

First funding period: 2001 - 2005

Clusters	Project title (per 2005)	Leader (name)	Surname	Institute	Institution
none	Nanotechnology in medicine	Aebi	Ueli	M.E. Müller-Institut für Strukturbiologie	Universität Basel
none	Nanotools	de Rooij	Nico	Institut de Microtechnique	Université de Neuchâtel
none	Nanotechnology for cell and molecular biology	Engel	Andreas	M.E. Müller-Institut für Strukturbiologie	Universität Basel
none	Experimental manipulation of quantum systems	Ensslin	Klaus	Laboratorium für Festkörperphysik	ETH Zürich
none	Nanomaterials and self assembly	Forro	Laszlo	Institut de Génie Atomique	EPF Lausanne
none	Nanochemistry	Giese	Bernd	Institut für Organische Chemie	Universität Basel
none	Molecular machinery and devices	Gerber	Christoph	IBM Research	Forschungslabor Zürich
none	Spintronics and quantum information processing	Loss	Daniel	Institut für Physik	Universität Basel
none	Ultimate limits of nanosystems	Meyer	Ernst	Institut für Physik	Universität Basel
none	Molecular electronics: assembly and operation of nanoscale devices	Schönenberger	Christian	Institut für Physik	Universität Basel

Second funding period: 2005 - 2009

Clusters	Project title (per 2009)	Leader (name)	Surname	Institute	Institution
Nanobiology	Endoscopic Nanotools for Diagnosis and Intervention	Friedrich	Niklaus	Klinik für Orthopädische Chirurgie und Traumatologie des Bewegungsapparates	Kantonsspital Bruderholz, Basel
Nanobiology	High-resolution imaging and nanomanipulation with the AFM	Engel	Andreas	M.E. Müller-Institut für Strukturbiologie	Universität Basel
Nanobiology	Nanomechanics in biology	Gerber	Christoph	Departement Physik	Universität Basel
Nanobiology	Nanomedicine	Hunziker	Patrick	Dept. Of internal medicine, Cardiology	University Hospital Basel
Nanobiology	Dynamics of DANN topoisomerase	Klostermeier	Dagmar	Biozentrum	Universität Basel
Nanobiology	Single cell proteomics	Vettiger	Peter	CSEM	Universität Neuchâtel
Nanobiology	Studies of cytoskeletal filaments by photonic force microscopy	Jeney	Sylvie	Laboratoire de nanostructures et nouveaux matériaux électroniques	EPF Lausanne
Nanobiology	Developing Novel Peptide Nanoparticles for Medical Applications	Burkhard	Peter	Biozentrum	Universität Basel
Quantum Computing and Quantum Coherence	Qubit and spintronics (theory)	Loss	Daniel	Departement Physik	Universität Basel
Quantum Computing and Quantum Coherence	Quantum coherence and quantum computing in superconducting nanostructures (theory)	Bruder	Christoph	Departement Physik	Universität Basel
Quantum Computing and Quantum Coherence	Experimental manipulation of quantum systems	Ensslin	Klaus	Laboratorium für Festkörperphysik	ETH Zürich
Quantum Computing and Quantum Coherence	Quantum dot nuclear spins	Imamoglu	Atac	Institute of Quantum Photonics	ETH Zürich
Quantum Computing and Quantum Coherence	Entanglement and coherence in nanostructures	Oberholzer	Stefan	Institut für Physik	Universität Basel
Quantum Computing and Quantum Coherence	Coherence in Nanoscale Systems	Zumbühl	Dominik	Departement Physik	Universität Basel
Atomic and Molecular Nanosystems	Magnetic nanosystems and single spin experiments	Hug	Hans Josef	Nanoscale Materials Science	EMPA
Atomic and Molecular Nanosystems	Mechanics on the nanometer-scale	Meyer	Ernst	Departement Physik	Universität Basel

