

Dr. rer. nat. Patrick Scheerer**Research Group Leader**

Head of Group Protein X-ray Crystallography & Signal Transduction

Institute of Medical Physics and Biophysics

Dr. rer. nat. (PhD) in Chemistry / Diploma in Biophysics

Additional qualification:

Radiation Protection Manager

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Research areas

Our research focuses on elucidating the molecular details of signal transduction processes in membrane proteins and in metalloenzymes. In particular we are interested on structural investigations of various G-protein-coupled receptor (GPCRs), photoreceptors (e.g. vertebrate cone and rhodopsins, microbial rhodopsins, phytochromes, photolyases, melanopsins), GPCR-related signaling proteins (e.g. G-proteins, arrestins, phosphodiesterases, dishevelled) and several metalloenzymes (e.g. [NiFe]-hydrogenases and lipoxygenases). In my lab we apply a wide array of different techniques to study different protein systems, such as membrane and soluble protein production (e.g. different heterologous cell expression systems), molecular biology, biochemical, biophysical (e.g. multi-angle light scattering, differential scanning calorimetry, microscale thermophoresis) and crystallization (using robot-platforms, conventional, lipid cubic phase (LCP), micelle/bicelle). Our core skills are protein-production and -engineering, protein X-ray crystallography and combined crystallographic-spectroscopic approaches with a broad network of international collaborators and access to several high-end synchrotrons. In the last years, we established also conventional and pump-probe methods for our protein samples at free electron laser facility LCLS-SLAC in Stanford, USA. In parallel, we started a collaboration with our in-house partners on cryo-electron microscopy to investigate several membrane protein and protein-complex targets.

Research key words

Protein X-ray crystallography, membrane proteins, signal transduction, X-ray structure analysis, molecular structure, dynamics and function of proteins, molecular modelling, methodological development of a combined crystallographic and spectroscopic approach, free-electron laser techniques, photoreceptors and related signal transduction proteins, G-protein-coupled receptor (MC4R, GHSR, TSHR), GPCR, rhodopsin, arrestin, G-protein,

channelrhodopsin, microbial opsins, melanopsin, phytochrome, photolyase, cryptochrome, [NiFe]-hydrogenase, metallo-proteins, Two-component regulatory systems, CpxRAP system, phosphodiesterase, PRG's

Funding for approved projects / grants / applications

01/ 2019 – 12/ 2025 UniSysCat Full Project - Research area B/C: "Structural elucidation on activation and coupling mechanisms of H₂ oxidation and O₂ reduction in O₂-tolerant [NiFe]-hydrogenases and artificial biocatalytic model hydrogenases" – Cluster of Excellence "Unifying Systems in Catalysis" supported by the German Research Foundation (DFG) - (Host: Technische Universität Berlin - <https://www.unisyscat.de/>)

01/ 2019 – 12/ 2025 UniSysCat Full Project - Research area E: "Signal-controlled multicomponent catalysis" – Cluster of Excellence "Unifying Systems in Catalysis" supported by the German Research Foundation (DFG) - (Host: Technische Universität Berlin - <https://www.unisyscat.de/>)

01/ 2019 – 12/ 2022 - 1. Period - SFB 1365-A03 Full Project: "Renoprotection by understanding functional and structural G-protein-coupled receptor activation" shared with Prof. Duska Dragun (Charité) – Collaborative Research Center 1365 "Renoprotection" supported by the German Research Foundation (DFG) - (Host: Charité – Universitätsmedizin Berlin - <https://nephroprotektion.charite.de/en/>)

01/ 2017 – 12/ 2020 - 2. Period - SFB 1078-B6 Full Project: "Proton-coupled conformational changes in photoreceptors" shared with Prof. Peter Hildebrandt (TU-Berlin) – Collaborative Research Center 1078 "Protonation Dynamics in Protein Function" supported by the German Research Foundation (DFG) - (Host: Freie Universität Berlin - <http://www.sfb1078.de/index.html>)

