

Curriculum Vitae

Personal Details

Name	<i>Oliver Kayser</i>
Date of birth	3 May 1967
Place of birth	Recklinghausen, Germany
Nationality	German
Status	married, 2 children
Business address	Technische Universität Dortmund Fakultät Bio- und Chemieingenieurwesen AG Technische Biochemie Gebäude G3, Büro 5.10 Emil-Figge-Str 68 44227 Dortmund

Education

May 2003	Habilitation (Postgraduation lecture qualification) at Free University Berlin in disciplines Pharmaceutical Technology and Pharmaceutical Biotechnology Since June 1992 Pharmacy License
July 1992 – January 1997	Preparation of Ph.D. thesis; Grade: Summa cum Laude (A+)
1987 – 1991	Münster University; State Examination in Pharmaceutical Sciences
1977 – 1986	Secondary School
1973 – 1977	Primary School

Professional Experience

November 2011 – now	Visiting Professor for Pharmaceutical Biotechnology at Poznan University of Medical Sciences, Poland
April 2010 – now	Full Professor at Technical University Dortmund, Germany – Metabolic Engineering – Combinatorial biosynthesis
September 2004 – March 2010	Assistant Professor at University of Groningen, The Netherlands – Isolation and structure elucidation of antiparasitic natural products – Combinatorial biosynthesis
July 1997 – August 2004	Associate Research Scientist at Freie Universität Berlin, Germany – Isolation and structure elucidation of natural products – Antiparasitic and toxicological testing
June 1994 – August 2004	Guest scientist at the Robert Koch-Institute, Berlin, Germany – In vitro and in vivo screening of natural products in antiparasitic assays – Setting up of genetic assays for drug discovery – Bioinformatics

July 1996 – June 1997	Group Leader, Natural Product Chemistry at AnalytiCon AG, Potsdam, Germany
	– Management of High Throughput Screening for anticancer drugs
	– HPLC screening of natural products
	– Preclinical formulation of biotech drugs
July 1992 – June 1996	Ph.D. Student, Freie Universität Berlin, Germany
October 1991 – April 1992	Predoctoral Fellow at the University of Florida, Gainesville, USA
June 1988 – August 1988	Predoctoral Fellow at the University of Wroclaw, Poland

Membership professional societies

1996 – now	Society of Medicinal Plant and Natural Product Research (GA) (since 2015 Vice President)
1996 – now	Deutsche Parasitologische Gesellschaft
1996 – now	Phytochemical Society of Europe
2000 – now	European Association of Pharma Biotechnology (EAPB) Co-Founder of the European Association for Pharma Biotechnology (2000–2004 Treasurer)

Professional services elsewhere

Consultant for Ion-Gas GmbH, Germany
 Reviewer German Federal Institute for Drugs and Medical Devices (BfArM)
 Guest Editor: Parasitology Research (2003) Suppl. 1
 Current Pharmaceutical Biotechnology (2005)

Reviewer for funding organizations

Bundesministerium für Gesundheit „zur toxikologischen Beurteilung kosmetisch genutzter Pflanzen“
 für das untergeordnete Bundesinstitut für gesundheitlichen Verbraucherschutz und Veterinärmedizin
 Bundesministerium für Verkehr, Technik und Innovation der Republik Österreich
 Bundesinstitut für Arzneimittel und Medizinprodukte (BfArM)
 Deutsche Forschungsgemeinschaft (DFG)
 Deutscher Akademischer Austauschdienst (DAAD)
 Alexander von Humboldt-Stiftung
 Fonds zur Förderung der wissenschaftlichen Forschung (FWF) Austrian Science Fund
 Polish National Science Centre (NCN).

Participation in academic self administration

University of Groningen:

2009	Member of an appointment commission for a professor “Pharmaceutical Chemistry”
2007 – 2010	Member of the Evaluation Commission

Technical University Dortmund:

2010 – 2014	Member of the commission “Lehre und Studium (LUST)” since 2010 Projektleiter Gentechnik at the TU Dortmund including a S2 facility and S1 facilities
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2013	Chair of the appointment commission for a professor "Feststoffverfahrenstechnik"
2014	Member of the appointment commission for a professor "Bioprozesstechnik"
2014	Member of the appointment commission for a professor "Bioprozesstechnik" at the TU Braunschweig
2014	Member of the appointment commission for a professor "Chemische Biologie"
2013 – 2014	Vice dean for study affairs since 2014 Dean of the Faculty BCI
2014	Chair of a workgroup for setting up a new master programme "Bioengineering"
2015	Chair of the appointment commission for a professor "Technische Biologie"

