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# APPENDIX

# Organigramm

## Organization Chart

### Biomaterials Director: Prof. Peter Fratzl · Secretary: Kerstin Gabbe

- Biological Materials**
- Bone Regeneration/Dr. Inderchand Manjubala  
*Since April 2010 Professor at the Biomedical Engineering Division, School of Bio Sciences and Technology, VIT University Vellore, Tamilnadu, India*
  - Biomimetic Actuation and Tissue Growth/Dr. John Dunlop (from 2009)
  - Mechanobiology/Dr. Richard Weinkamer
  - Biochemical Strategies in Load-Bearing Natural Materials/ Dr. Matthew Harrington
  - Bone Material Quality and Osteoporosis Research/Prof. Peter Fratzl
- Biological and Bioinspired Materials**
- Bio-Inspired Hybrid Materials and Synchrotron Research/Dr. Barbara Aichmayer
  - Molecular Biomimetics and Magnet Biomineralization/Dr. Damien Faivre
  - Biological and Bio-Inspired Materials/Dr. Admir Masic, Dr. Paul Zaslansky, Dr. Yael Politi, Dr. Mason Dean
  - Hierarchical Structure of Biological and Biomimetic Materials/Dr. Wolfgang Wagermaier (from 2010)
  - Plant Biomechanics and Biomimetics/Dr. Ingo Burgert

### Biomolecular Systems Director: Prof. Dr. Peter H. Seeberger · Secretary: Dorothee Böhme

- Carbohydrate Chemistry**
- Automated Systems/Prof. Peter Seeberger
  - Glycosaminoglycans/Prof. Peter Seeberger
  - Synthetic GPIs and Glycoproteins/Dr. Daniel Varón Silva
  - De Novo Synthesis/Prof. Peter Seeberger
- Glycobiology**
- Glycoimmunology/Dr. Bernd Lepenies
  - Glycobiology of Microbe/Host Interaction/Dr. Faustin Kamena
  - Glycobiology of Infection Diseases /Prof. Peter Seeberger
  - Carbohydrates Microarrays/Prof. Peter Seeberger
  - Glycoproteomics/Dr. Daniel Kolarich
- Polymeric Biomimetics**
- Polymeric Biomimetics (Emmy Noether Nachwuchsgruppe)/Dr. Laura Hartmann
- Microreactors as Tools for Organic Chemists**
- Microreactors as Tools for Organic Chemists/Prof. Peter Seeberger
- Vaccine Development**
- Novel Adjuvants/Prof. Peter Seeberger
  - Synthetic carbohydrates/Prof. Peter Seeberger
- Nanoparticles and Colloidal Polymers**
- Nanoparticles and Colloidal Polymers/Prof. Peter Seeberger

### Colloid Chemistry Director: Prof. Markus Antonietti · Secretary: Annette Pape and Annemarie Schulz

- Heterophase Polymerization**
- Heterophase Polymerizations/Dr. Klaus Tauer
- Self-organizing Polymers**
- Bioinspired Polymers und Block Copolymers/Dr. Helmut Schlaad
  - Bioorganic-synthetic Hybridpolymers as molecular LEGO®-Bricks/Dr. Hans G. Börner  
*Since October 2009 Professor (W3) for Organic Chemistry of Functional Systems at the Humboldt-Universität zu Berlin*
  - Porous Polymers: Sustainable Synthesis and Advanced Characterization/Dr. Jens Weber
  - Biomimetic Polymers/Dr. Helmut Cölfen  
*Since July 2010 Professor (W3) for Physical Chemistry at the University Konstanz*
- Mesoporous Materials and Nanoparticles**
- Nanostructured Functional Materials for Energy Conversion, Catalysis and Separation/Dr. Arne Thomas  
*Since July 2009 Professor (W3) for Functional Materials at the Technical University Berlin*
  - Functional Carbonaceous and Polymeric Materials as Energy Sources and Stationary Phases for Separation Science/Dr. Maria-Magdalena Titirici
  - De Novo Nanoparticles: Novel Synthetic Routes for Nanoparticle Production/Dr. Christina Giordano
- Modern Techniques of Colloid Analysis**
- Electron Microscopic Studies of Colloidal Systems and Biomaterials/Dr. Jürgen Hartmann
- MPI-FZU International Joint Laboratory**
- MPI-FZU International Joint Laboratory/Dr. Xinchen Wang

## Managing Director (2009-2010) Prof. Dr. Markus Antonietti

### Interfaces Director: Prof. Helmut M $\ddot{o}$ hwald · Secretary: Stefanie Riedel

- (Quasi) Planar Interfaces**
  - Interactions in Complex Monolayers/Dr. Gerald Brezesinski
- Fluid Interfaces**
  - Thermodynamics, Kinetics and Rheology of Interfacial Layers/Dr. Reinhard Miller
- Solid Interfaces**
  - Nucleation, Interfacial Molecular Ordering and Wetting Behavior of Alkanes at Solid/Vapor Interfaces/Dr. Hans Riegler
- Non-Planar Interfaces**
  - Functional Supramolecular Organizes/Prof. Helmut M $\ddot{o}$ hwald
  - Active Interfaces and Coatings/Dr. Dmitry Shchukin
  - Optical Manipulation of Capsules and Films/Dr. Andre Skirtach
  - Ordering of Functional Nanoparticles/Dr. Dayang Wang  
*Since July 2010 Research Professor for Physical Chemistry at the Ian Wark Research Institute, University of South Australia*
- International Joint Laboratories**
  - Supramolecular Nanomaterials/Dr. Takashi Nakanishi  
*Since April 2010 Principal Researcher for Organic Nanomaterials at the National Institute for Materials Science (NIMS) Tsukuba, Japan*
  - Molecular Assemblies of Biomimetic Systems and Nanostructures/Prof. Junbai Li
  - Laboratoire Européen Associé (LEA) on Sonochemistry/Dr. Dmitry Shchukin, Prof. Helmut M $\ddot{o}$ hwald

### Theory & Bio-Systems Director: Prof. Dr. Reinhard Lipowsky · Secretary: Susann Weber and Meriam Bezohra

- Biophysics Lab/Dr. Rumiana Dimova
- Molecular Dynamics/Dr. Volker Knecht
- Proteins and Membranes/Dr. Thomas Weigl
- Carbohydrates and Polysaccharides/Dr. Mark Santer
- Polymers and Polyelectrolytes/Dr. Christian Seidel
- Stochastic Processes/Dr. Angelo Valleriani
- Regulation of Bio-Processes/Dr. Stephan Klumpp

#### Administration/Other Services

Head: Andreas Stockhaus

#### Budgeting/Accountancy

Head: Karin Schönfeld

Thea Dumke, Birgit Gölke, Anke Klein,  
Stefanie Riedel, Ulrike Schell, Nadine Stolz

