

## Introductory Remarks to Symposium 9

### New advances in the neuroscience underlying socio-emotional behaviour

*Chairs: Oliver Bosch and Hanna Hörnberg, Regensburg and Berlin*

Social behaviour is vital to the survival of all vertebrates, from reproduction to living in groups. Hence, socially living species are broadly influenced by interactions with conspecifics. There is a remarkable diversity of social interactions, including affiliative and co-operative behaviors as well as aggressive interactions. While most social encounters are pro-social with a positive influence, others might rather have a negative valence. In both cases, the emotional impact on the social output - and vice versa - are key to physiological and psychological well-being. Thus, it is important to understand the neurobiological basis of socio-emotional behaviour from molecular-cellular to behavioural levels, thereby applying classical behavioural observations to state-of-the-art methods. Using model systems such as mice and rats, the translational aspect of their socio-emotional behaviour is vital for further advances in the field.

In this joint symposium of the NWG and the European Brain and Behaviour Society (EBBS), the oldest society in the world focusing on the interrelationship between brain and behaviour, our speakers will present new developments in the fascinating neuroscience underlying socio-emotional behaviour. The symposium will begin with the latest findings on molecular mechanisms in the brain that affects social behaviours in rodents (Hanna Hörnberg). We will then move on to social learning in rodents and advance our knowledge of the underlying neural correlates with a special focus on rewards (Ewelina Knapska). As negative social experiences can cause social avoidance, we will learn from studies in mice how central neuropeptide systems in the lateral septum are involved in the manifestation of social fear (Rohit Menon). These findings will be complemented by a selected talk further demonstrating the involvement of septal somatostatin- and neurotensin-expressing cells in social as well as feeding-related behaviours (Francisco Javier de los Santos Bernal). Our final presentation will focus on social behaviour in humans, where a link between the body and the brain will be drawn based on current findings (Soyoung Park).

## Symposium 9

*Thursday, March 23, 2023  
11:00 - 13:00, Lecture Hall 105*

*Chairs: Oliver Bosch and Hanna Hörnberg,  
Regensburg and Berlin*

- 11:00 **Opening Remarks**
- 11:05 Hanna Hörnberg, Berlin  
MOLECULAR MECHANISMS OF SOCIAL BEHAVIOURS (S9-1)
- 11:25 Ewelina Knapska, Warsaw, Poland  
NEURAL CORRELATES OF SOCIAL LEARNING ABOUT REWARDS (S9-2)
- 11:45 Rohit Menon, Regensburg  
SEPTAL MECHANISMS REGULATING SOCIAL FEAR EXTINCTION: A ROLE FOR NEUROPEPTIDE SIGNALING (S9-3)
- 12:05 Francisco Javier de los Santos Bernal, Cologne  
REGULATION OF SOCIAL BEHAVIOURS BY THE LATERAL SEPTUM (S9-4)
- 12:25 Soyoung Q. Park, Nuthetal  
THE LINK BETWEEN BODY-BRAIN INTERACTION AND SOCIAL BEHAVIOUR (S9-5)
- 12:45 **Discussion / Concluding Remarks**