U.S. RosEXEC AGenda

# January 15, 2017

#### Attendees:

|  |  |  |  |
| --- | --- | --- | --- |
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| Herb | Aldwinckle | Professor Emeritus | Cornell University |

### WElcome

* RosEXEC Standing Officers:
  + Ksenija Gasic (Chair), Mercy Olmstead (Vice Chair), Cameron Peace (Past Chair), Chris Saski (Secretary)
* RosEXEC New Members: Ellen Thompson, Chris Saski, Dario Chavez and Janet Slovin – WELCOME!
* Attendance/Introductions
* Approval of Minutes from 31 October 2016 Meeting
  + Nahla Bassil – so moved, M. Wisniewski – 2nd.
  + Minutes approved

### GDR Advisory Board

* Report from GDR
  + See notes attached for the GDR Q9 work completed
  + GDR is funded through the SCRI (2014-2019), and is also funded through NRSP-10 (funded by the research station directors), NSF (for GDR, Citrus Database, and Forestry trees), and the Washington Tree Fruit Research Commission as well.
    - NRSP covers 25 different crops, funds the cyberinfrastructure, not the data curation and genetic data input into the database.
  + Added a RubusCyc database this past quarter, updated others
  + Updated many of the QTLs with completed Rosaceae Trait Ontology, added QTLs from several publications
  + Completed cherry SNP identification for new RosBREED array
  + Added remaining RosBREED data from TX and NY – all completed from the reference sets
  + Released all the Tripal sequences and modules – and are available for any others that use Tripal as their database platform
  + Participated in NIFA Big Data in Agriculture Summit, NP301 Agriculture Stakeholders Workshop
  + Project Outreach:
    - GDR workshop @ PAG
  + A few projects not completed –
    - Golden delicious apple genome not yet entered – haven’t received yet from Steve Vanocker (MSU)
  + Work being done on the Breeder Information Management Systems – major progress to be made by the end of Q11
* Comments from RosEXEC to GDR
  + RefTrans – transcriptome data, not just ESTs (in Unigene)
    - In GDR, if needed – as a scientist, you can download a project template to have GDR work on specialized analyses, but can’t do certain routine analyses because of time constraints.
  + EFP browser?
    - Data visualization – Meg Staton has done it for a crop (chestnut?) but it’s difficult to do for all Rosaceae data.
    - Resequence data for visualization?
  + Pan genome possibility – MERCY GOOGLE
    - Conserved regions of genome can help with missing areas in Rosaceae species genomes.
    - Grape pangenome presentation at PAG
  + High throughput image data/phenotypic data capability?
    - Starting to think about this with other databases – especially in cotton
    - Image files can be large, and need space
    - Funding sources?
  + Chinese pear genome not in GDR?
    - Do not have access to it, will contact again
  + What about GBS or raw data inclusion in GDR?
    - Could be stored in metadata, but not the raw data because of the size of the files

### Coordination and updates

* Non-research update (industry, info and tech transfer)
  + Jim McFerson – WTFRC
    - Red Delicious growers have difficulty recovering their costs of production because of the poor quality
      * Need new varieties, not necessarily improving existing varieties
      * Ensure that the tools that are available are being used in application to develop new varieties
      * Focus on consumer acceptance and quality
    - There is the capability of new varieties quickly by using CRISPR – what are we doing to communicate it to the public as a community? (J. Slovin)
      * White paper?
      * Message should be coordinated within the community, not individual
      * However, be careful to not overpromise, but focus on communicating the technology.
    - Stakeholder forum NP301 – Plant genetic resources – report online
      * More resources required to implement new technologies, but there are no new monies.
    - USDA National Genetic Resources Council – Jim was appointed to this council (3 yr. term)
      * First specialty crops person on this council ever
      * Availability of organic resources/varieties (non-GE)?
    - Foundation for Food and Agriculture Research – high throughput phenotyping meeting (phenomics)
      * $250 million dollars (U.S.) available (matching) for research
      * Can also be tool development with other crops.
    - Achieving Sustainability of Apples – a new book – Kate Evans is the editor (to be published in 2017)
  + Bob Curtis – Almond Board of California
    - Need to look at drivers in your specific market to be successful grower
      * Regulatory issues – water
        + Groundwater and surface water quality and quantity
      * Sustainability from CPG?
      * Biotechnology, CRISPR, and GMO research in the future for almonds, particularly rootstock
  + Mercy Olmstead – California Strawberry Commission
    - So far season is going well
  + Maybe link to current articles about the technology such as the recent NY Times article –
    - <https://www.nytimes.com/2017/01/09/science/genetically-edited-foods-crispr.html?_r=0>
* Competitive federal grant project reports
  + Recently funded projects within the Rosaceae
    - NSF database – forestry with M. Staton (D. Main)
    - SCRI project on accelerating apple rootstock development ($4.2 million) – started in September 2016 (L. Cheng – Cornell)
    - Technical Assistance for Specialty Crops funding
      * S. Musacchi – crabapple pollinizer development
    - Specialty Crop Block Grant funding
      * $1 million for *Armillaria* research, rootstock development for *Prunus*
      * National Association of Plant Breeders meeting in Davis will have meeting of those interested in *Armillaria* research
    - Carotenoid research on *Prunus* (BARD – K. Gasic)
    - C. Dardick and UMD research on diversity of Rosaceae crops
  + Updates on large-scale projects (RosBREED, RosRosette, NSF for Apple and Peach tree architecture, others?)
    - RosBREED – had annual advisory panel member meeting, international partners meeting – 3rd year started
      * Need new ways of communicating with industry members
      * Discussed how to take QTLs into DNA tests and into commercial services for Rosaceae crops
      * In March will have the annual participant meeting – please let C. Peace know if you would like to attend
        + Will be discussing the future RosBREED project
    - NSF – Apple/Peach Architecture (K. Xu)
      * Main focus is to develop image system for high throughput phenotyping for tree architecture and progress is being made
      * Are focusing on several traits, particularly tree branching, branch angle
        + C. Dardick – focusing on peach, K. Xu on apple
* International project collaborations
  + D. Chagne – funding for polyploid genetics/genomics from NZ government
  + BARD funding (K. Gasic)
* Any other important research funding coordination opportunities
  + *Armillaria* researchers meeting at NAPB in Davis, CA
  + D. Byrne – streamlining data analysis for polyploids – contact for more information

