

Final Revised 2008 MASC annual meeting minutes

Date: Friday, July 25, 8:30-10:30 pm during the 19th ICAR (Montreal, Canada)

By: Joanna Friesner, MASC Coordinator (jdfriesner@ucdavis.edu)

Summary of Action Items from Meeting:

- Joe Kieber will contact W. Gruissem at Genevestigator to get list of all AGI codes expressed above a certain cutoff value that they tell us can be deemed 'real'.
- Joanna will develop an online mechanism for MASC discussion.
- Joe Kieber will facilitate MASC discussions for the report in 2008-2009.
- Joe Kieber (with Gloria Coruzzi) will develop a letter of support regarding the EU and US post-2010 workshops so that MASC members may sign and endorse the recommendations coming from the workshops. This letter will go to the NSF, and is encouraged to also go to funding agencies in other countries.
- The maize community (and others if possible) need to be approached to ask for a letter of support to go along with the MASC letter of support. **Need name(s) of volunteer(s)**

1) MASC business

- MASC chair for 2008-2009: Joe Kieber (University of North Carolina-Chapel Hill, USA)
- MASC co-chair for 2008-2009: Keith Lindsey (Durham University, UK)
- MASC Coordinator funding update
 - Joanna Friesner (University of California-Davis, USA) is currently funded as Coordinator until Feb. 28, 2009. She anticipates having the funding period extended for a few months, depending on budget.
- Future MASC Coordinator funding update
 - GARNet (UK) intends to submit a grant proposal in October, 2008 that will include a request to fund Ruth Bastow as the next MASC Coordinator.
 - Ruth reports that they will know if funding is approved by the 2009 ICAR.
 - Funding would start in October, 2009 leaving a roughly 2-3 month gap between Coordinators (depending on budget of current Coordinator).
- Update on 2009 ICAR (<http://arabidopsis2009.com/>)
 - Date: June 30- July 4, 2009
 - Location: EICC, Edinburgh, Scotland
 - The list of plenary speakers has been confirmed
 - Conference capacity: up to 2000 participants
- Site selection proposal for 2010 ICAR
 - Kazuo Shinozaki (RIKEN) will organize ICAR 2010 in Japan as part of the 3 year cycle adopted by MASC in 2007 (N. America/Europe/Asia)
 - Date: June 6 - 10, 2010
 - Location: Pacifico Yokohama convention center, 30 min. by train from Tokyo (<http://www.pacifico.co.jp/english/>)

2) Tracking of Progress by Community- Report 'Thermometers' (Eva Huala/TAIR)

- Gene Function Knowledge Thermometers were not included in the 2008 MASC report, as they were deemed to be incomplete.
- In 2007 there were 4 thermometers; in 2008, they also could have been organized into 1 overall thermometer and included bioinformatic data not included previously **(Figure 1)**.

- Eva revisited the goal for the thermometer initiation in 2003, listed in the 2004 MASC report (p. 18) as “to collect at least 1 category for every gene in the genome.” A list of functional categories was elaborated in the report to include, e.g. protein activity, expression pattern, subcellular localization, phenotype of knockout/loss of function, etc.
- AGI codes and conclusions about what is known is needed in combination for tracking.
- TAIR has data from several sources, mainly in GO terms.
- Some types not now included: post-translational modification or tertiary structure.
- TAIR is shifting its focus to un-annotated genes and is working on obtaining data from 2010 projects, from SUBA and from other projects.
- Completeness: Some missing genes come from unpublished and uncurated data: there are about 5,000 genes currently without experimental annotations in un-curated articles.
- Point: we’ll make thermometers more complete but they will still be incomplete.
- Model organisms and the percent with experimental annotation: Yeast: 65% (much smaller gene set); Mouse: 12%; C. elegans: 11%; A. thaliana: 10%
- **Group discussion comments:** (1) the thermometers may be incomplete but what is ‘complete’ to the community is what is accessible at TAIR. (2) knowledge may be easier to describe in a paragraph. (3) we have expression information for about 90% of genes. (4) is expression data enough to say there’s a function? (5) data could go in a thermometer but annotations are by definition only knowledge. (6) Genevestigator people could support us on summarizing expression knowledge.

Action Item: Joe Kieber will contact W. Gruissem at Genevestigator to get list of all AGI codes expressed above a certain cutoff value that they tell us can be deemed ‘real’.

3) Mechanism for developing MASC report short-term recommendations- how to get input from more MASC members?

- **Group discussion comments:** (1) have Joe (MASC chair) email members earlier in the year. (2) does the report have to come out at ICAR? If not, discussion could be at ICARs. (3) would like to distribute at ICAR so needs to be done before conference. Talking now is too early for next year’s report. (4) People could discuss at earlier national meetings. (5) what about a wiki/blog? (6) when sending emails should bcc people to hide long list of names and mark emails ‘urgent’ to get better response.

Action Item: Joanna will develop an online mechanism for MASC discussion.

Action Item: Joe Kieber will facilitate MASC discussions for the report in 2008-2009.

