

# TANJA WEIL

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## PERSONAL INFORMATION

Date of birth: 16 September 1973 | Place of birth: Kaufbeuren | Children: Daughter (\*2012)

## PROFESSIONAL APPOINTMENTS

**W3 PROFESSOR AND DIRECTOR OF THE INSTITUTE OF ORGANIC CHEMISTRY III, MACROMOLECULAR CHEMISTRY, ULM UNIVERSITY, GERMANY.**  
FROM MAY 2010

**ASSOCIATE PROFESSOR IN ORGANIC CHEMISTRY, NATIONAL UNIVERSITY OF SINGAPORE, SINGAPORE.**  
FROM AUGUST 2008 – APRIL 2010

**DIRECTOR, CHEMICAL R&D, MERZ PHARMACEUTICALS GMBH, FRANKFURT, GERMANY.**  
FROM JANUARY 2008 – DECEMBER 2008

**DEPARTMENT HEAD MEDICINAL CHEMISTRY AND DRUG DESIGN, MERZ PHARMACEUTICALS GMBH, FRANKFURT, GERMANY.**  
FROM JANUARY 2007 – DECEMBER 2007

**PROJECT LEADER POLYMERS FOR MEDICINAL APPLICATIONS, MAX PLANCK INSTITUTE FOR POLYMER RESEARCH, MAINZ, GERMANY.**  
FROM MARCH 2005 – JULY 2008

**SECTION HEAD MEDICINAL CHEMISTRY, MERZ PHARMACEUTICALS GMBH, FRANKFURT, GERMANY.**  
FROM JULY 2002 – DECEMBER 2006

## HIGHER EDUCATION

**DR. RER. NAT., MAINZ UNIVERSITY, GERMANY.**  
IN MAY 2002

Thesis: "Biologisch inspirierte Polyphenylen-Dendrimere". Advisor: Prof. Dr. Klaus Müllen.  
Grade: *Summa Cum Laude*.

**PHD STUDIES, MAX PLANCK INSTITUTE FOR POLYMER RESEARCH, MAINZ, GERMANY.**  
FROM FEBRUARY 1999 – NOVEMBER 2001

**DIPL. CHEM., TECHNICAL UNIVERSITY OF BRAUNSCHWEIG, GERMANY.**  
IN SEPTEMBER 1998

Thesis: "Experimentelle und theoretische Studien zur Chemie stabiler Mono- und Biscarbenverbindungen". Advisor: Prof. Dr. Henning Hopf. Grade: Very Good.

**STUDENT RESEARCH INTERNSHIP, UNIVERSITÉ DE BORDEAUX I, FRANCE.**  
FROM AUGUST 1995 – JULY 1996

**VORDIPLOM IN CHEMISTRY, TECHNICAL UNIVERSITY OF BRAUNSCHWEIG, GERMANY.**  
IN AUGUST 1995

**CHEMISTRY STUDIES, TECHNICAL UNIVERSITY OF BRAUNSCHWEIG, GERMANY**  
FROM OCTOBER 1993 – SEPTEMBER 1998

**PERSONAL PRIZES,  
AWARDS &  
RECOGNITIONS**

2014 Award of Research Building & Center for Quantum-Biosciences (Founding Director)  
2014 Bruno-Werdemann-Lecture of the University Duesburg-Essen, Germany  
2013 Solvay Colloquium, Brussels, Belgium  
2012 ERC Synergy Grant, European Research Council  
2002 Otto Hahn Medal of the Max Planck Society, Germany

**PUBLICATIONS &  
PRESENTATIONS**

Research areas: Precision Polymers and Macromolecules, Supramolecular Polymer Chemistry, Protein Chemistry, Peptide Nanostructures, Nanoparticle-based Sensors and Quantum Sensors, Bio-Nano-Interface.

Published 120 papers in international journals, including 2 articles and letters in Nature & Nature family, 1 article in Proc. Nat. Acad. Sci., 11 articles and communications in J. Amer. Chem. Soc., 6 articles and communications in Angew. Chem. Inter. Ed. Engl., 1 article in Acc. Chem. Res.

4289 citations, H-Index of 37 (Source: Google Scholar 10th June 2015).

