Name
Prof. Dr. med. Georg Häcker

Institution: Institute of Medical Microbiology and Hygiene, University Medical Center, Faculty of Medicine, Freiburg University
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Position: Head of Institute

Academic education including academic degrees

1984 – 1990	Human Medicine, University Ulm (state examination)
2004 – 2008	Bachelor of Law (LLB), 2004-2008, University of London, England (distance)

Scientific graduation

1991	Dr. med. (MD), University of Ulm

Employment

Since 7/2009	Director, Institute of Medical Microbiology and Hygiene, University Medical Center Freiburg W3-Professor, University of Freiburg, Germany
2000 - 6/2009	C3-Professor, Institute for Medical Microbiology, Immunology and Hygiene, TU München, Munich, Germany
2002-2009	Consultant, Institute f. Microbiology/Klinikum rechts der Isar, Munich
1998 – 2000	Privatdozent (Lecturer), Institute for Medical Mikrobiology, TU München
1996 – 2000	Group leader, Institute for Medical Microbiology, TUM
1995	Visiting Scientist, Walter and Eliza Hall Institute for Medical Research (WEHI), Melbourne, Australia.
1993 - 1995	DFG-scholarship, WEHI
1991 - 1993	Arzt im Praktikum/assistant doctor, Institut for Medic Microbiology, TUM

Other activities, awards and honours

Since 2024	Member of the grants committee CRC (DFG)
Since 10/2023	Vice speaker, SFB-TRR353 (since 10/2023)
2018 – 2022	President, Deutsche Gesellschaft für Hygiene und Mikrobiologie (DGHM)
2010 – 2023	Elected member, Fakultätsrat Medical Faculty Freiburg (2010-2023)
Since 2014	Member, Standing Committee for Habilitationen/apl. Prof., Medical Faculty Freiburg (since 2014)
2002	Medical Specialist for Microbiology and Infection Epidemiology, Bayerische Landesärztekammer
1998	Habilitation, Medical Microbiology and Immunology (Faculty of Medicine, TUM)
1992	Approbation/License to practise medicine

Ten selected publications

The Caspase-Activated DNase promotes cellular senescence.
Haimovici, A., Rupp, V., Amer, T., Moeed, A., Weber, A., Häcker, G.
EMBO J. (2024) doi: 10.1038/s44318-024-00163-9.

The Caspase-Activated DNase drives inflammation and contributes to defense against viral infection.
Moeed A, Thilmany N, Beck F, Puthussery BK, Ortmann N, Haimovici A, Badr MT, Haghighi EB, Boerries M, Öllinger R, Rad R, Kirschnek S, Gentle IE, Donakonda S, Petric PP, Hummel JF, Pfaffendorf E, Zanetta P, Schell C, Schwemmle M, Weber A, Häcker G.
Cell Death Differ. (2024) doi: 10.1038/s41418-024-01320-7.

Mitochondria supply sub-lethal signals for cytokine secretion and DNA-damage in *H. pylori* infection.
Dörflinger, B., Badr, M.T., Haimovici, A., Fischer, L., Vier, J., Metz, A., Eisele, B., Bronsert, P., Aumann, K., Höppner, J., Waguia Kontchou, C., Parui, I., Weber, A., Kirschnek, S. and Häcker, G.
Cell Death Diff. (2022) 29 (11): 2218-2232 doi: 10.1038/s41418-022-01009-9.

A non-death function of the mitochondrial apoptosis apparatus in immunity.
Brokatzky, D., Dörflinger, B., Haimovici, A., Weber, A., Kirschnek, S., Vier, J., Metz, A., Henschel, J., Steinfeldt, T., Gentle, I.E. and Häcker, G.
EMBO J. (2019) pii: e2018100907. doi: 10.15252/embj.2018100907.

Dynein light chain 1 induces assembly of large Bim complexes on mitochondria that stabilise Mcl-1 and regulate apoptosis.
Singh, P.K., Roukounakis, A., Frank, D.O., Kirschnek, S., Das, K.K., Neumann, S., Madl, J., Römer, W., Zorzin, C., Borner, C., Haimovici, A., Garcia-Saez, A., Weber, A.* and Häcker, G.*
Genes & Development (2017) 31(17):1754-1769.doi:10.1101/gad.302497.117.

Immunization against poly-*N*-acetylglucosamine reduces neutrophil activation and GVHD while sparing microbial diversity.
Hülsdünker, J., Thomas, O.S., Haring, E., Unger, S., Gonzalo Núñez, N., Tugues, S., Gao, Z., Duquesne, S., Cywes-Bentley, C., Oyardi, O., Kirschnek, S., Schmitt-Graeff, A., Pabst, O., Koenecke, C., Duyster, J., Apostolova, P., Blaser, M.J., Becher, B.*, Pier, G.B.*, Häcker, G.*, Zeiser, R*.
Proc Natl Acad Sci U S A. (2019) pii: 201908549. doi: 10.1073/pnas.1908549116.

Neutrophil granulocytes recruited upon translocation of intestinal commensal bacteria enhance graft- versus-host disease via local tissue damage.
Schwab, L., Goroncy, L., Palaniyandi, S., Gautam, S., Triantafyllopoulou, A., Mocsai, A., Reichardt, W., Karlsson, F. J., Radhakrishnan, S. V., Hanke, K., Schmitt-Graeff, A., Freudenberg, M., von Loewenich, F. D., Wolf, P., Leonhardt, F., Baxan, N., Pfeifer, D., Schmah, O., Schönle, A:, Martin, S. F., Mertelsmann, R., Duyster, J., Finke, J., Prinz, M., Henneke, P, Häcker, H., Hildebrandt, G. C.*, Häcker, G.*, Zeiser, R.* Nat. Med. (2014) 20(6):648-54. doi: 10.1038/nm.3517.

cIAPs block Ripoptosome formation, a RIP1/caspase 8 containing intracellular cell death complex differentially regulated by cFLIP isoforms.
Feoktistova, S., Geserick, P., Kellert, B., Panayotova Dimitrova, D., Langlais, C., Hupe, M., Cain, K., MacFarlane, M., Häcker, G. and Leverkus, M.
Mol. Cell (2011) 43(3):449-63. doi: 10.1016/j.molcel.2011.06.011

Cytopathicity of Chlamydia infection can be largely reproduced by expressing a single chlamydial gene, Chlamydial Protease-like Activity Factor.
Paschen, S., Christian, J. G., Vier, J., Schmidt, F., Walch, A., Ojcius, D. M. and Häcker, G.
J Cell Biol. (2008) 182(1):117-27 doi: 10.1083/jcb.200804023.

BimS Induced Apoptosis Requires Mitochondrial Localization but not Interaction with Anti-Apoptotic Bcl-2 Proteins.
Weber, A., Paschen, S. A., Heger, K., Wilfling, F., Frankenberg, T., Bauerschmitt, H., Seiffert, B. M., Kirschnek, S., Wagner, H. and Häcker, G.
J Cell Biol. (2007) 177(4):625-36. doi: 10.1083/jcb.200610148.

* Co-senior author

Research

We are particularly interested in the reaction of mammalian cells to challenges such as during infection with bacteria, viruses or parasites. In recent years, we have been focusing on the role of the mitochondrial apoptosis pathway in such infections. Apoptosis is rarely induced, but the cells activate the pathway nevertheless to a sub-lethal level, which has numerous consequences, such as inflammation and senescence. We are trying to understand molecular signals at and around mitochondria, as well as the biomedical consequences of this activity.