:

Research Fields and Technology updates

* Whole genome sequences and physical maps
  + Updates on status of Rosaceae genomes from community.
* Enabling Technologies in Genomics
  + Sequencing
  + Annotation
  + Transcriptional profiling
  + Markers and genotyping
* Genetics
  + Reference maps
  + Major and QTLs located (RosBREED 🡪 Wiki?)
* Phenotyping/Phenomics
  + Standardized phenotyping
  + High throughput phenotyping/Phenomics
* Germplasm/genetic resources
  + RosBREED populations as germplasm resource
  + USDA-ARS germplasm
  + Other resources
* Research Fields (where are we headed?):
  + Structural Genomics: open discussion
  + Comparative Genomics: open discussion
  + Functional Genomics: open discussion

# It is all in the name: naming convention in *Rosaceae* species

Robert Schaffer - on behalf of the Rosaceae International Genomics Initiative RosIGI

In the last few years a considerable effort has yielded the complete genome sequence of 3 key Rosaceae species, Apple (Velasco et al 2010), Strawberry (Vladamir et al 2010), and Peach (website) with more to come. As currently only a few of the 30 - 60,000 predicted genes in the genome have been described, the Rosaceae community has a unique opportunity to standardise gene names within and across the Rosaceae species. With this in mind we respectfully urge the Rosaceae community to follow a standardised naming convention for genes in the Rosaceae species. By doing this the community will benefit from simplified literature reading, and less confusion when looking at genes. For this to happen we encourage people to check with the current literature and within the gene databases that the gene they want to name (and publish) has not already got a name assigned. When dealing with heterozygous species it is occasionally hard to know whether differences in sequence are allelic differences, or a result of gene duplication, or in the case of Maloideae, genome duplication. Through standardising the name we will reduce the incidence observed in models species where the same gene name has been used for different genes and occasional genes being assigned different names.

Here we propose a naming convention for Rosaceae genes at the time of publication. When choosing a name, if possible try and give it ontological relevance. For example if the sequence contains a motif conferring a likely function, such as enzyme action, then ideally you would name it after that enzyme followed by a number to allow other enzymes encoded in the same genome of similar function to be differentiated. If the function of the gene has not been characterised, the ontological reference would be to genes that have been previously characterised in model species, such as the *LEAFY* gene (*LFY*) in Arabidopsis. Here you could name it *LEAFY-Like* (*LFL*), or *LFY*, which can be differentiated in the literature from the *Arabidopsis* gene by inserting the species name in front (*MdLFY*).

Sequencing and marker assessment has shown a common ancestral genome between Rosaceae species containing 9 chromosomes. Both Peach and Strawberry have maintained this number, whereas apple has a genome duplication, followed by a rearrangement leading to a 17n genome (Velasco et al 2010). The linkages between these species is apparent when comparing phylogenetic relationship between these species, with often a single strawberry and peach gene being represented by two apple genes. When dealing with duplicated genomes such as apples, as expected, a clear phylogenetic relationship is often observed within the rosaceae species, with a single gene being observed in the unduplicated genomes strawberry or peach, and 2 copies in the apple gene (Figure 1). When possible we propose that the homeologous genes have a name showing this phylogenetic linkage. Devoghalaere et al 2012, suggests a naming convention as follows,

1. If the gene has been published in Genbank, or GDR, then this name should be used. If there is more than one name for the same gene then bring attention to this in the paper.
2. If one of the species has a name assigned to the gene, then this should be used within the cluster, eg FvARF1, with the closely linked peach gene being named (PpARF1). When dealing with species with a duplicated genome such as apple, to link the two names we propose that one of the homeologues be named the same (MdARF1) and the second homeologue be named MdARF101, clades with gene expansion caused by local duplications can be named MdARF201, MdARF301 etc. to link the common genetic route of these genes.
3. If none of the genes in a subclade have been named then we suggest using phylogenetic relationship with published genes in the literature is desirable especially from the model organisms tomato or Arabidopsis. However due to the evolutionary separation of these species clear distinction of the individual genes within a family is often not clear. When this occurs then authors are encouraged to use their discretion. Finally, once you have named a gene it please up load the name within GDR ([www.rosaceae.org](http://www.rosaceae.org)), to allow other researchers to be aware of the name and not to use it in other publications.