01/ 2017 – 01/ 2020 – Industry-Cooperation with Bayer AG

01/ 2015 – 12/ 2018 SFB 740-B6 Full Project: "Structural elucidation of the GPCR allosteric machine" – Collaborative Research Center 740 "From Molecules to Modules: Organisation and Dynamics of Functional Units in Cells" supported by the German Research Foundation (DFG) - (Host: Charité – University Medicine Berlin - <http://www.sfb740.de/en/>)

11/ 2012 – 12/ 2018 UniCat Full Project - Research area E3-1: "Structural investigations of oxygen-tolerant [NiFe] hydrogenases" – Cluster of Excellence "Unifying Concepts in Catalysis" supported by the German Research Foundation (DFG) - (Host: Technische Universität Berlin - <http://www.unicat.tu-berlin.de/>)

01/ 2013 – 12/ 2016 - 1. Period - SFB 1078-B6 Full Project: "Proton-coupled conformational changes in photoreceptors" shared with Prof. Peter Hildebrandt (TU-Berlin) – Collaborative Research Center 1078 "Protonation Dynamics in Protein Function" supported by the German Research Foundation (DFG) - (Host: Freie Universität Berlin - <http://www.sfb1078.de/index.html>)

01/ 2013 – 12/ 2020 European Synchrotron Radiation Facility (ESRF) synchrotron beamtime application – shared with Dr. N. Krauss (KIT, Karlsruhe / Prof. A. Zouni (Humboldt Universität Berlin) / Dr. P. Scheerer (Charité – Universitätsmedizin Berlin) - Period: 01/2015-12/2018 (continuation from 2007) - Research topics: G-protein-coupled receptors, rhodopsin, phytochromes, photolyases, photosystems, [NiFe]-hydrogenase etc.

01/ 2006 – 12/ 2022 Helmholtz-Zentrum Berlin (HZB)-BESSY II (periods 2006 - 2017) - Synchrotron – beamtime application-grants: Topic: G-protein-coupled receptors, rhodopsin, phytochromes, photolyases, [NiFe]-hydrogenase and others.

2015 – 2018 - SLAC-LCLS – Free electron Laser - **Linac Coherent Light Source** beamtime application-grants: Topic: Rhodopsin, Phytochrome, [NiFe]-hydrogenase

Memberships

Deutsche Gesellschaft für Biophysik (DGfB), Deutschen Gesellschaft für Kristallographie (DGK), Humboldt-Universitäts-Gesellschaft, Berlin Institute of Health (BIH) Young Science, Einstein Centre for Catalysis EC²

Scientific/reviewer/organizational activities

October 2018	Co-Chair and Organizer of <i>CRC1078</i> – International Workshop on Phytochrome Photoreceptors in Berlin, Germany
July 2018	Co-Chair and Organizer of International Early Career Scientist Forum on GPCR Signal Transduction – <i>ECSF</i> in Berlin, Germany
Since 2018	Member of the proposed Cluster of Excellence <i>UniSysCat</i>
Since 2018	Member “Joint Berlin MX Laboratory”
Since 2017	Elected member of program committee <i>CRC 1078</i>
Since 2016	Member of the Einstein Center of Catalysis – <i>EC²</i>
Since 2014	Elected member of the “Institutsrat” (Institute Council) - Institute of Medical Physics and Biophysics
Since 2014	Member of the Young BIH (Berlin Institute of Health)
Since 2012	Member of the Cluster of Excellence UniCat
Since 2012	Reviewer for various journals or organizations, e.g. <i>Nature</i> , <i>Nature Chemical Biology</i> , <i>Nature Communications</i> , <i>Science</i> , <i>Faseb J.</i> , <i>J. Biol. Inorg. Chem.</i> , <i>Biopolymers</i> , etc.
2012	Dissertation in Chemistry, TU Berlin, Awarded: “ <i>summa cum laude</i> ”

