

**Report on the conferment of the BRCA Data Analysis Award**  
at the Karlsruhe Institut für Technologie (KIT) on February 24, 2017

**Prize winner: *BRCA Data Analysis Award* for Corinna Ernst**

The *BRCA Data Analysis Award* has been created in Spring 2016 in order to honour innovative scientific work in the framework of statistics and data analysis that focuses on, or can advance, the prevention of inherited cancer associated with BRCA gene mutations. Tendering of the award was jointly conducted by the *International Biometric Society* (German Region, IBS-DR), the German *Gesellschaft fuer Klassifikation – Data Science Society* (GfKI), the *International Federation of Classification Societies* (IFCS), the non-profit research and development organization *HeritX* (Santa Monica, USA), and the *Center for Familial Breast and Ovarian Cancer* (Cologne, Germany).

An international team of reviewers has evaluated the submitted applications and finally conferred the price to **Corinna Ernst**, a bioinformatician from Cologne at the early stage of her career who has submitted a paper on “*A generalized additive model framework for CNV detection on multi gene panels*”. In this framework, Corinna Ernst developed an algorithm for identifying so-called Copy Number Variations (CNVs), i.e., genetic rearrangements that allow to find new risk genes beyond the well-known BRCA1/2 genes, and this directly from observed data obtained from Next Generation Sequencing (NGS) and without additional experiments. This analysis was possible by using generalized additive models. Former work by Corinna Ernst was devoted to the optimization of various algorithms for analyzing NGS data, the development of a data structure for the storage of pan-genomes, and to a study on relapses of neuroblastomas.

The *BRCA Data Analysis Award*, combined with a prize sum of 1.000 Euro, has been conferred to **Corinna Ernst** by Prof. Dr. Hans Kestler (Ulm) on February 24, 2017, during a ceremony celebrating the 40<sup>th</sup> anniversary of GfKI in the Castle of Karlsruhe (Baden, Germany) and in cooperation with the Karlsruhe Institute for Technology (KIT). Ms. Ernst will present her scientific results to an international audience during the 15<sup>th</sup> Conference of the IFCS in Tokyo (Japan) in August 2017. -- We cordially congratulate her on this award and wish her plenty of success for her future research activities.

Hans-Hermann Bock

The *BRCA Data Analysis Award* was created in partnership between international biometrics and statistics societies, the global research and development nonprofit organization HeritX, and the Center of Familial Breast and Ovarian Cancer in Cologne, Germany. It is intended to support innovative research in the field of data analysis that focuses on or is applicable to the prevention of inherited BRCA cancer, and to attract top talent to focus on this important medical need already in the early stages of their career. Millions of people have been born with an inherited mutation in the BRCA genes, and now face an up to 90% risk of not only one but several types of cancer, including breast, ovarian, prostate, pancreatic and melanoma – across entire families, generation for generation. These families urgently need a therapy that prevents these cancers and keeps people healthy and whole.



After the conferment of the BRCA Data Analysis Award on February 24, 2017 (from left to right): Prof. H. Kestler (GfKI), Prof. A. Geyer-Schulz (GfKI), Prof. T. Friede (IBS-DR), laureate Corinna Ernst, Prof. H.-H. Bock (Chair Evaluation Committee), Prof. A. Sokolowski (SKAD, IFCS), Prof. B. Lausen (GfKI)