PhD Position in Molecular Cereal Genetics / Bioinformatics

KAUST is an international graduate-level, merit-based research university dedicated to advancing scientific and technological education and research, acting as a catalyst for innovation, economic development and social prosperity in the region and the world. Our research strives to enhance the welfare of society with a special focus on four areas of global significance – food, water, energy and the environment. Based near Jeddah, Saudi Arabia, KAUST has attracted top-notch faculty and staff from all over the world, with more than 80 nations represented on campus.

To support our research group in the Biological and Environmental Science & Engineering Division, the cereal genetics group invites applications for a PhD position in molecular genetics or bioinformatics. Our main research interest lies in the identification and molecular characterization of genes that make cereal plants (wheat, rice, barley, maize) more resilient against biotic and abiotic stresses. In particular, we focus on unravelling the genetic and molecular basis of broad-spectrum resistance against the devastating rust diseases in wheat. Our mission is to contribute to cutting-edge research of high impact as well as to translate basic science into breeding.

The research group in cereal genetics was newly established at KAUST in August 2017 (https://cda.kaust.edu.sa/Pages/Simon-Krattinger.aspx). This position therefore offers the opportunity to contribute to the formation of a new and innovative research team at the forefront of scientific research into wheat genetics and genomics.

Task
The identification of agriculturally important genes in wheat had long been limited by its large genome, which is five times larger than the human genome. However, recent progress in wheat genomics, including the development of several rapid gene isolation strategies, will allow us to isolate and study the effect of genes much more rapidly in the future. In addition, the advancements in wheat genomics allow us nowadays to capture the sequence information of many different wheat cultivars and wild wheat relatives, which makes comparative analyses and genome-wide association studies feasible. The role of this postdoctoral position is to incorporate these genomic advancements, as well as to develop novel approaches for gene identification and isolation.

Requirements
We are seeking an outstanding young scientist who has recently been awarded a MSc degree in genetics, bioinformatics, molecular biology, plant biology, agronomy or equivalent. Applicants must have a strong and demonstrated background in experimental molecular plant genetics, including topics such as map-based cloning, genome-wide association studies, or high-throughput phenotyping (preferably disease resistance). Experience in cereal research is preferable.

Offer
We offer a friendly, international, dynamic and team-oriented scientific environment in a young research group. In particular, this position offers to work at the interface of modern molecular biology, genetics, breeding and conservation of plant genetic resources. For more information about the KAUST PhD program, please refer to the University’s website: https://www.kaust.edu.sa/en/study/phd-program
Contact
For questions relating to the position, kindly contact Dr. Simon Krattinger, simon.krattinger@kaust.edu.sa. Please send your application as single PDF-File by e-mail. Applications should include: full CV and publication list, a statement of research interests not exceeding one page, and three academic references. Applications are accepted until November 30th 2017.

At KAUST, we attract people from all around the world who want to create impact beyond their own achievements. Irrespective of their national origins, the people of KAUST are “people of the world” who uphold our values of achievement, passion, inspiration, citizenship, diversity, integrity, and openness. Located on the beautiful Red Sea coast of Saudi Arabia, KAUST sets exceptional standards in residences, recreational facilities and boasts a truly multicultural community environment which can be enjoyed by all, along with ample opportunities and time to keep work and life in harmony.