**OTHER ACTIVITIES  
& ACHIEVEMENTS**

**Advisory Boards & Steering Committees**

2015 – Review Panel Member and Speaker of the National Centre of Excellence “Molecular Systems Engineering” of the Swiss National Science Foundation.  
2014 – Co-Founder of the Center for Quantum Bionosciences (ZQB) at Ulm University, Germany.  
2014 – Scientific Advisor, NanoBioMater Projekthaus, Stuttgart University, Germany.  
2013 – Scientific Advisor and Co-Chair of the Center for Molecular Bioengineering (B CUBE), Dresden, Germany.  
2013 – Scientific Advisor, Merz Pharmaceuticals GmbH, Frankfurt, Germany.  
2012 – Co-Founder and Director of the Ulm Competence Center for Peptide Pharmaceuticals (UPEP), Ulm University, Germany.  
2011 – Member of the Board of Directors of the International Graduate School for Molecular Medicine, Ulm University, Germany.  
2009 – 2010 Scientific Advisor, Max Planck Institute for Polymer Research, Mainz, Germany

**Scientific Journals**

2015 – International Advisory Board Member, Macromolecular Bioscience, Wiley.  
2015 – International Advisory Board Member, Advance Sciences, Wiley.  
2015 – 2018 Editorial Advisory Board of the Journal Biomacromolecules, ACS.  
2014 – 2017 **Editorial Advisory Board of the Journal of the American Chemical Society, ACS**  
2013 – 2016 Editorial Board of Biomaterials Science, Royal Chemical Society.

# LIST OF PUBLICATIONS

## PUBLISHED ARTICLES (1996 - 2015)

1. X. Chen, Q. Wu, L. Henschke, G. Weber, T. Weil. *An efficient phosphine ligand for traceless and chemoselective labeling of azido-peptides and proteins*. Submitted (2015).
2. Y. Wu, A. Ermakova, W. Liu, G. Pramanik, L. McGuinness, B. Naydenov, R. Reuter, J. Wrachtrup, F. Jelezko, T. Weil. *Albumin precision biopolymers as versatile platform for advancing the biomedical applications of fluorescent nanodiamonds*. Submitted (2005).
3. T. Zhang, A. Neumann, J. Lindlau, Y. Wu, G. Pramanik, B. Naydenov, F. Jelezko, F. Schüder, S. Huber, M. Huber, F. Stehr, A. Hoegele, T. Weil, T. Liedl. *DNA-based self-assembly of fluorescent nanodiamonds*. Submitted (2015).
4. T. Wang, A. Riegger, M. Lamla, M. Otto, S. Wiese, T. Weil. *Allyl-Sulfones for the Site-Directed Specific Bioconjugation Functionalization of Native Proteins and Cyclic Peptides Proteins in Water*. submitted (2015).
5. S.L. Kuan, T. Wang, M. Raabe, W. Liu, M. Lamla, T. Weil. *Programming Bioactive Architectures via Cyclic Peptide Amphiphiles*. ChemPlusChem accepted (2015).
6. T. Wang, N. Zabarska, K. Monczak, M. Lamla, D.Y.W. Ng, S. Rau, T. Weil. *A ruthenium-somatostatin photosensitizer with cancer cell selectivity to improve photodynamic applications*. accepted (2015).
