Dr. EMANUEL SCHWARZ

1) General information

Date of birth: 24 August, 1984
Gender: Male
Address: Heidelberg University
                   Medical Faculty Mannheim
                   Department of Psychiatry and Psychotherapy
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Position: Group leader, Translational Bioinformatics in Psychiatry
Children: Two (* 2015, * 2019)
Parental leave, if applicable: None

2) University training and degree

2003 - 2006   B.Sc., Molecular Biotechnology, Technische Universität München, Germany

3) Advanced academic qualifications

2010   Ph.D., Institute of Biotechnology, University of Cambridge. Dissertation on biomarker discovery for psychiatric illnesses

4) Postgraduate professional career

Since 2014   Group leader, Translational Bioinformatics in Psychiatry, Department of Psychiatry and Psychotherapy, Central Institute of Mental Health, Heidelberg University
2012 - 2014   Research associate, Central Institute of Mental Health, Dept. of Psychiatry and Psychotherapy, Heidelberg University
2010 - 2012   Research associate, Institute of Biotechnology, University of Cambridge
2009 - 2013   Bioinformatics consultant Myriad RBM Inc.
2009 - 2010   Bioinformatics consultant Psynova Neurotech Ltd.

5) Other

Awards and honours:

2021   Chica and Heinz Schaller Research Award of the Chica and Heinz Schaller Foundation
2019   DGPPN Research Award for Predictive, Preventive and Personalized Medicine in Psychiatry and Neurology
2019   Schizophrenia Research, Elsevier, most cited publication award
2014   DGPPN (The German Association for Psychiatry, Psychotherapy and Psychosomatics) Award for Psychopharmacological Research
2006 – 2009   Cambridge European Trust scholarship
2006 – 2009   Christ's College scholarship

Panels and coordinating functions:

2013 - 2017   Steering committee member of the FP7 project IMAGEMEND

Reviewing Boards:

Since 2012   Several Ad-hoc reviewing boards for the BMBF, German Research Foundation, Medical Research Council, Dutch Cancer Society

Editorial boards:

Since 2021   Editorial Board member, 'Neuroscience Applied'

6) Publications

A)

Rieg T., Schwarz E. From mechanistic insight towards clinical implementation using normative modeling, **Nature Computational Science**; 2; 278–280, 2022.

Schwarz E, et al. Identifying multimodal signatures underlying the somatic comorbidity of psychosis: the COMMITMENT roadmap. **Molecular Psychiatry**; 26, 722–724, 2021.

Chen J, […], Schwarz E. Association of a Reproducible Epigenetic Risk Profile for Schizophrenia with Brain Methylation and Function. **JAMA Psychiatry**; 77(6): 628-636, 2020.

Chen J, Cao H, Kaufmann T, Westlye LT, Tost H, Meyer-Lindenberg A, Schwarz E. Identification of Reproducible BCL11A Alterations in Schizophrenia Through Individual-Level Prediction of Coexpression. **Schizophr Bull**; 46(5):1165-1171; 2020.

Cao H, Zhou J, Schwarz E. RMTL: an R library for multi-task learning. **Bioinformatics**; 35(10):1797-1798, 2019.

Chen J, Lippold D, Frank J, Rayner W, Meyer-Lindenberg A, Schwarz E. Gimpute: An efficient genetic data imputation pipeline. **Bioinformatics**; 35(8):1433-1435, 2019.

Schwarz E, et al. Reproducible grey matter patterns index a multivariate, global alteration of brain structure in schizophrenia and bipolar disorder. **Translational Psychiatry**; 9(1):12, 2019.

Frangou S, Schwarz E*, Meyer-Lindenberg A. Imaging Genetics for Mental Disorders (IMAGEMEND). **World Psychiatry**; 15(2): 179-180, 2016.

Schwarz E, Guest PC, Rahmoune H, Harris LW, Wang L, Leweke FM, Rothermundt M, Bogerts B, Koethe D, Kranaster L, Ohrmann P, Suslow T, McAllister G, Spain M, Barnes A, van Beveren NJ, Baron-Cohen S, Steiner J, Torrey FE, Yolken RH, Bahn S: Identification of a Biological Signature for Schizophrenia in Serum. **Molecular Psychiatry**; 17(5):494-502, 2012.

Schwarz E, Guest PC, Rahmoune H, Wang L, Levin Y, Ingudomnukul E, Ruta L, Kent L, Spain M, Baron-Cohen S, Bahn S: Sex-Specific Serum Biomarker Patterns in Adults with Asperger Syndrome. **Molecular Psychiatry**; 16(12):1213-20, 2011.

<div align="right">* Equally contributing authors</div>

B) other publications: -

C) Patents:

Patent number	Description
US2015099663	Biomarkers and a method of diagnosing or monitoring depression, anxiety disorder or other psychotic disorder
DK2517018	A method of diagnosing or monitoring schizophrenia or other psychotic disorder
US2014200151	A method of differential diagnosis of schizophrenia or other psychotic disorder from a further psychiatric disorder.
US2014200150	A method of differentially diagnosing schizophrenia, bipolar disorder and major depressive disorder.
PT2232269	A method of diagnosing or monitoring a psychotic disorder, or predisposition thereto, comprises measuring, in a sample taken from a subject, the levels of one or more peptide biomarkers.
US2013178385	A method of diagnosing or monitoring schizophrenia or other psychotic disorder
US2013171166	A method of diagnosing or monitoring major depressive disorder using MMP-3 as a biomarker.
US2013017970	A method of diagnosing or monitoring schizophrenia or other psychotic disorder.
CA2791632	A method of diagnosing or monitoring bipolar disorders, in particular bipolar I and bipolar II disorders, such as manic psychosis.
CA2790094:	A method of diagnosing or monitoring major depressive disorder.
CA2790091	A method of diagnosing or monitoring multiple sclerosis
WO2011161438	A method of diagnosing or monitoring autism spectrum conditions, in particular Asperger syndrome.
WO2008125805	A method of diagnosing or monitoring an affective disorder, or predisposition thereto, comprises detecting and/or quantifying, in a sample