U.S. RosEXEC Minutes

# zoom online

# October 17, 2023 10-11:30 AM PDT

### WElcome

* Standing Officers:
  + Gayle Volk (Chair), Jonathan Fresnedo Ramirez (Vice-Chair), Per McCord (Secretary), Lise Mahoney (Past Chair)
* Attendance and introductions
* Sook Jung, Per McCord, Jim Luby, Dorrie Main, Vance Whitaker, Cameron Peace, Loren Honaas, Ksenija Gasic, Chris Gottschalk, Philip Stewart, Tom Gradziel, Gayle Volk, Jonathan Fresnedo Ramirez
* Minutes from July 2023 RosEXEC meeting need to be posted: Sending to Sook today
* https://www.rosaceae.org/community/us\_rosexec

### RosEXEC MEmbership

* + **Membership and elections document was finalized and posted**
  + **New elections will be held Fall 2023 (J. Fresnedo Ramirez)**
  + RosEXEC nominations open September 5, 2023
  + RosEXEC nominations close October 20, 2023
  + Need more nominees! Gayle requested we each find one more person
    1. Including replacements for 2 South American and Asian international representatives
  + Jonathan will provide an update via email next Monday
  + RosEXEC election starts November 1, 2023
  + RosEXEC election ends November 17, 2023

### GDR Advisory Board

* **Report from GDR**
* 5 new genomes added (with functional annotation), 1st strawberry pangenome 
  + Pangenome hosted by GDR, not planning to do pangenome analysis in-house
* Ksenija has hired a post-doc to help with data curation and outreach for GDR and BIMS
* Working to increase connectivity between BIMS and Breeding Insight, Breeder Genomics Hub
* GDR presentations at NAPB (July), ASHS (July/Aug).
  + GDR and BIMS webinars planned for November
  + PAG 2024 meeting will include database workshop
* Comments from RosEXEC to GDR
* Per asked Sook about requirements for getting expression data into GDR
  + NCBI project needed (raw data)
  + Dorrie suggested getting guidelines posted to GDR to make this process more clear
* Loren asked about tools for analyzing expression data across experiments
  + Lots of challenges, but worth working on
    - Dorrie suggests it is a good project for a GDR Genomics Working Group
      * Loren willing to chair this group
* Sustainability plan for GDR
* **GDR Report/Information about the new SCRI grant, that includes support to develop/use trait ontologies for Rosaceae crop phenotypes**

(Sook) Ontology curation for trait data )

Trait names: Trait names are standardized in GDR and QTLs/GWAS are annotated with them.

Trait descriptors:

Currently maintained separately by dataset, both GRIN and RosBREED

New effort to standardize trait descriptors following Crop Ontology format: trait descriptors will be composed of three concepts (Trait, Method, Scale)

Currently working on strawberry (starting with RosBREED descriptors)

Should we develop CO for each crop? Or groups of crops (Prunus, apple/pear, etc.)

Need volunteers to contact breeders (esp. apple, pear, rose) – Chris Gottschalk can assist (apple/pear).

Gayle pointed out that apple CGC is next Thursday (10/26): she will bring this up

Dorrie asked about international descriptors (Gayle will send out after this meeting)

Cameron suggested we should also loop in germplasm curators

Vance suggested both a visual and descriptive reference key based on standard variety(ies)

### RosEXEC Activities

### **ROSEXEC Mission**

* Serve as a communication and coordination focal point for the US Rosaceae genomics, genetics and breeding community.
* Define research priorities based on input from the industry and research community.
* Facilitate scientific interaction and foster dynamic research teams.
* Promote research priorities.
* Coordinate educational efforts from the research community to the industry and the public.
* Serve as an official steering committee for the Genome Database for Rosaceae

**ONGOING ACTIVITIES**

* **One-page RosEXEC summaries**

Continue to provide summaries going forward. Future RosEXEC meetings are proposed to coincide with GDR newsletter releases (next release Oct 31). Minutes written by RosEXEC Secretary. Summary written by RosEXEC Vice-Chair based on the minutes.

* **“RosBREED” like session at meetings** to allow real/virtual participants to be more involved.
  + Need an agenda to provide structure
    - Advertise before conference (list broad topics)
  + Need good equipment support for meetings at PAG/ASHS to allow all participants to hear/be heard
    - (money available to pay for venue and possibly participant support according to Dorrie)
  + Consider breakout sessions

**Additional proposed activities**

* GDR: additional taskforces (such as for GBS/genomics)
* GDR interoperability with GRIN-Global via BrAPI
* Dorrie plans to request Breeding Insight to include Tripal databases

**New Business**

Suggest research coordination grant (Dorrie), congressional appropriation (Loren) to support Rosaceae community coordination meetings long-term

Discussion of multispecies array (K. Gasic) & other Arrays

Tabled until next meeting (PAG will be a good place for this)

### Coordination and updates

* Non-research update (industry, info and tech transfer)
* Competitive federal grant project reports
  + Recently funded projects within the Rosaceae
  + Updates on large-scale projects
    - SNP Array development
    - New Apple Fingerprinting platform (Peace)
* International project collaborations
* Any other important research funding coordination opportunities

### Research fields and technology updates

* Germplasm (genetic resources)
  + Crop Germplasm Committees and USDA-ARS germplasm status, current and recent evaluation funding, other germplasm resources, vulnerability statements, apple acquisition, apple core collection
  + Apple CGC October 26 in Geneva, NY
* Phenotyping
  + Standardized phenotyping, High-throughput/high-resolution phenotyping/phenomics, USDA collection evaluation data (GRIN-Global)
* Whole genome sequences and physical maps
  + Updates on status of Rosaceae genomes
* Enabling technologies in genomics and genetics
  + Sequencing, annotation, transcriptional profiling, genome-scanning SNP arrays, reference linkage maps, QTL & MTL methods/software and discoveries, MAB: evaluation (trait predictions) – available DNA tests and platforms, MAB: characterization (identity/parentage/ancestry/relatedness) – approaches and progress

### usrosexec_logoWhite Papers?

* n/a

### Personnel changes

* Retirements and other departures, new positions available, recent positions filled, graduating students, candidates looking for positions (e.g., promising grad students, postdocs)

Ann Callahan (USDA-ARS-AFRS, Kearneysville, WV), molecular biologist working on *Prunus* and *Malus*, retired in May. Position is anticipated to be filled during the next fiscal year.

Dr. Caroline Skagel is the permanent RL at the Corvallis NPGS Clonal Repository

New position will be advertised for Hood River USDA – TFRL Hood River OR - pear pathology, in postharvest research group

TFRL will also recruit a new RL in FY 24, Jim Mattheis vacancy also in postharvest research group

Phil: strawberry breeding position opening up in Florida or Mexico

### Announcements for upcoming meetings

* Upcoming meeting announcements
  + Apple CGC October 26, 2023 Geneva, NY
  + NCCC212 meeting November 6-9 at San Luis Obispo (small fruit CGC concurrently)
  + NC140 Nov. 6-9 in Michigan
  + PAG 31 January 12-17 in San Diego

### Next RosEXEC meetingS

* January 2023 at PAG, Sunday January 7 (10:00 – 12:00), room TBA (Dorrie will organize). Will be hybrid and as per usual will be open to everyone, not just RosEXEC members.