Curriculum Vitae

Prof. Dr. Katja Becker

President, German Research Foundation (DFG)

Born 7 March 1965 in Heidelberg, mother of a daughter (Johanna Brandenburg)

Career History (Selection)

Since 2000	Full (C4/W3) Professor of Biochemistry and Molecular Biology, University of Giessen
2005 - 2006	6-month research visit to Scripps Research Institute, La Jolla, CA, Proteomic Mass Spectrometry Lab, Prof. John Yates III
1999 - 2000	Junior Group Leader at the Research Center for Infectious Diseases, University of Würzburg
1998	Medical specialisation in Biochemistry
1996	Habilitation in Biochemistry, Heidelberg University
1994	6-month research visit to Institute of Pathology, Prof. N. H. Hunt, University of Sydney, Australia
1993	Licence to practise medicine
1993 - 1999	Research associate at Heidelberg University Biochemistry Center
1988 – 1993	Clinical training and research stays abroad (Royal Flying Doctor Service, Australia; Kantonsspital Basel, John Radcliffe Hospital, Oxford; Nigeria, Ghana)
1986 - 1988	Dissertation with Prof. Heiner Schirmer at Institute of Biochemistry II, Heidelberg University; title: "Glutathione reductase and its apoenzyme: contributions to the chemotherapy of malaria and the diagnosis of FAD deficiencies" (*summa cum laude*)
1984 - 1991	Studies in human medicine, Heidelberg University

Offices and Roles in the Research System

Since 2020	President of the Deutsche Forschungsgemeinschaft (DFG, German Research Foundation)

2021 - 2023	Chair of the Governing Board of the Global Research Council (GRC)
2020 – 2023	Chair of the Commission for Pandemic Research, DFG (ex officio)
2014 - 2019	Vice President of the Deutsche Forschungsgemeinschaft (DFG, German Research Foundation)
2009 - 2012	Vice President for Research and Early Career Support, University of Giessen
2007 - 2014	Spokesperson for the Bioresources and Biotechnology Section, Giessen Graduate Center for the Life Sciences
2004 - 2005	Spokesperson for the interdisciplinary Research Centre for BioSystems, Land Use and Nutrition (IFZ), University of Giessen
2018 - 2019	Spokesperson for LOEWE centre DRUID (Novel Drug Targets against Poverty-related and Neglected Tropical Infectious Diseases), part of an initiative by the state of Hesse to promote scientific and economic excellence
2014 - 2019	Spokesperson for DFG Priority Programme 1710 "Dynamics of Thiol-based Redox Switches in Cellular Physiology"

Functions in Scientific Societies and Committees/

Advisory Activities

2021	Involvement in the statement "The Need for a One Health Approach to Zoonotic Diseases and Antimicrobial Resistance" for the G7 summit 2022
2020	Involvement in the statement "Coronavirus Pandemic – Measures Relevant to Health", Leopoldina (April 2020)
2020	Involvement in the statement „Coronavirus Pandemic in Germany: Challenges and Options for Intervention“, Leopoldina (March 2020)
2020 - 2023	Chair (ex officio) of the DFG’s Interdisciplinary Commission for Pandemic Research
2017 - 2018	Member of the German government round table on Internationalisation of Education, Science and Research
2016 - 2017	Involvement in the statement on Improving Global Health for the G20 summit 2017
2015 - 2017	German representative on the Scientific Committee of the EU COST programme
2016 - 2020	Member of the Scientific Advisory Board of the Research Center for Infectious Diseases, University of Würzburg
2014 - 2015	Involvement in the statement on Neglected Tropical Diseases for the G7 summit 2015

2013 - 2019	Member of the Scientific Advisory Board of the Kerckhoff Heart Research Institute, Bad Nauheim
2007 - 2010	Member of the Scientific Advisory Board of the Center for International Development and Environmental Research

Honours and Awards

2025	The Order of Merit of the Federal Republic of Germany
2010	Rudolf Leuckart Medal of the German Society for Parasitology
Since 2009	Member of the Leopoldina, Germany's National Academy of Sciences
2003 / 2004	Carus Medal of the Deutsche Akademie für Naturforscher Leopoldina / Carus Prize of the city of Schweinfurt
2000 - 2005	Member of the Junge Akademie of the Berlin-Brandenburg Academy of Sciences and Humanities and the Deutsche Akademie der Naturforscher Leopoldina
2003	Support for the congress "Redox Metabolism in Malaria: From Genes to Drugs", Bellagio, Italy, from the Rockefeller Foundation (together with Prof. Hagai Ginsburg, Hebrew University)
1989	First Ludolf Krehl Prize (dissertation prize) of the Southwest German Society for Internal Medicine
1984 - 1986	Scholarship, Studienstiftung des Deutschen Volkes

