

PRIMARY PUBLICATIONS (PEER REVIEWED)

	IF 2007
1. Broll, I., Johannsson T., Hemmers, S., Becher, B., Zeilhofer, H.U., Buch, T. Building a Zoo of Mice for Genetic Analyses: A Comprehensive Protocol for the Rapid Generation of BAC Transgenic Mice <i>Genesis, accepted</i>	2.5
2. Düber S., Hafner M., Krey M., Lienenklaus S., Roy B., Hobeika E., Reth M., Buch T. , Waisman A., Kretschmer K., Weiss S., Induction of B-cell development in adult mice reveals the ability of bone marrow to produce B-1a cells. <i>Blood</i> 2009 114:4960-7	10.9
3. Durieux, P.F., Bearzatto, B., Guiducci, S., Buch, T. , Waisman, A., Zoli, M, Schiffmann, S.N., de Kerchove, d'Exaerde A., D2R striatopallidal neurons inhibit both locomotor and drug reward processes. <i>Nat Neurosci.</i> 2009 12:393-5	15.6
4. Han, J.H., Kushner, S.A., Hsiang, H.L., Yiu, A.P., Buch, T. , Waisman, A., Bontempi, B., Neve, R.L., Frankland, P.W., Josselyn, S.A., Selective erasure of a fear memory, <i>Science</i> 2009 323:1492-6	26.4
5. Frommer, F., Heinen, T.J., Wunderlich, F.T., Yogev N., Buch, T. , Roers, A, Bettelli, E, Müller, W, Anderton, S.M., Waisman, A. Tolerance without clonal expansion: self-antigen-expressing B cells program self-reactive T cells for future deletion. <i>J Immunol.</i> 2008 181(8):5748-59.	6.1
6. Lüth, S., Herkel, J., Schramm, C., Buch, T. , Stadelmann C., Brück W., Wraith, C.D., Lohse, A.W. Ectopic expression of neural autoantigen in liver suppresses autoimmune neuroinflammation by inducing antigen-specific Treg cells, <i>J. Clin. Invest.</i> , 2008, 118(10):3403-10	16.9
7.* Hatori, M., Le, H., Vollmers, C., Keding, S.R., Tanaka, N., Schmedt, C., Buch, T. , Waisman, A., Jegla T, Panda S. Inducible ablation of melanopsin-expressing retinal ganglion cells reveals their central role in non-image forming visual responses. <i>PLoS ONE.</i> 2008 ;3(6):e2451	
8. Harzheim, D., Pfeiffer, K.H., Fabritz, L., Kremmer, E., Buch, T. , Waisman, A., Kirchhof, P., Kaupp, U.B., Seifert, R. Cardiac pacemaker function of HCN4 channels in mice is confined to embryonic development and requires cyclic AMP., <i>EMBO J.</i> 2008 Feb 20;27(4):692-703	8.7
9. Croxford, A., Rieux-Laucat, F., Förster, I., Waisman, A. Buch, T. Rescue of thymic development by $\alpha\beta$ TCR in pT α deficient mice depends on the presence of the positively selecting restriction element, <i>Eur. J. Immunol.</i> 2008 Feb;38(2):391-9.	4.7
10.* Kreymborg, K., Etzensperger, R., Dumontier, L., Rebollo, A., Haak, S., Buch, T. , Heppner, F., Renauld, J.-C. & Becher, B. IL-22 is expressed by TH17 cells in an IL-23-dependent fashion, but is not required for the development of EAE, <i>J. Immunol.</i> 2007 179(12):8098-104	6.1
11. Steed, A., Buch, T. , Waisman, A., and Virgin, H.W., Interferon gamma blocks γ -herpesvirus reactivation from latency in a cell type specific manner, <i>J Virol.</i> 2007 Jun;81(11):6134-40	5.3
12.* Buch, T. , Polic, B. , Clausen, B., Alferink, J., Weiss, S., Chang, C.-H., Flavell, R. Jonjic, S., Förster, I., Reconstitution of thymic positive selection rescues T helper cell dependent immune responses in murine MHC class II deficiency, <i>Blood.</i> 2006 Feb 15;107(4):1434-44	10.9
13. Hoevelmeyer, N., Hao, Z., Kranidioti, K., Kassiotis, G., Buch, T. , Frommer, F., von Hoch, L., Kollias, G., Lassman, H., Rajewsky, K., Waisman, A. Fas-mediated apoptosis of oligodendrocytes is a key event in the induction of experimental autoimmune encephalomyelitis in mice, <i>J Immunol.</i> 2005 Nov 1;175(9):5875-84.	6.1
14. Buch, T. , Heinen, T.J.A.J., Tertilt, C., Kremer, M., Heppner, F.L., Wunderlich, F.T., Jung, S., Waisman, A. A Cre-Inducible Toxin Receptor Mediates Cell Lineage Ablation Following Diphtheria Toxin Administration, <i>Nature Methods</i> 2005; 2:419-426	15.5
15. Gropp, E., Gao, Q., Xu, A., Janoschek, R., Buch, T. , Plum, L., Waisman, A., Barsh, G., Horvath, T.L., Brüning, J., Agouti-related peptide-expressing neurons are mandatory for feeding <i>Nature Neuroscience</i> 2005 Oct;8(10):1289-91.	15.6
16. Baudler, S., Baumgartl, J., Hampel, B., Buch, T. , Waisman, A. , Snapper, C.M., Krone, W., Brüning, J.C. Insulin-like Growth Factor (IGF)-1 Controls Type 2 T-Cell Independent B-Cell Response, <i>Journal of Immunology</i> 2005;174:5516-25	6.1

