M. Zweckstetter

Markus Zweckstetter

Date of birth:	April 30, 1970
Position:	Professor at the University Medical Center Göttingen, and Senior Group Leader at the German Center for Neurodegenerative Diseases and the Max Planck Institute for Biophysical Chemistry, Göttingen
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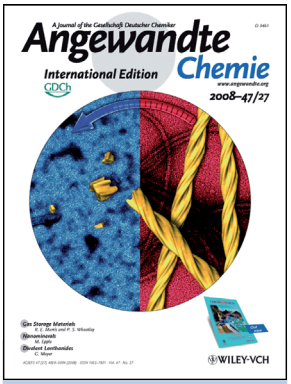
Education:	1990–1996 Diploma in Physics, Ludwig-Maximilians-Universität München 1996–1998 PhD with Dr. Tad Holak, Max Planck Institute for Biochemistry, Martinsried 1999 Postdoc with Dr. Tad Holak, Max Planck Institute for Biochemistry, Martinsried 1999–2001 Postdoc with Dr. Adriaan Bax, National Institutes of Health, Bethesda
Awards:	**2007–2012** Heisenberg Fellowship; **2008–2012** Honorary Professorship, University of Göttingen; **2011** ERC Starting Grant
Research:	NMR spectroscopy, neurodegeneration, structural biology, protein folding
Hobbies:	Tennis, guitar, skiing

*The author presented on this page has recently published his **10th article** in Angewandte Chemie in the last 10 years:*
"Predicting the Rotational Tumbling of Dynamic Multidomain Proteins and Supramolecular Complexes": N. Rezaei-Ghaleh, F. Klama, F. Munari, M. Zweckstetter, *Angew. Chem.* **2013**, *125*, 11621–11625; *Angew. Chem. Int. Ed.* **2013**, *52*, 11410–11414.



The work of M. Zweckstetter has been featured on the cover of Angewandte Chemie:
"Dissociation of Amyloid Fibrils of α-Synuclein in Supercooled Water": H.-Y. Kim, M.-K. Cho, D. Riedel, C. O. Fernandez, M. Zweckstetter, *Angew. Chem.* **2008**, *120*, 5124–5126; *Angew. Chem. Int. Ed.* **2008**, *47*, 5046–5048.

My motto is … "There's no such thing as a free lunch".

My favorite drink is … green tea.

In a spare hour, I … read the magazine *Cicero*.

My favorite quote is … "Ceterum censeo Carthaginem esse delendam" (For the rest, I am of the opinion that Carthage is to be destroyed).

If I could be any age I would be … 25.

My biggest inspiration is … my kids.

I admire … Richard von Weizsäcker.

If I could be a piece of lab equipment, I would be … an NMR spectrometer.

What I appreciate most about my friends is … that they call me, even when I often forget to call them.

My favorite musician is … Nick Cave.

Science is fun because … it allows you to develop own ideas and bring them to life.

If I could be anyone for a day, I would be … Auguste Rodin.

The most important future applications of my research are … the development of methods to interfere with the misfolding of proteins.

My 5 top papers:

1. "Cold denaturation of a protein dimer monitored at atomic resolution": M. Jaremko, Ł. Jaremko, H.-Y. Kim, M.-K. Cho, C. D. Schwieters, K. Giller, S. Becker, M. Zweckstetter, *Nat. Chem. Biol.* **2013**, *9*, 264–270. (Visualization of protein unfolding at atomic resolution.)
2. "Structural Polymorphism of 441-Residue Tau at Single Residue Resolution": M. D. Mukrasch, S. Bibow, J. Korukottu, S. Jeganathan, J. Biernat, C. Griesinger, E. Mandelkow, M. Zweckstetter, *PLoS Biol.* **2009**, *7*, e1000034. (Insights into the atomic details of the structure of the Alzheimer-associated protein Tau.)
3. "Mechanistic Basis of Phenothiazine-Driven Inhibition of Tau Aggregation": E. Akoury, M. Pickhardt, M. Gajda, J. Biernat, E. Mandelkow, M. Zweckstetter, *Angew. Chem.* **2013**, *125*, 3596–3600; *Angew Chem. Int. Ed.* **2013**, *52*, 3511–3515. (Identification of a mechanism for the inhibition of the misfolding of the protein Tau by small molecules.)
4. "Release of long-range tertiary interactions potentiates aggregation of natively unstructured α-synuclein": C. W. Bertoncini, Y.-S. Jung, C. O. Fernandez, W. Hoyer, C. Griesinger, T. M. Jovin, M. Zweckstetter, *Proc. Natl. Acad. Sci. U.S.A.* **2005**, *102*, 1430–1435. (Detection of stabilizing, long-range interactions in the disordered protein α-synuclein.)
5. "Prediction of Sterically Induced Alignment in a Dilute Liquid Crystalline Phase: Aid to Protein Structure Determination by NMR": M. Zweckstetter, A. Bax, *J. Am. Chem. Soc.* **2000**, *122*, 3791–3792. (Development of the PALES method for the structure-based calculation of residual dipolar couplings.)

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