7. S. Kallert, S. Zenk, P. Walther, T. Weil, S. Stenger. *Liposomal delivery of Lipoarabinomannan triggers Mycobacterium tuberculosis specific T-cells*. Tuberculosis accepted (2015).
8. E. Lump, L. M. Castellano, C. Meier, J. Seeliger, N. Erwin, C. M. Stürzel, S. Usmani, R. M. Hammond, J. von Einem, G. Gerold, F. Kreppel, K. Bravo-Rodriguez, T. Pietschmann, V. Holmes, D. Palesch, O. Zirafi, D. Weissman, A. Sowislok, B. Wettig, F. Kirchhoff, T. Weil, F. Gerrit Klärner, T. Schrader, G. Bitan, E. Sanchez-Garcia, R. Winter, J. Shorter, J. Münch. *A molecular tweezer antagonizes seminal amyloids and HIV infection*. eLife in press (2015).
9. O. Zirafi, K.-A. Kim, L. Ständker, K.B. Mohr, D. Sauter, A. Heigele, S.F. Kluge, E. Wiercinska, D. Chudziak, R. Richter, B. Moepps, P. Gierschik, V. Vas, H. Geiger, M. Lamla, T. Weil, T. Burster, A. Zgraja, F. Daubeuf, N. Frossard, M. Hachet-Haas, F. Heunisch, C. Reichetzedler, J.-L. Galzi, J. Pérez-Castells, A. Canales-Mayordomo, J. Jiménez-Barbero, G. Giménez-Gallego, M. Schneider, J. Shorter, A. Telenti, B. Hochoer, W.-G. Forssmann, H. Bönig, F. Kirchhoff, J. Münch. *Discovery and characterization of a natural CXCR4 antagonist*. Cell Reports in press (2015).
10. T. Wang, Y. Wu, S.L. Kuan, O. Dumele, M. Lamla, D.Y. Ng, M. Arzt, J. Thomas, J.O. Mueller, C. Barner-Kowollik, T. Weil. *A disulfide intercalator toolbox for the site-directed modification of polypeptides*. Chemistry, **21**, 1, 228-238 (2015).
11. Y. Wu, D.Y.W. Ng, S.L. Kuan, T. Weil. *Protein-polymer therapeutics – A macromolecular perspective*. Biomater. Sci., **3**, 2, 214-230 (2015).
12. R. Stangenberg, Y. Wu, J. Hedrich, D. Kurzbach, D. Wehner, G. Weidinger, S.L. Kuan, M.I. Jansen, F. Jelezko, H.J. Luhmann, D. Hinderberger, T. Weil, K. Müllen. *A Polyphenylene dendrimer drug transporter with precisely positioned amphiphilic surface patches*. Adv. Healthc. Mater. **4**, 3, 377-384 (2015).
13. C. Li, P. Chen, Y. Shao, X. Zhou, Y. Wu, Z. Yang, Z. Li, T. Weil, D. Liu. *DNA hydrogels: A writable polypeptide-DNA hydrogel with rationally designed multi-modification sites*. Small **11**, 9-10, 1224-1229 (2015).
14. D.Y.W. Ng, Y. Wu, S.L. Kuan, T. Weil. *Programming Supramolecular Biohybrids as Precision Therapeutics*. Acc. Chem. Res. **47**, 12, 3471-3480 (2014).
15. B. Stöckle, D.Y.W. Ng, C. Meier, T. Paust, F. Bischoff, T. Diemant, J. Behm, K.-E. Gottschalk, U. Ziener, T. Weil. *Precise control of polydopamine film formation by electropolymerization*. Macromol. Symp. **346**, 1, 73–81 (2014).
16. D.Y.W. Ng, M. Arzt, Y. Wu, Seah Ling Kuan, M. Lamla, T. Weil. *Constructing hybrid protein zymogens through protective dendritic assembly*. Angew. Chem. Int. Ed. **53**, 1, 324–328 (2014).

