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an der Medizinischen Klinik III

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geboren am 01.12.1955 in Balingen  
1975 Abitur, Gymnasium Balingen

***Universitätsausbildung:***

1975 Studium der Chemie, Universität Tübingen  
1976-1984 Studium der Biochemie, Universität Tübingen  
1984 Diplom in Biochemie, Universität Tübingen  
1984 - 1988 Promotionsarbeit am MPI Tübingen, am Basel Institut für Immunologie und an der University of California San Francisco bei Prof. Matthias Wabl  
1988 Dr.rer.nat in Mikrobiologie und Immunologie, Universität Tübingen ("summa cum laude")

***Beruflicher Werdegang:***

1984 Doktorand (Mentor: Prof. M. Wabl), Friedrich-Miescher Laboratorium, Max-Planck Institut, Tübingen  
1984 Doktorand (Mentor: Prof. M. Wabl), Basel Institut für Immunologie, Basel, Schweiz  
1984 - 1988 Doktorand (Mentor: Prof. M. Wabl), Laboratory of Radiobiology and Department of Microbiology & Immunology, University of California, San Francisco, USA  
1988 - 1990 Postdoctoral Fellow, Department of Microbiology & Immunology University of California, San Francisco, USA  
1990 - 1996 Assistant Professor (Tenure track), Department of Microbiology & Immunology, Loyola University Chicago, USA  
1996 - 1997 Associate Professor of Microbiology & Immunology (Tenure), Department of Microbiology & Immunology, Loyola University Chicago, USA

- Seit 1997 Assistant Lecturer, Department of Microbiology & Immunology  
Loyola University Chicago, USA
- Seit 1997 Professor für Immunologie (Extraordinarius) und Leiter der Abteilung  
für Molekulare Immunologie an der Medizinischen Klinik III , Friedrich-  
Alexander-Universität Erlangen-Nürnberg

***Mitgliedschaften:***

- Deutsche Gesellschaft für Immunologie (DGfI)
- Deutscher Hochschulverband (DHV)
- Gesellschaft für Molekularbiologie und Biochemie (GBM)
- Signal Transduction Society (STS), Germany
- Biochemische Gesellschaft Tübingen (MoBBEL)
- American Association of Immunologists (AAI), U.S.A.
- Chicago Association of Immunologists (CAI), U.S.A.

***Preise und Gutachterfunktionen:***

- Seit 2009 Executive Editor, European Journal of Immunology
- Seit 2007 Ko-Sprecher, DFG-Forschergruppe FOR832 *Regulatoren der humoralen  
Immunität*
- Seit 2005 Sprecher der DGfI-Arbeitskreise und assoziiertes Mitglied; Beirat der  
DGfI
- Seit 2002 Sprecher des DGfI-Arbeitskreises *Biologie der B-Lymphozyten*
- 2005 Gasteditor (eingeladen), Seminars in Immunology
- seit 2005 Mitglied, Editorial Board, Current Immunology Reviews
- 2001-2005 Associate Editor, Journal of Immunology
- 2000-2006 Sprecher, DFG-Graduiertenkolleg 592
- Seit 2000 Mitglied, Medical Advisory Council of the Leukemia Research Founda-  
tion
- 1994 Junior Faculty Research Award, American Cancer Society, U.S.A.
- 1992 Schweppe Career Development Award
- 1989 MoBBEL Prize , Biochemische Gesellschaft Tübingen
- 1988 (Outstanding Ph.D. thesis in Biochemistry)
- Summa cum laude (Dr. rer. nat.); Universität Tübingen
- 1988 Max-Planck Fellowship, Max-Planck Society, Germany

ab 1992

***Gutachter für wissenschaftliche Journale:***

- EMBO Journal
- European Journal of Immunology
- Immunobiology
- International Immunology
- Journal of Immunology
- Proceedings of the National Academy of Sciences USA
- Molecular and Cellular Biology
- Journal of Molecular Modeling

- Biochemical Pharmacology
- Matrix Biology
- Cancer Research
- Developmental Immunology
- Biochemical and Biophysical Acta
- Journal of Cranial-Maxillofacial Surgery

***Gutachter für Förderorganisationen:***

- Canadian Cancer Foundation, Kanada
- Leukemia Research Foundation Chicago, USA
- National Institute of Health, USA
- The Department of Veteran's Affairs (U.S.A.)
- Association for International Cancer Research (GB)
- Leibniz-Gesellschaft
- Deutsche Forschungsgemeinschaft (DFG)
- Wilhelm-Sander-Stiftung
- Fonds zur Förderung der wissenschaftlichen Forschung (FWF, Österreich)
- Jubiläumsfonds, Österreichische Nationalbank (Österreich)
- Biotechnology and Biological Scientific Research Council (GB)
- Bayerisches Staatsministerium für Wirtschaft, Verkehr und Technologie
- German Israeli Foundation
- Israel Science Foundation (ISF)

