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February 27, 2014

Dr. Jeff Chang
Dept of Botany & Plant Pathology
Center for Genome Research & Biocomputing
Oregon State University

Dear Search Committee,

I am writing to apply to the position of Assistant Professor in Plant-Microbe interactions in the Department of Botany & Plant Pathology at Oregon State University.

I completed my doctoral studies at University of California Berkeley with Prof. Brian J. Staskawicz. During my PhD I gained extensive expertise in biochemistry, cellular biology and bioinformatics. I worked with a model organism *Arabidopsis thaliana* to reveal the biochemical basis of its immune receptor function. In addition to my main PhD topic, I earned a Designated Emphasis in Computational Biology and Genomics and incorporated bioinformatic analyses in my research, including structural modeling, next generation sequencing and evolutionary analyses. My doctoral work encompasses a total of 9 publications, including 4 first/co-first author papers in such journals as *Plant Cell*, *PNAS* and *BMC Genomics*.

For my postdoctoral studies, I accepted a position with Prof. Jorge Dubcovsky, a leader in wheat research, professor at University of California Davis and a Howard Hughes Medical Institute Investigator. Within a year, I secured my own federal funding from the United States Department of Agriculture. I decided to work on wheat to make the research in this important grass species highly accessible to basic science. I applied my bioinformatic and laboratory skills to design exome-capture for wheat, a targeted enrichment that in combination with next generation sequencing enabled me to develop functional genomics tools for wheat. The first part of this research has been published in *Genome Biology* and the final publicly available resource is coming out at the end of this year. I used comparative genomics and forward genetic screens against wheat stripe rust to identify exciting components in wheat immunity that would form foundation for the first experiments in my own lab.

I am excited by the opportunity to teach and do research at Oregon State University. I am committed to teaching and I strongly believe that undergraduate research is an essential part of academic excellence. I am a strong advocate for promoting women and cultural diversity in Science, Technology, Engineering and Mathematics. I believe that my expertise in comparative genomics of cereals and wheat-rust pathosystem are highly complementary to the current interests of your department and I would be excited to share my expertise with the existing faculty.

Please, find attached my CV, research and teaching statements and list of references. I look forward to hearing from you.

Sincerely,

Ksenia V. Krasileva