17. Y. Wu, C. Li, F. Boldt, Y. Wang, S.L. Kuan, T. T. Tran, V. Mikhalevich, C. Förtsch, H. Barth, Z. Yang, D. Liu, T. Weil. *Programmable protein-DNA hybrid hydrogels for the immobilization and release of functional proteins*. Chem. Commun. **50**, 93, 14620-14622 (2014).
18. R. Stangenberg, I. Saeed, S.L. Kuan, M. Baumgarten, T. Weil, M. Klapper, K. Müllen. *Tuning polarity of polyphenylene dendrimers by patched surface amphiphilicity – A unique case of precise control over size, shape and polarity*. Macromol. Rapid Commun. **35**, 2, 152-160 (2014).
19. C. Meier, Y. Wu, G. Pramanik, T. Weil. *Self-assembly of high molecular weight polypeptide copolymers studied via diffusion limited aggregation*. Biomacromolecules **15**, 1, 219-227 (2014).
20. H. Barth, T. Weil. *Modulare hybride Wirkstofftransporter auf der Basis bakterieller Toxine*. BIOSpektrum **20**, 1, 22-25 (2014).
21. Z. Liu, C. Tonnelé, G. Battagliarin, C. Li, R. A. Gropeanu, T. Weil, M. Surin, D. Beljonne, R. Lazzaroni, M. Debliquy, J.-M. Renoirt, Klaus Müllen. *Functional layers for Zn(II) ion detection: From molecular design to optical fiber sensors*. J Phys Chem B. **118**, 1, 309-314 (2014).
22. S.M. Usmani, O. Zirafi, J.A. Mueller, N.L. Sandi-Monroy, J.K. Yadav, C. Meier, T. Weil, N.R. Roan, W.C. Greene, P. Walther, P.R. Nilsson, P. Hammarström, R. Wetzels, C.D. Pilcher, F. Gagsteiger, M. Fändrich, F. Kirchhoff, J. Münch. *Immobilization of spermatozoa and inhibition of in vitro fertilization by semen-derived amyloid fibrils*. Nature Commun. **5**, 3508-3515 (2014).
23. M. Arzt, C. Seidler, D.Y.W. Ng, T. Weil. *Reversible click reactions with boronic acids to build supramolecular architectures in water*. Chem. Asian J. **9**, 1996-2003 (2014).
24. C. Meier, T. Weil, F. Kirchhoff, J. Münch. *Peptide nanofibrils as enhancers of retroviral gene transfer*. Wiley Interdiscip. Rev. Nanomed. Nanobiotechnol. **6**, 5, 438-451 (2014).
25. Y. Wu, D.Y.W. Ng, S.L. Kuan, T. Weil. *Programming supramolecular biohybrid polymers for biomedical applications*. **248**, 558-PMSE (2014).
26. P. Förstner, F. Bayer, N. Kalu, S. Felsen, C. Förtsch, A. Aloufi, D. Y. W. Ng, T. Weil, E. M. Nestorovich, H. Barth. *Cationic PAMAM dendrimers as pore-blocking binary toxin inhibitors*. Biomacromolecules **15**, 7, 2461-2474 (2014).
27. J. Hedrich, D.Y.W. Ng, M. Jansen, T. Weil, H.J. Luhmann. *Transport across the blood brain barrier with nanoparticle systems*. Acta Physiologica, **210**, 695, 196-198 (2014).
28. T. Wang, D.Y.W. Ng, Y. Wu, J. Thomas, T.T. Tran, T. Weil. *Bis-sulfide bioconjugates for glutathione triggered tumor responsive drug release*. Chem. Commun. **50**, 9, 1116-1118 (2014).
29. J. Hedrich, Y. Wu, Kuan, S.L., F. Kuehn, E. Pietrowski, M. Sahl, S. Muth, K. Müllen, H.J. Luhmann, T. Weil, M. Schmidt. Springer Intern. Publishing, book title: From single molecules to nanoscopically structured materials: *Polymer complexes in biological applications*. Adv. Polym. Sci. 211-235 (2014).
30. X. Chen, L. Henschke, Q. Wu, K. Muthoosamy, B. Neumann, T. Weil. *Site-selective azide incorporation into endogenous RNase A via a "chemistry" approach*. Org. Biomol. Chem. **11**, 2, 353-361 (2013).
31. Y. Wu, S. Ihme, M. Feuring-Buske, S.L. Kuan, K. Eisele, M. Lamla, Y.R. Wang, C. Buske, T. Weil. *A core-shell albumin copolymer nanotransporter for high capacity loading and two-step release of Doxorubicin with enhanced anti-Leukemia activity*. Adv. Healthc. Mater. **2**, 6, 884-894 (2013).
32. S. L. Kuan, Y. Wu, T. Weil. *Precision Biopolymers from Protein Precursors for Biomedical Applications*. Macromol. Rap. Commun. **34**, 5, 380-392 (2013).
33. S. L. Kuan, B. Stöckle, J. Reichenwallner, D.Y.W. Ng, Y. Wu, M. Doroshenko, K. Koynov, D. Hinderberger, K. Müllen, T. Weil. *Dendronized albumin core-shell transporters with high drug loading capacity*. Biomacromolecules, **14**, 2, 367-376 (2013).
34. M. Yolamanova, C. Meier, A.K. Shaytan, V. Vas, C.W. Bertoncini, F. Arnold, O. Zirafi, S.M. Usmani, J.A. Müller, D. Sauter, C. Goffinet, D. Palesch, P. Walther, N.R. Roan, H. Geiger, O. Lunov, T. Simmet, J. Bohne, H. Schrezenmeier, K. Schwarz, L. Ständker, W.-G. Forssmann, X. Salvatella, P.G. Khalatur, A.R. Khokhlov, T.P.J. Knowles, T. Weil, F. Kirchhoff, J. Münch. *Peptide nanofibrils boost retroviral gene transfer and provide a rapid means for concentrating viruses*. Nature Nanotechnol. **8**, 2, 130-136 (2013).

