Prof. Dr. Joachim Spatz

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27/11/1969, Heidenheim

Professor for Biophysical Chemistry
Director Max-Planck-Institute for Metals Research

SCIENTIFIC VITA

1989 – 1994	Undergraduate & Masters degree studies in Physics at Ulm University/Germany; (Diplom Physicist top ranking (0.7), 9 Semester)
1991	Bachelor Science and GRE exam (Vordiplom in Physik)
1993 - 1994	Master degree thesis, Ulm University and Colorado State University
1991 - 1992	Internship at MPI for Metals Research, Institute for Physics, Stuttgart
1993	Colorado State University, USA - Graduate degree program
1994	Texas Center of Superconductivity, University of Houston, Texas, USA
1994 - 1996	Ph.D. of Physics, Department of Macromolecular Chemistry/Ulm University, Prof. Dr. M. Möller, top ranking (0.7, summa cum laude)
1996 -1997	Scientific Assistant - Ulm University (Prof. Dr. M. Möller)
1997 - 1998	Postdoc, Institut Curie, Paris (Prof. Dr. J. Prost & A. Ott)
1998	Foundation of SciTec Company
1998 - 2000	Scientific Assistant at Ulm University (Prof. Dr. M. Möller)
2000	Habilitation in Physics
2000	Professor for Biophysical Chemistry, Heidelberg University
since2002	Adjunct Senior Faculty Member, Jackson Laboratory, Maine, USA
since 2004	Director, Max-Planck-Institute for Metals Research & Professor for Biophysical Chemistry, University of Heidelberg

AWARDS

1996 Scientific Award of the Association of the Metal Industry Baden-Württemberg, **1996** Scientific Schloessmann - Award of the Max Planck Society, **1997** Scientific PhD Award of Ulm University for outstanding PhD work, **1997** Research Stipend German Science Foundation, **1998** Young Researcher Award Ulmer Universitätsgesellschaft, **1999** Reimund Stadler Award - Habilitation Award of the Fachgruppe Makromolekulare Chemie der Gesellschaft Deutscher Chemiker, **2000** Gerhard Hess–Research Award of the German Science Foundation, **2001** Dozentenstipendium der Fonds der Chemischen Industrie (FCI), **2002** Alfried Krupp Research Award for Young University Faculty Members, **2003** Otto Klung Award for Physics

FIELDS OF INTEREST

materials sciences, physics of soft matter, biophysics, non-conventional nanolithography, biofunctionalisation of solid and soft interfaces

SUPERVISION

Supervision of 7 completed PhD theses, 25 completed diploma theses. Currently supervising: 5 Diploma students, 34 PhD students, 10 Post Docs.
Several years of teaching experience: physical chemistry, biophysics, general physics

CURRENTLY FUNDED PROJECTS

Landesstiftung Baden-Württemberg, „Internationale Spitzenforschung“
Landesstiftung Baden-Württemberg, Kompetenznetzwerk “Funktionelle Nanostrukturen”: Wechselwirkung von Zellen mit funktionellen …
Forschungsschwerpunktprogramm des Landes Baden-Württemberg: Methoden zu Modellierung u. Diagnostik von Biosystemen.
Forschungsschwerpunktprogramm des Landes Baden-Württemberg: Biomimetische Modelle der Zellmechanik.
DFG Priority Programme Micro- & Nanofluidic: Hydrodynamic …
Alfried Krupp-Förderpreis
DAAD / „PROCOPE“-Frankreich
EU Projekt STREP: Nanocues, EU-Project: STREP: SA-NANO
EU-Project: IP: AMBIO, Marine Interfaces, *EU-Project: STREP:* Active Biomics
EU-Project: IP: ‘Nanotechnology-based targeted drug delivery
EU-Marie Curie 3 Fellowships
NIH-Joint Center of Excellence (Columbia U): NANOMEDICNE
BMBF Joint Project: NanoBioPore: Bio-Funktionelle Nanoporen …
BMBF Joint Project: NAOMI in priortity field BIOPHOTONICS
VolkswagenStiftung Funding Initiative: Cytoskeleton system …
VolkswagenStiftung Funding Initiative: Self-assembled bioactive …
VolkswagenStiftung: 2nd Int. Symposium on Complex Materials
German-Israeli Foundation (GIF): Synergistic Ligand Interactions …
DIP: Structure and dynamics of integrin-mediated cell adhesion …
Funded projects with BASF, Corning, Zeiss, Boston Scientific

PUBLICATIONS (10 selected publications since 2000):

J.P. Spatz. 2005. Building up micromuscles, *Nat. Materials* **4**: 115-116

A. Micoulet, A. Ott, **J.P. Spatz**. 2005. Mechanical Response and Power Analysis of Single Cells, *ChemPhysChem* **6**: 663-670.

M. Arnold, A. Cavalcanti-Adam, R. Glass, J. Blümmel, W. Eck, H. Kessler, **J.P. Spatz**. 2004**.** Activation of Integrin Function by Nanopatterned Adhesive Interfaces, *ChemPhysChem* **3**: 383.

R. Glass, M. Möller, **J.P. Spatz**. 2003. Micellar Nanolithography, *Nanotechnology* **14**: 1153.

R. Glass, M. Arnold, J. Blümmel, A. Küller, M. Möller, **J.P. Spatz**. 2003. Micro Nanostructured Interfaces by Inorganic-Block Copolymer Micellar … , *Advanced Functional Materials* **13**: 569.

W. Roos, A. Roth, E. Sackmann, **J.P. Spatz**. 2003. Freely Suspended Actin Cortex Models on Arrays of Micro-Fabricated Pillars, *ChemPhysChem* **4**: 872-877.

M. Beil*, A. Micoulet*, G. v. Wichert, S. Paschke, P. Walter, M.B. Omary, P.P. Van Veldhoven, U. Gern, E. Wolff-Hieber, J. Eggermann, J. Waltenberger, G. Adler, T. Seufferlein*, **J.P. Spatz***. 2003. Sphingosylphosphorylcholine regulates the keratin network architecture and the viscoelastic properties …. *Nat. Cell Biol.* **59**: 803-811.

J.P. Spatz. 2002. Nano- and Micropatterning by Organic-Inorganic Templating of Hierarchical Self-Assembled Structures *Angewandte Chemie Int. Ed.* **114**: 3359.

H.-G. Boyen, G. Kästle, F. Weigl, B. Koslowski, C. Dietrich, P. Ziemann, **J.P. Spatz,** S. Riethmüller, C. Hartmann, M. Möller, G. Schmid, M.G. Garnier, P. Oelhafen. 2002. Gold-55 clusters are nobler than bulk, *Science* **297**: 1533.

J.P. Spatz, S. Mößmer, M. Möller, T. Herzog, H.G. Boyen, P. Ziemann, B. Kabius. 2000. Metal and Metaloxide Nanodot Pattern by Means of a Diblock Copolymer Template, *Langmuir* **16**: 407-415.