

## Tuesday 6. 3. 2018 11:00 s.t.

**Dr. Gray Camp** Max Planck Institute for Evolutionary Anthropology, Leipzig

## Organoids to explore uniquely human development

Human pluripotent stem cells (PSCs) can self-organize into complex, three-dimensional (3D) tissues that recapitulate morphological, functional, and genetic aspects of human organ development. These 'organoid' systems allow us to study the mechanisms that underlie human development and disease, as well as explore the evolutionary changes that created uniquely human cells. I will present our work using single-cell genomics to compare human brain and liver organoids with primary tissues to understand how precisely organoid development recapitulates *in vivo* programs. In addition, we have generated organoids from our closest living relatives, chimpanzees and the other great apes, and I will discuss our effort to identify *cis*-regulatory, gene expression, and cell biological features that appear to be specific to modern humans.

## Host: Dirk Görlich



Large Seminar Room, Administration Building Max Planck Institute for Biophysical Chemistry, Am Fassberg 11, 37079 Göttingen