Protein structure database related entries (<http://www.rcsb.org/>)

(6GYH; 6G1Y; 6G1Z; 6G20; 6ELW; 5MDL; 5MDK; 5MDJ; 5T4X; 5U5Q; 5MND; 5TRX; 5KCM; 5LFA; 5LC8; 5IR4; 5IR5; 5I5L; 5HSQ; 5L49; 5L48; 5L4D; 5L4A; 5L4B; 5L4C; 5D51; 5FLX; 3JCJ; 3JCN; 5AJ0; 4U63; 4V6T; 4PXF; 4TTT; 4IUB; 4IUC; 4IUD; 4J2Q; 4DJA; 3RGW; 3ITF; 3PXO; 3PQR; 3DQB; 3CAP; 3J18; 3J19; 3RJS; 2OR9; 2ORB; 2I9E; 2OBI; 1ZEA)

Summary of all publications

Source “Google Scholar” – h-index = 28 (i10-index 46; (since 2014): h-index = 24, i10-index = 40)

74 publications (> 5030 citations) in scientific journals - period 01-2019 – 01-2004

(and 4 submitted manuscripts)

(* These first authors contributed equally to this work)

([§] Corresponding author)

2019

- (74) Soletto L, Hernández-Balfagó S, Rocha A, Scheerer P, Kleinau G, Cerdá-Reverter JM. Melanocortin Receptor Accessory Protein 2-Induced Adrenocorticotrophic Hormone Response of Human Melanocortin 4 Receptor. *J Endocr Soc.* 2018 Dec 6; 3(2):314-323. doi: 10.1210/js.2018-00370. eCollection 2019 Feb 1. PMID:30652132

2018

- (73) Scheerer P[§], Unger E, Tian L. Protein structures guide the design of a much-needed tool for neuroscience. *Nature* 2018, 561 (7723):312-313. PMID: 30224730 (News and views)
- (72) Schmidt A, Sauthof L, Szczepek M, Lopez MF, Escobar FV, Qureshi BM, Michael N, Buhrke D, Stevens T, Kwiatkowski D, von Stetten D, Mroginski MA, Krauß N, Lamparter T, Hildebrandt P, Scheerer P[§]. Structural snapshot of a bacterial phytochrome in its functional intermediate state. *Nature Communications* 2018, 9(1):4912. PMID:30464203
- (71) Klein W, Rutz C, Eckhard J, Provinciael B, Specker E, Neuenschwander M, Kleinau G, Scheerer P, von Kries JP, Nazaré M, Vermeire K, Schüle R. Use of a sequential high throughput screening assay to identify novel inhibitors of the eukaryotic SRP-Sec61 targeting/translocation pathway. *PLoS One.* 2018, 13(12):e0208641. PMID: 30543669
- (70) Qureshi BM, Schmidt A, Behrmann E, Bürger J, Mielke T, Spahn CMT, Heck M, Scheerer P[§]. Mechanistic insights into the role of prenyl-binding protein PrBP/δ in membrane dissociation of phosphodiesterase 6. *Nature Communications* 2018, 9(1):90. PMID: 29311697
- (69) Clément K, Biebermann H, Farooqi IS, Van der Ploeg L, Wolters B, Poitou C, Puder L, Fiedorek F, Gottesdiener K, Kleinau G, Heyder N, Scheerer P, Blume-Peytavi U, Jahnke I, Sharma S, Mokrosinski J, Wiegand S, Müller A, Weiß K, Mai K, Spranger J, Grüters A, Blankenstein O, Krude H, Kühnen P. MC4R agonism promotes durable weight loss in patients with leptin receptor deficiency. *Nature Medicine.* 2018, 24(5):551-555. PMID: 29736023
- (68) Biebermann H, Kleinau G, Schnabel D, Bockenhauer D, Wilson LC, Tully I, Kiff S, Scheerer P, Reyes M, Paisdzior S, Gregory JW, Allgrove J, Krude H, Mannstadt M, Gardella TJ, Dattani M, Jüppner H, Grüters A. A new multi-system disorder caused by the Gas mutation p.F376V. *J Clin Endocrinol Metab.* 2018, doi: 10.1210/jc.2018-01250. PMID: 30312418
- (67) Kalms J, Schmidt A, Frielingsdorf S, Utesch T, Gotthard G, von Stetten D, van der Linden P, Royant A, Mroginski MA, Carpentier P, Lenz O, Scheerer P[§]. Tracking the route of molecular oxygen in O₂-tolerant membrane-bound [NiFe] hydrogenase. *Proc Natl Acad Sci U S A* 2018, 115(10):E2229-E2237. PMID: 29463722



