

## Curriculum Vitae

### Personal Data

Title	Prof. Dr. rer. nat.
First name	Ursula
Name	Klingmüller
Current position	Head of Division "Systems Biology of Signal Transduction"  W3 Professor
Current institution(s)/site(s), country	German Cancer Research Center (DKFZ), Im Neuenheimer Feld 280, 69120 Heidelberg, Germany  University of Heidelberg, Germany
Identifiers/ORCID	0000-0001-9845-3099

### Qualifications and Career

Stages	Periods and Details
Degree programme	1984 - 1985 Bachelor of Science in Biology (with distinction), University of Bayreuth, Bayreuth, Germany  1986 - 1988 Diploma in Molecular Biology, Cell Biology and Virology (with distinction), University of Heidelberg, Center for Molecular Biology Heidelberg (ZMBH), Germany
Doctorate	1992 Dissertation in Virology (Dr. rer. nat.), Supervisor: Prof. Dr. Heinz Schaller, Center for Molecular Biology (ZMBH), Heidelberg, Germany
Stages of academic/professional career	2011 - W3 Professor for Systems Biology of Signal Transduction, University of Heidelberg, Heidelberg, Germany  2007 - Head of the Division "Systems Biology of Signal Transduction", German Cancer Research Center (DKFZ), Heidelberg, Germany  2004 Venia Legendi in Cell Biology, University of Heidelberg, Heidelberg, Germany  2003 - 2007 Group Leader of the Boveri-Group "Systems Biology of Signal Transduction", German Cancer Research Center (DKFZ), Heidelberg, Germany  2000 Habilitation and Venia Legendi in Molecular Biology and Genetics, University of Freiburg, Freiburg, Germany

	1996 - 2003 Group Leader of an Independent Junior Group (Hans-Spemann-Laboratories), Max-Planck-Institute for Immunobiology, Freiburg, Germany
	1993 - 1996 Postdoctoral Fellow, Whitehead Institute for Biomedical Research, Group of Prof. Dr. Harvey F. Lodish, Cambridge, USA
	1992 - 1993 Postdoctoral Fellow, Harvard Medical School, Group of Prof. Dr. Lewis C. Cantley, Boston, USA

### Supplementary Career Information

None.

### Activities in the Research System

2023	Chair of the Bioethics Forum on Patient-oriented Use of Data, German Ethics Council, Berlin, Germany
2022	Co-Spokesperson (elected) for the Research Area B at the DKFZ, Heidelberg, Germany
2022, 2021	Chair of the Scientific Organization Committee of the International Conference "Systems Biology of Mammalian Cells (SBMC)" in Heidelberg, Germany
2021	Co-Chair of the Organization Committee of the EMBO Workshop in Split, Croatia
2020	Panel Member of the European Research Council
2020	EMBO Member (elected)
2020	Member (re-elected) of the German Ethics Council
2018	Organization of the international conference "Frontiers in Cancer Research", Heidelberg, Germany
2016 - 2024	Election as Member of the German Ethics Council
2014 - 2022	Chair of the Executive Women's Initiative at DKFZ, Heidelberg, Germany

### Supervision of Researchers in Early Career Phases

Medical doctoral theses (Dr. med., Dr. med. dent.): 3

Biological doctoral theses (PhD, Dr. rer. nat., Dr. rer. medic.): 35

Master theses: 39

Bachelor theses: 25

### Scientific Results

**Category A – Articles in peer-reviewed journals, contributions to peer-reviewed conferences or to anthology volumes, and book publications (\*equal last authorship)**

