



Dr. Mario Caccamo,  
Director  
The Genome Analysis Center  
Norwich Research Park  
NR4 7UH, UK

July 31<sup>st</sup>, 2014

Dear Dr. Caccamo and the Search Committee,

I am writing to apply for the position of Group Leader in *Triticeae* Genomics at The Genome Analyses Center.

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 earning a joined degree in Microbiology and Genomics / Computational Biology. I worked with a model organism *Arabidopsis thaliana* to elucidate the key biochemical events leading to pathogen recognition by plant innate immune receptors. My doctoral work encompasses a total of 10 publications, including 4 first/co-first author papers in such journals as *Plant Cell*, *PNAS*, *PLoS Pathogens* and *BMC Genomics*.

Currently, I am a USDA AFRI-NIFA post-doctoral fellow with Prof. Jorge Dubcovsky, a leader of wheat research at University of California Davis. I decided to work on wheat to make this important grass species highly accessible to basic science and to accelerate the efforts of breeders. 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 re-sequence 1,000 mutant wheat lines of tetraploid wheat. This represents a milestone in development of functional genomic tools for wheat. The first part of this research that evaluated wheat transcriptomes has been published in *Genome Biology* and I am currently preparing the publication of wheat mutant database. Throughout my postdoc I enjoyed close collaboration with John Innes Center and The Genome Analyses Center.

In the future, I will continue to advance wheat genomics and I am especially interested in leading the efforts to establish a robust physical map of wheat and adopting mapping-by-sequencing protocols. In the past year, I conducted bioinformatic as well as forward genetic screens and identified exciting components in wheat immunity that would form foundation for my work with The Sainsbury Lab.

I am excited by the opportunity to do research at The Genome Analysis Center and The Sainsbury Laboratory. I believe that my expertise in wheat genomics and my commitment to academic excellence and innovative translational research make me a well-suited candidate for this position.

Please, find attached my complete application and a list of references. I look forward to hearing from you.

Sincerely,

Ksenia V. Krasileva