35. T. Wang, A. Pfisterer, S.L. Kuan, Y. Wu, O. Dumele, M. Lamla, K. Müllen, T. Weil. *Cross-conjugation of DNA, proteins and peptides via a pH switch*. Chem. Sci. **4**, 4, 1889-1894 (2013).
36. D. Pesce, Y. Wu, A. Kolbe, T. Weil, A. Herrmann. *Enhancing cellular uptake of GFP via an unfolded supercharged protein tags*. Biomaterials **34**, 17, 4360-4367 (2013).
37. D.Y.W. Ng, J. Fahrner, Y. Wu, K. Eisele, S.L. Kuan, H. Barth, T. Weil. *Efficient delivery of p53 and Cytochrome C by supramolecular assembly of a dendritic multi-domain delivery system*. Adv. Healthc. Mater. **2**, 12, 1620-1629 (2013).
38. A. Ermakova, G. Pramanik, J.M. Cai, G. Algara-Siller, U. Kaiser, T. Weil, Y.K. Tzeng, H.-C. Chang, L.P. McGuinness, M.B. Plenio, B. Naydenov, F. Jelezko. *Detection of a few metallo-protein molecules using color centers in nanodiamonds*. Nano Lett. **13**, 7, 3305-3309 (2013).
39. K. Peneva, T. Weil, K. Müllen. *Mit Rylene-Fluoreszenzsonden den Biomolekülen auf der Spur*. GIT Labor-Fachzeitschrift, online 16.04.2013.
40. S.L. Kuan, D.Y.W. Ng, Y. Wu, C. Förtsch, H. Barth, M. Doroshenko, K. Koynov, C. Meier, T. Weil. *pH Responsive Janus-like supramolecular fusion proteins for functional protein delivery*. J. Am. Chem. Soc. **135**, 46, 17254-17257 (2013).
41. M. Lillich, X. Chen, T. Weil, H. Barth, J. Fahrner. *Delivery of mono-biotinylated RNaseA into macrophages with streptavidin-conjugated Clostridium botulinum C3 toxin*. Naunyn-Schmiedeberg's Arch. Pharmacol. **385**, 1, 53 (2012).
42. J. Fahrner, D.Y.W. Ng, K. Eisele, S.L. Kuan, T. Weil, H. Barth. *Internalization of biotin-labeled p53 tumor suppressor protein into p53-deficient osteosarcoma cells by a novel streptavidin nanocarrier impairs cell viability and induces caspase activation*. Naunyn-Schmiedeberg's Arch. Pharmacol. **385**, 1, 25 (2012).
43. X. Chen, Q. Wu, L. Henschke, G. Weber, T. Weil. *An efficient and versatile approach for the preparation of a rhodamine B ester bioprobe library*. Dyes and Pigments **94**, 2, 296-303 (2012).
44. F. Arnold, J. Schnell, O. Zirafi, C. Stürzel, C. Meier, T. Weil, L. Ständker, W.-G. Forssmann, N.R. Roan, W.C. Greene, F. Kirchhoff, J. Münch. *Naturally occurring fragments from two distinct regions of the prostatic acid phosphatase form amyloidogenic enhancers of HIV infection*. J. Virol. **86**, 2, 1244-1249 (2012).
45. Y. Wu, K.S. Er, A. Ramanathan, S. Vasudevan, T. Weil. *Nano-sized albumin-copolymer micelles for efficient Doxorubicin delivery*. Biointerphases **7**, 1-4, 5 (2012).
46. X. Chen, K. Muthoosamy, A. Pfisterer, B. Neuman, T. Weil. *Site-selective lysine modification of native proteins and peptides via kinetically controlled labeling*. Bioconjug. Chem. **23**, 3, 500-508 (2012).
47. Y. Wu, T. Weil. *An efficient approach for preparing giant polypeptide triblock copolymers by protein dimerization*. Macromol. Rap. Commun. **33**, 15, 1304-1309 (2012).
48. M. Lillich, X. Chen, T. Weil, H. Barth, J. Fahrner. *Streptavidin-conjugated C3 protein mediates the delivery of mono-biotinylated RNAse A into macrophages*. Bioconjug. Chem. **23**, 7, 1426-1436 (2012).
49. Y. Wu, G. Pramanik, K. Eisele, T. Weil. *Convenient approach to polypeptide copolymers derived from native proteins*. Biomacromolecules **13**, 6, 1890-1898 (2012).
50. Y. Wu, T. Wang, D.Y.W. Ng, T. Weil. *Multifunctional polypeptide-PEO nanoreactors via the hydrophobic switch*. Macromol Rapid Commun. **33**, 17, 1474-1481 (2012).
51. Y. Wu, K. Eisele, M. Doroshenko, G. Algara-Siller, U. Kaiser, K. Koynov, T. Weil. *A Quantum Dot photoswitch for DNA detection, gene transfection and live-cell imaging*. Small **8**, 22, 3465-3475 (2012).
52. Y. Akdogan, Y. Wu, K. Eisele, M. Schaz, T. Weil, D. Hinderberger. *Host-Guest Interactions in Polycationic Human Serum Albumin Bioconjugates*. Soft Matter **8**, 43, 11106 - 11114 (2012).
53. T. Knehans, A. Schüller, D. N. Doan, K. Nacro, J. Hill, P. Güntert, M.S. Madhusudhan, T. Weil, S. G. Vasudevan. *Structure-guided fragment-based in silico drug design of dengue protease inhibitors*. J. Comp. Aid. Mol. Des. **25**, 3, 263-274 (2011).
54. J. F. Ng, T. Weil, S. Jaenicke. *RGD grafted cationized bovine serum albumin - an efficient biocoating for cell adhesion*. J. Biomed. Mater. Research: Part B - Appl. Biomaterials **99**, 2, 282-290 (2011).