#### Personnel

Head: Heike Kienert

Claudia Behncke, Judith Hoyer,  
Janice Sommer

Apprentice: Laura Mattheus

#### Procurement/Purchase

Head: Katharina Zesch

Sylvia Ost, Apprentice: Anika Becke

#### Other Services

Head: Andreas Stockhaus

Olaf Gaida, Bodo Ryschka

#### Location Manager

Reina Schlender

#### Works Council

#### The Equal Opportunities Commissioners

#### The Ph.D. Students Representatives

#### IT-Service Group

Head: Roy Pfitzner

Michael Born, Marco Ehlert,

Ingo Fiedler, Frank Seidel

Apprentices: Christian Büttner,

Diana Enge, David Schetter

#### Public Relations

Katja Schulze

#### Library

Head: Dorothea Stscherbina

Silke Niehaus-Weingärtner

#### Office for Drawing and Photography

Christine Steininger

#### Mechanic Workshop

Head: Günter Haseloff

Marco Bott, Andreas Kretschmar,

Jan von Szada-Borrryszkowski

#### Electronic Workshop

Henryk Pitas

#### Glass Blowing Workshop

Cliff Janiszewski

#### Building Services

Head: Heiko Jung

Hagen Hannemann, Dirk Nast,

Marco Stetzmann, Thomas Vogt

Apprentice: Christian Mating

#### Caretaker

Head: Peter Westermeier

## Fachbeirat Scientific Advisory Board

| Name                         | Institution   |
|------------------------------|---|
| Prof. Dr. Colin D. Bain      | Department of Chemistry<br>(University of Durham)   |
| Prof. Dr. Kurt Binder        | Institut für Physik (Johannes-<br>Gutenberg-Universität Mainz)  |
| Prof. Dr. Matthias Drieß     | Institut für Chemie<br>(Technische Universität Berlin)  |
| Prof. Dr. Ruth Duncan        | Welsh School of Pharmacy<br>(Cardiff University)  |
| Prof. Dr. Michael Grunze     | Physikalisch-Chemisches Institut<br>(Universität Heidelberg)  |
| Prof. Dr. Rüdiger Iden       | BASF Aktiengesellschaft<br>(Ludwigshafen)   |
| Prof. Dr. George Jeronimidis | School of Construction<br>Management and Engineering<br>(The University of Reading)                         |
| Prof. Dr. Michael Klein      | Department of Chemistry<br>(University of Pennsylvania)   |
| Prof. Dr. Deborah Leckband   | Department of Chemical &<br>Biomolecular Engineering<br>(The University of Illinois<br>at Urbana Champaign) |
| Prof. Dr. Michael Schick     | Department of Physics<br>(University of Washington)   |
| Prof. Dr. Viola Vogel        | Biologisch-Orientierte<br>Materialwissenschaften<br>(Eidgenössische Technische<br>Hochschule Zürich)        |
| Prof. Dr. Stephen Weiner     | Department of<br>Structural Biology<br>(Weizmann Institute of Science)                                      |

## Kuratorium Board of Trustees

| Name                                       | Institution   |
|--|---|
| Prof. Dr. rer. nat.<br>Ulrich Buller       | Vorstand der Fraunhofer-<br>Gesellschaft, Vorstandsbereich<br>Forschungsplanung                             |
| Prof. Dr. Dr. h. c.<br>Rolf Emmermann      | Ehemaliger Vorstandsvorsitzender<br>des GeoForschungsZentrums<br>Potsdam                                    |
| Prof. Dr. Detlev Ganten                    | Präsident World Health Summit,<br>Charité-Universitätsmedizin Berlin  |
| Norbert Glante                             | Mitglied des<br>Europäischen Parlaments   |
| Jann Jakobs                                | Oberbürgermeister der<br>Landeshauptstadt Potsdam   |
| Dr. Wilhelm Krull                          | Generalsekretär der<br>VolkswagenStiftung   |
| Dr. rer. nat.<br>Stefan Marcinowski        | Mitglied des Vorstands der<br>BASF SE   |
| Prof. Dr.-Ing. Dr. Sabine Kunst            | Ministerin für Wissenschaft,<br>Forschung und Kultur des<br>Landes Brandenburg                              |
| Dr. Wolfgang Plischke                      | Vorstandsmitglied der Bayer AG  |
| Prof. Dr. rer. nat.<br>Frieder W. Scheller | Professor für Analytische<br>Biochemie am Institut für<br>Biochemie und Biologie der<br>Universität Potsdam |

# Drittmittelprojekte

## Third Party Funds

### Öffentliche Zuwendungsgeber

| Zuwendungsgeber | Thema   | Projektleiter                          | Bewilligungszeitraum  | Zusammenarbeit mit  |
|-----------------|---|--|-----------------------|---|
| BMBF            | Bionik (2): Faserverbundwerkstoffe mit graduellen Matrixübergängen; Teilprojekt 1   | Dr. Burgert<br>BM                      | 01.05.2008-30.04.2011 | Albert-Ludwigs-Universität Freiburg<br>Universität Bayreuth, Institut für Textil- und Verfahrenstechnik Denkendorf  |
| BMBF            | GoFORSYS - Potsdam-Golm BMBF - Forschungseinrichtung zur SYStembioogie, Photosynthesis and Growth: A Systems Biology-based Approach | Prof. Lipowsky<br>Dr. Valleriani<br>TH | 01.06.2006-31.12.2011 | MPI für Molekulare Pflanzenphysiologie, Potsdam   |
| BMBF            | Experimentelle und theoretische Untersuchungen zur Bildung und Deformation von Einzeltropfen<br>Modell für Schäume und Emulsionen   | Dr. Miller<br>GF                       | 01.01.2007-30.06.2009 |   |
| BMBF            | Nanoskalige Hohlstrukturen mit eingebetteten Gastmolekülen für neue aktive Korrosionsschutz-Systeme                                 | Dr. Shchukin<br>GF                     | 01.05.2007-30.04.2011 | Capsulation NanoScience AG Berlin<br>PlasmaChem GmbH, Berlin<br>EADS Deutschland GmbH, München<br>BASF Coatings GmbH, Münster   |
| BMBF            | Nachwuchsgruppe Glykobiotechnologie: Malaria-Untersuchung der Erythrozytheninvasion und der schweren Pathologie                     | Dr. Kamena<br>BS                       | 01.04.2009-31.03.2014 |   |
| BMBF            | Nachwuchsgruppe Glykobiotechnologie: Funktion der C-Typ Lektinrezeptoren (CLRs) bei der Modulation der                              | Dr. Lepenies<br>BS                     | 01.02.2009-31.12.2013 | Bernhard-Nocht-Institut für Tropenmedizin, Hamburg<br>Universität Regensburg<br>Technische Universität München<br>Universität Würzburg  |
| BMBF            | Verbundprojekt:Nanostrukturen zur Lichtinduzierten Wasserstoffentwicklung (H <sub>2</sub> -NanoSolar)                               | Prof. Antonietti<br>Dr. Thomas<br>KC   | 01.09.2009-31.08.2012 | Helmholtz-Zentrum Berlin für Materialien und Energie GmbH (HZB), Berlin<br>Technische Universität Darmstadt<br>Universität Augsburg<br>Universität Ulm (UU)   |
| BMBF            | Verbundvorhaben: Dream Reactions-Stoffliche CO <sub>2</sub> -Verwertung   | Prof. Antonietti<br>KC                 | 01.03.2009-29.02.2012 | Bayer Technology Services GmbH, Leverkusen<br>Technische Universität Dortmund<br>Leibniz-Institut für Katalyse e.V. an der Universität Rostock<br>Forschungszentrum Karlsruhe GmbH<br>Rheinisch-Westfälische Technische Hochschule Aachen<br>Technische Universität Darmstadt |

BM – Abteilung Biomaterialien/Department of Biomaterials  
 BS – Abteilung Biomolekulare Systeme/Department of Biomolecular Systems  
 GF – Abteilung Grenzflächen/Department of Interfaces  
 KC – Abteilung Kolloidchemie/Department of Colloid Chemistry  
 TH – Abteilung Theorie & Bio-Systeme/Department of Theory & Bio-Systems

