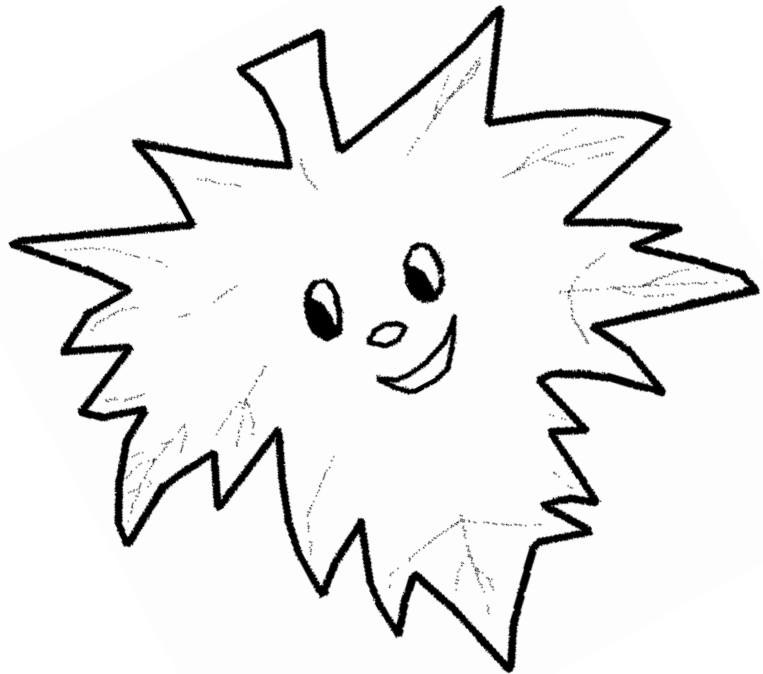


TACTICS
NEWSLETTER
FALL 2015



In this fall newsletter, we would like to update you again on recent work related to compulsivity. Studies performed by our own group as well as other interesting literature and plans for papers are brought to your attention.

Additionally, some updates from NeuroIMAGE and COMPULS.

And last but not least, interesting conferences to attend can be found in the last few pages.

Dissemination-Team

Jan, Jeffrey, Ameli, Jill.

Animal models of compulsivity – WP 1



Animal models of obsessive compulsive disorder – utility and limitations ***Alonso et al., 2015; Neuropsychiatric disease and treatment***

Many animal models have been generated in the last decades to explore different aspects associated with OCD from a range of perspectives, including pharmacological manipulation, genetic selection, and the analysis of behavioural patterns or neurocognitive function. The aim of using all these different approaches is to improve the understanding of the basis of the disorder and to develop new therapeutic strategies, as it is currently the case that approximately 40 % of OCD patients do not respond to currently available treatment. Current animal models of OCD, such as the Slitrk 5 KO mouse or the Quinpirole model, should according to *Alonso et al.* not be regarded as animal models of OCD per se, but rather as animal

models of psychopathological processes that are present in OCD, but also in other neurobiological disorders like ASD. Such processes include compulsivity, stereotypy and perseverance, all features of both OCD and ASD. In this regard, animal models help to study different disorders in a trans-diagnostic way.

The review-paper by Alonso and colleagues summarizes strengths and limitations of leading animal models of OCD and whether animal models constitute an approach to study neural and genetic mechanisms of trans-diagnostic traits such as compulsivity and stereotypy. Download the full paper from Pub-Med:

<http://www.ncbi.nlm.nih.gov/pubmed/26346234>

OCD landscape – update from WP 5

Ilse van de Vondervoort & Geert Poelmans

As part of WP5, "Genotyping, phenotyping and proteomics", a molecular protein landscape for obsessive-compulsive disorder (OCD) was built. The paper describing this landscape was recently accepted for publication in the *Journal of Psychiatry and Neuroscience*, i.e.:

An integrated molecular landscape implicates the regulation of dendritic spine formation through insulin-related signaling in obsessive-compulsive disorder

Ilse van de Vondervoort^{*}, Geert Poelmans^{*}, Armaz Aschrafi, David Pauls, Jan Buitelaar, Jeffrey Glennon^{*}, Barbara Franke^{*}

