## **Curriculum Vitae: Gerd Ulrich Nienhaus**

| 1959<br>1977<br>1977 – 1983<br>1982 – 1983<br>1983 | born in Cologne High School Diploma (Abitur); Gymnasium Attendorn Studies of Physics, Universität Münster Hard- and Software Developer, Systec GmbH, Münster Diplom-Physiker Research Associate, Institut für Angewandte Physik, Universität Münster |
|--|--|
| 1983   | Research Associate, Institut für Physikalische Chemie,<br>Universität Münster  |
| 1984   | Research Associate, Max-Planck-Institut für Biochemie, Martinsried   |
| 1984 – 1989  | Research Associate, Institut für Physikalische Chemie, Univ. Münster   |
| 1988   | Ph. D., Universität Münster (summa cum laude). Dissertation title:   |
|  | Investigation of protein structure and dynamics: x-ray and $\gamma$ -ray scattering with spatially sensitive proportional counters (translated from German)  |
| 1990   | Postdoctoral Research Associate, University of Illinois at Urbana-<br>Champaign (UIUC)   |
| 1991   | Visiting Research Assistant Professor, UIUC  |
| 1992 – 1996  | Assistant Professor of Physics, UIUC   |
| 1993 – 1996  | Assistant Professor of Biophysics, UIUC  |
| 1996 – 1997  | Associate Professor of Physics and Biophysics, UIUC  |
| 1996 – 2009  | Chair Professor (C4) and Director, Institute of Biophysics, Universität Ulm  |
| 1997 –   | Adjunct Professor of Physics, UIUC   |
| 1999   | Visiting Professor, Stanford University  |
| 2002 – 2006  | Dean of Studies in Physics, Universität Ulm  |
| 2005 – 2006  | Vice Dean, Faculty of Natural Sciences, Universität Ulm  |
| 2009 –   | Chair Professor (W3) and Director, Institute of Applied Physics, Karlsruhe Institute of Technology (KIT)   |
| 2012 – 2015  | Vice Dean, Faculty of Physics, KIT   |

## **Appointments and Honors**

| 1988        | Ph. D. Prize, Universität Münster  |
|-------------|--|
| 1990 – 1991 | Feodor Lynen Fellow of the Alexander von Humboldt Foundation   |
| 1994        | Fellow, Center for Advanced Study, UIUC  |
| 1998        | Fellow, American Physical Society (APS)  |
| 1999 – 2004 | Treasurer, German Biophysical Society (DGfB)   |
| 2001        | Fellow, Institute of Physics (IoP, London)   |
| 2002 – 2005 | Secretary of Commission C6 (Biological Physics) of IUPAP (International Union of Pure and Applied Physics) |
| 2003        | Fellow, American Association for the Advancement of Science (AAAS)   |
| 2005 – 2008 | Vice-President of the German Biophysical Society (DGfB)  |
| 2005 – 2008 | Chairman of Commission C6 (Biological Physics) of IUPAP  |
| 2006 – 2008 | Associate Member of Commission C3 (Statistical Physics) of IUPAP   |
| 2006 – 2008 | Associate Member of Affiliated Commission AC4 (Med. Physics) of IUPAP                                      |
| 2006        | Cooperation Prize Science-Industry, Universität Ulm  |