## BMBF

| Zuwendungsgeber | Thema   | Projektleiter          | Bewilligungszeitraum  | Zusammenarbeit mit  |
|-----------------|---|------------------------|-----------------------|---|
| BMBF            | Verbundprojekt: Spitzenforschung und Innovation in den neuen Ländern-Das Taschentuchlabor: Impulszentrum für Integrierte Bioanalyse (IZIB)  | Prof. Seeberger<br>BS  | 01.10.2009-30.09.2014 | Fraunhofer-Gesellschaft zur Förderung der angewandten Forschung e.V. (FhG), München<br>Universität Potsdam<br>Charité-Universitätsmedizin Berlin<br>Helmholtz-Zentrum für Infektionsforschung GmbH, Braunschweig<br>Ruhr-Universität Bochum<br>IDM Institut für Dünnschichttechnologie und Mikrosensorik e.V., Teltow<br>Technische Fachhochschule Wildau<br>MicroDiscovery GmbH, Berlin<br>BST Bio Sensor Technologie GmbH, Berlin<br>Congen Biotechnologie GmbH, Berlin<br>Scienion AG, Dortmund<br>Poly-An Gesellschaft zur Herstellung von Polymeren für spezielle Anwendungen und Analytik mbH, Berlin |
| BMBF            | Fortführung der experimentellen und theoretischen Untersuchung zur Bildung und Deformation von Einzeltröpfchen als Modell für Schäume und Emulsionen sowie Begleitung der FASES-Experimente auf der ISS | Dr. Miller<br>GF       | 01.07.2009-30.06.2011 | IENTI, Genua, Italien<br>Université Aix-Marseille<br>Université Compiègne, France<br>Universität Complutense Madrid<br>Universität Florenz<br>IPF, Dresden<br>Aristotele Universität Thessaloniki   |
| BMBF            | Verbundprojekt: Spitzenforschung und Innovationen in den neuen Ländern-Light2Hydrogen - Energie für die Zukunft - Photokatalytische Spaltung von Wasser zu Wasserstoff -TP2                             | Prof. Antonietti<br>KC | 01.11.2009-31.10.2014 | Leibniz-Institut für Katalyse e.V. an der Universität Rostock<br>Leibniz-Institut für Plasmaforschung und Technologie e.V. (INP), Greifswald<br>Technische Universität Berlin<br>Helmholtz-Zentrum Berlin für Materialien und Energie GmbH (HZB), Berlin<br>Fachhochschule Stralsund<br>Universität Rostock   |
| BMBF            | Planare Nanostrukturen an festen Oberflächen  | Prof. Vollhardt<br>GF  | 01.07.2007-31.12.2009 | National Academy of Sciences of Ukraine   |
| A.v.H.          | Max-Planck-Forschungspreis 2008: Biological and Biomimetic Materials  | Prof. Fratzl<br>BM     | 01.09.2008-31.08.2013 | Ludwig Boltzmann Institute of Osteology, Vienna, Austria<br>Harvard University, Department of Chemistry and Chemical Biology, USA<br>University of California at Santa Barbara, USA<br>Weizmann Institute of Science, Rehovot, Israel<br>Montanuniversität Leoben, Austria<br>Institut National Polytechnique de Grenoble, France<br>Department of Materials Science, Technion, Haifa, Israel   |

## BMBF

| Zuwendungsgeber | Thema  | Projektleiter                        | Bewilligungszeitraum  | Zusammenarbeit mit  |
|-----------------|--|--------------------------------------|-----------------------|---|
| BMBF            | SOHyb: Keimbildungsinduzierte Selbstorganisation zur Strukturierung organischer Hybridsolarzellen  | Dr. Riegler<br>GF                    | 01.11.2008-30.04.2012 | Helmholtz-Zentrum Berlin für Materialien und Energie GmbH Chemtec Leuna<br>Fraunhofer-Institut für Angewandte Polymerforschung, Potsdam<br>Justus-Liebig-Universität, Gießen  |
| BMBF            | ForMaT: Potenzial-Screening durch ein Konzeptteam und Entwicklung eines Konzeptes zur Vermarktung intelligenter Nanobehälter für selbstheilende Antikorrosionsbeschichtungen | Dr. Shchukin<br>GF                   | 01.10.2009-31.03.2010 | EADS Deutschland GmbH, München<br>Volkswagen AG, Wolfsburg<br>Mankiewicz Gebr & Co. (GmbH & Co. KG), Hamburg<br>BASF Coatings AG, Münster<br>Chemetall GmbH, Frankfurt am Main<br>Lankwitzer Lackfabrik GmbH, Berlin  |
| BMBF            | Verbundprojekt: Molekulare Pathologie der Osteoporose (OsteoPath)  | Prof. Fratzl<br>Dr. Wagermaier<br>BM | 01.06.2010-31.05.2013 | Ludwig Boltzmann Gesellschaft,<br>Ludwig Boltzmann Institut für Osteologie, Wien  |
| BMBF            | ForMaT   | Dr. Shchukin<br>GF                   | 01.12.2010-30.11.2012 | EADS Deutschland GmbH, München<br>Volkswagen AG, Wolfsburg<br>Mankiewicz Gebr & Co. (GmbH & Co. KG), Hamburg<br>BASF Coatings AG, Münster<br>Chemetall GmbH, Frankfurt am Main<br>Lankwitzer Lackfabrik GmbH, Berlin<br>Ludwig Boltzmann Gesellschaft,<br>Ludwig Boltzmann Institut für Osteologie , Wien |

## Länder

|                              |  |                        |                       |                           |
|------------------------------|--|------------------------|-----------------------|---------------------------|
| MWFK / LASA Brandenburg GmbH | Verbundforschung Biokohle Brandenburg- Herstellung und Verwendung von Biokohle aus hydrothermalen Karbonisierung | Prof. Antonietti<br>KC | 01.02.2009-05.12.2011 | Fachhochschule Eberswalde |
|------------------------------|--|------------------------|-----------------------|---------------------------|

## EU

|    |   |                                     |                       |   |
|----|---|-------------------------------------|-----------------------|---|
| EU | Novel Materials for Silicate-Based Fuel Cells | Prof. Möhwald<br>Dr. Shchukin<br>GF | 01.12.2006-30.11.2009 | University of Aveiro, Portugal<br>Foundation of Research and Technology Hellas, Griechenland<br>Katholieke Universiteit Leuven, Belgien<br>Boreskov Institute of Catalysis, Russland<br>Ceramics and Refractories Technological Development Company, Griechenland<br>Technische Universität Clausthal<br>Ceramics Techniques et Industrielles, Frankreich |
|----|---|-------------------------------------|-----------------------|---|



EU

| Zuwendungsgeber | Thema  | Projektleiter                       | Bewilligungszeitraum  | Zusammenarbeit mit   |
|-----------------|--|-------------------------------------|-----------------------|--|
| EU              | Cellulose Architecture Systems Biology for Plant Innovation Creation                                   | Prof. Fratzl<br>Dr. Burgert<br>BM   | 01.01.2007-31.12.2009 | Wageningen Universiteit, Niederlande<br>Stiching voor Fundamenteel Onderzoek der Materie, Niederlande<br>Sveriges Lantbruksuniversitet, Uppsala; Institut National de Recherche Agronomique, Paris<br>SweTree AB, Schweden   |
| EU              | Bio-imaging with Smart Functional Nanoparticles (BONSAI)   | Prof. Möhwald<br>Dr. Wang<br>GF     | 01.11.2006-31.10.2009 | ENEA, Rom; Commissariat a l energie atomique, Paris; Consejo Superior de Investigaciones Cientificas, Madrid; Universidad Complutense de Madrid<br>Universita delgi Studi die Padova<br>Universita die Milana-Bicocca, Italien<br>Guerbet, Frankreich; Russian Academy Institute of General Physics, Russian Academy of Science<br>Albert-Ludwigs-Universität Freiburg<br>Novovector srl, Italien<br>TILL Photonics GmbH, Gräfelfing   |
| EU              | Development a new biocoating-multilayered polyelectrolyte film with incorporated drug-loaded liposomes | Prof. Möhwald<br>GF                 | 01.10.2007-30.09.2009 |  |
| EU              | Open Tok: Development of Smart Polymer Surfaces  | Prof. Möhwald<br>GF                 | 01.01.2007-31.12.2009 | University of Maribor, Slovenien   |
| EU              | Novel Nanocomposites for Hydrogen Storage Applications   | Prof. Möhwald<br>Dr. Shchukin<br>GF | 01.01.2008-30.09.2011 | Forschungszentrum Karlsruhe, Consiglio Nazionale delle Ricerche, Rom, CNRS; ParisFutureCarbon GmbH, Bayreuth<br>Institut for energiteknikk, Norwegen<br>National Center for Scientific Research "Demokritos", Griechenland<br>Universität Oslo   |
| EU              | Multi-Level Protection of Materials for Vehicles by "smart" Nanocontainers (MUST)                      | Prof. Möhwald<br>Dr. Shchukin<br>GF | 01.06.2008-31.05.2012 | EADS Deutschland GmbH; Universidade de Aveiro, Portugal; Stiftelsen Sintef, Norwegen; Universität Paderborn; Mankiewicz Gebr.&Co. GmbH & Co KG, Hamburg; Bayer Technology Services GmbH, Leverkusen; National Center for Scientific Research "Demokritos", Griechenland; Sika Technology AG, Schweiz; Instytut Katalizy i fizykochemii Powierzchni, Polska Akademia Nauk, Krakau; Steinbeis Advanced Risk Technologies GmbH, Stuttgart; Instituto Superior Tecnico, Lissabon; Centro Ricerche Fiat SCPA, Italien; RE-TURN AS, Norwegen; Varnish SRL, Italien<br>Daimler AG, Stuttgart; Chemetall GmbH, Frankfurt/M.; Helsingin Yliopisto, Finnland; European Virtual Institute on Knowledge-based Multifunctional Materials AISBL, Belgien |