17. Bender, T.P., Kremer, C.S., Kraus, M., **Buch, T.**, Rajewsky, K. Tissue specific inactivation identifies critical roles for *c-myb* at three points during thymocyte development *Nature Immunology* 2004 Jul;5(7):721-9 26.2
- 18.* **Buch, T.**, Uthoff-Hachenberg, C., and Waisman, A. Protection from Autoimmune Brain Inflammation in Mice Lacking Interferon Regulatory Factor-1 is Associated with Th2 Type Cytokines, *International Immunology* 2003 Jul;15(7):855-9 3.3
- 19.* **Buch T.**, Rieux-Laucat F., Förster I., and Rajewsky K., Failure of HY-Specific Thymocytes to Escape Negative Selection by Receptor Editing, *Immunity* 2002, May;16:1–20 19.3
20. Moteki S., Leung P.S., Dickson E.R., Van Thiel D.H., Galperin C., **Buch T.**, Alarcon-Segovia D., Kershenovich D., Kawano K., Coppel R.L., et al., Epitope mapping and reactivity of autoantibodies to the E2 component of 2-oxoglutarate dehydrogenase complex in primary biliary cirrhosis using recombinant 2-oxoglutarate dehydrogenase complex, *Hepatology* 1996 Mar;23(3):436-444 10.7

BOOKS AND REVIEWS

Thorsten Buch and Ari Waisman (Book Chapter)

DNA Vaccines: Methods and Protocols

„Protection from Autoimmunity by DNA Vaccination Against T Cell Receptor (TCR)“

Methods Mol Med. 2006;127:269-80.

Thorsten Buch, Ansgar Schulz, and Irmgard Förster

Encyclopedia of Molecular Mechanisms of Disease.

“MHC class II deficiency”

Springer Press 2009

TEACHING:

- 2009 *University of Zurich*
-“Krankheiten des Nervensystems und der Skelettmuskulatur“ (Bio 404)
„Transgenic Mouse Models“ (BIO 426)
-“Medical Immunology” practical course (BIO 430)
ETH Zurich
-Practical Course in Immunology
- 2008 *University of Zurich*
-“Krankheiten des Nervensystems und der Skelettmuskulatur“ (Bio 404)
„Transgenic Mouse Models“ (BIO 426)
-“Medical Immunology” practical course (BIO 430)
ETH Zurich
-Practical Course in Immunology
- 2007 *University of Zurich*
-„Transgenic Mouse Models“ (BIO 426)
-“Medical Immunology” practical course (BIO 430)
-“Molecular basis for the work with transgenic animals” (Modul 15)
ETH Zurich
-Practical Course in Immunology
-Microbiology and Immunology MIM Ph.D. course
- 2006 *University of Zurich*
-“Molecular basis for the work with transgenic animals” (Modul 15)
-“Krankheiten des Nervensystems und der Skelettmuskulatur“ (Bio 404)
-„Transgenic Mouse Models“ (BIO 426)
Universities of Paris 5 and 7
-“Modélisation animale des déficits immunitaires (Knock out, Knock-out conditionnels, Knock-in, Knock down, transgénèse)”
- 2002-2005 “Lehrauftrag” at the University of Cologne
- 2004 -Genetics course for undergraduates, University of Cologne
- 2002–2004 -Tutor in genetics, University of Cologne
- 2002 and 2003 -Graduate course “Modern Mouse Genetics” University of Cologne (2 weeks each year)
- 1998 -Genetics course for undergraduates, University of Cologne
- 1995 -Tutor for neurophysiology at the HHU Düsseldorf
- 1994 -Tutor for plant physiology at the HHU Düsseldorf

ACQUIRED FUNDS (PAST & PRESENT)

Period	Source	Title	Applicants	Number	Sum (CHF)
2010-2012	Wilhelm Sander Stiftung	Charakterisierung des TOX3 Onkogens der Maus durch konditionale Überexpression und Inaktivierung	Axel Methner Thorsten Buch	2009.054.1	178000
2003-2005	German Research Foundation (DFG)	Untersuchung von positiver und negativer Selektion im Thymus nach induzierter T-Zellrezeptor-Expression	Thorsten Buch	BU1410/1-1	191 500
2005-2008	DFG	Untersuchung von positiver und negativer Selektion im Thymus nach induzierter T-Zellrezeptor-Expression	Thorsten Buch	BU1410/1-2	96 000
2007-2006	Swiss National foundation (SNF)	Determining the master regulator and the molecular switch responsible for negative selection of thymocytes	Thorsten Buch	310000-116201/1	377 000
2009-2012	SNF-Sinergia (3 groups)	Dissecting the interplay between immune cells and their stromal niches with innovative transgenic methods	Adriano Aguzzi, Thorsten Buch, Pawel Pelczar (alphabetical order)	CRSI33_12507 3	800 000 (225 000)
2007-2010	Bonizzi-Theler Foundation	Assessing insulin-like growth factor (IGF) 1 for the enhancement of remyelination of CNS lesions	Thorsten Buch		247 311
2006-2007	Swiss MS Society	The role of demyelination in neuron death and the initiation of anti-myelin immunity	Thorsten Buch		51 500
2008-2009		Demyelination: Cause of neuronal death and the initiator of anti-myelin immunity	Thorsten Buch		30 000
2009-2010		Induced pluripotent stem (iPS) cells in Multiple Sclerosis (MS) research and therapy	Thorsten Buch		50 000
2008-2010	Swiss Department of Science and Education	In vivo imaging of brain damage by use of luciferase-enabled light emission and supersensitive cameras	Burkhard Becher, Thorsten Buch	SBF C07.0132	170 000
2008-2009	Hartmann Müller-Foundation	The Role of TGFb signalling for the maintenance and differentiation of the peripheral CD4+ T cell compartment	Thorsten Buch		15 000
2005	Donation				11 200
2007-2008	Collaboration				16 500

