The Faculty of Chemistry and Biosciences and the Faculty of Physics at the Karlsruhe Institute of Technology (KIT) invites applications for PhD starting April 2015 or later in the new Research Training Group 2039 "Molecular architectures for fluorescent cell imaging", funded by the Deutsche Forschungsgemeinschaft.

The research and teaching program comprises the complete evaluation line from synthesis, bioconjugation, structure determination, photophysics and transport into cells to in vivo imaging of biological significance. This includes

- organic and bioconjugation synthesis of fluorescent labels, nucleic acids, peptides, polymers and transporters
- chemical-biological application of imaging on cell lines, zebrafish and mice
- theoretical and physical chemistry of fluorescent probes including molecular dynamics, quantum chemistry, high resolution fluorescence microscopy

The following research groups participate:

- Prof. Dr. Hans-Achim Wagenknecht (Institute of Organic Chemistry)
- Prof. Dr. Christopher Barner-Kowollik (Institute of Technical and Polymer Chemistry)
- Prof. Dr. Stefan Bräse (Institute of Organic Chemistry)
- Dr. Thomas Dickmeis (Institute of Toxicology and Genetics)
- Prof. Dr. Marcus Elstner (Institute of Physical Chemistry)
- Prof. Dr. Johannes Gescher (Institute of Applied Biology)
- Dr. Maja Köhn (European Molecular Biology Laboratory)
- Dr. Maria Caterina Mione (Institute of Toxicology and Genetics)
- Prof. Dr. Christof Niemeyer (Institute of Biological Interfaces)
- Prof. Dr. Gerd Ulrich Nienhaus (Institute of Applied Physics)
- Dr. Zbigniew Pianowski (Institute of Organic Chemistry)
- Prof. Dr. Peter Roesky (Institute of Inorganic Chemistry)
- PD Dr. Ute Schepers (Institute of Toxicology and Genetics)
- Prof. Dr. Uwe Strähle (Institute of Toxicology and Genetics)
- Prof. Dr. Anne S. Ulrich (Institute of Biological Interfaces)
- PD Dr. Andreas-Neil Unterreiner (Institute of Physical Chemistry)

You may contact individual supervisors of the research training group in advance and indicate in your application for which specific group of research topic you apply. If you do not indicate a specific preference we will bring suitable applications to the attention of all supervisors.

The applicants should hold a master’s or equivalent university degree (final grade: 2.0 or better) in chemistry, biology or physics. The applicants should have practical scientific experience and strong theoretical background in one of the research topics, and should show interest in creative work in a highly interdisciplinary environment. Applications, comprising a letter of interest, professional CV, scanned certificates and a list of publications, together with a recommendation letter should be sent until February 7th 2015 to: Prof. Dr. Hans-Achim Wagenknecht, Institute of Organic Chemistry, KIT, E-mail: Wagenknecht@kit.edu. Later applications are continuously accepted until all positions are filled. For further information, see: http://www.ioc.kit.edu/grk2039.