We encourage researchers to upload the gene names into GDR prior to publishing, so no conflicting names are published in the same period. By putting a little extra effort at this stage will mean that there will be less confusion in the literature and allow researchers the ability to make fast cross comparisons of species. As a final note, there is also an opportunity when reviewing papers describing novel genes, please check that they are following this nomenclature before accepting the paper.

**Attachment: Current RosEXEC members**

RosEXEC Membership 2013

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| **TERM STARTS (JAN)** | **TERM ENDS (JAN)** | **LAST NAME** | **FIRST NAME** | **INST** | **REGION** | |
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| 2012 | 2015 | [**Byrne**](http://www.rosaceae.org/sites/www.rosaceae.org/files/gdr_rosexec_2012/Byrne_David_bio_vision.docx) | David | Univ | S | |
| 2012 | 2015 | [**Chao**](http://www.rosaceae.org/sites/www.rosaceae.org/files/gdr_rosexec_2012/Thomas_Chao_bio_vision.docx) | Thomas | Govt | E | |
| 2012 | 2015 | [**Curtis**](http://www.rosaceae.org/sites/www.rosaceae.org/files/gdr_rosexec_2012/Curtis_Robert_bio_vision.docx) | Bob | Ind | W | |
| 2012 | 2015 | [**Jung**](http://www.rosaceae.org/sites/www.rosaceae.org/files/gdr_rosexec_2012/Jung_Sook_bio_vision.docx) | Sook | Univ | W | |
| 2012 | 2015 | [**Peace**](http://www.rosaceae.org/sites/www.rosaceae.org/files/gdr_rosexec_2012/Peace_Cameron_bio_vision.docx) | Cameron | Univ | W | |
| 2008 | 2015 | [**Dardick**](http://www.rosaceae.org/sites/www.rosaceae.org/files/gdr_rosexec_2012/Peace_Cameron_bio_vision.docx) | Chris | Govt | E | |
| 2011 | 2014 | [**Evans**](http://hortla.wsu.edu/people/evans.html) | Kate | Univ | W | |
| 2010 | 2014 | [**Norelli**](http://hortla.wsu.edu/people/evans.html) | Jay | Govt | E | |
| 2011 | 2014 | [**Olmstead**](http://hos.ufl.edu/faculty/maolmstead.%20%20) | Mercy | Univ | S | |
| 2011 | 2014 | [**Slovin**](http://www.ars.usda.gov/pandp/people/people.htm?personid=5233) | Janet | Govt | E | |
| 2011 | 2016 | [**Swanson**](http://www.salve.edu/academics/faculty/facultyDetails.aspx?Channel=%2FChannels%2FSite+Wide+Content&WorkflowItemID=2cfdcee0-b9b4-41ba-8fc2-fc1ec7086cdb) | JD | Univ | E | |
| 2011 | 2014 | [**Whitaker**](http://gcrec.ifas.ufl.edu/Whitaker/Whitakercv.htm) | Vance | Univ | S | |
| 2013 | 2016 | **Volk** | Gayle | Govt | W | |
| 2013 | 2016 | [**Layne**](http://www.arabidopsisthaliana.com/) | Desmond | Univ | S | |
| 2013 | 2016 | [**Hokansen**](http://www.clemson.edu/cafls/departments/horticulture/faculty_staff/faculty/gasic.html) | Stan | Univ | W | |
| 2013 | 2016 | **Wisniewski** | Michael | Govt | E | |
| 2013 | 2016 | **Ward** | Judson | Ind | W | |
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