4) Reference sequence update community standards document (Eva Huala/TAIR)

- A draft of this document was emailed by Joanna to MASC on July 20th. Eva would like NAASC and MASC to give input before public comment is sought. Contact Eva with any input, or to obtain the document (huala@acoma.stanford.edu).

5) iPlant Collaborative Update (Steve Rounsley, Univ. of Arizona)

- Project started Feb. 2008. Board of Directors selects the community-proposed projects.
- First deadline for workshop/project proposals was early June and 9 were received.
- Board recommended to support 4 in 2008 and possibly 2 more in 2009.
- All 4 accepted proposals will have workshops this fall/winter, and 2 of the 4 were deemed advanced enough to begin working preliminarily on right away.

- Initial proposals and summaries can be found: <http://www.iplantcollaborative.org/home>
- **Group discussion comments:** (1) are workshops limited to writers of proposal? Answer: The workshops are organized by the proposing team - usually a group of 4-5. They select and invite the attendees - usually about 30-40 in number. Non-US participants are allowed/encouraged and can have travel costs supported.

6) European Bioinformatics Institute - Overview of plans for Ensembl (Paul Kersey, EBI)

- EBI genome browser is currently mainly for vertebrates, but want to expand to plants.
- Goal: add to annotated plant genomes with new high-throughput data, and expand tools.
- Advantage: automatic integration with other EBI tools/data.
- Examples: pipeline for next gen sequence assembly of short-reads, comparative genomics tools, DNA level algorithm for related species, CHIP-chip data, host-pathogen interactions that can expand across taxonomies.
- Goal: launch in October, 2008. Will take data from TAIR8 at AtEnsembl (NASC).
- **Group discussion questions:** (1) Maybe this could help with resequencing data for developing the reference sequence as discussed earlier (2) If you're including Gramene, what does this mean for them? Answer: don't know but they need to work various communities without causing problems, eg Arabidopsis. (3) How does this relate to RefSeq? Answer: we're collaborating to fix gene models, while at some level we're competing for services. However we want to agree on underlying sequence.

7) US 2020 planning workshop (Jan. 2008) report (Gloria Coruzzi, NYU, USA)

- Recommendation to NSF: fund a 2020 project especially in the area of Systems Biology.
- MASC needs to help make this happen- An Oct. meeting with Jim Collins will be pivotal to whether a new project is approved, and it's not certain to be positive for Arabidopsis.
- We made the case to NSF that the grand challenges in biology aren't just about plants but can best be addressed in plants.
- Workshop report at: www.arabidopsis.org/portals/masc/masc_docs/masc_wk_rep.jsp
- Gloria's questions to MASC: (a) does MASC appreciate and agree with the report and (b) what can MASC do to lobby NSF about continuing dedicated Arabidopsis funding?

8) EU 2020 planning workshop (June 2008) report (Jim Beynon, Warwick, UK)

- Recommendation: Arabidopsis is part of a continuum from basic science to practical output, the 2 must be integrated, and crop research requires Arabidopsis research.
- Without dynamic research we won't attract good people to the field.
- A coordinated approach to improve crops is needed.
- Workshop report at: www.arabidopsis.org/portals/masc/masc_docs/masc_wk_rep.jsp

9) Japan preliminary discussion (Kazuo Shinozaki, RIKEN)

- Japan has an annual steering committee meeting – will be in September in 2008.
- Discussion has started at RIKEN and they have 2 major points: (1) Arabidopsis as research platform to understand all gene functions. (2) translation to crops and trees.

10) MASC discussion regarding all workshops/planning- what can MASC do?

- [REDACTED]: MASC could draft a letter that MASC signs that endorses the outcomes of the workshops and send to funding agencies.
- [REDACTED]: couldn't Japan and UK and Europe write letters of support to NSF?

- c. [REDACTED]: it's not effective for a community to request support for themselves.
- d. [REDACTED], a similar issue is that after running a program for a number of years a new twist/angle is needed to justify continued funding.
- e. [REDACTED]: We did that by discussing plant systems biology as the 'new thing.'
- f. [REDACTED]: We've also added ecology.
- g. [REDACTED] many researchers remind us that yeast doesn't have a separate special program.
- h. [REDACTED]: but they have NIH, while we do not.
- i. [REDACTED] suggests 2 things: (1) individual communities send letters that convey the impact of losing the 2010 project to the world, (2) Joe plus others draft a letter on outcomes and goals of projects and have MASC members sign.
- j. [REDACTED] - suggest to approach people from maize community (e.g. Vicky Chandler and Scott Poethig) to ask for their community's support for Arabidopsis.
- k. [REDACTED] - how responsive is NSF to joint international grants?
- l. [REDACTED] we did 2 competitions together with AFGN.
- m. [REDACTED] there are 2 worries: (1) less funding for plants and Arabidopsis, (2) there won't be money for large-scale projects (tools).
- n. [REDACTED] large-scale tools can also be done via international collaborations.
- o. To ask for support for systems biology you should attract researchers from outside plant biology, another issue is how to educate in cross-disciplinary manner.

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Fig.1 attached

/jdf 3/7/2016