

# CURRICULUM VITAE

**Prof. Dr. rer. nat. Dr. h.c. Michael Wagner**  
[www.microbial-ecology.net/wagner](http://www.microbial-ecology.net/wagner)



## Personal Data

Date of birth: November 18, 1965  
Place of birth: München, Germany  
Nationality: German  
Children: Daniel (1994), David (1998), Leni (2012), Julie (2014)  
Languages: German, English, French  
Actual position: Full Professor for Microbial Ecology

## Education and Positions Held

Since 2021 Vice-head of the Centre for Microbiology and Environmental Systems Science (Centre Director position is rotating every 2 years)  
2019 - 2020 Founding Director of the Centre for Microbiology and Environmental Systems Science (full faculty status), University of Vienna  
since 2019 Visiting Professor in Engineering Science at the University of Oxford, UK  
since 2019 Distinguished professor (20%), Aalborg University, Denmark  
2015 - 2019 Head of the Research Network "Chemistry meets Microbiology", University of Vienna  
since 2010 Head of the Large Instrument Facility of Advanced Isotope Research, University of Vienna  
2003 -2018 Head of the Department of Microbiology and Ecosystem Science, University of Vienna  
since 2003 Full professor for Microbial Ecology, University of Vienna  
2001 – 2003 Associate Professor (wissenschaftlicher Oberassistent) at the Technische Universität München  
2000 Habilitation (Microbiology) at the Faculty of Chemistry of the Technische Universität München  
1996 - 2000 Assistant Professor at the Technische Universität München  
1995 - 1996 Postdoctoral fellow at the Northwestern University, Evanston, IL (Prof. D. A. Stahl, Prof. B. Rittmann); Holder of a DFG research fellowship  
1992 - 1995 PhD (Dr. rer. nat.) at the Technische Universität München. Supervisors: Prof. Dr. K.-H. Schleifer, Prof. Rudi Amann. "Summa cum laude"  
1986 - 1992 Master (Diplom) in Biology at the Technische Universität München (Germany); majors: microbiology, genetics, immunology, and clinical chemistry; (Diploma grade with distinction; 1.0)  
1984 High-school diploma, Werner-Heisenberg-Gymnasium Garching, Germany

## **Editor or Member of the Editorial Board of the Following Scientific Journals**

2016 - 2018	ISME Journal, Senior Editor
2003 - 2015	Environmental Microbiology, <u>Editor</u> 2006 - 2015
2003 - 2006	Microbiology (associate editor)
2002 - 2010	Applied and Environmental Microbiology
since 2001	Faculty of 1000 (Environmental Microbiology); <a href="http://www.facultyof1000.com">www.facultyof1000.com</a>
2000 - 2003	Biodegradation
1998 - 2011	FEMS Microbiology Ecology, <u>Editor</u> 2004 - 2011
1998 - 2002	FEMS Microbiology Letters

## **Member of Grant Review/Evaluation Panels and Ad Hoc Reviewer (selection)**

Ad hoc reviewer for many journals including FEMS Microbiology Reviews, *ISME Journal*, *Nature*, *Nature Biotechnology*, *Nature Genetics*, *Nature Chemical Biology*, *Nature Reviews Microbiology*, *Nucleic Acids Research*, *PNAS*; *Science*, *Trends in Microbiology*.

Reviewer of grant applications for the Deutsche Forschungsgemeinschaft (DFG, Germany), Energy Biosciences Institute (University of California, USA); National Environment Research Council (UK), the Israel Science Foundation, the Indo-Swiss Collaboration in Biotechnology (ISCB), the Institute Pasteur (Paris, France), the Danish Research Agency (Denmark), the Danish National Research Foundation, the FWF Austrian Science Fund, the Austrian Academy of Sciences, the Netherlands Genomics Initiative (NGI), the Technology Foundation" (Netherlands), Netherlands Organization for Applied Scientific Research (TNO), and the International Foundation for Science (IFS, Sweden).

Member of Evaluation Panels of the Institute of Molecular Life Sciences and the Institute of Plant Biology at the University of Zurich, Switzerland (2013), Institute for Water and Wetland Research (IWWR), Radboud University Nijmegen, Netherlands (2014), Radboud Institute for Biological and Environmental Sciences, Radboud University Nijmegen, Netherlands (2021).

Member of the ERC Advanced Grant (LS8) evaluation panel in 2014, 2016, and 2018.

## **Teaching Experience, Mentoring, and Team Structure**

I taught general microbiology and microbial ecology classes and lab courses at the Technische Universität München (Germany) from 1996 to 2002. At the University of Vienna (Austria) I teach classes and seminars in the bachelor curriculum "Biology" and the master curriculum "Molecular Microbiology, Microbial Ecology, and Immunobiology".

In addition, I was invited lecturer at several Ph.D. courses at the University of Nancy (Prof. J.C. Block), France, and at the University of Aalborg (Prof. P.H. Nielsen), Denmark. Furthermore, I have been organizing from 1996 to 2008 the "International FISH Course" (lectures and lab course) at my department (for details see [www.microbial-ecology.net/fishcourse.asp](http://www.microbial-ecology.net/fishcourse.asp)) and I was teaching international courses with up to 100 participants at the National French Sequencing Institute Genoscope (Evry, France; 2001) and for the Italian Society for Microbiology and Biotechnology (Perugia, Italy; 2001-2005). Furthermore, I have participated as invited lecturer at the Woods Hole Microbial Diversity Course in 2009. Since 2000 I organize together with Danish colleagues the biannual InTiME (Innovative Techniques in Microbial Ecology; 11 meetings till today) workshops attended by up to 70 predominantly young scientists of the University of Aarhus and Aalborg (Denmark) and my team.