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**FORSCHUNGSSCHWERPUNKTE**

- B-Lymphozyten-Entwicklung und Antikörperrepertoire
  - Humorale Immunität und Gedächtnis-Plasmazellen
  - Pathomechanismen maligner B-Zellpopulationen
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**PUBLIKATIONSVERZEICHNIS** (\* für das Kolleg relevante Publikationen)

***Begutachtete Originalpublikationen im Druck bzw. akzeptiert***

1. Kroczek, C., Lang, C., Brachs, S., Grohmann, M., Dütting, S., Schweizer, A., Nitschke, L., Feller, S., Jäck, H.-M., and D. Mielenz. (2010). Swiprosin-1/EFhd2 controls BCR signaling through the assembly of the BCR, Syk and phospholipaseC  $\alpha$ 2 in membrane rafts. *J. Immunology*, accepted.
2. Metzner, M., W. Schuh, E. Roth, E., Jäck, H.-M., and M. Wabl. 2010. Two forms of AID differing in their ability to bind agarose. *PLoS One* Jan 27;5(1):e8883.
3. Beck-Engeser, G., Eilat, D., Harrer, T., Jäck, H.-M. and M. Wabl. 2009. Early onset of autoimmune disease by the retroviral integrase inhibitor raltegravir. *Proc. Nat. Acad. Sci. USA*. 2009 Nov 18. [Epub ahead of print]

***Begutachtete Originalpublikationen – Veröffentlicht (ab 2004)***

4. Trageser, D., Iacobucci, I., Chang, M.-S., Duy1, C, Nahar, R., Klemm, L., Park, E., Schuh, W., Gruber, T., Herzog, S., Kim, Y., Hofmann, W.-K., Li, A., Storlazzi, T., Groffen1, J., Jäck, H.-M., Martinelli, G., Jumaa, H., Heisterkamp, N., and M. Müschen. 2009. Pre-B cell receptor-mediated cell cycle arrest in Philadelphia chromosome-positive acute lymphoblastic leukemia requires IKAROS function. *J. Exp. Med.* 206(8):1739-1753.
5. \*Eberle, A.B., Herrmann, K., Jäck, H.-M., and O. Mühlemann. 2009. Equal transcription rates of productively and nonproductively rearranged immunoglobulin  $\mu$  heavy chain alleles in a pro-B cell line. *RNA* 15(6):1021-8.
6. \*Wittmann, J., and H.-M. Jäck. 2008. Identifying substrates of mRNA decay factors by a combined RNA interference and DNA microarray approach. *Methods Enzymol.* 449:263-294.
7. Eckert, D., K. Biermann, D. Nettersheim, A. J. Gillis, K. Steger, H.-M. Jäck, A. M. Müller, L. H. Looijenga, and H. Schorle. 2008. Expression of BLIMP1/PRMT5 and concurrent histone H2A/H4 arginine 3 dimethylation in fetal germ cells, CIS/IGCNU and germ cell tumors. *BMC Dev. Biol.* 8:106.
8. Vettermann, C, Herrmann, K, Albert, C., Roth, E, Bösl, M and H.-M. Jäck. 2008. A unique role for the lambda5 nonimmunoglobulin tail in early B lymphocyte development. *J. Immunol.* 181(5):3232-42.
9. \*Schuh, W., Meister, S., Herrmann, K., Bradl, H., and H.-M. Jäck. 2008. Transcriptome analysis in primary B lymphoid precursors following induction of the pre-B cell receptor, *Mol. Immunol.* 45(2): 362-375.
10. Avramidou, A., Kroczek, C., Christiane Lang, C., Schuh, W., Jäck, H.-M., and D. Mielenz. 2007. The novel adaptor protein Swiprosin-1 enhances BCR signals and contributes to BCR-induced apoptosis, *Cell Death & Diff.* 14(11): 1936-47.
11. Geraldles, P., Rebrovich, M., Herrmann, K., Wong, J., Jäck, H.-M., Wabl, M., and M. Cascalho. 2007. Ig heavy chain promotes mature B cell survival in the absence of light chain. *J. Immunol.* 179(3):1659-68.
12. \*Christelle Morris, C., Wittmann, J., Jäck, H.-M., and P. Jalinot. 2007. Human INT6/eIF3e is required for nonsense-mediated mRNA decay. *EMBO Reports* 8(6):596-602.
13. Meister, S., Schubert, U., Neubert, K., Herrmann, K., Burger, R., Gramatzki, M., Hahn, S., Schreiber, S., Wilhelm, S., Herrmann, M., Jäck, H.-M., and R.Voll. 2007. Extensive immunoglobulin production sensitizes myeloma cells for proteasome inhibition. *Cancer Research* 67(4): 1783-1792.
14. Franz S, Herrmann K, Führrohr B, Sheriff A, Frey B, Gaipl US, Voll RE, Kalden JR, Jäck H.-M., and M. Herrmann. 2006. After shrinkage apoptotic cells expose internal membrane-derived epitopes on their plasma membranes. *Cell Death Diff.* 14(4):733-42.
15. \*Lutz, J., Müller, W., and H.-M. Jäck. 2006. V<sub>H</sub> Replacement Rescues Pro-B cells with Two

