



# Collaborative Research Centre 1076 AquaDiva

## Understanding the Links between Surface and Subsurface Biogeosphere



Spokespersons: Prof. Kirsten Küsel, Prof. Susan Trumbore, Prof. Kai Uwe Totsche

### Research Projects

#### A01

Phages as Vectors and Indicators of Biological Information: Selective Transport and Consequences for Nutrient Release and Cycling

**Dr. L. Wick** (UFZ)  
**Prof. A. Chatzinotas** (UFZ)

Konstanze Hild  
Felipe Borim Corrêa  
Krupa Parmar  
Dr. Nawras Ghanem (ass.)

#### A02

Tracing Metabolic and Organic Signals Through the Earth's Critical Zone

**Prof. G. Pohnert** (FSU)  
**Prof. G. Gleixner** (MPI-BGC)

Arina Ivanova  
Wei Tang  
Chen Huang  
Alice Orme (ass.)  
Dr. Simon Schroeter (ass.)

Dr. Christian Zerfaß

#### A03

Microbial Responses to Infiltration Inputs into Groundwater of the Hainich CZE

**Prof. K. Küsel** (FSU)  
**Dr. M. Taubert** (FSU)

Alisha Sharma  
Lucia Winkler (ass.)  
Beatrix Heinze (ass.)  
Constantinos Xenophonos (ass.)  
Dr. Ekaterine Gabashvili (ass.)

**Prof. J. Popp** (FSU)  
**Dr. P. Rösch** (FSU)

Sara Mostafapour  
Ramya Motganhalli Ravikumari  
Prof. Dr. Thomas Bocklitz (ass.)  
Dr. Thomas Henkel (ass.)

#### A06

Viral Diversity, Viral De Novo Assembly, and Viral Half-life in Groundwater

**Prof. M. Marz** (FSU)

Dr. Christian Hoener zu Siederdisen (ass.)  
Dr. Franziska Hufsky (ass.)  
Dr. Stephan Kastner (ass.)  
Dr. Janina Rahlff (ass.)

#### A07

Subsurface Planctomycetes as sources for novel biotechnological applications

**Prof. C. Jogler** (FSU)

Madeleine Kündgen  
Dr. Nicolai Kallscheuer (ass.)

#### B01

Interactions of Forest Structure and Plant Functional Biodiversity as Drivers of Water, Organic Matter, and Nutrient Fluxes

**Prof. B. Michalik** (FSU)  
**Prof. C. Römermann** (FSU)

Dr. Karin Poththast  
Dr. Alexander Tischer (ass.)  
Dr. Kerstin Nätke (ass.)  
Dr. Marie-Cécile Gruselle (ass.)  
Dr. Luitgard Schwendenmann

Till J. Deilmann  
Apl. Prof. Markus Bernhardt-Römermann (ass.)

Christian-David Gregori (techn.)

#### B02

Evolution of Water and Matter Cycles within the Earth's Critical Zone

**Prof. A. Hildebrandt** (FSU)

Dr. Ruth Magh  
Tiana Hammer (techn.)

#### B03

Sources and Sinks of Gases in the Earth's Critical Zone: In Situ Sensors and Isotopic Constraints

**Prof. S. Trumbore** (MPI-BGC)  
**Prof. T. Frosch** (IPHT)

Beatrix Heinze  
Dr. Valérie Schwab-Lavric (ass.)

Robert Domes  
Sebastian Wolf  
Anne Sieburg

#### B04

Exploratory Modeling of Water and Biogeochemical Dynamics in the Earth's Critical Zone

**Prof. S. Attinger** (UFZ)  
**Dr. M. Thullner** (UFZ)

Dr. Friedrich Bohn  
Thanh Q. Duong

#### B05

From the Forest Canopy to the Aquifer: Role of Microbial Processes in the Origin and Fate of Nitrate in the Earth's Critical Zone

**Dr. M. Herrmann** (FSU)

Md Atikur Rahman  
Markus Krüger  
Dr. Nadine Möbius (ass.)

#### C03

Biogeochemistry in Zones of Fluctuating Groundwater: Alteration of Rock Surfaces and Interactions with Subsurface Colloids

**Prof. K. U. Totsche** (FSU)

Dr. Katharina Lehmann  
Dinusha C. Eshvara Arachchige  
Katharina Stolze (ass.)

#### C05

Monitoring Migration Pathways in the Subsurface Using Tailored Polymer Tracer Libraries

**Dr. T. Ritschel** (FSU)  
**Prof. U. S. Schubert** (FSU)

Nimo Kwarkye  
Elisabeth Lehmann  
Michaela Rupp  
Prof Dr. Ivo Nischang (ass.)

#### C07

Retroaction of Geochemical Perturbations and Critical Zone Media Reactivity on Trace Element Speciation and Transport Parameters

**Prof. T. Schäfer** (FSU)

Ruth Ewouame  
Dr. Dirk Merten (ass.)

**FSU** Friedrich Schiller University Jena

**UFZ** Helmholtz Centre for Environmental Research

**MPI-BGC** Max Planck Institute for Biogeochemistry

**IPHT** Leibniz Institute of Photonic Technology

**ass.** associated  
**techn.** technician  
**coord.** coordinator



### Synthesis, Coordination, and Management

#### D01

Scientific Data Management and Integrative Data Analysis

**Prof. B. König-Ries** (FSU)  
**Prof. C. Steinbeck** (FSU)

Dr. Alsayed Algergawy  
Hamdi Hamed  
Sven Thiel

Dr. Vinay Singh

#### D02

Integrated Research Training Group (IRTG) AquaDiva

**Prof. A. Hildebrandt** (FSU)  
**Prof. K. Küsel** (FSU)

Dr. Anke Hädrich (scientific coord.)

#### D03

Site Management, CZE Operation and Synoptic Synthesis

**Prof. K. Totsche** (FSU)  
**Prof. S. Trumbore** (MPI-BGC)  
**Prof. K. Küsel** (FSU)

Dr. Robert Lehmann  
Dr. Michaela Aehnelt  
Heiko Minkmar (techn.)  
Stefanie Wiede (techn.)

Dr. Simon Schroeter (ass.)

Dr. He Wang  
Dr. Olga Perez Carrascal (ass.)  
Dr. Laura Schwab (ass.)  
Dr. Carl-Eric Wegner (ass.)  
Falko Gutmann (techn.)  
René Maskos (techn.)

#### D04

Central Tasks of the Collaborative Research Centre

**Prof. K. Küsel** (FSU)  
**Prof. S. Trumbore** (MPI-BGC)  
**Prof. K. Totsche** (FSU)

Dr. Maria Fabisch (scientific coord.)  
Dr. Erica Perreca (scientific coord.)