

## Curriculum Vitae - Dr. Gottfried Baier

### Personal information:

Date of Birth Feb 12, 1963  
Place of Birth Bludenz, Vorarlberg  
Nationality Austrian  
Marital status married, two daughters  
Business Address Division of Translational Cell Genetics  
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**Main area of research:** Molecular mechanisms of T lymphocyte signaling mediating tolerance induction versus clonal expansion, regulatory interactions between innate and adaptive immune functions, T cell lineage differentiation and effector functions, autoimmunity, cancer immunity, innovative immunological therapy concepts.

### Relevant Career History:

1981		Matura, Academic Gymnasium Innsbruck (humanistic branch), Austria
1989		Ph.D., University of Innsbruck, Austria
1981	1986	Undergraduate studies, University of Innsbruck, Austria and Max-Planck-Institute for Molecular Genetics, Berlin, Germany (specialized in Microbiology & Biochemistry).
1987	1989	Ph.D. thesis, Institute for Medical Microbiology, University of Innsbruck (G. Stöffler, mentor).
1990	1994	Postdoctoral Fellow, La Jolla Institute for Allergy and Immunology, USA (A. Altman, mentor).
1994	1997	Univ.-Assistant, Institute for Human Genetics, University of Innsbruck, Austria.
1997	2009	Tenure, Habilitation & Venia Docendi in "Human Genetics" and Associate Professor at the Department of Genetics, University of Innsbruck, Austria.
2009	onwards	Director of the Division for Translational Cell Genetics, Medical University of Innsbruck.
2011	onwards	Appointment as full Professor (§98 Univ.-Prof.) at the Division for Cell Genetics, Department for Pharmacology and Genetics, Medical University of Innsbruck, Austria.

**5 Personal awards:** 1995: German Allergy and Immunology-Award; 1995: Austrian Prof. Brandl-Award; 1998 Hoechst/Sanofi-Award; 2002: Novartis-Award for Biochemistry; 2009: Aventis Award, Innsbruck.

**Supervision of graduate students and postdoctoral fellows:** Over my career I have helped to train more than 15 PhD students and Postdocs, some of whom have gone on to become staff scientists and independent group leaders.

**Teaching activities:** Since 1994: Teacher and examiner of main lectures and seminars in genetics and signal transduction at the local Universities and since 2003: Faculty member of the FWF-funded Doctoral College "Molecular Cell Biology and Oncology", (<http://www.mcbo.at/>) and supervisor committee member of numerous bachelor & master students.

**5 most recent invited conference lectures:** World Immune Regulation Meeting WIRM in Davos, Switzerland 2013; Meeting of British Signalling Society in Dublin, Ireland 2014; European Congress of Immunology in Vienna, Austria 2015; Meeting of German Signal Transduction Societies in Weimar, Germany 2016; Annual World Cancer Congress in Barcelona, 2017.

**Career-related activities:** Member of several Austrian and European immunological societies. Coordinating board member of EC FP7 grant SYBILLA, of SFB021. "Cell Death in Tumors" and ONCOTYROL-Center for Personalized Cancer Therapy. Head of the Christian Doppler Laboratory for pharmacological tumor immunotherapy.

Reviewer for J. Exp. Med, J. Immunol, Blood, Trends in Immunology, Proc Natl Acad Sci USA, Eur J Immunol, FEBS Lett. *et al.* plus Wellcome Trust (U.K.), Israel Science Foundation (IS), Telethon (I), French, Dutch and Swiss Science Foundation, German Science Foundation/BMfWF.

**International academic cooperation partners:** Michael Leitges, Biotechnology Centre of Oslo, University of Oslo, Norway; Amnon Altman, LIAI, San Diego, USA; Steve Shaw, NIH, Bethesda, USA; Noah Isakov, Ben Gurion University of the Negev, Israel; Wallace Langdon, University of Western Australia, Perth, AUS; Arthur Kaser, Department of Gastroenterology, Cambridge, UK.

**Publications of Gottfried Baier (s. complete publication list on: <http://www.baierlab.com/>):**

>105 original publications and >10 invited reviews in peer reviewed journals, 5 invited book chapters, >125 invited lectures, 6 patents; h-index: 46, Cumulative Impact Factor: >800, Average Impact Factor per Article: >6,9, Cumulative Citations: > 7500.

**A list of the top 10 original publications as leading author:**

Hermann-Kleiter N, Klepsch V, Wallner S, Siegmund K, Klepsch S, Tuzlak S, Villunger A, Kaminski S, Pfeifhofer C, Gruber T, Wolf D, Baier G. The Nuclear Orphan Receptor NR2F6 Is a Central Checkpoint for Cancer Immune Surveillance. **Cell Reports** 2015 Sep 29;12(12):2072-85.

Gruber T, Hinterleitner R, Hermann-Kleiter N, Meisel M, Kleiter I, Wang CM, Viola A, Pfeifhofer-Obermair C, Baier G. Cbl-b mediates TGFbeta sensitivity by downregulating inhibitory SMAD7 in primary T cells. **J Mol Cell Biol.** 2013 Dec;5(6):358-68.

Meisel M, Hermann-Kleiter N, Hinterleitner R, Gruber T, Wachowicz K, Pfeifhofer-Obermair C, Fresser F, Leitges M, Soldani C, Viola A, Kaminski S, Baier G. The kinase PKCalpha selectively upregulates interleukin-17A during Th17 cell immune responses. **Immunity.** 2013;38(1):41-52.