F1000Prime Recommendation Very good

- (66) Khajavi N, Finan B, Kluth O, Müller TD, Mergler S, Schulz A, Kleinau G, **Scheerer P**, Schürmann A, Gudermann T, Tschöp MH, Krude H, DiMarchi RD, Biebermann H. An incretin-based tri-agonist promotes superior insulin secretion from murine pancreatic islets via PLC activation. *Cellular Signalling*. 2018, 51:13-22. PMID: 30055232
- (65) Saleh N, Kleinau G, Heyder N, Clark T, Hildebrand PW[§], **Scheerer P[§]**. Binding, Thermodynamics, and Selectivity of a Non-peptide Antagonist to the Melanocortin-4 Receptor. *Frontiers in Pharmacology*. 2018, 9:560. PMID: 29910730
- (64) Borchert A, Kalms J, Roth SR, Rademacher M, Schmidt A, Holzhutter HG, Kuhn H[§], **Scheerer P[§]**. Crystal structure and functional characterization of selenocysteine-containing glutathione peroxidase 4 suggests an alternative mechanism of peroxide reduction. *Biochim Biophys Acta. (BBA) - Molecular and Cell Biology of Lipids* 2018, 1863(9):1095-1107. PMID: 29883798
- (63) Bräunig J, Dinter J, Höfig CS, Paisdzior S, Szczepek M, **Scheerer P**, Rosowski M, Mittag J, Kleinau G, Biebermann H. The Trace Amine-Associated Receptor 1 Agonist 3-Iodothyronamine Induces Biased Signaling at the Serotonin 1b Receptor. *Frontiers in Pharmacology*. 2018, 9:222. PMID: 29593543
- (62) Elgeti M, Kazmin R, Rose AS, Szczepek M, Hildebrand PW, Bartl FJ, **Scheerer P**, Hofmann KP. *J Biol Chem*. 2018, 293(12):4403-4410. PMID: 29363577