Clusters	Project title (per 2009)	Leader (name)	Surname	Institute	Institution
Atomic and Molecular Nanosystems	Direct stencil type lithography	Meyer	Gerhard		IBM Research Laboratory, Rueschlikon
Atomic and Molecular Nanosystems	Atomistic simulations of nanosystems	Goedecker	Stefan	Departement Physik	Universität Basel
Atomic and Molecular Nanosystems	Molecular confirmations on surfaces	Fasel	Roman	Abteilung Oberflächen, Beschichtungen, Magnetismus	EMPA
Molecular Electronics	Molecular wires	Trbovic	Jelena	Departement Physik	Universität Basel
Molecular Electronics	Transport properties of molecular junctions	Schönenberger	Christian	Departement Physik	Universität Basel
Molecular Electronics	Networks of molecular junctions	Calame	Michel	Departement Physik	Universität Basel
Molecular Electronics	Electron Spectroscopy of Single Molecules and Thin-Film Transistors	Jung	Thomas	Lab for Micro- and Nanostructures	Paul Scherrer Institut, Villigen PSI
Molecular Electronics	Optical Properties of Single Molecules	Diederich	François	Laboratorium für Organische Chemie	ETH Zürich
Molecular Electronics	Optical Transport in Plasmonic Systems	Martin	Olivier F.	Nanophotonics and Metrology Laboratory	EPF Lausanne
Molecular Electronics	Chemical synthesis of functional molecules for optoelectronics	Diederich	François	Laboratorium für Organische Chemie	ETH Zürich
Functional Materials by Hierarchical Self-Assembly	Functional biomimetic dendrimers	Diederich	François	Laboratorium für Organische Chemie	ETH Zürich
Functional Materials by Hierarchical Self-Assembly	Functional nanosystems	Jung	Thomas	Lab for Micro- and Nanostructures	Paul Scherrer Institut, Villigen PSI
Functional Materials by Hierarchical Self-Assembly	Self-assembling (bio-)polymers	Meier	Wolfgang	Departement Chemie	Universität Basel
Functional Materials by Hierarchical Self-Assembly	Molecular structures	Constable	Edwin	Departement Chemie	Universität Basel
Functional Materials by Hierarchical Self-Assembly	Functional surface structures	Fromm	Katharina	Departement Chemie	Universität Basel
Functional Materials by Hierarchical Self-Assembly	Nanocrystals	Forro	Laszlo	Institute de Genie Atomique	EPF Lausanne
Nanotechnology and Applications	Nano Argovia projects in Applied Sciences	Gorbrecht	Jens	Labor für Mikro- und Nanostrukturen	Paul Scherrer Institut, Villigen PSI
Supplementary Research Activities	Toxicity of Nanoparticles	Gehr	Peter	Institut für Anatomie	Universität Bern

Clusters	Project title (per 2009)	Leader (name)	Surname	Institute	Institution
Supplementary Research Activities	NanoEthics - Deliberating the vision of an emergent nano-science	Rehmann-Sutter	Christoph	Institut für Geschichte und Epistemologie der Medizin	Universität Basel
Supplementary Research Activities	Ethics of Science: A course for scientists provided by the NCCR Nanoscale Science	Reiter-Theil	Stella	Institut für Angewandte Ethik und Medizinethik	Universität Basel

Third funding period: 2009 - 2013

Clusters	Project title (per 2012)	Leader (name)	Surname	Institute	Institution
Nanobiology	Bio-Synthetic Cellular Nanomachines	Lim	Roderick	Biozentrum	Universität Basel
Nanobiology	Nanocrystals	Pantazis	Perikilis	Biosystems Science and Engineering (BSSE)	ETH Basel
Nanobiology	Mechanical Control of Cell Division	Müller	Daniel	Biosystems Science and Engineering (BSSE)	ETH Basel
Nanobiology	Photonic Force Nanospectroscopy in Living Systems	Jeney	Sylvia	Biozentrum	Universität Basel
Nanobiology	Correlating Tumorigenic Effects with the Mechanobiology of Cells in 3D Cultures	Schönenberger	Cora-Ann	Biozentrum	Universität Basel
Nanobiology	Applying Cantilever-Array Technology	Gerber	Christoph	Departement Physik	Universität Basel
Nanobiology	Complex Nanosystems for Medical Application based on Polymer Carriers	Hunziker	Patrick	Dept.of internal medicine, Cardiology	University Hospital Basel
Nanobiology	Structural systems biology of neurodegenerative diseases with nanotechnological tools	Stahlberg	Henning	C-CINA Biozentrum	Universität Basel
Quantum Computing and Quantum Coherence	Qubit and Spintronics (theory)	Loss	Daniel	Departement Physik	Universität Basel
Quantum Computing and Quantum Coherence	Experimental Manipulation of Quantum Systems	Ensslin	Klaus	Laboratorium für Festkörperphysik	ETH Zürich
Quantum Computing and Quantum Coherence	Interference of Spin-Orbit Interaction	Salis	Gian	IBM Research Laboratory	Rüschlikon
Quantum Computing and Quantum Coherence	Quantum Coherence in Nanoscale Systems	Zumbühl	Dominik	Departement Physik	Universität Basel
Quantum Computing and Quantum Coherence	Mesoscopic Nuclear Spin Ensembles	Imamoglu	Atac	Institute of Quantum Photonics	ETH Zürich
Quantum Computing and Quantum Coherence	Quantum Coherence and Quantum Computing in Superconducting Nanostructures (theory)	Bruder	Christoph	Departement Physik	Universität Basel
Quantum Computing and Quantum Coherence	Entanglement and quantum interface on atom chips	Treutlein	Philipp	Departement Physik	Universität Basel
Quantum Computing and Quantum Coherence	Spins in self-assembled quantum dots	Warburton	Richard	Departement Physik	Universität Basel

