Curriculum Vitae – Rainer Haag

Personal Data

Title, Name:	Prof. Dr. Rainer Haag
Current Position:	Full Professor of Organic and Macromolecular Chemistry
Institution/site:	Freie Universität Berlin, Institut für Chemie und Biochemie Takustr. 3, 14195 Berlin, Germany
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Qualifications and Career

Since 2015	Full Professor (W3) of Organic and Macromolecular Chemistry, Freie Universität Berlin, Germany
Since 2004	Full Professor (C4) of Organic and Macromolecular Chemistry, Freie Universität Berlin, Germany
06 – 08/2014	Visiting professor, McGill University, and University of British Columbia, Canada
06 – 08/2009	Visiting professor, Harvard University, with Prof. David Weitz, UK
2003 – 2004	Associate Professor of Organic Polymer Chemistry, Universität Dortmund
2002	Habilitation: Organic and Macromolecular Chemistry, University of Freiburg, Germany
1999 – 2002	Independent Group Leader at Freiburg Materials Research Center and Institute for Macromolecular Chemistry, Universität Freiburg, Mentor Prof. Rolf Mülhaupt, Germany
1997 – 1999	Research associate in the Department of Chemistry, Harvard University, Prof. George M. Whitesides, UK
1996 – 1997	Postdoctoral fellow at the Chemical Laboratory, University of Cambridge, Prof. Steven V. Ley, UK

Engagement in the Research System

Since 01/2021	Spokesperson of the DFG-funded International Research Training Group “Charging into the Future“ (IRTG 2662)
Since 10/2021	Spokesperson of the DFG-funded Collaborative Research Center “Dynamic Hydrogels at Biointerfaces (CRC 1449)
Since 2015	Spokesperson of the Research Building “Supramolecular Functional Architectures at Biointerfaces“ (SupraFAB) at Freie Universität Berlin
2019 – 2023	Spokesperson of the Steering Committee of the Berlin University Alliance Objective 1 “Focussing on Grand Challenges”
2013 – 2022	Steering Committee of the Helmholtz Graduate School “MacroBio”

2012 – 2017	FU-Spokesperson of Helmholtz Virtual Institute “Multifunctional Biomaterials for Medicine“ (VI-423)
2009 – 2020	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 Berlinx

Supervision of Researchers in Early Career Phases *(since 2018)*

Name	Year of dissertation	Career path
Nickl, Philip	04/19-12/22	Scientist, FUB
Thongrom, Boonya	06/18-11/22	Postdoc at FUB
Xu, Shaohui	09/18-04/22	Scientist, WuXi Biologics
Schulze, Maiko	04/18 -10/21	PolyAn
Sharma, Antara	05/17-12/21	Postdoc at Dehli University
Rajes, Keerthana	10/18-10/21	Postdoc at Tokyo University
Ahmadi, Vahid	12/17-10/21	Startup Novirall
Pouyan, Paria	02/18-10/21	Startup Novirall
Heing-Becker, Isabelle	05/17-10/21	c-lecta GmbH
Reisbeck, Felix	01/17-10/21	StartUp Stemgel
Tully, Michael	09/11-08/21	Quality Control Specialist, HyTest Ltd
Wallert, Matthias	01/17-11/20	Scientist, W. Pelz GmbH
Chowdhury, M. Suman	11/16-10/20	Postdoc, Technische Universität Braunschweig
Nie, Chuanxiong	09/17-10/20	Postdoc, FUB
Osorio Blanco, Ernesto Rafael	01/17-06/20	Beiersdorf
Herrmann, Anna	10/16-05/20	Postdoc at UBC
Kulka, Michael	04/16-06/20	Postdoc at UBC
Randriantsilefisoa, Rotsiniaina	10/15-09/19	Postdoc, AO Foundation
Oehrl, Alexander	11/15-11/19	Postdoc at IAP
Hou, Yong	09/15-09/19	Postdoc, The University of Hong Kong
Czuban, Magdalena	05/15-09/19	Senior Consultant, Deloitte Digital
Zhao, Qingcai	12/15-10/19	Senior Lab Research Scientist, Reckitt
Guday, Guy	01/16-08/19	Support Engineer · think-cell Software
Faghani, Abbas	10/15-09/19	Global Business Manager, Terra Fuoco Energy GmbH
Donskyi, Ievgen	12/15-05/19	BMBF Junior Research Group Leader, FUB
Ferraro, Magda	01/16-05/19	Project Manager · B. Braun Group
Ehrmann, Svenja	06/15-04/19	Coordinator IRTG 2662, FUB
Zabihi, Fatemeh	11/15-11/18	Postdoc, FUB
Kumari, Shalini	09/14-12/18	Postdoc, CSIR-IGIB, New Delhi
Kiran, Pallavi	09/14-12/18	Scientist, IPDF, NanoBios Lab
Stöbner, Daniel	09/13-12/18	Postdoc, Ghent University

Name	Year of dissertation	Career path
Urner, Leonhard	05/15-06/18	Junior Research Group Leader, TU Dortmund
Huth, Katharina	01/14-05/18	Research Scientist, Gleitsmann Security Inks
Walker, Karolina	06/14-07/18	Expert Catalysis and Polymer, Covestro
Tu, Zhaoxu	09/14-05/18	Postdoc, Columbia University

Academic Distinctions

2023	Elected Member of the European Academy of Sciences
2022	ERC Advanced Grant (SupraVir) “Supramolecular Nanosystems as Virus Blockers”
2022	Honorary Adjunct Professor at the University of Delhi (India)
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

Scientific Results

Our research has led to **over 640 peer-reviewed publications,** which have been cited by over 35,000 articles (excluding self-citations) and over 45 patent applications (with 15 granted patents). My current **h-index is 92** (Google Scholar) with an **academic age of 30 years**.

1. R. Bej, C. Nie, K. Ludwig, V. Ahmadi, J. Trimpert, J. M. Adler, T. L. Povolotsky, K. Achazi, M. J. Dernedde, B. B. Kaufer, **R. Haag**, et al. Mucin-Inspired Single-Chain Polymer (MIP) Fibers as Potent SARS-CoV-2 Inhibitors. *Angew. Chem. Int. Ed.*. 2023; 61:e202304010. (Impact factor: 15.3)
2. X. Fan, Y. Gao, F. Yang, J. Liang Low, L. Wang, B. Paulus, Y. Wang, A. Trampuz, Chong Cheng, R. Haag, A Copper Single-Atom Cascade Bionanocatalyst for Treating Multidrug-Resistant Bacterial Diabetic Ulcer. *Adv. Funct. Mater*, 2023; 2301986. (Impact factor: 19,9)
3. 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. (Impact factor: 15.3)
4. 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. (Impact factor: 14.1)

5. 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. (Impact factor: 30.9)
6. 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. (Impact factor: 15.3)
7. 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. (Impact factor: 15.3)
8. 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. (Impact factor: 14.9)
9. 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. (Impact factor: 30.9)
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. (Impact factor: 30.9)