2017

- (61) **Scheerer P[§]**, Sommer ME[§]. Structural mechanism of arrestin activation. *Current Opinion in Structural Biology*. 2017, 45:160-169. PMID: 28600951
- (60) Oberthuer D, Knoška J, Wiedorn MO, Beyerlein KR, Bushnell DA, Kovaleva EG, Heymann M, Gumprecht L, Kirian RA, Barty A, Mariani V, Tolstikova A, Adriano L, Awel S, Barthelmess M, Dörner K, Xavier PL, Yefanov O, James DR, Nelson G, Wang D, Calvey G, Chen Y, Schmidt A, Szczepek M, Frielingsdorf S, Lenz O, Snell E, Robinson PJ, Šarler B, Belšak G, Maček M, Wilde F, Aquila A, Boutet S, Liang M, Hunter MS, **Scheerer P**, Lipscomb JD, Weierstall U, Kornberg RD, Spence JC, Pollack L, Chapman HN, Bajt S. Double-flow focused liquid injector for efficient serial femtosecond crystallography. *Scientific Reports*. 2017, 7:44628. PMID: 28300169
- (59) Kleinau G, Worth CL, Kreuchwig A, Biebermann H, Marcinkowski P, **Scheerer P**, Krause G. Structural-Functional Features of the Thyrotropin Receptor: A Class A G-Protein-Coupled Receptor at Work. *Frontiers in Endocrinology*. 2017, 8:86. PMID: 28484426
- (58) Lamparter T[§], Krauß N[§], **Scheerer P[§]**. Phytochromes from *Agrobacterium fabrum*. *Photochem Photobiol*. 2017, 93(3):642-655. PMID: 28500698
- (57) Velázquez Escobar F, Buhrke D, Michael N, Sauthof L, Wilkening S, Tavraz NN, Salewski J, Frankenberg-Dinkel N, Mroginski MA, **Scheerer P**, Friedrich T, Siebert F, Hildebrandt P. Common Structural Elements in the Chromophore Binding Pocket of the Pfr State of Bathy Phytochromes. *Photochem Photobiol*. 2017, 93(3):724-732. PMID: 28500706
- (56) Kacprzak S, Njimonu I, Renz A, Feng J, Reijerse E, Lubitz W, Krauss N, **Scheerer P**, Nagano S, Lamparter T, Weber S. Intersubunit distances in full-length, dimeric, bacterial phytochrome Agp1, as measured by pulsed electron-electron double resonance (PELDOR) between different spin label positions, remain unchanged upon photoconversion. *J Biol Chem*. 2017, 292(18):7598-7606. PMID: 28289094

- (55) Kalms J, Banthiya S, Galemou Yoga E, Hamberg M, Holzhutter HG, Kuhn H[§], **Scheerer P[§]**. The crystal structure of *Pseudomonas aeruginosa* lipoyxygenase Ala420Gly mutant explains the improved oxygen affinity and the altered reaction specificity. *Biochim Biophys Acta. (BBA) - Molecular and Cell Biology of Lipids* 2017, 1862(5):463-473. PMID: 28093240
- (54) Ma H, Zhang F, Ignatz E, Suehnel M, Xue P, **Scheerer P**, Essen LO, Krauß N, Lamparter T. Divalent Cations Increase DNA Repair Activities of Bacterial (6-4) Photolyases. *Photochem Photobiol.* 2017, 93(1):323-330. PMID: 27992646
- (53) Zhang F, Ma H, Bowatte K, Kwiatkowski D, Mittmann E, Qasem H, Krauß N, Zeng X, Ren Z, **Scheerer P[§]**, Yang X[§], Lamparter T[§]. Crystal Structures of Bacterial (6-4) Photolyase Mutants with Impaired DNA Repair Activity. *Photochem Photobiol.* 2017, 93(1):304-314. PMID: 27992645

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- (52) Müller A, Berkmann JC, **Scheerer P**, Biebermann H, Kleinau G. Insights into Basal Signaling Regulation, Oligomerization, and Structural Organization of the Human G-Protein Coupled Receptor 83. *PLoS One.* 2016, 11(12):e0168260. PMID: 27936173
- (51) Banthiya S, Kalms J, Yoga E, Ivanov I, Tauber R, Carpena X, Hamberg M, Kuhn H[§], **Scheerer P[§]**. Structural and functional basis of phospholipid oxygenase activity of bacterial lipoyxygenase from *Pseudomonas aeruginosa*. *Biochim Biophys Acta. (BBA) - Molecular and Cell Biology of Lipids* 2016, 1861(11):1681-1692. PMID: 27500637
- (50) Nagano S*, **Scheerer P***, Zubow K, Michael N, Inomata K, Lamparter T, Krauß N. The Crystal Structures of the N-Terminal Photosensory Core Module of *Agrobacterium* Phytochrome Agp1 as Parallel and Anti-parallel Dimers. *J Biol Chem.* 2016, 291(39):20674-91. PMID: 27466363
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- (47) Sprink T, Ramrath DJ, Yamamoto H, Yamamoto K, Loerke J, Ismer J, Hildebrand PW, **Scheerer P**, Bürger J, Mielke T, Spahn CM. Structures of ribosome-bound initiation factor 2 reveal the mechanism of subunit association. *Science Advances.* 2016, 2(3):e1501502. PMID: 26973877

