



## INTERDISCIPLINARITY

Interdisciplinarity – examining a topic by working and thinking across two or more disciplines – has been promoted and sought for in the academic world for decades. German and European funding organisations include the requirement of interdisciplinarity in their public advertisements to allow them to support new ways of approaching academic topics. The German Excellence Initiative run by the national and state governments also pursued the aim of stimulating interdisciplinarity in university-based research. Freiburg’s Windows for Research institutional strategy responded to this by introducing the concept of a “New Universitas”, which found its most visible expression in FRIAS’s structure of linking the humanities, natural sciences and engineering under one roof.

FRIAS’s four thematically focused schools defined research areas with the aim of allowing academics from different disciplines to collaborate productively with one another. For example, the central topic explored by the School of Life Sciences – LiFeNet was systems biology, a new

academic field at the interface between life sciences and the theoretical disciplines of mathematics and physics that unites experimental and computer-aided approaches in order to understand biological processes. The physics behind molecular and biological materials, as well as the chemical and (micro-)technical development of new soft materials that may have industrial uses in the future, such as in the area of organic solar cells, formed the integral part of the work carried out at the School of Soft Matter Research. The humanities schools also forged new links with related subjects. The special profile of the School of Language & Literature (LiLi) was shaped by far-reaching interdisciplinary contacts that facilitated interaction between disciplines which, traditionally, had little contact with each other in Freiburg. Some examples, lines of cooperation were built between literary science and mathematics, cultural sociology and the history of science, linguistics and cognitive science, and psychology and clinical medicine. One of the school’s early highlights was the conference “Numbers, Signs and Figures – Mathematical Inspirations in Literature and the Arts” (2008). Using the core topic of comparative European history from the 18th to

20th centuries as a basis, the School of History strove to conduct larger interdisciplinary discussions with related subjects such as ethnology, the history of law, theology, political science and sociology.

Synergies also emerged from similar areas in the two natural science schools and the two humanities schools respectively. Biologists recognised the potential that (micro-)engineers had of developing new miniaturised devices in a targeted manner; chemists ventured into the field of molecular biology, where they contributed to custom-designed molecules for controlling biological systems; and engineers discovered medicine as a challenging field in which to develop new technologies. Meetings between LiLi and History fellows with shared interests resulted in joint projects, such as a conference entitled “Conspiracy Theories” (2011) and a workshop on “The Significance of Cultural Sociology” (2010). Fellows regularly participated in colloquia and conferences held by other schools and fellows from different schools worked closely together to successfully prepare new Collaborative Research Centres (SFBs).

From 2009 onwards, FRIAS made a significant addition to the school concept by establishing annual Interdisciplinary Research Groups (IRG) that meaningfully expanded the spectrum of fields studied by the four thematically focused schools and formed a separate and explicit interdisciplinary area in order to include fellows from all of Freiburg’s eleven faculties.

In terms of encouraging exchanges between major disciplinary cultures, FRIAS felt compelled to awaken cu-

riosity in developments in research fields that are less closely related and promote mutual understanding between such areas. All fellows were expected to be willing to put their own research work up for discussion, a task which included presenting it to colleagues from fields far removed from their own. Exchanges of this kind took place in the form of monthly “Dinner Speeches”, smaller scale events such as “After Hours Conversations” (taken from the IAS in Princeton) and discussion forums such as the “Black Forest Retreats”, which were initiated by Junior Fellows and focussed on interdisciplinary questions relating to academic theory and research methods. The three large-scale interdisciplinary symposia entitled “Evolutionary Paradigms in the Arts and Sciences” (2009), “Catastrophes” (2011) and “Der Wert des Körpers” (The Value of the Human Body, 2013) proved particularly challenging and were used by FRIAS to reflect how it focuses on topics in a way that transcends disciplines. In addition to providing the opportunity for topics of a broad academic and social interest to be presented from the perspectives of various disciplines, these large and well attended public conferences took place in the university’s Assembly Hall, allowing all the members of the university and interested citizens of Freiburg to participate in discussions on key topical questions.

Overall, FRIAS succeeded over the past five years in creating a climate in which interdisciplinarity could be actively experienced. It built a stimulating atmosphere where well-founded disciplinary research and exchanges based on curiosity that crossed subject boundaries and encouraged cooperation could take

place between experts from various fields who do not see themselves as opposites but rather as poles of productive relationships built on differences. The institute’s work in its future configuration, which opens it to all academic disciplines, will also benefit from the experience gained from building these bridges.