**EU**

| Zuwendungs-<br>geber | Thema   | Projektleiter         | Bewilligungszeitraum  | Zusammenarbeit mit  |
|----------------------|---|-----------------------|-----------------------|---|
| EU                   | Carbohydrate Multivalent Systems as tools to study Pathogen interaction with DC-Sign (Carmusys)   | Prof. Seeberger<br>BS | 01.01.2009-31.12.2012 | Agencia Estatal Consejo Superior De Investigaciones Cientificas (CSIC), Spain; Universita Degli Studi Di Milano (UNIMI), Italy; Centre National De La Recherche Scientifique (CNRS), France; Fundación Para La Investigación Biomédica del Hospital Universitario "Doce de Octubre", Spain; The Chancellor, Masters and Scholars of the University of Oxford, United Kingdom; Vysoka Skola Chemicko-Technologicka V Praze, Czech Republic; Vereniging Voor Christelijk Hoger Onderwijs Wetenschappelijk Onderzoek En Patientenzorg, Netherlands; Anterio Consult & research GmbH, Germany; DC4U, Netherlands; Institut National De La Sante Et De La Recherche Medicale, France; Vrije Universiteit Medisch Centrum, Niederlande; Universite Joseph Fourier Groble, Frankreich  |
| EU                   | Vesicle formation driven by ESCRT (endosomal sorting complex required fro Transport) (vesicle ESCoRT)   | Dr. Valleriani<br>TH  | 15.10.2009-14.09.2012 | National Institute of Diabetes and Digestive and Kidney Diseases, National Institutes of Helth, USA   |
| EU                   | Development of carbohydrate array technology to systematically explore the functional role of glycans in helthy and diseased states (EuroGlycoArrays) | Prof. Seeberger<br>BS | 01.09.2008-31.08.2012 | The University of Manchester, United Kingdom; Centre National de la Recherche Scientifique, Paris, France; Universität für Bodenkultur Wien, Austria; Eidgenössische Technische Hochschule Zürich, Switserland; The University of Reading, United Kingdom; Deutsches Krebsforschungs-zentrum, Heidelberg, Germany; Stockholms Universitet, Sweden; Centre for Cooperative Research in Biomaterials -CIC biomaGUNE, San Sebastian, Spain; Universität Bayreuth, Germany; Shemyakin & Ovchinnikov Institute of Bioorganic Chemistry, Moscow, Russia; Imperial College of Science, Technology and Medicine, London, United Kingdom; University of Zagreb, Kroatien; University of Copenhagen, Denmark; GALAB Laboratories GmbH, Geesthacht, Germany; Ludger Ltd., Abingdon, United Kingdom; National Institute for Bioprocessing Research and Training Ltd., Dublin, Ireland |

## EU

| Zuwendungsgeber | Thema   | Projektleiter          | Bewilligungszeitraum  | Zusammenarbeit mit |
|-----------------|---|------------------------|-----------------------|--------------------|
| EU              | Hydrothermal and Ionothermal Chemistry for Sustainable Materials  | Prof. Antonietti<br>KC | 01.11.2008-31.10.2013 |                    |
| EU              | Automated Synthesis of Heparin and Chondroitin Libraries for the Preparation of Diverse Carbohydrate Arrays | Prof. Seeberger<br>BS  | 01.01.2009-31.12.2013 |                    |

## DFG

|     |  |                                      |                       |   |
|-----|--|--------------------------------------|-----------------------|---|
| DFG | Mesoskopisch strukturierte Verbundsysteme; Wandverformung bei Mesoporen bei der Kappilarkondensation von Fluiden   | Prof. Fratzl<br>Dr. Paris<br>BM      | 01.01.2007-31.12.2009 | Humboldt-Universität Berlin<br>Freie Universität Berlin<br>Technische Universität Berlin<br>Fraunhofer-Institut für Angewandte Polymerforschung, Potsdam  |
| DFG | Biomechanics and Biology of Musculoskeletal Regeneration-From Functional Assessment to Guided Tissue Formation; The micro-mechanical and structural properties of callus tissue during bone healing  | Prof. Fratzl<br>Dr. Inderchand<br>BM | 01.01.2007-31.12.2010 | Charité - Universitätsmedizin Berlin<br>Freie Universität Berlin; Max-Planck-Institut für molekulare Genetik; Deutsches Rheuma-Forschungszentrum Berlin;<br>Helmholtz-Gemeinschaft Deutscher Forschungszentren; Institut für Polymerforschung GKSS-Forschungszentrums Geesthacht GmbH, Teltow; Zuse Institut Berlin |
| DFG | Biomechanics and Biology of Musculoskeletal Regeneration-From Functional Assessment to Guided Tissue Formation; Mechano-biology of bone healing and regeneration   | Dr. Weinkamer<br>BM                  | 01.01.2007-31.12.2010 | Charité - Universitätsmedizin Berlin<br>Freie Universität Berlin; Max-Planck-Institut für molekulare Genetik; Deutsches Rheuma-Forschungszentrum Berlin;<br>Helmholtz-Gemeinschaft Deutscher Forschungszentren; Institut für Polymerforschung GKSS-Forschungszentrums Geesthacht GmbH, Teltow; Zuse Institut Berlin |
| DFG | Biomechanics and Biology of Musculoskeletal Regeneration-From Functional Assessment to Guided Tissue Formation; Regulation of the biosynthesis of extracellular matrix components by biomaterial scaffolds of different geometry and stiffness | Prof. Fratzl<br>BM                   | 01.01.2007-31.12.2010 | Charité - Universitätsmedizin Berlin<br>Freie Universität Berlin; Max-Planck-Institut für molekulare Genetik; Deutsches Rheuma-Forschungszentrum Berlin;<br>Helmholtz-Gemeinschaft Deutscher Forschungszentren; Institut für Polymerforschung GKSS-Forschungszentrums Geesthacht GmbH, Teltow; Zuse Institut Berlin |
| DFG | Mesoskopisch strukturierte Verbundsysteme; Hierarchische Architekturen aus Modulen mit metallosupramolekularen Koordinations-Polyelektrolyten  | Prof. Möhwald<br>Dr. Kurth<br>GF     | 01.01.2001-31.12.2009 | Humboldt-Universität Berlin<br>Freie Universität Berlin<br>Technische Universität Berlin<br>Fraunhofer-Institut für Angewandte Polymerforschung, Potsdam  |