2015

- (46) Yamamoto H, Collier M, Loerke J, Ismer J, Schmidt A, Hilal T, Sprink T, Yamamoto K, Mielke T, Bürger J, Shaikh TR, Dabrowski M, Hildebrand PW, **Scheerer P**, Spahn CM. Molecular architecture of the ribosome-bound Hepatitis C Virus internal ribosomal entry site RNA. *EMBO Journal.* 2015, 34(24):3042-3058. PMID: 26604301
- (45) Sommer ME, Elgeti M, Hildebrand PW, Szczepek M, Hofmann KP, **Scheerer P**. Structure-based biophysical analysis of the interaction of rhodopsin with G protein and arrestin. *Methods Enzymol.* 2015, 556:563-608. PMID: 25857800
- (44) Behrmann E, Loerke J, Budkevich TV, Yamamoto K, Schmidt A, Penczek PA, Vos MR, Bürger J, Mielke T, **Scheerer P**, Spahn CM. Structural snapshots of actively translating human ribosomes. *Cell* 2015, 161(4):845-857. PMID: 25957688



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- (42) Kazmin R, Rose A, Szczepek M, Elgeti M, Ritter E[§], Piechnick R, Hofmann KP, **Scheerer P[§]**, Hildebrandt PW, Bartl FJ[§]. The activation pathway of human rhodopsin in comparison to bovine rhodopsin. *J Biol Chem.* 2015, 290(33):20117-20127. PMID: 26105054
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- (40) Graf D, Wesslowski J, Ma H, **Scheerer P**, Krauß N, Oberpichler I, Zhang F, Lamparter T. Key Amino Acids in the Bacterial (6-4) Photolyase PhrB from *Agrobacterium fabrum*. *PLoS One.* 2015, 10(10):e0140955. PMID: 26489006
- (39) Siebert E, Rippers Y, Frielingsdorf S, Fritsch J, Schmidt A, Kalms J, Katz S, Lenz O, **Scheerer P**, Paasche L, Pelmeshikov V, Kuhlmann U, Mroginski MA, Zebger I, Hildebrandt P. Resonance Raman Spectroscopic Analysis of the [NiFe] Active Site and the Proximal [4Fe-3S] Cluster of an O₂-Tolerant Membrane-Bound Hydrogenase in the Crystalline State. *J Phys Chem B.* 2015, 119(43):13785-13796. PMID: 26201814
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2014

- (37) Szczepek M, Beyrière F, Hofmann KP, Elgeti M, Kazmin R, Rose A, Bartl FJ, von Stetten D, Heck M, Sommer ME, Hildebrandt PW, **Scheerer P[§]**. Crystal structure of a common GPCR binding interface for G protein and arrestin. *Nature Communications* 2014, 5:4801. PMID: 25205354



F1000Prime Recommendation: Exceptional

- (36) Rose AS, Elgeti M, Zachariae U, Grubmüller H, Hofmann KP, **Scheerer P**, Hildebrandt PW. Position of Transmembrane Helix 6 Determines Receptor G Protein Coupling Specificity. *J Am Chem Soc.* 2014, 136(32):11244-11247. PMID: 25046433
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- (34) Lamparter T, Zhang F, Graf D, Wesslowski J, Oberpichler I, Schünemann V, Krauß N, **Scheerer P**. A prokaryotic (6-4) photolyase with a DMRL chromophore and an iron sulfur cluster. *Encyclopedia of Inorganic and Bioinorganic Chemistry* 2014; 1-13. (book article)