1. Zeilfelder A, Vanlier J, Mölders C, Philipp Kastl, Barbara Helm, Burbano de Lara S, Möcklinghoff T, Leonidou N, Holstein E, Vlasov A, Held A, Wilken S, Hoffmann K, Schicht G, Scheffschick A, Katerinopoulou M, Giehl-Brown E, Kahlert C, Michalski C, Seehofer D, Damm G, Muckenthaler MU, Schilling M, Timmer J, Klingmüller U. Diclofenac and acetaminophen dim the acute phase response but amplify expression of the iron regulator hepcidin in liver cancer cells. *Cell Systems*, 2025; 16(11):101431. doi: 10.1016/j.cels.2025.101431.
2. Burbano de Lara S, Kemmer S, Biermayer I, Feiler S, Vlasov A, D'Alessandro LA, Helm B, Mölders C, Dieter Y, Ghallab A, Hengstler JG, Körner C, Matz-Soja M, Götz C, Damm G, Hoffmann K, Seehofer D, Berg T, Schilling M, Timmer J\*, Klingmüller U\*. Basal MET phosphorylation is an indicator of hepatocyte dysregulation in liver disease. *Mol Syst Biol*, 2024; 20(3):187-216. doi:10.1038/s44320-023-00007-4.
3. Chakraborty S, Andrieux G, Kastl P, Adlung L, Altamura S, Boehm ME, Schwarzmüller LE, Abdullah Y, Wagner M-C, Helm B, Gröne H-J, Lehmann WD, Boerries M\*, Busch H\*, Muckenthaler MU\*, Schilling M\*, Klingmüller U\*. Erythropoietin-driven dynamic proteome adaptations during erythropoiesis prevent iron overload in the developing embryo. *Cell Rep*, 2022; 40(12):111360. doi:10.1016/j.celrep.2022.111360.
4. Adlung L, Stapor P, Tönsing C, Schmiester L, Schwarzmüller LE, Postawa L, Wang D, Timmer J\*, Klingmüller U\*, Hasenauer J\*, Schilling M\*. Cell-to-Cell variability in JAK2/STAT5 pathway components and cytoplasmic volumes defines survival threshold in erythroid progenitor cells. *Cell Rep*, 2021; 36(6):109507. doi:10.1016/j.celrep.2021.109507.
5. Kok F, Rosenblatt M, Teusel M, Nizharadze T, Goncalves Magalhaes V, Dächert C, Maiwald T, Vlasov A, Wäsch M, Tyufekchieva S, Hoffmann K, Damm G, Seehofer D, Boettler T, Binder M, Timmer J\*, Schilling M\*, Klingmüller U\*. Disentangling molecular mechanisms regulating sensitization of interferon alpha signal transduction. *Mol Syst Biol*, 2020; 16(7):e8955. doi:10.15252/msb.20198955.
6. Duerr J, Leitz DHW, Szczygiel M, Dvornikov D, Fraumann SG, Kreutz C, Zadora PK, Seyhan Agircan A, Konietzke P, Engelmann TA, Hegermann Mulugeta S, Kawabe H, Knudsen L, Ochs M, Rotin D, Muley T, Kreuter M, Herth FJF, Wielpütz MO, Beers MF, Klingmüller U, Mall MA. Conditional deletion of Nedd4-2 in lung epithelial cells causes progressive pulmonary fibrosis in adult mice. *Nat Commun*, 2020; 11(1):2012. doi: 10.1038/s41467-020-15743-6.
7. Lucarelli P, Schilling M, Kreutz C, Vlasov A, Boehm ME, Iwamoto N, Steiert B, Lattermann S, Wäsch M, Stepath M, Matter MS, Heikenwälder M, Hoffmann K, Deharde D, Damm G, Seehofer D, Muciek M, Gretz N, Lehmann WD, Timmer J, Klingmüller U. Resolving the combinatorial complexity of Smad protein complex formation and its link to gene expression. *Cell Syst*, 2018; 6(1):75-89, e11. doi.org/10.1016/j.cels.2017.11.010.
8. Adlung L, Kar S, Wagner MC, She B, Chakraborty S, Bao J, Lattermann S, Boerries M, Busch H, Wuchter P, Ho AD, Timmer J, Schilling M, Höfer T\*, Klingmüller U\*. Protein abundance of AKT and ERK pathway components governs cell-type-specific regulation of proliferation. *Mol Syst Biol*, 2017; 13(1):904. doi: 10.15252/msb.20167258.
9. Marwitz S, Depner S, Dvornikov D, Merkle R, Szczygiel M, Müller-Decker K, Lucarelli P, Wäsch M, Mairbörl H, Rabe KF, Kugler C, Vollmer E, Reck M, Scheufele S, Kröger M, Ammerpohl O, Siebert R, Goldmann T, Klingmüller U. Downregulation of the TGF- $\beta$  pseudoreceptor BAMBI in non-small cell lung cancer enhances TGF- $\beta$  signaling and invasion. *Cancer Res*, 2016; 76(13):3785-3801. doi:10.1158/0008-5472.CAN-15-1326.