Clusters	Project title (per 2012)	Leader (name)	Surname	Institute	Institution
Atomic and Molecular Nanosystems	Energy Dissipation of Nanosystems	Meyer	Ernst	Departement Physik	Universität Basel
Atomic and Molecular Nanosystems	Nanomagnetism	Hug	Hans-Josef	Nanoscale Materials Science	EMPA, Dübendorf
Atomic and Molecular Nanosystems	Molecular Machinery	Meyer	Gerhard		IBM Research Laboratory, Rüschlikon
Atomic and Molecular Nanosystems	Atomistic Simulations	Goedecker	Stefan	Departement Physik	Universität Basel
Atomic and Molecular Nanosystems	Coupling Ultrasensitive Cantilevers to Mesoscopic Devices	Poggio	Martino	Departement Physik	Universität Basel
Molecular Electronics	Molecular Thin Film Devices	Jung	Thomas	Lab for Micro-and Nanostructures	Paul Scherrer Institut, Villigen
Molecular Electronics	Molecular Nanowires	Schönenberger	Christian	Departement Physik	Universität Basel
Molecular Electronics	Molecular Junctions	Calame	Michel	Departement Physik	Universität Basel
Molecular Electronics	Plasmonic Junctions	Martin	Olivier	Nanophotonics and Metrology Laboratory	EPFL
Molecular Electronics	Single Molecule Switches and Potentiometers	Mayor	Marcel	Departement Chemie	Universität Basel
Molecular Electronics	Donor-Acceptor Architectures for Photovoltaics	Diedriech	François	Laboratorium für Organische Chemie	Universität Basel
Molecular Electronics	Two-dimensional electronic materials	Kis	Andras	Laboratory of Nanoscale Electronics and Structures	EPFL
Molecular Electronics	Controlling Spins in Adsorbed Molecules by a Chemical Switch	Jung	Thomas	Lab for Micro-and Nanostructures	Paul Scherrer Institut, Villigen
Self-Assembly at Surfaces	Self-Assembly at Surfaces	Diedriech	François	Laboratorium für Organische Chemie	ETH Zürich
Self-Assembly at Surfaces	Self-Assembling Peptides and Polymers	Meier	Wolfgang	Departement Chemie	Universität Basel
Self-Assembly at Surfaces	Metal-based self-assembled nanostructures	Fromm	Katharina	Departement Chemie	Universität Basel
Self-Assembly at Surfaces	Module Nanotechnology and Applications	Gobrecht	Jens	Labor für Mikro- und Nanostrukturen	Paul Scherrer Institut, Villigen
Supplementary Research Activities	Nanosafety	Rothen-Ruthishauser	Barbara	Adolph Merkle Institut	Université de Fribourg

Clusters	Project title (per 2012)	Leader (name)	Surname	Institute	Institution
Transfer projects: Strong Swiss franc	Biomimetic membranes designed from supported amphiphilic block copolymers and aquaporins as new materials for environmental applications	Glaied	Olf	Institut für Chemie und Bioanalytik	Fachhochschule Nordwestschweiz
Transfer projects: Strong Swiss franc	Remineralisation of carious lesions by self assembled peptide supramolecular networks and Hydroxyapatite nanocrystals	Pieles	Uwe	Institut für Chemie und Bioanalytik	Fachhochschule Nordwestschweiz
Transfer projects: Strong Swiss franc	BioPrint - Reinforced biomimetic 3D composite bone scaffolds by rapid prototyped nanoporous ceramic powder and electrospun collagen nanofibrils	Schumacher	Ralf	Institut für Medizinal- & Analysetechnologie	Fachhochschule Nordwestschweiz
Transfer Projects: Economic stimulus package	Development of Robust and Standardized Cantilever Sensors	Gerber	Christoph	Departement Physik	Universität Basel
Transfer Projects: Economic stimulus package	Nanocomposite Polymer Additives: Characterization and Enhancement of Dispersion Performance	Gobrecht	Jens	Labor für Mikro- und Nanostrukturen	Paul Scherrer Institut, Villigen
Transfer Projects: Economic stimulus package	Biophysical and immunological profiling of a nanoparticle nicotine vaccine	Aebi	Ueli	M.E. Müller-Inst. Mikroskop & Strukturbiol. Biozentrum	Universität Basel