**DFG**

| Zuwendungs-<br>geber | Thema   | Projektleiter         | Bewilligungszeitraum  | Zusammenarbeit mit  |
|----------------------|---|-----------------------|-----------------------|---|
| DFG                  | Mesoskopisch strukturierte Verbundsysteme;<br>Ordnungsstrukturen in Systemen aus stäbchenför-<br>migen Molekülen  | Prof. Lipowsky<br>TH  | 01.01.2004-31.12.2009 | Humboldt-Universität Berlin<br>Freie Universität Berlin<br>Technische Universität Berlin<br>Fraunhofer-Institut für Angewandte<br>Polymerforschung, Potsdam |
| DFG                  | Mesoskopisch strukturierte Verbundsysteme;<br>Molekulare Prozesse in mesoskopisch strukturi-<br>erten Polyelektrolytsystemen  | Prof. Möhwald<br>GF   | 01.01.2004-31.12.2009 | Humboldt-Universität Berlin<br>Freie Universität Berlin<br>Technische Universität Berlin<br>Fraunhofer-Institut für Angewandte<br>Polymerforschung, Potsdam |
| DFG                  | Fluide Grenzflächen   | Dr. Miller<br>IF      | 01.05.2010-30.04.2013 |   |
| DFG                  | Förderung des Gastaufenthaltes von Dr. Salah A-<br>Thyabat, Al-Hussein Bin Talal University, Ma'an,<br>Jordanien  | Dr. Miller<br>IF      | 10.06.-12.08.2010     | Al-Hussein Bin Talal University,<br>Ma'an, Jordanien  |
| DFG                  | Synthesis and properties of glycopolyptide bio-<br>hybrid materials Theme: Novel Polymer Synthesis<br>and New Supramolecular Polymer Assemblies   | Dr. Schlaad<br>KC     | 20.10.2010            |   |
| DFG                  | SONS-Biofunctional Self-Organized Nano-<br>Structures of ionic/non-ionic amphiphilic copoly-<br>mer, biopolymer-biomacromolecules and nanopar-<br>ticles: from bioinspired to biointegrated systems | Dr. Schlaad<br>KC     | 01.01.2007-31.01.2010 |   |
| DFG                  | Materials World Network to study liquid Precursor<br>Formation and Crystallization at Interfaces:<br>Fundamentals towards Applications  | Dr. Cölfen<br>KC      | 01.01.2008-31.05.2010 |   |
| DFG                  | Charakterisierung von Grenzflächen zwischen zwei<br>Flüssigkeiten unter hoch-dynamischen<br>Bedingungen   | Dr. Miller<br>IF      | 01.08.2009-31.07.2011 |   |
| DFG                  | Charakterisierung von Grenzflächen zwischen zwei<br>Flüssigkeiten unter hoch-dynamischen<br>Bedingungen   | Dr. Miller<br>GF      | 01.08.2007-31.07.2009 |   |
| DFG                  | Generation of anisotropic hydrogel membranes,<br>mimicking plant cell wall structures, and explo-<br>ration of new bio-inspired mechanical devices<br>based on gel swelling                         | Dr. Burgert<br>BM     | 01.01.2008-31.08.2010 |   |
| DFG                  | Generation of anisotropic hydrogel membranes,<br>mimicking plant cell wall structures, and explo-<br>ration of new bio-inspired mechanical devices<br>based on gel swelling                         | Dr. Wang<br>GF        | 01.12.2007-30.11.2009 |   |
| DFG                  | Structural and morphological characterization of<br>ceramide-1-phosphate model membran  | Dr. Brezesinski<br>GF | 20.09.2007-31.10.2012 |   |



**DFG**

| Zuwendungsgeber | Thema  | Projektleiter  | Bewilligungszeitraum  | Zusammenarbeit mit   |
|-----------------|--|--|---|--|
| DFG             | Dynamics of Interfaces between Drops with Miscible Liquids   | Dr. Riegler<br>GF  | 01.09.2008-31.08.2011   |  |
| DFG             | Intelligent release systems for anticorrosion self-healing coatings (Deutsch-Russisches Kooperationsprojekt)   | Prof. Möhwald<br>GF  | 17.07.2008-16.07.2011   | Dr. V.V. Volkov, Shubnikov Institute of Crystallography, RAN, Moscow   |
| DFG             | Generation of nanoparticles with tunable surface wettability and surface functionality to cross hydrophilic/hydrophobic interfaces of biological barriers  | Prof. Möhwald<br>Dr. Wang<br>GF  | 01.07.2009-30.06.2011   |  |
| DFG             | N-heterocyclic carbenes incorporated in porous networks  | Dr. Thomas<br>KC   | 02.03.2009-30.11.2009   | Projektübertragung an TU-Berlin 12/2009, da Weggang Wissenschaftler und Projektmitnahme  |
| DFG             | Thermodynamisch stabile Pickering-Emulsionen   | Dr. Wüstneck<br>GF   | 01.09.2009-31.08.2011   |  |
| DFG             | Biometric Materials Research: Functionality by Hierarchical Structuring of Materials   | Prof. Fratzl<br>Dr. Aichmayer<br>Dr. Zaslansky<br>Dr. Faivre<br>Dr. Burgert<br>Dr. Schlaad<br>Dr. Cölfen<br>BM | 01.05.2010-   | (MPI KOLL ist Koordinator, 7 Teilprojekte am Institut)<br>Institut National Polytechnique; E.N.S.E.E.G./ L.T.P.C.M. Grenoble<br>Foundry Institute of RWTH Aachen<br>Department of Materials Engineering, Technical University Berlin<br>Evolutionary Biomaterials Group, MPI für Metallforschung, Stuttgart<br>Department of Materials Science and Engineering, University Erlangen-Nürnberg<br>Dept. Of Microstructure Physics and Metal Forming, MPI Eisenforschung Düsseldorf<br>Plant Biomechanics Group, Botanic Garden, University of Freiburg |
| DFG             | Emmy-Noether-Programm  | Dr. Hartmann<br>BS   | 04.08.2009-03.07.2012   |  |
| DFG             | Gottfried Wilhelm Leibniz-Programm   | Prof. Fratzl<br>Dr. Dunlop<br>Dr. Wagermaier<br>BM   | 01.09.2010-31.08.2017<br>01.09.2010-31.12.2011<br>01.01.2011-31.12.2012 | 2 Subprojekte am Institut  |
| DFG             | Exzellenzcluster UniCat: Unifying Concepts in Catalysis  | Prof. Antonietti<br>KC<br>Prof. Möhwald<br>GF  | 01.01.2008-31.12.2010   | Technische Universität Berlin<br>Humboldt-Universität Berlin<br>Freie Universität Berlin<br>Universität Potsdam<br>Fritz-Haber-Institut der Max-Planck-Gesellschaft Berlin   |
| DFG             | Emmy-Noether-Programm: Bioorganische und biomimetische Polymere zur programmierbaren Strukturierung synthetischer Polymermaterialien: Synthese, Charakterisierung und Anwendung der Polymerhybridsysteme | Dr. Börner<br>KC   | 01.04.2005-31.03.2009   |  |

## Unteraufträge/Weiterleitungen and deutsche Forschungseinrichtungen

| Zuwendungsgeber                 | Thema  | Projektleiter           | Bewilligungszeitraum  | Zusammenarbeit mit  |
|---------------------------------|--|-------------------------|-----------------------|---|
| Universität des Saarlandes      | Neuartige Carrier zur Inhalation von Wirkstoffen basierend auf der Layer-by-Layer Technologie                                    | Prof. Möhwald<br>GF     | 01.01.2008-31.12.2010 | Boehringer Ingelheim International GmbH                       |
| BMBF/<br>Universität<br>Potsdam | GoForsys Potsdam-Golm BMBF-Forschungseinrichtung zur Systembiologie. Photosynthesis and Growth: A Systems Biology based Approach | Prof. Lipowsky<br>TH    | 01.01.2007-31.12.2011 | Universität Potsdam<br>MPI für molekulare Pflanzenphysiologie |
| FU Berlin                       | Initiative: CSI-Center for Supramolecular Interactions   | Dr. Hartmann<br>BS      | 01.01.2010            | Freie Universität Berlin                                      |
| OOO 'Delta XXI Vek', Saratov    | Training in nanotechnology and material science (interface phenomena)  | Prof. Brezesinski<br>GF | 01.10.2010-31.12.2011 | Universität Saratov, Russland                                 |

