

BIOGRAPHICAL SKETCH

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NAME Tobias Derfuss	POSITION TITLE Professor of Neurology Departments of Neurology and Biomedicine, University Hospital Basel, Petersgraben 4, 4031 Basel, Switzerland		
eRA COMMONS USER NAME			
EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)			
INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
Friedrich-Alexander Universität, Erlangen-Nürnberg, Germany	Physician	1999	Medicine
Friedrich-Alexander Universität, Erlangen-Nürnberg, Germany	MD (Dr. med.)	2001	Medicine
Max-Planck-Institute of Neurobiology, Dept. Neuroimmunology, Munich, Germany	Postdoc	2000 – 2002	Neuroimmunology
Dept. of Neurology, Klinikum Grosshadern, Ludwig- Maximilian Universität, Munich, Germany	Resident	2002 – 2009	Neurology

A. Personal statement

Tobias Derfuss is a clinical neurologist with a specialisation in neuroimmunology. He received his clinical training at the Department of Neurology, Klinikum Grosshadern in Munich. His research at the Max-Planck Institute for Neurobiology, Department of Neuroimmunology, was focused on the discovery of new autoantigens in Multiple Sclerosis and the characterization of the immune response against latent herpesviruses. After training in neuromuscular diseases at the Friedrich-Baur Institute and in psychiatry at the Max-Planck Institute for Psychiatry in Munich he was appointed head of the out-patient department and MS clinic at the Department of Neurology of the university clinic in Erlangen. Since 2010 he is professor and senior physician at the Department of Neurology and the Department of Biomedicine at the university clinic in Basel. His main research focus is the discovery of biomarkers and analyzing the mode of action of disease modifying treatments in MS. Especially the role of B cells in the pathogenesis of MS and the interaction of B cells with their target cells is explored in cell culture as well as in *in vivo* models. Dr. Derfuss is also involved in the design and conduct of clinical trials for newly emerging therapies in MS.

B. Positions, honors and membership

Positions

2009	Friedrich-Alexander Universität, Erlangen-Nürnberg	consultant
Since 2010	University Hospital Basel, Switzerland	professor, consultant

Honors

1991	Carl-Feuerbach-Award
2001	Staedtler-Foundation Award
2004	Felgenhauer Stipend
2007	Volker Ter Meulen Award (International Society for NeuroVirology)

Other experience and Professional Memberships

- member of the ECTRIMS executive board
- member of the International Advisory Committee on Clinical Trials of New Drugs in MS
- member of the advisory boards of the Swiss and German MS societies
- member of the editorial board of Plos One

