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## **Genetics of major depression - is the end beginning?**

Whilst the genetic analysis of other major psychiatric phenotypes has been very successful recently, this has been much less the case for major depression (MDD). In my talk I will try to discuss possible reasons, notably related to a large gene-environment as well as gene-gene interaction components in individual risk which is not taken into account in the usually performed genetic studies. Taking into account these factors in analysis, it seems that the end of simple studies in MDD is indeed dawning.

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**Curriculum Vitae**

Study of medicine at the University of Würzburg.

1989-1990 Research fellow (Poste vert) INSERM, Paris.

1996 Habilitation Human Genetics (LMU Munich).

1995-2002 Bernhard Nocht Institute for Tropical Medicine, Hamburg

Since 2002 Head of the research group "Statistical Genetics" at the MPI of Psychiatry.

Since 2007 Adjunct Professor of Human Genetics at the Technical University of Munich.

**11 key papers (from a total of 189 at present)**

Kohli MA, Lucae S, Saemann PG, Schmidt MV, Demirkan A, Hek K, Czamara D, Alexander M, Salyakina D, Ripke S, Hoehn D, Specht M, Menke A, Hennings J, Heck A, Wolf C, Ising M, Schreiber S, Czisch M, Müller MB, Uhr M, Bettecken T, Becker A, Schramm J, Rietschel M, Maier W, Bradley B, Ressler KJ, Nöthen MM, Cichon S, Craig IW, Breen G, Lewis CM, Hofman A, Tiemeier H, van Duijn CM, Holsboer F, **Müller-Myhsok B\***, Binder EB\* (2011) The Neuronal Transporter Gene SLC6A15 Confers Risk to Major Depression. *Neuron* 70:252-65 (\*joint senior authors)

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Turecki, G., Rouleau, G., Gieger, C., Illig, T., Wichmann, H. E., Holsboer, F., **Müller-Myhsok, B.\***, and Meitinger, T.\* (2007) Genome-wide association study of restless legs syndrome identifies common variants in three genomic regions. *Nat. Genet.* 39: 1000-1006 (**\*joint senior authors**)

Seaman SR, and **Müller-Myhsok B** (2005) Rapid Simulation of P Values for Product Methods and Multiple-Testing Adjustment in Association Studies. *Am J Hum Genet.* 76:399-408.

Binder EB, Salyakina D, Lichtner P, Wochnik GM, Ising M, Pütz B, Papiol S, Seaman S, Lucae S, Kohli MA, Nickel T, Künzel HE, Fuchs B, Majer M, Pfennig A, Kern N, Brunner J, Modell S, Baghai T, Deiml T, Zill P, Bondy B, Rupprecht R, Messer T, Köhnlein O, Dabitz H, Brückl T, Müller N, Pfister H, Lieb R, Mueller JC, Löhmussaar E, Strom TM, Bettecken T, Meitinger T, Uhr M, Rein T, Holsboer F, and **Müller-Myhsok B** (2004) Polymorphisms in FKBP5 are associated with increased recurrence of depressive episodes and rapid response to antidepressant treatment. *Nat Genet.* 36:1319-1325.

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Abel L, and **Müller-Myhsok B** (1998) Robustness and power of the maximum likelihood binomial (MLB) and the maximum likelihood score (MLS) methods in multipoint linkage analysis of affected sibship data (1998). *Am J Hum Genet* 63:638-647.

**Müller-Myhsok B**, and Abel L (1997) Genetic Analysis of Complex Diseases. *Science* 275:1328-1329.

Full list of publications via pubmed: <http://tinyurl.com/pubsbmm>