



1st & 2nd Feb 2018 • Dresden

# International Symposium for Affective Touch in Children and Adolescents

Hotel Schloss Eckberg

**Universitätsklinikum  
Carl Gustav Carus**  
DIE DRESDNER.



**GRADUIERTEN  
AKADEMIE**

# ABOUT

The study of affective touch perception and its influence on social interactions and emotional processing as well as behavioural development has attracted the attention of multiple research groups around the globe, centering on a group of specialized unmyelinated nerve fibers – the so-called C-tactile afferents. With a particular importance of interpersonal touch in the upbringing of children, a more detailed field of research on the influences of affective touch perception on the development of the social brain in children is to be explored.

In an international symposium, we want to bring together researchers to exchange most recent aspects in this field and keep up with the latest perceptions and projects.

## Contact and Organizing Team

### *Organizing Team*

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Thursday, February 1st 2018

9 AM – 10 AM

Registration & Coffee

10 AM

Introduction

***AFFECTIVE TOUCH:  
WHAT'S NEW IN THE  
FIELD?***

10.30 AM

Francis McGlone (Liverpool John Moores University)

„How Do You Feel?“

11.30 AM

Timmy Strauss (University Hospital Dresden)

„Affective touch grabs the brain's attention!“

12 AM

Anbjørn Ree (University of Oslo)

„CT targeted touch reduces corrugator muscle responses“

12.30 AM – 2 PM

LUNCH

2 PM

Merle Fairhurst (Ludwigs-Maximilians-Universität München)

“What is special about touch?“

3 PM

Chantal Triscoli (University of Gothenburg)

„Neural and autonomic responses to long-lasting slow stroking“

3.30 PM – 4 PM

COFFEE

***DEVIATIONS OF  
AFFECTIVE TOUCH IN A  
CLINICAL CONTEXT***

4 PM

Irene Perini (CSAN, University of Linköping)

„Cerebral correlates to affective touch processing in adolescents with Nonsuicidal Self-Injury (NSSI) behavior. “

4.30 PM

Leah Mayo (CSAN, University of Linköping)

„Affective responding in adolescence: What we can learn from clinical populations“

5 PM

Pascal Vrticka (Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig)

„Epigenetic Modification of the Oxytocin and Glucocorticoid Receptor Genes in young Adults as a Function of Attachment Avoidance“

7 PM

CONFERENCE DINNER

Friday, February 2nd 2018

## **TACTILE INTERACTIONS IN PARENT-CHILD DYADS**

**9 AM**

Annett Schirmer (The Chinese University of Hong Kong, Max Planck Institute for Human Cognitive and Brain Sciences)

„Frequency of maternal touch predicts resting activity and connectivity of the developing social brain“

**10 AM – 10.30 AM**

**COFFEE**

**11 AM**

Juliane Junge-Hoffmeister (University Hospital Dresden)

„Clinical Experiences in the Mother-Child Outpatient Clinic“

**12.00 AM**

Kiseko Shionoya (CSAN, University of Linköping)

“Maternal buffering strongly affects inflammation-induced hypothalamic gene expression in mouse pups.”

**12.30 AM – 2 PM**

**LUNCH**

**2 PM**

Rebeccah Slater (University of Oxford)  
“The development and modulation of infant pain”

**3 PM**

Juulia Suvilehto (University of Turku)  
„Social touch is relationship-specific for children and adults “

**3.30 PM**

**Poster session & Coffee**

**4.30 PM**

Closing Remarks

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**ON FREE TERMS:**

**5.45 PM**

Guided Tour *Semperoper*

**7 PM**

*Semperoper: „Die tote Stadt“*

# Key speaker: MERLE FAIRHURST

*Assistant Professor, Ludwig-Maximilians-Universität München, Germany*

## **ABOUT**

Merle Fairhurst holds a diploma in music and completed her undergraduate and postgraduate training in Physiological Sciences and Neuroscience at the University of Oxford with her doctoral work entitled "Dissecting the pain experience using psychological intervention and functional MRI". Her postdoctoral training has included two research fellowships with the Max Planck Institute for Human Cognitive and Brain Sciences (Leipzig) firstly within the Music, Cognition and Action group (2009-2012) and then in the Early Social Development group (2012-2013). Before starting at the LMU, she completed a research fellowship at the Centre for the Study of the Senses at the University of London (2014-2017). She is currently an Assistant Professor in the Philosophy of Mind and Cognitive Neuroscience group. Her present work focuses on the sensory and indeed multisensory bases of social interactions, with a focus on somatosensory and auditory signals that allow us to coordinate our actions and become aligned in body and mind.

