Translational Adolescent and Childhood Therapeutic Interventions in Compulsive Syndromes

Partners in TACTICS

- Radboud University Nijmegen Medical Center, Stichting Katholieke Universiteit | The Netherlands
- King’s College London | UK
- Tel Aviv University | Israel
- University College Cork | Ireland
- The Massachusetts General Hospital | USA
- Central Institute of Mental Health | Germany
- University Medical Centre Utrecht | The Netherlands
- Wockhardt | UK
- Genoway | France
- The Chancellor Masters and Scholars of the University of Cambridge | UK
- concentris research management GmbH | Germany

Key Data for TACTICS

<table>
<thead>
<tr>
<th>Start date</th>
<th>01/01/2012</th>
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<tr>
<td>Duration time</td>
<td>60 months</td>
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<td>EC contribution</td>
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<td>Project website</td>
<td><a href="http://www.tactics-project.eu">www.tactics-project.eu</a></td>
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Key contacts for TACTICS

Coordinator
Prof. Jan K. Buitelaar
Department of Cognitive Neuroscience,
Radboud University Nijmegen Medical Center,
Stichting Katholieke Universiteit,
The Netherlands

Project Office
Karin Rosenits
concentris research management GmbH,
Fürstenfeldbruck, Germany

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Compulsivity is characterized by a repetitive, irresistible urge to perform a behavior, the experience of loss of voluntary control over this intense urge, the diminished ability to delay or inhibit thoughts or behaviors, and the tendency to perform repetitive acts in a habitual or stereotyped manner. Compulsivity is a cross-disorder trait underlying phenotypically distinct psychiatric disorders that emerge in childhood (autism spectrum disorder, ASD; obsessive-compulsive disorder, OCD) or adolescence (substance abuse). Our approach integrates clinical data sets for ‘addictive’ (ADHD high risk for substance use), ‘anxious’ (OCD) and ‘stereotypical’ (ASD) compulsive behaviors with highly predictive animal models for new pharmacotherapy.

The aim of TACTICS is to identify, over a 5-year period, the neural, genetic and molecular factors involved in the pathogenesis of compulsion in:
- high risk samples, i.e. children and adolescents with attention-deficit hyperactivity disorders (ADHD) and
- children and adolescents with specific disorders, such as autism spectrum disorders (ASD), obsessive-compulsive disorders (OCD), impulse control disorders (ICD) and behavioral addictions.

Which innovative principles does TACTICS use?
- We adopt a developmental approach by relating variation in onset of compulsion to variation in the maturation of fronto-striatal neural circuits and to the role of glutamate.
- We exploit the potential of compulsion as a cross-disorder trait by contrasting findings of compulsion in different disorders (OCD, high-risk/ADHD, ASD) and healthy subjects to tease apart trait-related and disorder-modifying factors.
- We perform biomarker identification at multiple levels, combining neuropsychology and brain imaging with genetics and protein expression analyses.
- We use Bayesian machine learning and develop it further as an integrative tool.