10. Becker V, Schilling M, Bachmann J, Baumann U, Raue A, Maiwald T, Timmer J, Klingmüller U. Covering a broad dynamic range: information processing at the erythropoietin receptor. *Science*, 2010; 328(5984):1404-1408. doi:10.1126/science.1184913.

### **Category B – Any other form of published results**

1. Patent-No.: EP3157545, US10796799 and US2021093696 - published 2014 “Methods for the Prediction of a Personalized ESA-Dose in the Treatment of Anemia”
2. Patent-No.: EP3355061 and US-2018-0217166-A1 - published in 2017 “Prediction-method of mortality due to treatment with erythropoiesis stimulating agents”
3. Opinion papers: As a member of the German Ethics Council I contributed to multiple opinion papers that we publish to inform the German Government, politicians and the public on ethical aspects of developments in the life sciences: Vulnerabilität und Resilienz in der Krise – Ethische Kriterien für Entscheidungen in einer Pandemie (2022), Immunitäts-bescheinigungen in der COVID-19-Pandemie (2020), Eingriffe in die menschliche Keimbahn (2019), and Big Data und Gesundheit – Datensouveränität als informatielle Freiheitsgestaltung (2017).

### **Academic Distinctions**

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|------|---|
| 2025 | Invited lecture at the “International Conference on Systems Biology” (ICSB 2025), Dublin, Ireland   |
| 2022 | Invited opening lecture at the “International Conference on Systems Biology” (ICSB 2022), Berlin, Germany   |
| 2022 | Invited lecture at the German-Italian Center for European Excellence funded by the DFG on “Personalised Services for the Elders“ at the Villa Vigoni, Como, Italy |

### **Other Information**

None.

## Data protection and consent to the processing of optional data

If you provide voluntary information (marked as optional) in this CV, your consent is required. Please confirm your consent by checking the box below.

I expressly consent to the processing of the voluntary (optional) information, including “special categories of personal data”<sup>1</sup> in connection with the DFG’s review and decision-making process regarding my proposal. This also includes forwarding my data to the external reviewers, committee members and, where applicable, foreign partner organisations who are involved in the decision-making process. To the extent that these recipients are located in a third country (outside the European Economic Area), I additionally consent to them being granted access to my data for the above-mentioned purposes, even though a level of data protection comparable to EU law may not be guaranteed. For this reason, compliance with the data protection principles of EU law is not guaranteed in such cases. In this respect, there may be a violation of my fundamental rights and freedoms and resulting damages. This may make it more difficult for me to assert my rights under the General Data Protection Regulation (e.g. information, rectification, erasure, compensation) and, if necessary, to enforce these rights with the help of authorities or in court.

I may **revoke** my consent in whole or in part at any time – with effect for the future, freely and without giving reasons – vis-à-vis the DFG ([postmaster@dfg.de](mailto:postmaster@dfg.de)). The lawfulness of the processing carried out up to that point remains unaffected. Insofar as I transmit “special categories of personal data” relating to third parties, I confirm that the necessary legitimation under data protection law exists (e.g. based on consent).

I have taken note of the DFG’s Data Protection Notice relating to research funding, which I can access at [www.dfg.de/privacy\\_policy](http://www.dfg.de/privacy_policy) and I will forward it to such persons whose data the DFG processes as a result of being mentioned in this CV.

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<sup>1</sup> Special categories of personal data are those “revealing racial or ethnic origin, political opinions, religious or philosophical beliefs, or trade union membership, and (...) genetic data, biometric data for the purpose of uniquely identifying a natural person, data concerning health or data concerning a natural person’s sex life or sexual orientation” (Article 9(1) GDPR).