Hermann-Kleiter N, Meisel M, Fresser F, Thuille N, Muller M, Roth L, Katopodis A, Baier G. Nuclear orphan receptor NR2F6 directly antagonizes NFAT and RORC binding to the *Il17a* promoter. **J Autoimmun.** 2012. 39(4):428-40.

Evenou JP, Wagner J, Zenke G, Brinkmann V, Wagner K, Kovarik J, Welzenbach KA, Weitz-Schmidt G, Guntermann C, Towbin H, Cottens S, Kaminski S, Letschka T, Lutz-Nicoladoni C, Gruber T, Hermann-Kleiter N, Thuille N, Baier G. The potent protein kinase C-selective inhibitor AEB071 (sotrastaurin) represents a new class of immunosuppressive agents affecting early T-cell activation. **J Pharmacol Exp Ther.** 2009. 330(3):792-801.

Gruber T, Hermann-Kleiter N, Hinterleitner R, Fresser F, Schneider R, Gastl G, Penninger JM, Baier G. PKCtheta modulates the strength of T cell responses by targeting Cbl-b for ubiquitination and degradation. **Science Signalling.** 2009. 2(76):ra30;10.1126/scisignal.2000046.

Hermann-Kleiter N, Gruber T, Lutz-Nicoladoni C, Thuille N, Fresser F, Labi V, Schiefermeier N, Warnecke M, Huber LA, Villunger A, Eichele G, Kaminski S, Baier G. The nuclear orphan receptor NR2F6 suppresses lymphocyte activation and Th17-dependent autoimmunity. **Immunity.** 2008 Aug;29(2):205-16.

Letschka T, Kollmann V, Pfeifhofer-Obermair C, Lutz-Nicoladoni C, Obermair GJ, Fresser F, Leitges M, Hermann-Kleiter N, Kaminski S, Baier G. PKCtheta selectively controls the adhesion-stimulating molecule Rap1. **Blood**. 2008 Dec 1;112(12):4617-27.

Thuille N, Heit I, Fresser F, Krumbock N, Bauer B, Leuthaeusser S, Dammeier S, Graham C, Copeland TD, Shaw S, Baier G. Critical role of novel Thr-219 autophosphorylation for the cellular function of PKCtheta in T lymphocytes. **EMBO J**. 2005 Nov 16;24(22):3869-80

Pfeifhofer C, Kofler K, Gruber T, Lutz C, Maly K, Leitges M, Baier G. PKCtheta affects Ca<sup>2+</sup> mobilization and NFAT activation in primary mouse T cells. **J Exp Med**. 2003 Jun 2;197(11):1525-35.

Baier-Bitterlich G, Uberall F, Bauer B, Fresser F, Wachter H, Grunicke H, Utermann G, Altman A, Baier G. PKCtheta isoenzyme selective stimulation of the transcription factor AP-1 in T lymphocytes. **Mol Cell Biol**. 1996 Apr;16(4):1842-50.

Baier G, Telford D, Giampa L, Coggeshall KM, Bitterlich G, Isakov N, Altman A. Molecular cloning and characterization of PKCtheta, a novel member of the PKC gene family expressed predominantly in hematopoietic cells. **J Biol Chem**. 1993 Mar 5;268(7):4997-5004.

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### Major Reviews:

Klepsch V, Hermann-Kleiter N, Baier G. Beyond CTLA-4 and PD-1: Orphan nuclear receptor NR2F6 as T cell signalling switch and emerging target in cancer immunotherapy. **Immunol Lett**. 2016 2478(16)30032-3.

Wachowicz K and Baier G, PKCtheta: the pleiotropic T cell signalling intermediate, **Biochem Soc Trans**. 2014 Dec;42(6):1512-8.

Hermann-Kleiter N, Baier G. Orphan nuclear receptor NR2F6 acts as an essential gatekeeper of Th17 CD4<sup>+</sup> T cell effector functions. **Cell Commun Signal**. 2014 June;12(1):38.

Gruber T, Hinterleitner R, Wolf D, Baier G. Engineering effective T cell based antitumour immunity. **Oncoimmunology**. 2013;2(2):e22893.

Pfeifhofer-Obermair C, Thuille N, Baier G. Involvement of distinct PKC gene products in T cell functions. **Front Immunol**. 2012. 3:220.

Hermann-Kleiter N, Baier G. NFAT pulls the strings during CD4<sup>+</sup> T helper cell effector functions. **Blood**. 2010. 115(15):2989-97.

Baier G, Wagner J. PKC inhibitors: potential in T cell-dependent immune diseases. **Curr Opin Cell Biol**. 2009. 21(2):262-7.

Baier G. PKC isotype functions in T lymphocytes. **Ernst Schering Found Symp Proc**. 2007;(3):29-41.

Baier G, Asadullah K, Zügel U. The immunological synapse: kinases in T cell signalling as potential drug targets. **Immunol Lett**. 2006. 15;105(1):3-5.

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### Major Patents:

1. (WO/2008/117327) ASSAY METHOD FOR IDENTIFYING PKCtheta INHIBITORS
2. (WO/2009/073905) METHOD FOR INCREASING IMMUNOREACTIVITY
3. (WO/2010/004052) AGONISTS OF NR2F6 FOR IMMUNOSUPPRESSION
4. (WO/2010/004051) NR2F6 ANTAGONISTS FOR AUGMENTING CANCER IMMUNITY

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