[www.merlefairhurst.com](http://www.merlefairhurst.com)

## ***"What is special about touch?"***

It is very often through touch that we experience and engage with the world and with others. What is of interest is whether our tactile system for handling and understanding objects is in fact the same for "understanding" and indeed communicating with others. This talk will consider from a philosophical and empirical perspective what is special about touch. Specifically, with a focus on its ability to encode affective content and to ascribe certainty about the world, comparisons will be made with other sensory modalities as well as how our ability to use our tactile sense evolves alongside our other senses during development.

# Key speaker: FRANCIS MCGLONE

***Professor of Neuroscience, Liverpool JM University, UK  
Visiting Professor, University of Liverpool, UK***

## ***ABOUT***

BSc(Hons) in Neurobiology and PhD in Sensory Neuroscience, University of Sussex. After postdoctoral positions at Manchester University he took up the post of Senior Neuroscientist at the Pain Research Institute, Department of Medicine, Liverpool University, investigating mechanisms of chronic neuropathic pain. This was the start of a realisation that research into the human brain/mind had to be multidisciplinary, and a fascination with c-fibres (pain, itch & pleasure nerves), which he was subsequently able to pursue with a move to industry (Unilever R&D), but then looking at their role in reward. He is currently Professor in Neuroscience at Liverpool John Moores University, Head of the Somatosensory & Affective Neuroscience Group - [www.somaaffect.org](http://www.somaaffect.org) and President of the International Association for the Study of Affective Touch - [www.iasat.org](http://www.iasat.org)

## ***"How do you feel?"***

It is now known that some skin nerves send 'feel good' signals to the brain when activated by gentle stroking touch, and that this kind of touch may play an all-important role in human nurture behaviours and social communication. Research into the sense of touch has focussed mainly on the fingertips, which have been described, in an analogy with vision, as the 'fovea' of this sensory modality. We therefore have a reasonably good understanding of the specialised receptors in the fingers that code for touch, and how their exquisite sensitivity enables us to detect the microscopic physical surface properties of handled objects, such as their roughness, smoothness or softness. Information from these receptors is conveyed to discriminative sensory areas of the brain by fast-conducting nerve fibres, enabling this information to be processed in 'real-time' – an important factor when handling objects or tools. However, touch has another dimension beyond the purely discriminative that we are all familiar with, such as that feeling one gets when cuddling a baby, or being hugged by a loved one – an emotional one. The importance of emotional touch, in development will be reviewed in this talk.

# Key speaker: ANNETT SCHIRMER

*The Chinese University of Hong Kong*

*Max Planck Institute for Human Cognitive and Brain Sciences*

## **ABOUT**

Annett Schirmer graduated with a Psychology Diploma from Leipzig University, Germany in 1999 and then pursued a graduate degree at the Max Planck Institute of Cognitive Neuroscience in Leipzig. She was awarded a PhD in 2002. After completing a post-doc at the same institute, Annett Schirmer joined the Psychology Department at the University of Georgia, USA in 2005 as an Assistant Professor. She moved to the National University of Singapore in 2006 and to The Chinese University of Hong Kong in 2017 where she now holds a Professor appointment. Annett Schirmer's research tackles the effect of nonverbal emotional signals on interaction partners. To this end, she uses a range of behavioral (e.g., priming) and neuroimaging techniques (e.g., EEG, fMRI). She has published actively in international journals and is the sole author of an undergraduate textbook entitled "Emotion" that appeared with Sage.

## ***"Frequency of maternal touch predicts resting activity and connectivity of the developing social brain"***

Research in nonhuman animals has revealed a role of early tactile experiences for brain development. Among other processes, a high frequency of tactile care was shown to promote prosocial behavior. We explored whether a similar relationship may exist in humans. To this end, we recorded the frequency of maternal touch in a standardized play situation. Additionally, we measured attentional orienting towards social as compared with non-social stimuli and recorded brain activity during wakeful rest. We found that the frequency of maternal touch correlated positively with an attentional bias towards social stimuli and enhanced resting activity and connectivity in a number of regions referred to as the "social brain". In this talk, I will present these findings in more detail and discuss possible short and long-term mechanisms for tactile influences on social functioning.