Memberships

- Alliance of Science Organisations, Germany – ex officio
- Deutscher Zukunftspreis (Board of Trustees) – ex officio
- Foundation Werner-von-Siemens-Ring (Board of Trustees) – ex officio
- German Academic Scholarship Foundation (Board of Trustees) – ex officio
- German National Academy of Sciences Leopoldina
- German Society for Parasitology
- German Society for Tropical Medicine and Global Health
- German Society for Biochemistry and Molecular Biology
- Global Research Council (Governing Board) – ex officio
- Humboldt Foundation (Vice President) – ex officio
- Holtzbrinck Prize for Science Journalism (Board of Judges) – ex officio
- Paul Ehrlich Society (Honorary President) – ex officio
- Science Europe (Governing Board, General Assembly) – ex officio

- Society for Free Radical Research International
- Stifterverband für die Deutsche Wissenschaft (Member of the Executive Board) – ex officio
- STS forum (Council Member, Board Member) – ad personam
- Thyssen Foundation (Scientific Advisory Board) – ad personam
- WiD – Wissenschaft im Dialog (Shareholders‘ Meeting) – ex officio
- Wissenschaftskolleg zu Berlin (Member of General Meeting) – ex officio

Publications (Selection from more than 300 Publications)

1) **Becker K**, Savvides S, Keese M, Schirmer RH, Karplus PA (1998). Enzyme inactivation through sulfhydryl oxidation by physiologic NO-carriers. **Nature Struct Biol** 5: 267-271.
2) Kanzok S, Fechner A, Bauer H, Ulschmid JK, Müller HM, Botella-Munez J, Schneuwly S, Schirmer RH, **Becker K** (2001). Substitution of the thioredoxin system for glutathione reductase in *Drosophila melanogaster.* **Science** 291: 643-646.
3) Fritz-Wolf K, Becker A, Rahlfs S, Harwaldt P, Schirmer RH, Kabsch W, **Becker K** (2003). X-ray structure of glutathione *S*-transferase from the malarial parasite *Plasmodium falciparum.* **Proc Natl Acad Sci USA** 100: 13821-13826.
4) Urig S, Fritz-Wolf K, Réau R, Herold-Mende C, Tóth K, Davioud-Charvet E, **Becker K** (2006) Undressing of phosphine gold(I) therapeutic agents as irreversible inhibitors of human disulfide reductases. **Angew Chem Int Ed Engl** 45: 1881-1886.
5) Perez-Jimenez R, Li J, Kosuri P, Sanchez-Romero I, Wiita AP, Rodriguez-Larrea D, Chueca A, Holmgren A, Miranda-Vizuete A, **Becker K**, Cho SH, Beckwith J, Gelhaye E, Jacquot JP, Gaucher E, Sanchez-Ruiz JM, Berne B, Fernandez JM (2009). Diversity of chemical mechanisms in thioredoxin catalysis. **Nature Struct Mol Biol** 16: 890-896.
6) Koncarevic S, Rohrbach P, Deponte M, Prieto H, Yates J, Rahlfs S, **Becker K** (2009) *Plasmodium falciparum* imports the human protein peroxiredoxin 2 for peroxide detoxification. **Proc Natl Acad Sci USA** 106: 13323-13328.
7) Fritz-Wolf K, Kehr S, Stumpf M, Rahlfs S, **Becker K** (2011). Crystal structure of the human thioredoxin reductase - thioredoxin complex. **Nature Commun.** 2: 383.
8) Wang L, Delahunty C, Fritz-Wolf K, Rahlfs S, Prieto JH, Yates III JR, **Becker K** (2015). Characterization of the 26S proteasome network in *P. falciparum*. **Sci Rep** 5: 17818.
9) Krieg R, Jortzik E, Goetz A-A, Blandin S, Wittlin S, Elhabiri M, Rahbari M, Nuryyeva S, Voigt K, Dahse HM, Brakhage A, Beckmann S, Quack T, Grevelding CG, Pinkerton AB, Schönecker B, Burrows J, Davioud-Charvet E, Rahlfs S, **Becker K** (2017) Arylmethylamino steroids as antiparasitic agents. **Nature Commun.** 8: 14478.
10) Felber J, Poczka L, Scholzen K, Zeisel L, Maier MS, Busker S, Theisen U, Brandstädter C, **Becker K**, Arnér ESJ, Thorn-Seshold J, Thorn-Seshold O (2022) Cyclic 5-membered disulfides are not selective substrates of thioredoxin reductase, but are opened nonspecifically by thiols. **Nature Commun.** 13: 1754.

Katja Becker - Google Scholar