C. Selected peer-reviewed publications.

1. Diebold M, Sievers C, Bantug G, Sanderson N, Kappos L, Kuhle J, Lindberg RLP, **Derfuss T**. Dimethyl fumarate influences innate and adaptive immunity in multiple sclerosis. *J Autoimmun.* 2018 Jan;86:39-50.
 2. Montalban X, Gold R, Thompson AJ, Otero-Romero S, Amato MP, Chandraratna D, Clanet M, Comi G, **Derfuss T**, Fazekas F, Hartung HP, Havrdova E, Hemmer B, Kappos L, Liblau R, Lubetzki C, Marcus E, Miller DH, Olsson T, Pilling S, Selmaj K, Siva A, Sorensen PS, Sormani MP, Thalheim C, Wiendl H, Zipp F.ECTRIMS/EAN Guideline on the pharmacological treatment of people with multiple sclerosis. *Mult Scler.* 2018
 3. **Derfuss T**, Kappos L. PML risk and natalizumab: the elephant in the room. *Lancet Neurol.* 2017 Nov;16(11):864-865.
 4. Sanderson NS, Zimmermann M, Eilinger L, Gubser C, Schaeren-Wiemers N, Lindberg RL, Dougan SK, Ploegh HL, Kappos L, **Derfuss T**. Cocapture of cognate and bystander antigens can activate autoreactive B cells. *Proc Natl Acad Sci U S A.* 2017 Jan 5.
 5. Kappos L, Arnold DL, Bar-Or A, Camm J, **Derfuss T**, Kieseier BC, Sprenger T, Greenough K, Ni P, Harada T. Safety and efficacy of amiselimod in relapsing multiple sclerosis (MOMENTUM): a randomised, double-blind, placebo-controlled phase 2 trial. *Lancet Neurol.* 2016 Oct;15(11):1148-59
 6. Pröbstel AK, Kuhle J, Lecourt AC, Vock I, Sanderson NS, Kappos L, **Derfuss T**. Multiple Sclerosis and Antibodies against KIR4.1. *N Engl J Med.* 2016 Apr 14;374(15):1496-8.
 7. Rasenack M, **Derfuss T**. Disease activity return after natalizumab cessation in multiple sclerosis. *Expert Rev Neurother.* 2016 May;16(5):587-94.
 8. Pröbstel AK, Rudolf G, Dornmair K, Collongues N, MD, Chanson JB, Sanderson NSR, Lindberg R, Kappos L, de Seze J, **Derfuss T**. Anti-MOG antibodies are present in a subgroup of patients with a neuromyelitis optica phenotype: towards a new disease entity? *J Neuroinflammation.* 2015 Mar 8;12:46.
 9. **Derfuss T**, Curtin F, Guebelin C, Bridel C, Rasenack M, Matthey A, Pasquier RD, Schlupe M, Desmeules J, Lang AB, Perron H, Faucard R, Porchet H, Hartung HP, Kappos L, Lalive PH. A phase IIa randomised clinical study of GNBAC1, a humanised monoclonal antibody against the envelope protein of multiple sclerosis-associated endogenous retrovirus in multiple sclerosis patients. *Mult Scler.* 2015 Jun;21(7):885-93.
 10. Ricklin ME, Lorscheider J, Waschbisch A, Paroz C, Mehta SK, Pierson DL, Kuhle J, Fischer-Barnicol B, Sprenger T, Lindberg RL, Kappos L, **Derfuss T**. T-cell response against varicella-zoster virus in fingolimod-treated MS patients. *Neurology.* 2013 Jul 9;81(2):174-81.
 11. **Derfuss T**. Personalized medicine in multiple sclerosis: hope or reality? *BMC Med.* 2012;10(1):116
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12. **Derfuss T**, Meinl E. Identifying autoantigens in demyelinating diseases: valuable clues to diagnosis and treatment? *Curr Opin Neurol*. 2012 25(3):231-8.
 13. Pröbstel AK, Dornmair K, Bittner R, Sperl P, Jenne D, Magalhaes S, Villalobos A, Breithaupt C, Weissert R, Jacob U, Krumbholz M, Kuempfel T, Blaschek A, Stark W, Gärtner J, Pohl D, Rostasy K, Weber F, Forne I, Khademi M, Olsson T, Brilot F, Tantsis E, Dale RC, Wekerle H, Hohlfeld R, Banwell B*, Bar-Or A*, Meinl E*, **Derfuss T***: Antibodies to MOG are transient in childhood acute disseminated encephalomyelitis. *Neurology* 2011; 77(6):580-8. (*contributed equally)
 14. **Derfuss T**, Parikh K, Velhin S, Braun M, Krumbholz M, Kümpfel T, Moldenhauer A, Kunz B, Pöllmann W, Tiefenthaller C, Bauer J, Lassmann H, Wekerle H, Karagogeos D, Hohlfeld R, Linington C, Meinl E: Contactin-2/TAG-1 directed autoimmunity is identified in MS patients and mediates gray matter pathology in EAE. *PNAS* 2009; 106(20):8302-7.
 15. Mathey EM*, **Derfuss T***, Storch MK, Williams KR, Hales K, Woolley DR, Al-Hayani A, Davies SN, Rasband M, Velhin S, Hohlfeld R, Meinl E, Linington C. Neurofascin as a novel target for autoantibody-mediated axonal injury. *J Exp Med*. 2007; 204(10):2363-72. (*contributed equally)
 16. **Derfuss T***, Gurkov R*, Then Bergh F, Goebels N, Hartmann M, Barz C, Wilske B, Autenrieth I, Wick M, Hohlfeld R, Meinl E. Intrathecal antibody production against *Chlamydia pneumoniae* in multiple sclerosis is part of a polyspecific immune response. *Brain*. 2001; 124:1325-35. (*contributed equally)
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