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- Non-Productive VDJ Alleles. *J. Immunol.*, 177(10):7007-7014.
16. \*Vettermann, C, Lutz, J., Bösl, M., and H.-M. Jäck. 2006. Dominant suppression of murine B29/Ig-beta promoter-driven transgenes. *Eur. J. Immunol.*, 36(12):3324-33.
  17. \*Cattoretti, G., Shakhovich, R., Smith P.M., Jäck, H.-M., Murty V.V., and B. Alobeid. 2006. Stages of GC transit are defined by B-cell transcription factors co-expression and relative abundance. *J. Immunol* 177(10): 6930-6939.
  18. Krueger C., Pfeleiderer, K., Danke, C., Wolfgang Schuh, W. Jäck, H.-M., Lochner, S., Gmeiner, P., Hillen, W. and C. Berens. 2006. A gene regulation system with four distinct expression levels. *J. Gen. Med.* 18(1):44-55.
  19. \*Wittmann, J., and H.-M. Jäck. 2006. UPF2 silencing identifies physiologic substrates of mammalian nonsense-mediated mRNA decay. *Mol. Cell. Biol.* 26(4):1272-1287.
  20. Hampel, M., Sehnert, B., Karas, M., Jäck, H.-M., and D. Mielenz. 2006. Double staining of SDS gels with Ruthenium Bathophenanthroline Disulfonate and Silver is compatible with MALDI-TOF mass spectrometry. *Signal Transduction* 6(3):185-189.
  21. Buettner, A. Greiner, A. Avramidou, H.-M. Jäck, and G. Niedobitek. 2005. Evidence of abortive plasma cell differentiation in Hodgkin and Reed-Sternberg cells of classical Hodgkin lymphoma. *Hematological Oncology* 23(3-4):127-32.
  22. Mielenz, D, Vettermann, C., Lang, C, Hampel, M, Karas, M., and H.-M. Jäck. 2005. Lipid rafts associate with the B cell receptor during surface transport and exhibit a B cell stage specific protein composition *J. Immunol.* 174(6):3508-17.
  23. Bradl, H, W. Schuh, and H.-M. Jäck. 2004. CD44 Is Dispensable for B Lymphopoiesis. *Immunol. Lett.* 95 (1):71-75.
  24. Lanig, H., H. Bradl, and H.-M. Jäck. 2004. Three-dimensional modeling of a pre-B-cell receptor. *Mol. Immunol.* 40:1263–1272.
  25. Jäck, H.-M., W. Schuh, S. Meister, and E. Roth. 2004. The Authors Respond: Signaling and Cell Surface Expression of  $\mu$ H Chains in the Absence of Surrogate and Conventional Light Chains. *J. Immunol.* 172(1):4-5; author reply 5.

### ***Begutachtete Übersichtsartikel***

1. \*Jäck, H.-M. 2006. *Invited Editorial*: The ins and outs of early B cell development. *Sem. Immunol.* 18(1):1.
2. \*Vettermann, C., Herrmann, K. and H.-M. Jäck. 2006. Powered by pairing: The Surrogate light chain amplifies immunoglobulin heavy chain signaling and pre-selects the antibody repertoire. *Sem. Immunol.* 18(1):44-55 (Invited).
3. \*Bradl, H. Vettermann, C, Schuh, W., Meister S. and H.-M. Jäck. 2007. The Pre-B Cell Receptor and Its Ligands: It Takes Two to Tango, *Signal Transduction* 7(4): 299-310.

### ***Zur Begutachtung eingereichte Publikationen***

1. Vettermann, C. and H.-M. Jäck. The Pre-B Cell Receptor: Turning Autoreactivity into Self-Defense. *Trends in Immunol.* (invited), under revision.
2. Metzner, M., H.-M. Jäck, and M. Wabl. The other function of AID. *Science*, under revision.
3. Wittmann, J. and H.-M. Jäck. Serum microRNAs as powerful cancer biomarkers. Submitted, submitted.
4. Wittmann, J. and H.-M. Jäck. New surprises from the deep. submitted.