



▪ Curriculum Vitae

Job History

Since 11/2007	Full Professor (Chair of Biomaterials, University of Bayreuth, Faculty Engineering Sciences,)
06/2007 - 10/2007	Lecturer at the Chair of Biotechnology, TU München, Germany
10/2001 - 05/2007	Group Leader, Chair of Biotechnology, TU München, Germany

Education

2007	Habilitation in Biochemistry, Chair of Biotechnology, TU München, Germany
11/1998 - 09/2001	Post-Doctoral Researcher, University of Chicago, IL, USA
1994 - 1998	PhD Biochemistry, Chair of biophysics and physical biochemistry, University of Regensburg, Germany
1989 - 1994	Diploma in Biochemistry, University of Regensburg, Germany

Responsibilities

Guest Professorship

Since 2012	Guest Professor at Universidad Polytechnica de Madrid, Spain
Since 2003	Guest Lecturer

Others

Since 2014	Scientific advisory board Projekthaus NanoBioMater, University Stuttgart
Since 2012	Editorial Board Member of "Scientific Reports" (Nature publisher)
Since 2011	Member DIN standards Committee "ISO-BIONIK"
Since 2011	Deputy advisory board chairman AMSilk GmbH
Since 2010	Editorial Board Member of "BioNanoScience" (Springer publisher)
Since 2009	Founder and speaker of the special task force „Bioinspired materials and bionics“ of the German Material Foundation (DGM)
Since 2008	Advisory board member of competence network Biomimetik of the state of Baden-Württemberg
Since 2008	Founder and consultant of AMSilk GmbH, Martinsried, Germany



Awards

2013	Dechema-Award of the Max-Buchner Foundation
2013	Dr R A Mashelkar Endowment Lecture on Advanced Materials, National Chemical Laboratory, India
2008	Karl-Heinz-Beckurts-Award
2007	Awardee of the bionics competition of the Bavarian Ministry of science and education
2006	Winner of the Science4life VentureCup (business plan)
2006	Innovation award of the Bavarian prime minister
2006	Awardee of the bionics competition of the Bavarian Ministry of science and education
2006	Winner of the Munic Business Plan competition
2005	Promega journalist price „Main Thing Biology“
2004	Junior Scientist Award of the New Materials Competence Center
1993 - 1997	Reemtsma Hochbegabtenförderung

■ Research Focus

Protein-based materials are in the center of our research interests.

Specifically, we are interested in:

- **Protein folding and self-assembly:**
Structure determination of proteins, protein folding kinetics, assembly kinetics, trigger of assembly
- **Recombinant protein engineering and production:**
Engineering and design of novel functional proteins, biotechnological production of proteins in bacteria, yeast and cell lines
- **Protein processing into materials:**
Development of protein processing technologies to gain particles, capsules, fibers, hydrogels, nonwoven meshes, 3D structures (printing), **coatings**
- **Technical applications of protein materials:**
Textiles, filters, coatings (antifouling, haptic, optics)
- **Medical applications of protein materials:**
Wound coverage, drug delivery, tissue repair



■ Publications

1. **Scheibel, T.; Parthasarathy, R.; Sawicki, G.; Lin, X.-M.; Jaeger, H.; Lindquist, S. (2003).**
Conducting nanowires built by controlled self assembly of amyloid fibers and selective metal deposition. *Proc. Natl. Acad. Sci. USA* 100, 4527-4532
2. **Huemmerich, D.; Scheibel, T.; Vollrath, F.; Cohen, S.; Gat, U.; Ittah, S. (2004)**
Novel assembly properties of recombinant spider dragline silk proteins.
Cur. Biol. 14, 2070-2074
3. **Scheibel, T.; Bloom, J.; Lindquist, S. (2004).**
The elongation of yeast prion fibers involves separable steps of association and conversion. *Proc. Natl. Acad. Sci. USA* 101, 2287-2292
4. **Scheibel, T. (2005).**
Protein fibers as performance proteins: new technologies and applications.
Cur. Opin. Biotech. 16, 427-433.
5. **Exler, J.; Huemmerich, D.; Scheibel, T. (2007).**
Spider silk's amphiphilic properties are important for spinning.
Angew. Chem. Int. Ed., 46, 3559-3562
6. **Vendrely, C.; Scheibel, T. (2007).**
Biotechnological production of spider silk proteins enables new applications.
Macromolecular Biosciences, 7, 401-409.
7. **Hermanson, K.; Huemmerich, D.; Scheibel, T.; Bausch, A. (2007).**
Engineered microcapsules made of reconstituted spider silk.
Adv. Materials 19, 1810-1815
8. **Hess, S.; Lindquist, S.; Scheibel, T. (2007).**
Alternate assembly pathways of the amyloidogenic yeast prion determinant Sup35p-NM.
EMBO Rep. 8, 1196-1201
9. **Horinek, D., Serr, A., Geisler, M., Pirzer, T., Slotta, U., Lud, S.Q., Garrido, J.A., Scheibel, T., Hugel, T., Netz, R.R. (2008).**
Peptide adsorption on a hydrophobic surface results from an interplay of solvation, surface, and intrapeptide forces.
Proc Natl Acad Sci USA. [Epub ahead of print]
10. **Slotta, U., Rammensee, S., Gorb, S., Scheibel, T. (2008).**
Microsphere formation of an engineered spider silk protein.
Angew. Chem. Int. Ed., im Druck



**UNIVERSITÄT
BAYREUTH**

Faculty Engineering Science

Chair of Biomaterials

Chairholder Prof. Dr. Thomas Scheibel



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