## Supranationale Einrichtungen

|           |   |                                     |                       |  |
|-----------|---|-------------------------------------|-----------------------|--|
| ESA/ESTEC | FASES - Fundamental and applied studies of emulsion stability   | Dr. Miller<br>GF                    | 01.10.2003-31.07.2013 | ENI, Genua, Italien<br>Université Aix-Marseille<br>Université Compiègne, France<br>Universität Complutense Madrid<br>Universität Florenz; IPF, Dresden<br>CNR - Consiglio Nazionale delle Ricerche, Italien; Eni S.p.A., Italien<br>Aristotele Universität Thessaloniki  |
| ESA/ESTEC | Topical Team: Foam and Emulsion Technologies-<br>Concerted Action Team (FETCAT)   | Dr. Miller<br>GF                    | 01.10.2003-30.12.2011 | CNR, Genua, Italien<br>Universität Florence, Italien<br>Universität Marseille, Frankreich<br>Universität Compiègne, Frankreich<br>Murmansk State Technical University, Russland; Aristotele Universität Thessaloniki, Griechenland<br>Universität Stockholm, Schweden<br>EniTecnologie, Milano, Italien<br>University College Dublin, Irland<br>Nestlé Research Center, Lausanne, Schweiz; Wageningen University, Niederlande; University of Manchester Institute of Science and Technology, Großbritannien<br>Institute of Food Research, Norwich, Großbritannien; Norwegian University of Science and Technology, Trondheim, Norwegen<br>St. Petersburg State University, Russland; Université d'Orsay et CNRS, Frankreich; Université de Marne La Vallée, Frankreich<br>Unilever, Großbritannien<br>Norsk Hydro ASA, Norwegen<br>IPF, Dresden |
| NATO      | Nato-Collobarotive Linkage Grant, as coordinator, for the project "Smart Textile Materials with Inherent Remote Identification Ability" | Prof. Möhwald<br>Dr. Shchukin<br>GF | 29.06.2009-28.06.2011 | St. Petersburg State University of Technology, Russland  |

## Stiftungen

| Zuwendungsgeber               | Thema  | Projektleiter         | Bewilligungszeitraum  | Zusammenarbeit mit   |
|-------------------------------|--|-----------------------|-----------------------|--|
| Körber-Stiftung               | Körber-Preis 2007  | Prof. Seeberger<br>BS | 01.01.09.2007-        | Universität München<br>Internationale Universität Bremen                                       |
| VW-Stiftung                   | Formation of bi-functional coatings on metals based on self-locating nano- and microcontainers | Dr. Shchukin<br>GF    | 01.08.2008-31.07.2011 | Universität Paderborn<br>Fraunhofer Institut für Schicht- und Oberflächentechnik, Braunschweig |
| GIF-German Israeli Foundation | Gene manipulation of amorphous biomineralogy   | Dr. Aichmayer<br>BM   | 01.01.2009-31.12.2011 | Ben Gurion University, Israel  |

## Ausländische Forschungsfinanzierer

|   |  |                                      |                       |  |
|---|--|--------------------------------------|-----------------------|--|
| Forsyth Institute                               | Matrix Protein Regulation of Enamel Formation  | Prof. Fratzl<br>BM                   | 01.08.2005-31.07.2009 | The Forsyth Institute, USA                 |
| Japan Science and Technology Agency             | Development of Novel Materials Employing Supramolecular Fullerenes with Controlled Dimensionality            | Prof. Möhwald<br>Dr. Nakanishi<br>GF | 01.04.2007-31.03.2010 | Japan Science and Technology Agency, Japan |
| Schweizer Nationalfonds                         | Probing Hierarchical Self-Assemblies   | Prof. Seeberger<br>BS                | 01.03.2009-28.02.2010 |  |
| Schweizer Nationalfonds                         | Automated solid-phase synthesis of oligosaccharides  | Prof. Seeberger<br>BS                | 01.01.2009-30.09.2010 |  |
| Schweizer Nationalfonds                         | The Role of Glycosylphosphatidylinositol Oligosaccharides in Malaria   | Prof. Seeberger<br>BS                | 01.01.2009-30.05.2011 |  |
| Schweiz. Eidgenossenschaft (BABS - Labor Spiez) | Entwicklung von Antikörpern gegen Yersinia pestis  | Prof. Seeberger<br>BS                | 01.01.2009-31.12.2010 |  |
| Schweiz. Eidgenossenschaft (Labor Spiez)        | Impact of microreactors on the Chemical Weapons Convention's Chemistry-Screening of some basis key-reactions | Prof. Seeberger<br>BS                | 01.01.2010-31.03.2011 |  |

## Industrie

|         |  |                                     |                       |                      |
|---------|--|-------------------------------------|-----------------------|----------------------|
| Servier | Bone Material characteristic after 3 years of strontium ranelate treatment   | Prof. Fratzl<br>BM                  | 01.09.2006-30.08.2009 | I.R.I.S., Frankreich |
| BASF    | Nanoskalige Hohlstrukturen mit eingebetteten Gastmolekülen   | Prof. Möhwald<br>Dr. Shchukin<br>GF | 01.02.2007-30.09.2009 |                      |
| Merck   | Entwicklung neuartiger Elektrodenmaterialien auf der Basis von nanoporösen Kohlenstoffmaterialien zur Anwendung in elektrochemischen Speichern | Prof. Antonietti<br>KC              | 01.08.2007-31.07.2009 |                      |
| BASF    | Synthese und Verwendung von Carbonitrid  | Prof. Antonietti<br>KC              | 15.10.2007-31.12.2010 |                      |

## Industrie

| Zuwendungsgeber             | Thema  | Projektleiter                   | Bewilligungszeitraum  | Zusammenarbeit mit                    |
|-----------------------------|--|---------------------------------|-----------------------|---------------------------------------|
| BASF                        | Carbon rich polymer colloids for applications for architectural coatings, adhesives, fibre bonding, construction chemicals and paper chemicals | Prof. Antonietti<br>KC          | 01.01.2008-30.06.2010 |                                       |
| BASF                        | Nanoskalige Systeme als Haftvermittler konzipieren und in Lacken einsetzen   | Prof. Möhwald<br>Dr. Wang<br>GF | 01.01.2009-31.12.2010 |                                       |
| BASF                        | Modification of the CSH assemblage by polymers   | Dr. Cölfen<br>KC                | 01.09.2009-31.07.2010 | Vertrag ab 01.08.2010 an Uni Konstanz |
| Merck                       | CASE Studentship Agreement   | Prof. Seeberger<br>BS           | 01.01.2009-15.12.2010 |                                       |
| Beiersdorf AG               | Glycomics der Haut   | Prof. Seeberger<br>BS           | 01.12.2009-31.01.2011 |                                       |
| AstraZeneca<br>UK Unlimeted | Synthetic Organic Chemistry in Continuous Flow   | Prof. Seeberger<br>BS           | 01.12.2009-30.11.2011 |                                       |
| Merck                       | HPLC-Collaboration Agreement   | Prof. Seeberger<br>BS           | 07.10.2010-06.10.2011 |                                       |

## Sonstige deutsche Forschungsfinanzierer

|                 |  |                     |                       |  |
|-----------------|--|---------------------|-----------------------|--|
| HMI Berlin GmbH | Wissenschaftliche und technische Zusammenarbeit auf dem Gebiet der Untersuchung von Oberflächen und dünnen Schichten mit Neutronenstreuung | Prof. Möhwald<br>GF | 01.01.1999-20.06.2010 | HMI Berlin   |
| DAAD            | Projektbezogener Personenaustausch mit der VR-China - PPP VR China   | Dr. Shchukin<br>GF  | 2009 und 2010         | Jilin Univerity, VR China                            |
| DAAD            | Projektbezogener Personenaustausch mit Frankreich (PROCOPE)  | Dr. Dimova<br>TH    | 2009 und 2010         | Institut de Chimie Seprative de Marcoule, Frankreich |