| 2006 – 2011 | Member of the Scientific Council, John von Neumann Institute for Computing (NIC), Jülich, Germany  |
|-------------|--|
| 2007 – 2011 | Member of the Executive Board of the German Physical Society (DPG) for Higher Education and Junior Scientists  |
| 2007 – 2011 | Spokesman, Conference of Physics Departments in Germany (KFP)  |
| 2007 – 2011 | Council Member, Conference of the Mathematical and Natural Sciences Faculties in Germany (MNFT)  |
| 2008 – 2020 | Consultant, Abbott Laboratories, Abbott Park, Illinois   |
| 2008 – 2016 | Member of the Grant Review Board "Foundations of Biology and Medicine, Section 1: Biochemistry, Biophysics, Structural Biology and Bioinformatics" of the German National Science Foundation (DFG) |
| 2008 – 2014 | Council Member, Intl. Union of Pure and Applied Biophysics (IUPAB).  |
| 2008 – 2014 | Inter-Union Delegate of IUPAP to IUPAB   |
| 2008 – 2011 | Member of the Board of ASIIN e.V. (Accreditation Agency for Study Programs in Engineering, Informatics, Natural Sciences and Mathematics)  |
| 2008 – 2014 | Member of the Board of ASIIN Consult GmbH  |
| 2009 – 2010 | President of the German Biophysical Society (DGfB)   |
| 2009 – 2014 | Member of the Board of the Division of Physics in Life Science, European Physical Society (EPS)  |
| 2010 – 2014 | Member of the Advisory Board, Intl. Grad. School in Mol. Medicine, U Ulm   |
| 2011        | Prize for Excellent Teaching in the Faculty of Physics (Fakultätslehrpreis), Karlsruhe Institute of Technology (KIT)   |
| 2011 – 2014 | Vice President of the German Biophysical Society (DGfB)  |
| 2012 – 2014 | Deputy Chairman of the Board of ASIIN e.V. (Accreditation Agency for Study Programs in Engineering, Informatics, Natural Sciences and Mathematics)   |
| 2012 – 2021 | Member of the Committee for the Allocation of Alexander von Humboldt Foundation Research Awards, Alexander von Humboldt Foundation   |
| 2019 –      | Fellow of the Max Planck School of Photonics (MPSP)  |
| 2021        | Werner Heisenberg Medal of the Alexander von Humboldt Foundation   |

## **Ten Selected Publications\***

- Nienhaus, G. U., Heinzl, J., Huenges, E., & Parak, F., Protein Crystal Dynamics Studied by Time-Resolved Analysis of X-Ray Diffuse Scattering, Nature 338 (1989) 665-666.
- Ostermann, A., Waschipky, R., Parak, F. G., & Nienhaus, G. U., Ligand Binding and Conformational Motions in Myoglobin, Nature 404 (2000) 205-208.
- Wiedenmann, J., Ivanchenko, S., Oswald, F., Schmitt, F., Röcker, C., Salih, A., Spindler, K.-D., & Nienhaus, G. U, EosFP, A Fluorescent Marker Protein with UV-Inducible Green-to-Red Fluorescence Conversion, Proc. Natl. Acad. Sci. USA 101 (2004) 15905-15910.
- Nienhaus, K., Nienhaus, G. U., Wiedenmann, J., & Nar, H., Structural Basis for Photo-Induced Protein Cleavage and Green-to-Red Conversion of Fluorescent Protein EosFP, Proc. Natl. Acad. Sci. USA 102 (2005) 9156-9159.
- Hedde, P. N., Fuchs, J., Oswald, F., & Nienhaus, G. U., On-line Image Analysis Software for Photoactivation Localization Microscopy, Nature Methods 6 (2009) 689-690.
- Röcker, C., Pötzl, M., Zhang, F., Parak, W. J., & Nienhaus, G. U., A Quantitative Fluorescence Study of Protein Monolayer Formation on Colloidal Nanoparticles, Nature Nanotechnology 4 (2009) 577-580.
- Fuchs, J., Boehme, S., Oswald, F., Hedde, P. N., Krause, M., Wiedenmann, J., & Nienhaus, G. U., Imaging Protein Movements in Live Cells with Super-resolution Using mlrisFP, Nature Methods 7 (2010) 627-630.
- Manz, C., Kobitski, A.Y., Samanta, A., Keller, B. G., Jäschke, A., & Nienhaus, G. U., Single-Molecule FRET Reveals the Energy Landscape of the Full-Length SAM-I Riboswitch, Nature Chem. Biol. 13 (2017) 1172-1178.
- Gao, P., Prunsche, B., Zhou, L., Nienhaus, K., & Nienhaus, G. U., Background Suppression in Fluorescence Nanoscopy with Stimulated Emission Double Depletion, Nature Photonics 11 (2017) 163-169.
- Sunbul, M., Lackner, J., Martin, A., Englert, D., Hacene, B., Grün, F., Nienhaus, K., Nienhaus, G. U., & Jäschke, A., Super-resolution RNA Imaging Using a Rhodamine-binding Aptamer with Fast Exchange Kinetics, Nature Biotechnology 39 (2021) 686-690.

<sup>\*</sup>See https://publons.com/researcher/2712554/gerd-ulrich-nienhaus/ for a comprehensive list.