Research grants support

1998	Forschungskommission der FU Berlin Subject: Culture and Screening of yeast to identify new natural products against Leishmania – and <i>Trypanosoma</i> – Infections Principal Investigator (PI): O. Kayser
1999	German Federal Ministry for Health Subject: Validation of natural products as constituents in cosmetic products PI: O. Kayser
2000	Research council FU Berlin Subject : Drug delivery, in vitro and in vivo screening of leishmanicidal and trypanocidal naphthindazole-4,9-quinones PI: O. Kayser
2001	EU Framework 5 Subject: Miltefosine for leishmaniasis: molecular basis of mechanism of action, drug resistance and combination chemotherapy PI: S.L. Croft
2002	CEDIS Subject: Creating of e-Learning platform for Pharmaceutical Biology PI: O. Kayser
2005	KNAW Subject: Phytochemical characterisation of <i>Jatropha curcas</i> as source for biodiesel production PI: O. Kayser
2006	AIF (German Institute for Industrial R&D) Subject: Combinatorial biosynthesis of Tetrahydrocannabinol Cooperation partner: THC-Pharm GmbH, Frankfurt a.M. PI: O. Kayser
2006	EmsPharm GmbH Subject: Development of a non ethanolic extraction methods for medicinally used plants PI: O. Kayser
2007	AIF (Projektträger des BMVi) Subject: Identification of antiulcerative and antidiabetic compounds from <i>Lucilia sericata</i> PI: O. Kayser
2009	Dioraphte Stichting, NL Subject: Standardization of <i>Artemisia annua</i> extracts for antimalaria therapy PI: O. Kayser
2009	SOM (Technology Foundation Netherlands) Subject: Development of <i>Jatropha curcas</i> oil as biodiesel

2010	Work package leader: O. Kayser DBU (Deutsche Bundesstiftung Umwelt) Subject: Development of heterologous THC biosynthesis PI: Oliver Kayser
2013	EU (FP7) DISCOvery (Geschäftszeichen 623513) PI: Prof. Dr. Paul Fraser Subject: Elucidation of tropane alkaloid biosynthesis and heterologous biosynthesis of scopolamine in <i>Nicotiana</i> spp. Work package leader: O. Kayser
2013	Exist (Bundesministerium für Wirtschaft und Technologie) Subject: Development of ion mobility detector for detection of cannabinoids in exhaled breath PI: O. Kayser
2013	Boehringer Ingelheim (BI) Subject: Characterization of tropane alkaloid biosynthesis in <i>Duboisia</i> spp. PI: O. Kayser

Successfully supervised PhDs

Andreas Lemke (2008), University of Groningen
New formulation approaches for the leishmanicidal drug Miltefosine and for the olyene antibiotic Amphotericin B

Mattijs Julsing (2006), University of Groningen
Bioconversion and combinatorial biosynthesis of selected terpenoids and lignans

Elfahmi (2006), University of Groningen
Phytochemical and biosynthetic studies of lignans, with a focus on Indonesian medicinal plants

Agata Staniek (2009), University of Groningen
Endophytes as alternative paclitaxel sources: chemistry and genetics of *Taxomyces andreanae* and the endophytic flora of *Wollemia nobilis*

Annamargareta Ryden (2010), University of Groningen
Identification, characterisation and expression of early biosynthetic genes from *Artemisia annua*: for the heterologous biosynthesis of dihydroartemisinic acid as a first step towards artemisinin production

Oktavia Hendrawati (2011), University of Groningen
Studies on *Anthriscus sylvestris* L. (Hoffm.): metabolic engineering of combinatorial biosynthesis of podophyllotoxin

Muhamad Insanu (2014), University of Groningen
Rational use of *Jatropha curcas* L. in food and medicine: from toxicity problems to safe applications

Sayed H. Farag (2014), TU Dortmund
Cannabinoid production in *Cannabis sativa* L.: An *in vitro* approach

Nizar Happyana (2014), TU Dortmund
Metabolomics, proteomics, and transcriptomics of *Cannabis sativa* L. trichomes

Parijat Kusari (2014), TU Dortmund
Isolation, identification, and characterization of endophytes from *Cannabis sativa* L. and *Radula marginata*

Eva-Maria Gruchattla (2016) TU Dortmund
Towards a platform organism for terpenoid production – *in silico* analysis of metabolic networks of potential hosts and *in vivo* validation

Teaching Experience

Free University Berlin (FU), the Rijksuniversiteit Groningen (RUG), the TU Dortmund (TU Dortmund):

Bachelor phase

Seminars

Pharmaceutical Biology, Morphology and Anatomy of plants (FU, RUG)

Pharmaceutical Biology, Plant Drug Analysis (FU, RUG)

Biochemistry (TU Dortmund)

Cell Biology (TU Dortmund)

Practical courses

Pharmaceutical Biology, Morphology und Anatomy of plants (FU, 10 semesters, RUG, 6 years)

Pharmaceutical Biology, Plant Drug Analysis (FU, 10 semesters; RUG, 3 years)

Botanical excursions (FU, 10 semesters; RUG 3 years)

Master phase

Lectures

Pharmaceutical Biotechnology (FU, 9 semester, TU Dortmund 3 semester)

Pharmaceutical Biology (RUG, 6 years)

Pharmaceutical Biotechnology (8 years, Med. Univ. Poznan, Poland)

Bioorganic Chemistry (RUG, 2 years)

Pharmaceutical Bioengineering (TU Dortmund 1 semester)

Practical courses

Pharmaceutical Biology, Phytochemistry and instrumental analytics (RUG, 6 years)

Microbiology 1 (TU Dortmund, 4 semester)

Bachelor and Master theses

University of Groningen, NL

- 7 Master theses

Technical University Dortmund

- 12 Bachelor theses

- 8 Master theses

Poznan University of Medical Sciences

- 13 Master theses under the Erasmus program

Other teaching activities

Lectures „Pharmaceutical Biotechnology“ as a visiting professor at the Poznan University of Medical Sciences (since 2003)

Pharma-Bioengineering, Spring School at TU Dortmund (annually, since 2012)

Board Member of EU COST Action „Plantengine“ FA1006

Member of the Graduate school of the Cluster Industrial Biotechnology (CLIB2021) and supervising 4 Ph.D. fellows