# Ausgewählte Veranstaltungen

## Selected Events

- **12. March 2009 SchülerCampus Brandenburg**  
Martin Haase: Wie Nanoteilchen Metalle vor Rost schützen  
Dr. Volker Knecht: Auf die Faltung kommt es an - Molekulare Grundlagen von Alzheimer und Rinderwahn
- **12. May 2009 Workshop: "Bioactive Surfaces - From fundamental understanding to Life Science applications"**  
Potsdam-Golm Science Park
- **1.-3. June 2009 Max Planck Summer School on Amorphous Solids in Physics and Biology**  
Schloss Neuhardenberg
- **3.-5. June 2009 4th International Workshop on Vibrational Spectroscopy of Thin Films (VSM4)**  
MPI of Colloids and Interfaces
- **12. June 2009 Alumni Meeting Trends in Colloids and Interfaces Science**  
MPI of Colloids and Interfaces
- **8. September 2009 Open Day at the Research Campus Potsdam-Golm**  
Max-Planck-Campus
- **6. October 2009 Fact-Finding-Tour of Indian Journalists**  
MPI of Colloids and Interfaces, Max Planck Institute for Gravitational Physics (Albert Einstein Institute)
- **3. November 2009 Besuch des Landesarbeitskreis „Innovative Technologien“ (Unternehmerverband Brandenburg e.V.)**  
MPI of Colloids and Interfaces
- **10.-12. February 2010 Meeting of the Scientific Advisory Board**  
MPI of Colloids and Interfaces
- **23.-26. March 2010 SPP 1420 DFG Priority program – Biennial Winter School 2010**  
Kerkrade, Niederlande
- **19. April 2010 "Royal Visit": The Thai princess, Her Royal Highness Chulabhorn Mahidol, is visiting the department of Biomolecular Systems at the Max Planck Institute of Colloids and Interfaces**  
MPI of Colloids and Interfaces, Department of Biomolecular Systems at the FU Berlin-Dahlem
- **22. April 2010 Girl's Day at the Max Planck Institutes for Gravitational Physics (Albert Einstein Institute) and of Colloids and Interfaces**  
Potsdam-Golm Science Park
- **18. May 2010 Launch of the floating science centre MS Wissenschaft**  
Exhibit „Green coal“ of the MPI of Colloids and Interfaces Berlin-Spandau, Germany
- **23. May 2010 100 Jahre nach Robert Koch: Tropenkrankheiten und das Immunsystem – Dr. Bernd Lepenies**  
Sunday Lecture in the The House of Brandenburg-Prussian History Potsdam
- **4. June 2010 Alumni Meeting**  
MPI of Colloids and Interfaces
- **10. August 2010 20 Jahre Land Brandenburg - Strukturwandel, Stadtentwicklung und Wissenschaftslandschaft**  
Visit of the Brandenburg Minister for Science, Research and Culture Martina Münch and West German science journalists
- **25. September 2010 Energy Day 2010**  
Potsdam-Golm Science Park
- **27. October 2010 „Wissenschaft vor Ort“: The Max Planck Institute of Colloids and Interfaces introduces itself**  
MPI of Colloids and Interfaces, Department of Biomolecular Systems at the FU Berlin-Dahlem

# Wissenschaftliche Abschlüsse

## Scientific Degrees

### Diploma Theses

#### **Department of Biomolecular Systems:**

- Suna, Gonca: Cloning and Expression of the C-type lectin receptor CLEC6A (dectin-2). Medizinische Universität Innsbruck (2010).
- Wehler, Patrizia: Entwicklung einer neuen Methode zur in vitro Produktion von glykosylierten Proteinen. Freie Universität Berlin (2010).
- Ecker, Melanie: Sequenzspezifische Einführung von anionischen Gruppen in linearen, monodispersen Poly(amidoaminen). Freie Universität Berlin (2010).

#### **Department of Colloid Chemistry:**

- Werner, Mayke: Synthese und Charakterisierung von optisch-aktiven mikroporösen Polymeren. Universität Potsdam (2010).

### Master Theses

#### **Department of Biomolecular Systems:**

- Stanslowsky, Nancy: Identifizierung peptidischer Kohlenhydratmimotope mittels Phagen-Display am Beispiel von Heparansulfat-Proteoglykanen. Biotechnology Degree Program the Beuth Hochschule für Technik Berlin – University of Applied Sciences (2010).
- Ponader, Daniela: Synthesis of Novel Functional Building Blocks for Sequence-Defined Solid Phase Synthesis of Neoglycopolymers. Freie Universität Berlin (2010).
- Hart, Felix: Investigation of the Role of Lectin–Glycan Interactions during Host Cell Invasion by Apicomplexan Parasites Using Surface Plasmon Resonance. Biotechnology Degree Program the Beuth Hochschule für Technik Berlin – University of Applied Sciences (2010).
- Pussak, Daniel: Synthesis and Functionalization of Poly(ethylene glycol) Microparticles for Biosensing. Freie Universität Berlin (2010).
- Horstmann, Benjamin: Synthesis of Mannose bearing Building Blocks for the Poly(amidoamine) Solid Phase Synthesis. Freie Universität Berlin (2010).

### PhD Theses

#### **Department of Biomaterials:**

- Goswami, Luna: Enzymatic modification of wood cell walls and its influence on material properties and function. Humboldt-Universität Berlin (2009).
- Liu, Yifei: The micro-mechanical and structural properties of callus tissue during bone healing. Humboldt-Universität Berlin (2010).
- Müter, Dirk: Sorption von Fluiden in mesoporösen Silikamaterialien: Modellierung des Sorptionsverhaltens und elastischer Verformungen. Humboldt-Universität Berlin (2010).
- Seto, Jong: On the multiscale, mechanical behaviors of mineralized bones. Technische Universität Berlin (2010).

#### **Department of Biomolecular Systems:**

- Kröck, Lenz: A New Linker and a New Synthesis Instrument as Key to the Automated Synthesis of Complex Oligosaccharides. ETH Zurich (2009).
- Castelli, Riccardo: New Tools for the Total Synthesis of Glycosylphosphatidylinositol Anchor Glycans. ETH Zurich (2009).
- Oberli, Matthias: Synthesis of Cell Surface Carbohydrate Antigens. ETH Zurich (2009).
- Horlacher, Tim: Analysis of Protein Interactions, Biological Functions and Immunogenicity of Carbohydrates Using Synthetic Oligosaccharides. ETH Zurich (2009).
- Hecht, Marie-Lyn: Structure-Activity Relationships of Complex Carbohydrates. ETH Zurich (2010).
- Stallforth, Pierre: Synthesis of Bacterial Carbohydrates and Glycolipids for Application in Novel Vaccine Strategies. ETH Zurich (2010).

