

**Development of Institutional Partnership across Europe in the Field of Translational  
Neuroscience – DIP Neuroscience**

**Participants**

<b>Participant No *</b>	<b>Participant organisation name</b>	<b>Short name</b>	<b>Country</b>
1 (Coordinator)	Medical University – Plovdiv	MUP	Bulgaria
2	University of Milan	UMIL	Italy
3	University of Vienna	UV	Austria
4	Canton of Vaud University Hospital CHUV, Lausanne	CHUV	Switzerland
5	Prof. Stefan Borgwardt		

**Annotation**

*The aim of this project is the development of strategic inter-institutional partnership between the Medical University – Plovdiv (Bulgaria), the University of Lausanne (Switzerland), the University of Wien (Austria), and the University of Milan (Italy) in order to achieve enhancement of the scientific capacity in the field of medicine and Neuropsychiatry in particular, of the Medical University – Plovdiv. Since 2015 MUP has acquired state-of-the-art equipment for conducting functional Magnetic Resonance Imaging (fMRI), which laid the grounds for research in the field of Translational Neuroscience. Within this period a group of 16 researchers from various specialities such as psychiatry, psychology, neurology, neurosurgery and paediatric neurology, have comprehended the basic techniques for conducting translational neuroimaging research mostly due to educational mobilities to partnering institutions in Europe. To gain an advanced skill-set, however, and to implement a wider range of techniques, the researchers in MUP need further training and education. The implementation of this project will result in transfer of advanced scientific knowledge and expertise from renowned specialists in the fields of Neuroscience, Neuropsychiatry, and Neuroimaging. Furthermore, enhancing the qualification, scientific and technical capacity and expertise of the research staff of Medical University of Plovdiv will transform the prospective scientific potential into a successful collaborative effort at both intra- and inter-organizational level. We will widen and develop the hitherto acquired know-how with new neuroimaging and statistical methodologies and paradigms with the help of the leading partners. Notably each partner will contribute with the following expertise:*

- *CHUV - standard operating procedures for MRI data acquisition, quantitative MRI; quality control, pre-processing, statistical analysis, including machine learning algorithms, and interpretation of the obtained results;*
- *UMIL - synergistic work to develop and apply multimodal neuroimaging and machine learning techniques to neurodevelopmental, neurodegenerative and major psychiatric illnesses, including Metabolic Imaging, Cognitive Psychology among others,*
- *UV - widening the background of MUP in the field of affective and social neurosciences, beyond the narrow medical framework; design of fMRI experiments and data processing.*
- *Prof. Stefan Borgwardt, MD, PhD - Neuroimaging predictors of psychosis; multimodal neuroimaging as a tool for studying psychosis*

*To achieve the scientific goals of the project and the transfer of knowledge a number of events will be held: School of Neuroscience, Expert visits, workshops and seminars as well as short on-site mobilities at the partnering institutions. Joint studies and publications will be developed to share the results of the collaboration and young researchers will be actively involved in project proposals and studies so that the general research profile of the young scientists in Plovdiv will be competitive and adequate to the high scientific standards.*

*By raising the scientific capacity of the researchers in the Medical Faculty of MUP, the project will enable the scientific transfer to future collaborative studies with researchers from other fields such as biology, dental studies, nutrition and social studies. This will allow improvement of the collaboration between the faculties within the Medical University of Plovdiv.*

*The current consortium is a step forward to advancing the level of excellence of MUP that will not only encourage highly qualified specialists to stay and continue working in Bulgaria but also will be an attractive opportunity for scientists from across South and Eastern Europe to start new collaborations.*

*The expected impact of this project is advanced level of knowledge transfer in the field of Translational Neuroscience and is in accordance with strategic goals of the EC Third Program of Health 2014-2020 as well as in the priorities of the thematic area "Industry for Health and Biotechnology" of the National Strategy for Smart Specialization 2014-2020 and National Strategy for the Development of Scientific Research in the Republic of Bulgaria 2017 - 2030. The resources will increase the current capacity of the established academic structures and will create the unique opportunity for a Bulgarian institution to become a "coordination centre" and a hub of knowledge via the transfer of expertise in the sphere of translational neuroscience.*