# Key speaker: REBECCA SLATER

*Associate Professor of Paediatric Neuroimaging, University of Oxford, UK*

## **ABOUT**

Rebecca Slater is an Associate Professor of Paediatric Neuroimaging and a Senior Wellcome Trust Research Fellow. She is also a Fellow of Green Templeton College. Rebecca studied Physics (BSc) at Imperial College and Neuroscience (MSc) at UCL, and in 2007 was awarded her PhD at UCL. Since 2012 she has lead The Paediatric and Infant Pain & Anaesthesia (PiPA) research group, which focuses on understanding the mechanisms that underlie the development of pain perception in the human infant. She uses a range of non-invasive brain imaging tools, including EEG and fMRI, to explore the development of pain perception in the human nervous system. She has published many articles about infant pain and has been passionately involved in science communication and the public engagement of science. She has taken part in numerous discussions on TV and radio, including BBC Radio 4, The BBC World Service and Horizon. Rebecca continues her research at the John Radcliffe Children's Hospital and the Oxford Centre for Functional MRI of the Brain (FMRIB) to improve our understanding of the measurement and treatment of infant pain.

## ***"The development and modulation of infant pain"***

Pain in infancy has negative long-term consequences and its prevention is a clinical priority, but adequate treatment requires mechanistic understanding of the structural and functional development of human nociceptive circuitry. Recent scientific advances provide insights into how noxious information is transmitted to the infant brain, providing a platform to ask how we can modulate noxious-evoked brain activity, behaviour and ultimately pain perception in the developing infant nervous system. The overarching aim of this work is to improve the treatment of infant pain in premature and term-born infants. I will describe work that uses brain imaging techniques to better understand the mechanisms that drive and modulate pain perception in early human development, and will describe how pharmacological and non-pharmacological approaches can modulate infant pain. I will discuss new data that suggests that gently brushing an infant prior to a painful event, at a speed that preferentially activates C-tactile (CT) afferents, reduces both noxious-evoked brain activity and reflex withdrawal activity following experimental and clinically-essential noxious procedures.

# The venue

## **Arriving by public transport**

- from Dresden Airport by S-Bahn S2 to Dresden Neustadt station
- with long-distance trains to the main station in Dresden or Dresden Neustadt station
- from both stations by tram line 11 direction "Bühlau" stop "Elbschlösser"
- after about 300m walk in the direction of travel is on the right side of the entrance to Schloss Eckberg

**Tram 11 also takes you to the City Center (stop „Postplatz“) or the art district Neustadt (stop „Albertplatz“)**

## **Venues:**

**Symposium, Coffee Breaks : „Remise“**

**Lunch Breaks, Conference Dinner : „Schloss“**

## **Hotel Schloss Eckberg**

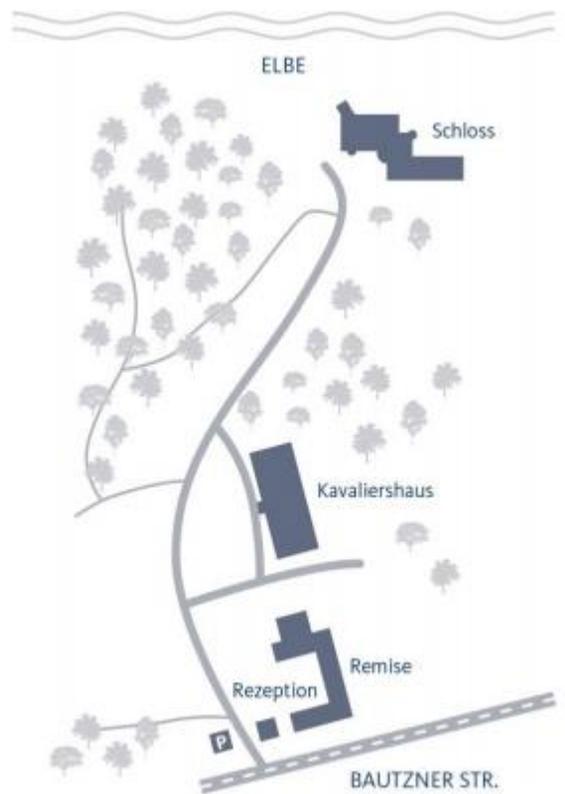
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**THANK YOU**  
for attending the

International Symposium for Affective Touch in  
Children and Adolescents!

*Special thanks to*

Corina Bejan (*Graduiertenakademie TU Dresden*)

Johannes Klaus (*Carus Management*)

Prof. Kerstin Weidner

Catherine Bott

Eri Kleinen

**Universitätsklinikum  
Carl Gustav Carus**  
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**GRADUIERTEN  
AKADEMIE**