**Department of Interfaces:**

- Blacklock, Jenifer: Self-Assembly of Thin Films for Localized Delivery Systems. Wayne State University (2009).
- Bédard, Mattieu: Light Addressable Capsules. Queen Mary, University of London (2009).
- Dönch, Ingo: Mechanische Eigenschaften von Polyelektrolyt-Multilagern bei verschiedenen Ladungsdichten und Hydrationszuständen. Universität Potsdam (2009).
- Kotsmar, Csaba: Structure and Dynamics of Mixed Milk Protein/Surfactant Interfacial Layers. Universität Potsdam (2009).
- Radziuk, Darya: Ultrasonic activation of nanocatalysts and formation of binary nanoparticles. Universität Potsdam (2009).
- Saraiva, Ana: Interaction Studies between Biocompatible Polymers and Amyloid- $\beta$  Peptides. University of Porto (2009).
- Schmidt, Stephan: Motility and Force Generation Based on the Dynamics of Actin Gels. Universität Bayreuth (2009).
- Vergin, Annika: Charakterisierung von Metallosupramolekularen Polyelektrolyten mittels Analytischer Ultrazentrifugation. Universität Potsdam (2009).
- Bai, Shuo: Active Hydrogels with Nanocomposites. Universität Potsdam (2010).
- Belova, Valentina: Composite Fabrication and Surface Modification via High Intensity Ultrasound. Universität Potsdam (2010).
- Chanana, Munish: Stimuli-Responsive Inorganic Nanoparticles for Bio-Medical Applications. Universität Potsdam (2010).
- Radziuk, Darya: Ultrasonic Activation of Nanocatalysts and Formation of Binary Nanoparticles Universität Potsdam (2010).
- Sievers, Torsten: Tuning and Understanding Chain-Length of Metallo-Supramolecular Coordination Polymers. Universität Potsdam (2010).
- Stöckle, Silke: Thin Liquid Films with Nanoparticles and Rod-like Ions as Models for Nanofluidics. Universität Potsdam (2010).
- Travkova, Oksana: Interactions of Antimicrobial Peptide Arenicin with Amphiphiles at Planar and Curved Surfaces. Universität Potsdam (2010).

**Department of Colloid Chemistry:**

- Bojdys, Michael Janus: Über neue Allotrope und Nanostrukturen von Karbonitriden. Universität Potsdam (2009).
- Demir-Cakan, Rezan: Synthesis, characterization and applications of nanostructured materials using hydrothermal carbonization. Universität Potsdam (2009).
- Diehl, Christina: Functional microspheres through crystallization of thermoresponsive poly(2-oxazoline)s. Universität Potsdam (2009).
- Hahn, Harald: Modularer Ansatz zu multifunktionellen Polymer-Peptid-Fasern. Universität Potsdam (2009).
- Karabudak, Engin: Development of MWL-AUC/CCD-C-AUC/SLS-AUC detectors for the analytical ultracentrifuge. Universität Potsdam (2009).
- Lausser, Christine: Synthese und Charakterisierung funktionaler Mesokristalle. Universität Potsdam (2009).
- Makowski, Philippe Denis: From supported palladium to metal free catalyts: different approaches in heterogeneous catalysis. Universität Potsdam (2009).
- Paraknowitsch, Jens Peter: Entwicklung von Kohlenstoffmaterialien für Energieanwendungen durch gezielte Modifikation der chemischen Struktur. Universität Potsdam (2009).
- Roohi, Farnoosh: Synthesis and evaluation of thermo-responsive stationary phases for high performance liquid chromatography (HPLC). Universität Potsdam (2009).
- Gentsch, Rafael: Complex bioactive fiber systems by means of electrospinning. Universität Potsdam (2010).

Hermes, Florian: Polypeptide-Hybrid Block Copolymers: Chain Length and Conformation Effects on the Self-Assembly in Solution. Universität Potsdam (2010).

Ritter, Nicola: Microporous high performance polymers; The Limits of Intrinsic Microporosity. Universität Potsdam (2010).

Schmidt, Johannes: Templatfreie Synthese funktionaler mikroporöser Polymernetzwerke. Universität Potsdam (2010).

Verch, Andreas: Pränukleationscluster und ihre Wechselwirkungen mit Additiven. Universität Potsdam (2010).

Zhao, Li: Sustainable Approaches towards Novel Nitrogen-Doped Carbonaceous Structures. Universität Potsdam (2010).

***Department of Theory & Bio-Systems***

Baczynski, Krzysztof Konrad: Buckling instabilities of semiflexible filaments in biological systems. Universität Potsdam (2009).

Li, Yanhong: Phase separation in giant vesicles. Universität Potsdam (2009).

Knorr, Roland: Giant vesicles – influence of phase state, composition and electric pulses. Universität Potsdam (2010).

Menche, Jörg: Aktivitätsmuster auf Netzwerken. Universität Potsdam (2010).



# Personalien

## Appointments and Honors

**2009**

### **Ehrungen/Mitgliedschaften/Honorarprofessuren Honors/Memberships/Honorary Professorships**

- Prof. Dr. Markus Antonietti Director of the Department of Colloid Chemistry is laureate of The Macro Group UK Medal for Outstanding Achievement 2008.
- Prof. Dr. Peter Fratzl Director of the Department of Biomaterials received the Leibniz Prize
- Prof. Dr. Peter Fratzl Director of the Department of Biomaterials became supervisory board member of the Helmholtz-Zentrum Berlin für Materialien und Energie GmbH
- Prof. Dr. Helmuth Möhwald Director of the Department of Interfaces obtained the Wolfgang Ostwald Prize for scientific life-time achievement.
- Prof. Dr. Peter H. Seeberger Director of the Department of Biomolecular Systems obtained the Tetrahedron Young Investigator Award 2010 for Bioorganic and Medical Chemistry
- Prof. Dr. Peter H. Seeberger Director of the Department of Biomolecular Systems obtained the Claude S. Hudson Award of the American Chemical Society in Carbohydrate Chemistry
- Dr. Margarita Staykova Member of the Department of Theory & Bio-Systems obtained the "Women in Science" Award

**2010**

- Prof. Abdel Salam Hamdy Makhlouf Member of the Department of Interfaces and recipient of the Alexander von Humboldt Experienced Researchers Program has been awarded the Prize of Excellence and Innovation in Materials Science and their Applications. Egypt, 2010.
- Dr. Maria-Magdalena Titirici: Group Leader in the Department of Colloid Chemistry has been awarded the 15th Desty Memorial award for Innovation in Separation Science. This honour is associated with the 15th Desty Memorial Lecture for Innovation in Separation Science, which will take place in the Royal Institution of Great Britain London on Wednesday 6th October 2010.
- René Genz: Apprentice in the IT-group received one of the apprentice prizes 2010 from the Max Planck Society.

**2009**

### **Ruf an eine Universität Appointments**

- Prof. Dr. Peter Fratzl Director of the Department of Biomaterials accepted a position as Honorary Professor (Physics of Biomaterials) at the University of Potsdam.
- Dr. habil. Arne Thomas Group Leader in the Department of Colloid Chemistry accepted a position as professor (W3) for Functional Materials at the Technical University Berlin.
- Dr. habil. Hans Börner Group Leader in the Department of Colloid Chemistry accepted a position as professor (W3) for Organic Chemistry of Functional Systems at the Humboldt University of Berlin.
- 2010**
- Dr. habil. Helmut Cölfen Group Leader in the Department of Colloid Chemistry accepted a position as professor (W3) for Physical Chemistry at University Konstanz
- Dr. Inderchand Manjubala Group Leader in the Department of Biomaterials accepted a position as Professor at the Biomedical Engineering Division, School of Bio Sciences and Technology, VIT University Vellore, Tamilnadu, India
- Dr. Takashi Nakanishi Group Leader in the Department of Interfaces accepted a position as Principal Researcher for Organic Nanomaterials at the National Institute for Materials Science (NIMS) Tsukuba, Japan
- Dr. Dayang Wang Group Leader in the Department of Interfaces accepted a position as Research Professor for Physical Chemistry at the Ian Wark Research Institute, University of South Australia

# Wissenschaftliche Veröffentlichungen

## Publications

### Biomaterials 2009

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- Eder, M., K. Jungnickl and I. Burgert: A close-up view of wood structure and properties across a growth ring of Norway spruce (*Picea abies* [L] Karst.). In: *Trees-Structure and Function* 23, 1, 79-84 (2009).
- Eder, M., M. Rüggeberg and I. Burgert: A close-up view of the mechanical design of arborescent plants at different levels of hierarchy-requirements and structural solutions. In: *New Zealand Journal of Forestry Science* 39, 115-124 (2009).
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