### Research fields and technology updates

* Germplasm (genetic resources)
  + Prunus CGC – K. Gasic - call for funding will be sent out soon
    - Half the number of projects will be funded as in the past, but there is more money
  + All CGCs need to operate their crop vulnerability assessments
  + Plant Breeding Coordinating Committee – K. Gasic – USDA collection funding is going down, and personnel retirements are not being replaced
    - Demand for material is not decreasing; it is increasing
    - Be sure to tell others to report on the importance of the germplasm resources so they do not disappear
    - Requests are now limited to scientists, and not the general public as before
  + Crop Manager position at USDA – Corvallis being hired
    - Rubus/Ribes coordinator
    - Pyrus coordinator
      * Train both on Fieldbook app, so that data can feed into GDR

### White Paper update

* M. Olmstead will sketch out the sections – work with B. Curtis and C. Peace
  + What about a series of short papers for a journal? (C. Peace)
* Horticulture Research – M. Cheng is a possibility.

### Personnel changes

* USDA-ARS Corvallis – two crop manager positions
  + Opening for Ph.D. student to work on black raspberry aphid resistance
* University of Florida
  + Ph.D. student for powdery mildew resistance
* University of Arkansas
  + M.S. student in plant breeding
  + Margaret Worthington was hired in 2016 (peach and blackberry breeding)
* USDA-ARS Kearneysville, WV –
  + Two in C. Dardick’s group, two in another
    - Fruit quality, horticulture, entomology
  + Richard Bell retired
* Clemson University
  + Postdoc position for Armillaria research
* Washington State University
  + Cherry breeding position – Opening 2017
  + Clean Plant
    - Scott Harper
* USDA – ARS Wenatchee
  + Loren Honaas - functional genomics
* Need to replace R. Bell on the RosEXEC
  + J. Slovin motion to promote the 6th person to replace R. Bell; N. Bassil 2nd.

### Announcements for upcoming meetings

* 4th Symposium in Molecular Markers in Horticulture: 7–10 Mar 2017, at Napier, New Zealand
* 8th International Cherry Symposium: 5– 9 June 2017, at Yamagata City, Japan
* International Symposium on Flowering, fruit Set and Alternate Bearing: 19-23 June 2017, at Palermo, Italy
* 4th International Horticulture Research Conference: 16–20 July (tentative) 2017, at East Malling, United Kingdom
* NAPB/PBCC Annual Meetings: 7–10 August 2017, at Davis, CA
* International Peach Symposium, Bucharest Romania – DATES?
* 7th International Rose Conference, July 2-7, 2017
* ASHS meeting, Waikoloa, HI, September 2017
* Rosaceae Genomics Conference, Nanjing, China, 2018

### Other items

* New Business
* RosIGI and RosEXEC meetings during the PAG to be held at the same time with RosEXEC and RosIGI Chairs co-chairing the meeting. Meeting should be moved to 10-12am on Sunday to allow people to attend morning sessions at the PAG. Many topics overlap and attendance to the RosIGI meeting suffers due to the length of time dedicated to the two meetings.
* Need to prepare a slide with short explanation what RosEXEC and RosIGI are and play it in the break session of the Fruit and Nut workshop to let attendees know that the meeting is open and all are welcome.
* Organizer of the Fruit and Nut workshop for 2018 was not selected. It should be someone from US so word needs to get out to the community for nominations. Lately organizers have been associated with Rosaceous species and we need to make sure other fruit and nut crops/species are given the chance to organizer the workshop.
* During October RosEXEC conference call topic on the agenda should be reserving the room for the meeting at the PAG and making sure it is the room with the round table to facilitate discussion

### Next RosEXEC meeting

* Setting of times for 2017 quarterly teleconferences
  + Last Tuesday of March
    - Need to figure out the timing for our Asian/New Zealand committee members
  + Alternate European and Asian committee members