55. A. Pfisterer, K. Eisele, X. Chen, M. Wagner, K. Müllen, T. Weil. *Bioactive unnatural somatostatin analogues via bioorthogonal iodo- and ethynyl-disulfide intercalators*. Chemistry **17**, 35, 9697–9707 (2011).
56. X. Chen, A. Pfisterer, K. Müllen, T. Weil. *Site-directed protein and peptide chemistry via tailored bioorthogonal reagents*. Abstr. Pap. Am. Chem. Soc. **241**, 681-ORGN (2011).
57. T. Weil, Y. Wu, G. Pramanik. *Protein-based copolymers for bioimaging and drug delivery applications*. Abstr. Pap. Am. Chem. Soc. **241**, 119-POLY (2011).
58. L. Zoepfel, K. Eisele, R.A. Gropeanu, A. Rouhanipour, K. Koynov, I. Lieberwirth, K. Müllen, T. Weil. *Preparation of defined albumin-polymer hybrids for efficient cell transfection*. Macromol. Chem. Phys. **211**, 2, 146-153 (2010).
59. Y. Wu, S. Chakraborty, R.A. Gropeanu, J. Wilhelmi, Y. Xu, K.S. Er, S.L. Kuan, K. Koynov, Y. Chan, T. Weil. *pH-responsive quantum dots via an albumin-polymer surface coating*. J. Am. Chem. Soc. **132**, 14, 5012–5014 (2010).
60. K. Eisele, R.A. Gropeanu, A. Musante, G. Glasser, C. Li, K. Müllen, T. Weil. *Tailored albumin-based copolymers for receptor-mediated delivery of perylenediimide guest molecules*. Macromol. Rapid Commun. **31**, 17, 1501–1508 (2010).
61. T. Weil, T. Vosch, J. Hofkens, K. Peneva, K. Müllen. *The nylene colorant family – tailored nano-emitters for photonics research and applications*. Angew. Chem. Int. Ed. Engl. **49**, 48, 9068-9093 (2010).
62. K. Eisele, R.A. Gropeanu, C.M. Zehendner, A. Rouhanipour, A. Ramanathan, G. Mihov, K. Koynov, C.R.W. Kuhlmann, S. Vasudevan, H.J. Luhmann, T. Weil. *Fine-tuning DNA/albumin polyelectrolyte interactions to produce the efficient transfection agent cBSA-147*. Biomaterials **31**, 33, 8789-8801 (2010).
63. Y. Wu, T. Weil. *Multifunctional protein- hybrid and its applications in quantum dot coatings*. Polymer Preprints **51**, 1, 786-787 (2010).
64. S. Ritz, K. Eisele, S. Ding, J. Dorn, S.H. Ding, D. Vollmer, S. Putz, T. Weil, E.-K. Sinner. *Cationized albumin-biocoatings for the immobilisation of lipid vesicles*. Biointerphases **5**, 3, FA78-FA87 (2010).
65. J.F. Ng, S. Jaenicke, K. Eisele, J. Dorn, T. Weil. *cBSA-147 for the preparation of bacterial biofilms in a microchannel reactor*. Biointerphases **5**, 3, FA41-FA47 (2010).
66. B. Schmaltz, T. Weil, K. Müllen. *Polyphenylene-based materials: control of the electronic function by molecular and supramolecular complexity*. Adv. Mater. **21**, 10-11, 1067-1078 (2009).
67. T. Wang, T. Weil. *Protein-based nanocarriers*. Chimica Oggi - Chemistry Today **27**, 2, 6-10 (2009).
68. T. Noeske, D. Trifanova, V. Kauss, S. Renner, C.G. Parsons, G. Schneider, T. Weil. *Synergism of virtual screening and medicinal chemistry: Identification and optimization of allosteric antagonists of metabotropic glutamate receptor 1*. Bioorg. Med. Chem. **17**, 15, 5708-5715 (2009).
69. K. Chiad, S.H. Stelzig, R. Gropeanu, T. Weil, M. Klapper, K. Müllen. *Isothermal titration calorimetry – a powerful technique to quantify interactions in polymer hybrid systems*. Macromolecules **42**, 19, 7545-7552 (2009).
70. B.A. Krueger, T. Weil, G. Schneider. *Comparative virtual screening and novelty detection for NMDA-Glycine(B) antagonists*. J. Comp. Aid. Mol. Des. **23**, 12, 869-881 (2009).
71. M. Vanejevs, C. Jatzke, S. Renner, S. Müller, M. Hechenberger, T. Bauer, A. Klochkova, I. Pyatkin, D. Kazyulkin, E. Aksenova, S. Shulepin, O. Timonina, A. Haasis, A. Gutcaits, C.G. Parsons, V. Kauss, T. Weil. *Positive and negative modulation of group I metabotropic glutamate receptors*. J. Med. Chem. **51**, 3, 634-647 (2008).
72. M. Yin, C.R.W. Kuhlmann, K. Sorokina, C. Li, G. Mihov, E. Pietrowski, K. Koynov, M. Klapper, H.J. Luhmann, K. Müllen, T. Weil. *Novel fluorescent core-shell nanocontainers for cell membrane transport*. Biomacromolecules **9**, 5, 1381-1389 (2008).
73. M. Yin, J. Shen, R.A. Gropeanu, G.O. Pflugfelder, T. Weil, K. Müllen. *Fluorescent core-shell nanoparticles for specific cell-nucleus staining*. Small **4**, 7, 894-898 (2008).
74. S. Radestock, T. Weil, S. Renner. *Homology model-based virtual screening for GPCR ligands using docking and target-biased scoring*. J. Chem. Inf. Model. **48**, 5, 1104-1117 (2008).
75. M. Yin, K. Ding, R.A. Gropeanu, J. Shen, R. Berger, T. Weil, K. Müllen. *Dendritic star polymers for efficient DNA binding and stimulus-dependent DNA release*. Biomacromolecules **9**, 11, 3231-3238 (2008).

