



University
of Basel

Department of
Biomedical Engineering



Seminar Series:

Latest Breakthroughs in Biomedical Engineering Research

Location: DBE Science Lounge, Hegenheimermattweg 167C, 4123 Allschwil

Date & Time: Thursday 29.10.2026 | 16:30 – 17:30

Host: Dr. Martin Styner

Neural Correlates of Face Processing in Autistic Males and Females: A Multimodal Perspective

Dr. Dorothea Floris

Speaker's Affiliation

Abstract

Despite significant advances in medical care, many complex and multifactorial conditions stand to benefit from further methodological innovation in biomarker development and multimodal data integration. An illustrative and pressing example is autism – a highly prevalent condition lacking any approved pharmacological treatment for its core symptoms and accompanied by a complex sex-dependent presentation. Among the social-communicative differences that are characteristic of autistic individuals, difficulties in processing social information – especially faces – are some of the most prominent features. While individual neuroimaging modalities have provided valuable insights into the neural correlates of face processing, studies that integrate data across multiple modalities remain scarce. In this talk, I will present findings from different studies investigating the neural correlates of face processing, with a particular focus on the fusiform gyrus – a critical region for face recognition and processing. I will discuss how integrating multiple neuroimaging modalities using novel imaging approaches enhances our understanding of social functioning in autism and will further highlight distinct neural patterns observed in males and females.

Biosketch

Dorothea Floris is a cognitive neuroscientist specializing in autism and neuroimaging. She completed her PhD at the University of Cambridge in 2015, working with Simon Baron-Cohen, before joining the NYU Child Study Center as a postdoctoral fellow with Adriana Di Martino and Michael Milham, supported by an Autism Science Foundation Fellowship. From 2018 to 2021, she was a postdoctoral fellow in the Statistical Imaging Group at the Donders Centre for Cognitive Neuroimaging, working with Christian Beckmann. In 2021, she joined the University of Zurich as a Marie Skłodowska-Curie Individual Fellow, where she continues her research on the neurobiology of autism. Her research has since been supported by a University of Zurich Postdoctoral Grant and, most recently, an Academic Excellence Fellowship.