Doctoral Positions in Big Data Analysis in Chemistry, Marie Skodowska-Curie ITN BIGCHEM (http://bigchem.eu)

Life sciences data is generated and published at unprecedented rates. This wealth of data provides unique opportunities to generate new insights into the mechanisms of disease and to identify starting points for treatments. Substantial challenges for computational analysis arise from size, complexity and heterogeneity of available data sets.

BIGCHEM (BIG data in CHEMistry) is a Marie Skodowska-Curie Innovative Training Network (ITN) for Early Stage Researchers (ESR) funded by the European Commission under the H2020 Programme.

The BIGCHEM ITN will provide unique education and research opportunities for 10 doctoral students at the interface of academia and industry with a comprehensive and cross-disciplinary curriculum in (bio)chemical data analysis, including machine-learning, computational chemistry and chemoinformatics methods. The research program of BIGCHEM aims to develop innovative analysis solutions for big (bio)chemical data.

Selected applicants will be given the opportunity to work on a three-year PhD project in two friendly, open-minded, multidisciplinary environments with high emphasis on exciting science and team work. Each doctoral student will spend at least 50% of the time with industrial partners.

BIGCHEM is a collaborative action of 9 groups in 5 countries from academia and pharmaceutical industry. Boehringer Ingelheim is involved in the following 4 ESR projects:

ESR1: Machine learning methodologies for mining very large compound data sets

(Boehringer Ingelheim Pharma GmbH & Co KG and University of Bonn, Germany)

ESR2: Computational compound screening and profiling by large-scale mining of pharmaceutical data

(Boehringer Ingelheim Pharma GmbH & Co KG and University of Bonn, Germany)

ESR3: Big data visualisation and modelling using Generative Topographic Mapping

(University of Strasbourg and Boehringer Ingelheim Pharma GmbH & Co KG, France & Germany)

ESR7: Exploration of uncharted regions of chemical space by reaction-driven de novo design to identify chemical probes using active learning

(Boehringer Ingelheim Pharma GmbH & Co KG and ETH Zurich, Germany & Switzerland)

Further information about these projects, the other ESR projects, the recruitment process as well as the eligibility criteria can be found on the BIGCHEM site http://bigchem.eu (email: *info AT bigchem.eu*).

Apply at BIGCHEM till 20.03.2016.