



A Resource for Comparative Plant Genomics

Subject: letter of collaboration with Gramene for the NSF PGI 2011

Dear Michael,

I am writing this letter of collaboration for your 2011 NSF PGI proposal titled "'Environmental Gene Regulatory Interaction Networks in Rice". We are very interested in integrating your datasets into Gramene. Based on our discussions, you will have two major types of data available for integration:

(1) Microarray data of transcriptome: We will have time-series Affymetrix microarray data for temperature- and water-availability shifts in 4 rice landraces (data available starting August 2013). We will also have time-series data for 2 rice landraces in two different field environments and 2 seasons, with associated environmental metadata (data available August 2014)

(2) Regulatory Networks/biclusters and differentially expressed genes based on co-expression data: Complete biclusters and networks (data available starting August 2013).

To support integration of your data within Gramene we will be requesting that you provide primary data and Meta data associated using standard descriptors and in a format requested by the Gramene. The use of these descriptors will support data integration and interoperability with other data resources. For the expression profile data sets we will be able to provide support for Distributed Annotations System (DAS) views of the experiments on the Ensembl Rice genome browser hosted at Gramene. To achieve this you will need to provide a project member to support the formatting of these expression data in the required format and using standard semantic descriptors. In addition we are requesting that all project participants format and submit the data to the our core collaborator data archive EBI Array Express/ATLAS project to support Meta analysis which will be available as additional gene based views in the browser. To support these objectives we will host web-based meetings at least quarterly to support training of collaborators in the use of standard descriptors and formats need to support data integration and interoperability.

For the Gene networks, we will be requesting that your work with our group to support the development of standards. As the Gramene project matures we will be incorporating this data as part of the Reactome Rice objective, to support gene networks and will work with you group on formats for submission.

We will request that participants from your team contribute to regular user meeting to support the integration of these data sets. In addition to the data itself we will request that your group be responsible for a collaborative page on Gramene. The collaborators page will include information on the project and example links to available data within Gramene and a YouTube like video that demonstrates how to navigate to the data within Gramene. You will be responsible for providing twice a year updates to the collaborators page to coincide with Gramene updates, including the development of the content and the example video tutorial. We also request that you contribute to the Gramene News blog at the time of integration and when a publication of the data sets is published.



To support training on standards and formats, we request that a project member on your team attend collaborators meeting, at least 6 months prior to the anticipated submission of the data. We understand that both the Postdoc and Bioinformatician on the project will be the team member responsible for this activity in your group. In addition to integration and visualization of the your specific data within Gramene, the project can provide you with resources for comparative analysis to support cross-species comparisons of function and phenotype for rice and Arabidopsis as well as resources for gene networks that may relate to your research. We would also be happy to host a person from you project for a short visit if appropriate for this objective you will need to include funds for the exchange as part of your travel.

Please be aware that we can only commit serving the data for the length of the current Gramene grant that will be ending in October of 2011. If our grant is refunded we will be happy to continue to serve the data as long as funding for our projects exists. We look forward to working with your group and wish you the best of luck on your proposal.

Sincerely,



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