

Developmental Biology's excellent reputation in Freiburg goes back to the days of the [Hans Spemann](#) who received the Nobel prize for his groundbreaking discovery of an "organizer center" in early amphibian embryos that controls the behavior and fate of surrounding cells. Today the University of Freiburg is one of the few universities in Germany that offers a full curriculum in Developmental Biology.

Our research aims at understanding how the development of a complex multi-cellular organism from a single cell is controlled at a molecular level. It includes genetic, molecular, biochemical and experimental embryological approaches in model organisms such as *C. elegans*, *Drosophila*, zebrafish, chick, and mouse.

At the molecular level the focus is on molecular analysis of signaling systems. At the cellular level, we analyze stem cells and cell differentiation. One major area of research is the organization of cells into organs ranging from the kidney to the central nervous system. We also use systems biology approaches to understand complex developmental decisions.

Research in Developmental Biology is characterized by strong interactions between basic science and medical groups. Most of us also participate in national and international collaborations such as large collaborative projects funded by the European Union.

To find information on the principal investigators in this area please click [here](#)