Curriculum Vitae **Prof. Dr. Rainer Haag**

GENERAL INFORMATION

Work address	Freie Universität Berlin Institute of Chemistry and Biochemistry Takustr. 3, 14195 Berlin, Germany
Phone/E-mail	+49 30 838 52633, haag@zedat.fu-berlin.de
Current position	Full Professor of Organic and Macromolecular Chemistry

UNIVERSITY TRAINING AND DEGREE

1992 – 1995	Doctoral research with Prof. Armin de Meijere at the Georg-August-Universität Göttingen, Germany
1987 – 1992	Diploma in Chemistry at the Technical University Darmstadt and Göttingen, Germany

ADVANCED ACADEMIC QUALIFICATIONS

Habilitation	Organic and Macromolecular Chemistry, University of Freiburg, 2002 Mentor: Prof. Dr. Rolf Mülhaupt
Doctorate	Organic Chemistry, University of Göttingen, 1995 (*summa cum laude*) Supervisor: Prof. Armin de Meijere

POSTGRADUATE PROFESSIONAL CAREER

Since 2004	Chair Professor of Organic and Macromolecular Chemistry, Institute of Chemistry and Biochemistry at the Freie Universität Berlin, Germany
06-08/2014	Visiting professor, McGill University, Montreal, Canada, with Prof. Gerd Multhaup and University of British Columbia, Vancouver, Canada, with Prof. Don Brooks and Prof. J. Kizhakkedathu
06-08/2009	Visiting professor, Harvard University, Cambridge, USA, with Prof. David Weitz
2003 – 2004	Associate Professor of Organic Polymer Chemistry, Universität Dortmund
1999 – 2002	Group Leader and Habilitation at Freiburg Materials Research Center and Institute for Macromolecular Chemistry, Universität Freiburg
1997 – 1999	Research associate in the Department of Chemistry, Harvard University, Cambridge, Massachusetts, USA, with Prof. George M. Whitesides
1996 – 1997	Postdoctoral fellow at the Chemical Laboratory, University of Cambridge, UK, with Prof. Steven V. Ley

AWARDS (SELECTED)

2022	Advanced Grant of the European Research Council (ERC) "SupraVir"
2019	Elected Member of the National Academy of Sciences and Engineering
2016	Innovation Award Berlin-Brandenburg with the startup DendroPharm
2014	Teaching Award for the Concept “Translation of Project Ideas”, Freie Universität Berlin
2014	Honorary Life-time Fellow of the Indian Society of Biology and Chemistry
2010	Arthur Doolittle Award of the American Chemical Society (ACS)
2004	Nanoscience Award for Young Scientists from the Ministry of Science
2003	Early Career Award of the German Chemical Industry (VCI)
2002	Heinz Maier-Leibnitz-Prize of the German Science Foundation (DFG)

2001	Reimund-Stadler-Prize of GdCh-Division Macromolecular Chemistry
2000	ADUC-Habilitation-Award of the German Chemical Society (GDCh)
1997	Selected Member of the Study Foundation of the German People

ACTIVITIES (SELECTED)

Since 2021	Spokesperson of the DFG-funded International Research Training Group "Charging into the Future" (IRTG 2662)
Since 2021	Spokesperson of the DFG-funded Collaborative Research Center "Dynamic Hydrogels at Biointerfaces" (CRC 1449)
Since 2017	International Advisory Board of the Journal "Angewandte Chemie"
Since 2015	Spokesperson of the Research Building "Supramolecular Functional Architectures at Biointerfaces" (SupraFAB) at Freie Universität Berlin
Since 2015	Editorial Advisory Board of ACS Central Science and Biomacromolecules
Since 2013	Steering Committee of the Helmholtz Graduate School "MacroBio"
Since 2012	FU-Spokesperson of Helmholtz Virtual Institute "Multifunctional Biomaterials for Medicine" (VI-423)
Since 2009	Spokesperson of Focus Area "Nanoscale", Freie Universität Berlin
2008-2019	Spokesperson of the DFG-funded Collaborative Research Center "Multivalency as Chemical Organization and Action Principle" (CRC 765)
Since 2008	Member of the Excellence Council of the Freie Universität Berlin

PUBLICATIONS (SELECTED FROM >590 PEER REVIEWED PUBLICATIONS)

1. C. Nie, P. Pouyan, D. Lauster, J. Trimpert, Y. Kerkhoff, G. P. Szekeres, M. Wallert, S. Block, A. K. Sahoo, J. Dernedde, K. Pagel, B. B. Kaufer, R. R. Netz, M. Ballauff, **R. Haag**, Polysulfates block SARS-CoV-2 uptake via electrostatic interactions. *Angew. Chem. Int. Ed.* 2021;60:15870.
2. C. Nie, M. Stadtmüller, B. Parshad, M. Wallert, Y. Kerkhoff, S. Bhatia, S. Block, C. Cheng, T. Wolff, **R. Haag**, Heteromultivalent topology-matched nanostructures as potent and broad-spectrum influenza A virus inhibitors. *Sci. Adv.* 2021;7:eabd3803.
3. X. Fan, F. Yang, C. Nie, L. Ma, C. Cheng, **R. Haag**, Biocatalytic Nanomaterials: A New Pathway for Bacterial Disinfection *Adv. Mater.* 2021;33:2100637.
4. C. Nie, B. Parshad, S. Bhatia, C. Cheng, M. Stadtmüller, A. Oehrl, Y. Kerkhoff, T. Wolff, **R. Haag**, Reverse design of an influenza neutralizing spiky nano-inhibitor with a dual mode of action. *Angew. Chem. Int. Ed.* 2020:59, 15532.
5. S. Bhatia, M. Hilsch, J. L. Cuellar Camacho, K. Ludwig, C. Nie, B. Parshad, M. Wallert, S. Block, D. Lauster, C. Böttcher, A. Herrmann, **R. Haag**, Adaptive flexible sialylated nanogels as highly potent influenza A virus inhibitors. *Angew. Chem. Int. Ed.* 2020; 59:12417.
6. M. S. Chowdhury, W. Zheng, S. Kumari, J. Heyman, X. Zhang, P. Dey, D. Weitz, **R. Haag**, Dendronized fluorosurfactant for highly stable water-in-fluorinated oil emulsions with minimal inter-droplet transfer of small molecules. *Nat. Commun.* 2019;10:4546.
7. C. Cheng, S. Li, A. Thomas, **R. Haag**, et al. Water-Processable and Bioactive Graphene Nano-Ink for Flexible Bio-Electronics. *Adv. Mater.* 2018;30:1705452..
8. Z. Qi, P. Bharate, C.H. Lai, B. Ziem, C. Böttcher, A. Schulz, F. Beckert, B. Hatting, R. Mulhaupt, P.H. Seeberger, **R. Haag.** Multivalency at Interfaces: Supramolecular Carbohydrate-Functionalized Graphene Derivatives for Bacterial Capture, Release, and Disinfection. *Nano Lett.* 2015;15:6051.
9. J. Vonnemann, S. Liese, C. Kuehne, K. Ludwig, J. Dernedde, C. Böttcher, R.R. Netz, **R. Haag.** Size Dependence of Steric Shielding and Multivalency Effects for Globular Binding Inhibitors. *J. Am. Chem. Soc.* 2015;137:2572.
10. Q. Wei, T. Becherer, P.-L. M. Noeske, I. Grunwald, **R. Haag.** A Universal Approach to Crosslinked Hierarchical Polymer Multilayers as Stable and Highly Efficient Antifouling

Coatings. *Adv. Mater.* 2014;26:2688.