76. U. Meyer, S. Derksen, S. Müller S, C. Jatzke, M. Hechenberger, C. Parsons, T. Weil. *Metabotropic glutamate receptors 1 and 5: New subtype selective positive and negative allosteric modulators designed using pharmacophore models, library design and homology modelling*. *Neuropharmacology* **55**, 4, 610-611 (2008).
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21. Inventor(s): PARSONS C G; JIRGENSONS A; TRIFANOVA D; KALVINSH I; STARCHENKOV I; HENRICH M; NOESKE T; WEIL T; KAUSS V; DANYSZ W; PARSONS C G R, Title: Use of new and known chromenone derivatives for treating and preventing disease associated with abnormal glutamate neurotransmission e.g. Alzheimer's disease, Down's syndrome, Huntington's disease and multiple sclerosis. Patent Number: WO2007045876-A1; IN200800292-P3; EP1957475-A1; AU2006303037-A1; ZA200801641-A; CA2620248-A1, Patent Assignee: MERZ PHARMA GMBH&CO KGAA; MERZ PHARMA GMBH & CO KGAA
22. Inventor(s): PARSONS C G; JIRGENSONS A; JAUNZEME I; KALVINSH I; HENRICH M; VANEJEVS M; WEIL T; KAUSS V; DANYSZ W; JATZKE C; PARSONS C G R Title: Use of tetrahydroquinolinon-5-one derivatives useful as metabotropic glutamate receptor (mGluR5) modulators for treating e.g. HIV infection, Alzheimer's or Parkinson's disease, schizophrenia, epilepsy, lung disease, ischemia and addiction, Patent Number: WO2007023245-A1; EP1943247-A1, Patent Assignee: MERZ PHARMA GMBH&CO KGAA

