Facilitating Discovery: The Role of Society Journals in Collaborative Science

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Scientific progress requires hypotheses and ideas, but it is enabled by resources. Genetic resource panels (GRPs) like the “Collaborative Cross” are a unique resource for the scientific community. Because this resource allows repeated generation of particular genetic combinations, the impact of DNA sequence variation on a wide range of phenotypes can be readily studied. Renewable resource populations have been created for flies, maize, Arabidopsis, yeast, worms, and mice (e.g., Giaever et al. 2002; Kamath et al. 2003; Complex Trait Consortium 2004; Macdonald and Long 2007; Ayroles et al. 2009; Kover et al. 2009; McMullen et al. 2009). With them phenotypic data for transcription, metabolites, proteins and whole organism can be linked to underlying genetic polymorphisms. These resources give scientists insight into how genetic variation percolates through the biological layers, from cells to the whole organism, from molecules to networks. One critical requirement for realizing the potential of these accumulating resources is that all data be publicly available, preferably accompanied with a set of online tools for mining them. The February 2012 issues of GENETICS and G3 illustrate The Editors’ vision for one way in which society-sponsored peer editing adds value for the scientific community. All the data associated with these papers is publicly available, and the authors are committed to its widest possible distribution. We are proud to provide a venue for the publication of such important work, and we will continue to facilitate publication of high-quality studies focused on this unique resource. The Editors of GENETICS and G3 are working together to maximize the full impact of such large scale endeavors. The scientific community needs new tools for analysis, as well as creative experiments that unlock the promise of GRPs. We welcome submissions of manuscripts that answer these broad challenges. We also invite submission of manuscripts that describe the use of the resources presented in this month’s issues of Genetics and G3.

The Editors of GENETICS and G3 are committed to publishing high-quality science and to supporting the scientific community. To that end, we seek to collaborate with scientific communities engaged in projects to develop genetic resources. We are developing ways to tag papers using specific metadata identifiers so all papers involving a particular GRP can be quickly located and collated. Look for our tags for mouse-GRP, mouse-CC, and mouse-DO. Tell us more about ways you think the journals of the Genetics Society of America can collaborate with and support our community.

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