

## **Beyond androcentric gene-determinism? Notions of gender in epigenetic knowledge**

In recent years, epigenetic approaches have increasingly become popular in the life sciences and in biomedical research. Epigenetics aims at the 'uncovering' of the 'complete decoding' of the epigenome: the entirety of the epigenetic 'codes'. Epigenetics assumes that these epigenetic codes decisively influence which genes are activated during the development of an organism and how its cells work. Furthermore, epigenetics states that this epigenetic equipment is hereditary. Epigenetics, thus, explores processes of heredity beyond the genes.

My project analyzes epigenetic knowledge from a gender perspective, because the category of gender is crucial for epigenetics, its models, and practices in several ways: The 'discoveries' of epigenetics shall not just illuminate gender specific embryonic processes of development and 'the nature' of the sexes, but also support the progress of regenerative medicine. New diagnostic instruments, so-called biomarkers, shall be created on the basis of the results and be employed for therapies of 'gender specific' 'genetic diseases' like breast cancer.

My project asks what kind of gender assumptions are implicit to epigenetic models and knowledge – to epigenomic susceptibility. The inquiry focuses on these questions:

- Which obligations to act upon oneself do epigeneticists articulate?
- How do these ideals of behaviour differ between the genders?
- If and how are notions of genetic risk and genetic responsibility changed through scientific models that are based on assumptions of plasticity?
- Above all: How is the epigenetic approach to complex diseases applied in basic science research and clinical praxis?

The basis of this research project is interviews with epigeneticists, which I have conducted during the last year.

At the workshop I would like to reflect

- first insights,
- methodological questions, and
- the directions in which I could develop the project, (conduct more interviews, go to the lab, focus more on practices, ...).