23. Inventor(s): PARSONS C G; JIRGENSONS A; JAUNZEME I; KALVINSH I; HENRICH M; VANEJEVS M; WEIL T; KAUSS V; DANYSZ W; JATZKE C; PARSONS C G R; PARSONS C R. Title: Use of ethynyl-substituted tetrahydroquinolinone compounds for treating conditions/diseases affected or facilitated by the modulatory effect of metabotropic glutamate receptor modulator, e.g. obesity. Patent Number: WO2007023290-A1; EP1931635-A1; IN200800041-P3; AU2006283359-A1; CN101223142-A; KR2008031972-A; JP2009506018-W; MX2008001871-A1; MX273865-B; AU2006283359-B2; CA2610873-C; IN236492-B; IL189617-A. Patent Assignee: MERZ PHARMA GMBH & CO KGAA; MERZ PHARMA GMBH&CO KGAA
24. Inventor(s): RUMMEL A; WEIL T; GUITCAITS A; GUTCAITS A; GUTAITS A. Title: New modified Clostridium botulinum neurotoxin, useful as transport protein for targeted delivery of agents to nerve cells, for treatment of e.g. torticollis and spasticity, also for cosmetic use. Patent Number: WO2006114308-A2; DE102005019302-A1; WO2006114308-A8; EP1874803-A2; AU2006239506-A1; CN101184770-A; KR2008014754-A; IN200708113-P1; CA2606030-A1; JP2008538902-W; ZA200709166-A; MX2007013284-A1; US2009311275-A1; BR200610252-A2; EP2345666-A1; US8481040-B2; US2013315888-A1; US2015038401-A1. Patent Assignee: TOXOGEN GMBH; MERZ PHARMA GMBH&CO KGAA; MERZ PHARMA GMBH & CO KGAA; RUMMEL A; WEIL T; GUITCAITS A; SYNTAXIN LTD.
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26. Inventor(s): JIRGENSONS A; PARSONS C G R; JAUNZEME I; KALVINSH I; HENRICH M; VANEJEVS M; WEIL T; KAUSS V; DANYSZ W. Title: New tetrahydroquinolinone derivatives, useful as metabotropic glutamate receptor modulators for treating e.g. AIDS-related dementia, multiple sclerosis, glaucoma, tumors and addiction. Patent Number: US2006004001-A1. Patent Assignee: MERZ PHARMA GMBH & CO KGAA.
27. Inventor(s): PARSONS C G; JIRGENSONS A; JAUZEME I; KALVINSH I; HENRICH M; VANEJEVS M; WEIL T; KAUSS V; DANYSZ W; PARSONS C G R; JAUNZEME I; VENEJEVS M; JATZKE C. Title: New tetrahydroquinolinone compounds, useful for treating e.g. epilepsy, Alzheimer's disease, Parkinson's disease, irritable bowel syndrome and migraine, are metabotropic glutamate receptor antagonists. Patent Number: WO2005082856-A2; US2005197361-A1; US2005288284-A1; EP1723116-A2; AU2005217199-A1; MX2006009564-A1; CN1922146-A; KR2007001975-A; BR200508225-A; JP2007524710-W; ZA200606686-A; AU2005217199-B2; EP1723116-B1; DE602005009929-E; KR846347-B1; ES2315853-T3; US7550482-B2; TW301760-B1; TW200534857-A; US2009227582-A1; US7598384-B2; IN236602-B; MX268217-B; JP4712027-B2; CA2556653-C; WO2005082856-A3; IL177524-A. Patent Assignee: MERZ PHARMA GMBH & CO KGAA; MERZ PHARM GMBH & CO KGAA; MERZ PHARMA GMBH&CO KGAA; MERZ&CO GMBH&CO.