Participating groups

Leader (name)	Surname	Institution	Period
Aebi	Ueli	Universität Basel	1+2+3
Baratoff	Alexis	Universität Basel	1
Belzig	Wolfgang	Universität Basel	1
Bruder	Christoph	Universität Basel	1+2+3
Burkhard	Peter	M.E. Müller- Institut, Basel	1+2
Calame	Michel	Universität Basel	1+2+3
Constable	Edwin	Universität Basel	2+3
Daniels	Alma U.	Felix Platter Spital, Basel	2
de Rooij	Nico	Université de Neuchâtel	1
Diedrich	François	ETH Zürich	1+2+3
Engel	Andreas	Universität Basel	1+2
Ensslin	Klaus	ETH Zürich	1+2+3
Erlingsson	Sigurdur	Universität Basel	1
Fasel	Roman	EMPA	2+3
Fink	Hans-Werner	Universität Zürich	1
Forro	Laszlo	EPF Lausanne	1+2
Friederich	Niklaus	Kantonsspital Bruderholz, Basel	2
Fromm	Katharina	Universität Basel	2+3
Gehr	Peter	Universität Bern	2
Gerber	Christoph	Forschungslabor Zürich	1+2+3
Giese	Bernd	Universität Basel	1
Glaied	Olaf	Fachhochschule Nordwestschweiz	3
Gobrecht	Jens	Paul Scherrer Institut, Villigen PSI	2+3
Goedecker	Stefan	Universität Basel	2+3
Golovach	Vitaly	Universität Basel	1
Güntherodt	Hans-Joachim	Universität Basel	1

Leader (name)	Surname	Institution	Period
Gywat	Oliver	Universität Basel	1
Hecht	Bert	Universität Basel	1
Hegner	Martin	Universität Basel	1+2
Heinzelmann	Harry	CSEM, Nèuchatel	1+2
Hermann	Bianca	Universität Basel	1
Hug	Hans-Josef	Universität Basel	1+2+3
Hunziker	Patrick	Universität Basel	1+2+3
Imamoglu	Atac	ETH Zürich	2+3
Jeney	Sylvie	EPF Lausanne	2+3
Jung	Thomas	Paul Scherrer Institut, Villigen	1+2+3
Kis	Andras	EPF Lausanne	3
Klok	Harm-Anton	EPF Lausanne	2+3
Klostermeier	Dagmar	Universität Basel	2
Lang	Hans-Peter	Universität Basel	1
Lehmann	Jörg	Universität Basel	1
Leuenberger	Hans	Universität Basel	1
Lim	Roderick	Universität Basel	3
Loss	Daniel	Universität Basel	1+2+3
Lüthi	Anita	Biozentrum Basel	1+2
Maasen	Sabine	Universität Basel	2
Martin	Olivier F.	EPF Lausanne	2+3
Mayor	Marcel	Universität Basel	2+3
Meier	Wolfgang	Universität Basel	1+2+3
Meyer	Ernst	Universität Basel	1+2+3
Meyer	Gerhard	IBM Research Laboratory, Rüschlikon	2+3
Montagne	Franck	CSEM, Nèuchatel	3
Müller	Daniel	ETH Basel	3

Leader (name)	Surname	Institution	Period
Oberholzer	Stefan	Universität Basel	2
Oelhafen	Peter	Universität Basel	1+2
Pantazis	Periklis	ETH Basel	3
Pfalz	Andreas	Universität Basel	1+2
Pfohl	Thomas	Universität Basel	3
Pieles	Uwe	FHNW Life Sciences, Muttenz	2+3
Plückthun	Andreas	Universität Zürich	1+2
Poggio	Martino	Universität Basel	3
Pugin	Raphael	CSEM, Neuchâtel	3
Rast	Simon	Universität Basel	1
Rehmann-Sutter	Christoph	Universität Basel	2
Reiter-Theil	Stella	Universität Basel	2
Rothen-Ruthishauser	Barbara	University of Fribourg	3
Salis	Gian	IBM Rüschlikon	2+3
Saraga	Daniel	Universität Basel	1
Schliemann	John	Universität Basel	1
Schönenberger	Christian	Universität Basel	1+2+3
Schönenberger	Cora-Ann	Universität Basel	3
Schumacher	Ralf	Fachhochschule Nordwestschweiz	3
Setter	Nava	EPF Lausanne	1+2
Spillmann	Hannes	Universität Basel	2
Stahlberg	Henning	Universität Basel	3
Staufer	Urs	Université de Neuchâtel	1+2
Stöhr	Meike	Universität Basel	1
Textor	Marcus	ETH Zürich	2
Trbovic	Jelena	Universität Basel	2
Treutlein	Philipp	Universität Basel	3

Leader (name)	Surname	Institution	Period
Vettiger	Peter	Universität Neuchâtel	2
Warburton	Richard	Universität Basel	3
Ward	Thomas	Universität Basel	3
Wennemers	Helma	Universität Basel	3
Zumbühl	Dominik	Universität Basel	2+3