To construct the landscape, we combined bioinformatics-based enrichment analyses and an elaborate literature review of the top-ranked genes emerging from the two published GWASs of OCD (Stewart et al. *Mol Psychiatry*. 2013; Mattheisen et al. *Mol Psychiatry*. 2014). These top-ranked genes were combined with candidate genes that were implicated through other (genetic) evidence in order to

identify biological processes that, when dysregulated, increase the risk for OCD. The resulting molecular protein landscape is involved in regulating postsynaptic dendritic spine formation - and hence synaptic plasticity - through central nervous system insulin-dependent molecular signaling cascades. This suggests a key role for insulin and insulin-related signaling in OCD etiology.

NeuroIMAGE II data-collection complete!

On September 6th we had our final participants of NeuroIMAGE II in Nijmegen.

NeuroIMAGE II was the second follow up of IMAGE, the large international ADHD study.

We now have longitudinal MRI data for around 250 participants and it's time to start analyzing the data!

COMPULS wave 1 almost finished?

STATUS QUO Sept 22 - an update from coordinator Saskia

	OCD	ASD	Controls	Total
RUNMC	17	17	42	76
KCL	7	17	7	31
UMCU	2	15	16	33
CIMH	4	10	15	29
TOTAL	30	59	80	169
Male	16	45	52	113
Age	11.9	10.7	10.6	11.1

KCL has been including more OCD subjects the last few weeks. Chapeau Muriel Bruchhage 😊!

Until the end of December it is possible to include more subjects. The focus is obviously on OCD subjects. We will use all of your contacts to track down more OCD participants. The count down to Christmas has begun.....

Dissemination activities – WP 8

Jeffrey Glennon, Jill Naaijen, Ameli Schwalber



Follow us on LinkedIn and become a member of TACTICS via
<https://www.linkedin.com/groups/TACTICS-8184903/about>



Prof. Jan Buitelaar recently gave an interview on the research performed within the TACTICS programme. **Click here to see the full interview!**

Dr. Jeffrey Glennon chaired a translational research session at the ECNP Congress 2015 together with Prof. Joseph Zohar, presenting recently-uncovered genetic networks underlying compulsivity as part of the TACTICS study. **Click here to read more!**

Find out more about latest TACTICS research activities and results on our project **Website**. See you soon!

CONFERENCES

Find below an overview of interesting conferences/workshops for our topics of interest.

WCPG 2015

World Congress of Psychiatric Genetics

16 - 20 Oct, Toronto, Canada

Janita Bralten: Genome-wide association study identifies novel loci for autistic traits in the general population

Ilse van de Vondervoort: An integrated molecular landscape implicates the regulation of dendritic spine formation through insulin-related signalling in obsessive-compulsive disorder

Joanna Widomska: An integrated molecular landscape for Tourette syndrome yields novel clues for diagnosis and treatment

SfN 2015

Society for Neuroscience

17 - 21 Oct, Chicago, USA

Jill Naaijen: Glutamatergic and GABAergic gene-sets in Attention-Deficit/Hyperactivity Disorder: Association to overlapping traits in ADHD and autism

ECNP Workshop 2016

For Junior scientists

17 - 20 Mar, Nice, France

Abstract deadline: October 15

ISMIRM 2016

International Society for Magnetic Resonance in Medicine

7 - 13 May 2016, Singapore

Abstract deadline: November 11

SOBP 2016

Society of Biological Psychiatry

12 - 14 May, Atlanta, USA

Symposium proposals deadline: October 22

Abstract deadline: December 17

OHBM 2016

Organization for Human Brain Mapping

26 - 30 Jun, Geneva, Switzerland

Symposium proposals deadline: November 18

Abstract deadline: January 7

CINP world congress 2016

International College of Neuro Psychopharmacology

3 - 5 Jul, Seoul, South Korea

Abstract deadline: February 4

ECNP 2016

European College for NeuroPsychopharmacology

17 - 20 Sep 2016, Vienna, Austria

Abstract deadline: April 1