2013

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F1000Prime Recommendation: Exceptional

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2012

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F1000Prime Recommendation: Very Good

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2011

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F1000Prime article factor FFa=8

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Awards and press releases

- 2019** **ESRF HIGHLIGHT 2018 in Structural Biology** at European Synchrotron Radiation Facility ESRF, Grenoble, France – Article: “Tracking the route of molecular oxygen in O₂-tolerant membrane-bound [NiFe] hydrogenase.”
- 2016** **Spotlight on Science** at European Synchrotron Radiation Facility (ESRF), Grenoble, France – “High-pressure cryocooling of protein crystals reveals gas transport channels in a hydrogen-converting enzyme”
- 2015** **ESRF HIGHLIGHT 2014 in Structural Biology** at European Synchrotron Radiation Facility ESRF, Grenoble, France – Article: “Crystal structure of a common GPCR binding interface for G protein and arrestin”
- 2014** **Hohe Platzierungen für Dr. Patrick Scheerer im Zitations-Ranking (German citation ranking) des Laborjournals zum Thema "Proteinforschung": Publikationsanalyse des Laborjournals (Stichtag 19.05.2014) im Zeitraum von 2008-2012 für den gesamten deutschsprachigen Raum Platz 7 und 9 unter den „meistzitierten Artikeln“ und Platz 28 mit insgesamt 1510 Zitationen bei 17 gezählten Publikationen unter den „meistzitierten Köpfen“**
- 2014** **ESRF HIGHLIGHT 2013 in Structural Biology** at European Synchrotron Radiation Facility ESRF, Grenoble, France – “Crystal structure of pre-activated arrestin p44” – Article: “How arrestin is activated for GPCR binding”
- 2013** **Webpresentation am Helmholtz-Zentrum Berlin (HZB)** - Das Zentrum im Überblick - Gesundheitsforschung – „Wie Proteine das Sehen steuern“
- 2013** **Interview** in der Druckschrift des Helmholtz Zentrums Berlin, Lichtblick: "Wie Proteine das Sehen steuern"
- 2012** **Spotlight on Science** at European Synchrotron Radiation Facility (ESRF), Grenoble, France – “How an oxygen-tolerant hydrogenase protects itself from oxygen”
- 2012** **Interview – Special** – Laborpraxis – “Dem Sauerstoff trotzen – Hydrogenasen als Wasserstoffproduzenten”
- 2011** **Current research highlight in structural biology** at European Synchrotron Radiation Facility ESRF, Grenoble, France – “The crystal structure of an oxygen-tolerant hydrogenase uncovers a novel iron-sulphur centre”
- 2011** **Interview** – Biotechnologie.de – “Sehrezepitor in Aktion geblitzt“
- 2011** **Structure of the Month** at Bessy II -Helmholtz Zentrum Berlin – “Crystal structure of Metarhodopsin II”
- 2009** **First poster award** – Helmholtz Zentrum Berlin User Meeting at Bessy II, Germany
- 2008** **Interview** – Biotechnologie.de – “Strukturbiologischer Schnappschuss vom Sehen”
- 2008** **Poster award** – Jahrestagung der DGfB (Deutsche Gesellschaft für Biophysik) in Berlin, Germany
- 2008** **Interview** –Sichtbar (Ausgabe 03) – Magazin der Helmholtz-Zentrum Berlin für Materialien und Energie GmbH “Rhodopsin – Sehen wie man sieht - Aktive Proteinkristalle”
- 2005** **Shared second poster award** – GBM-Tagung (Gesellschaft für Biochemie und Molekularbiologie) in Berlin, Germany
- 2003** **First poster award** – 2.Studententag der Diplomanden und Doktoranden der Lebenswissenschaften in Berlin, Germany
- 2003** **First poster award** – 11.Jahrestagung der DGK (Deutsche Gesellschaft für Kristallographie) in Berlin, Germany