Job Title: Post-Doctoral Associate  
Location: St. Paul, MN  
Regular/Temporary: Regular  
Qualifications: Ph.D. in Plant Biology, Biochemistry, Genomics or closely related field.

Duties/Responsibilities: The Forever Green Initiative (FGI, http://www.forevergreen.umn.edu/) at the University of Minnesota (UMN) has received funding from the Walton Family Foundation to support a post-doctoral research associate to develop new cover crops. The ultimate goals of the FGI are to improve farmland environments by reducing soil erosion and nutrient leaching that threaten both soil health and water quality. The postdoc will join a team of investigators dedicated to creating new crops and cropping systems that will provide a continuous living cover on the Upper Midwestern landscape. This living cover will deliver ecosystem services needed to protect farmlands and waterways, while increasing economic returns to farmers. The goal of the postdoc will be to advance the utility of winter-hardy lines of Camelina sativa (camelina) and Thlaspi arvense (pennycress) as new oilseed crops that can be grown during the fallow period between the harvest of corn and the sowing of soybean. These new crops can produce biofuels and edible oils without disrupting current farming practices. Both camelina and pennycress are in need of trait improvements to facilitate their adoption as winter double crops. Strategies for making improvements are provided by the vast store of knowledge gleaned from research on the related plant, Arabidopsis thaliana. The fellow will focus on trait discovery, DNA marker development, and association mapping. The fellow is expected to take an active role in conceptualizing and leading new experiments and serving as a team member in other projects. The incumbent will also, supervise graduate and undergraduate students, aid in proposal writing as well as draft and publish peer-review manuscripts.

The fellow will be supervised by M. David Marks (see: http://cbs.umn.edu/contacts/david-marks) in the Department of Plant and Microbial Biology. Start date is early 2017.

Requirements:
- Completion of Ph.D. in Plant Biology, Genetics, Genomics or closely related field awarded no more than five years from initial date of postdoctoral hiring.
- Experience working with large Illumina datasets or other genomics platforms.

Preferred Skills and Training:
- Demonstrated experience working in a Unix environment and utilizing high performance computing resources
- Demonstrated experience with at least one programming language (Python/Perl/R)
- Working with CLC Genomics Workbench
- Working with Arabidopsis or other Crucifer
- Website maintenance
- Linkage and QTL mapping
- Experience in writing grant proposals

Appointment: This is a 100% time appointment. Initial appointment is for one year. Renewal for second year is available upon successful progress.

Special Instructions: Applicants will be required to attach a CV, list of publications, writing sample, and list of references to:
M. David Marks
Professor, University of Minnesota
Department of Plant and Microbial Biology
140 Gortner Lab, 1479 Gortner Ave
Saint Paul, MN 55108
Phone: 612-625-6737; Email: marks004@umn.edu