Since 1997 17 PhD students have graduated under my supervision and I have advised 24 Post-Docs. Furthermore, I served as invited international reviewer for PhD defences at the Max-Planck Institute for Marine Microbiology (Germany), the Technical University of Denmark, Lyngby, the University of Aarhus, and the University of Aalborg (all in Denmark), the University of Bergen (Norway), the University of Brisbane (Australia), the University of Nijmegen (Netherlands), the University of Norwich (UK), the University of Utrecht (Netherlands), and the Swiss Federal Institute for Environmental Sciences and Technology (EAWAG, Switzerland).

The centre I headed as a founding director consists of about 150 predominantly young researchers from more than 25 different countries and includes another 14 professors. **In the centre six scientists received an ERC grant** (my advanced grant, four starting grants for D. Berry, M. Horn, J. Petersen and D. Woebken, and a consolidator grant for C. Kaiser). As displayed in the table below **19 of my former PostDocs and PhD students hold permanent or tenure-track positions in academia, and 13 of them hold professorships in 6 different countries.**

<b>Name</b>	<b>Former role in my team</b>	<b>Current position</b>
Dr. Holger Daims	PhD and Post-Doc	Full Professor, University of Vienna
Dr. Alexander Galushko	Post-Doc	Leading Scientist, Agrophysical Research Institute, Russia
Dr. Ping Han	Post-Doc	Assistant Professor at East China Normal University
Dr. Roland Hatzenpichler	PhD	Assistant professor, Montana State University, US, tenure track
Dr. Matthias Horn	PhD and Post-Doc	Full Professor, University of Vienna
Dr. Tatsuhiko Hoshino	Post-Doc	Senior Scientist, Japan Agency Marine-Earth Science and Technology
Dr. Man-Young Jung	Post-Doc	Assistant Professor, Jeju National University, South Korea
Dr. Stefan Juretschko	PhD	Director, Division of Infectious Disease Diagnostic at North Shore- Health System, US
Dr. Natuschka Lee	Post-Doc	Researcher, Umea University, Sweden
Dr. Tae Kwon Lee	Post-Doc	Assistant Professor; Yonsei University, Wonju, Korea
Dr. Angelika Lehner	Post-Doc	Professor, University of Zürich, Switzerland
Dr. Shuron Liu*	Post-Doc	Assistant professor, Sun Yat-Sen University, China
Dr. Sebastian Lücker*	PhD	Assistant professor, tenure track, Nijmegen University, NL
Dr. Alexander Loy	PhD and Post-Doc	Full Professor, University of Vienna, Austria
Dr. Frank Maixner*	PhD	Senior Scientist, EURAC, Bozen, Italy
Dr. Markus Schmid	PhD	Staff Scientist, University of Vienna, Austria
Dr. Stephan Schmitz-Esser**	PhD and Post-Doc	Associate Professor, Iowa State University, US
Dr. Michael Pester	Post-Doc	Professor, Head of Department, German Collection of Microorganisms and Cell Culture DSMZ, Braunschweig, Germany
Dr. Kilian Stöcker	PhD and Post-Doc	Scientist, Bundeswehr Institute of Microbiology, München, Germany
Dr. Mike Taylor	Post-Doc	Associate Professor, University of Auckland, NZ

\*co-supervised by Dr. Holger Daims; \*\*co-supervised by Dr. Matthias Horn

## **Selected Professional Activities and Service**

2020 - 2021	Scientific Coordinator of the Austrian, SARS-CoV-2 school monitoring program
2020	Founding member of the Vienna COVID-19 Detection Initiative ( <a href="https://www.maxperutzlabs.ac.at/vcdi">https://www.maxperutzlabs.ac.at/vcdi</a> )
since 2018	Member of the Scientific Advisory Board of the Institute of Integrative Biology of the Cell (I2BC), Gif, France

since 2018	Member of the Scientific Advisory Board of the Helmholtz Center for Environmental Research UFZ, Leipzig, Germany
July 2018	Visiting Scientist, Australian Institute for Marine Science (AIMS), Townsville
2014, 2016, 2018	Member of the ERC Advanced Grant Panel LS8
2016	Visiting Faculty Fellow – Center for Microbial Interactions (CEMI) - Caltech, USA
since 2015	Member of External International Advisory Board (EIAB) of the Soehngen Institute of Anaerobic Microbiology, Netherlands established by the Radboud University, Wageningen University, Technical University Delft, and the Royal Netherlands Institute for Sea Research (NIOZ).
2014	Reviewer for the Crafoord prize
since 2013	Guest professor at the Aalborg University Denmark
2012 - 2014	President of the International Society for Microbial Ecology (ISME)
2012	Member of the American Academy of Microbiology environment task force
since 2010	Deputy Chairman of the Austrian Association of University Professors
2010	Appointed member of the 5 person Steering Committee of the Marine Microbiology Initiative of the Gordon and Betty Moore Foundation (USA)
2010 - 2016	Member of the Scientific Advisory Board of the Institute for Mummies and the Iceman, EURAC, Bolzano, Italy
since 2009	Member of the Scientific Advisory Committee for the International Conferences on Nitrification
since 2009	Member of the Senate of the University of Vienna
2005 – 2010	Vice Dean of the Faculty of Life Science of the University of Vienna
2004 - 2010	Board member of the International Society for Microbial Ecology (ISME)
2004	Member of the External Advisory Board of the ERA-NET PathoGenoMics (Trans-European cooperation and coordination of genome sequencing and functional genomics of human-pathogenic microorganisms)
2003 – 2011	Member of the Management Committee of the ÖGHMP (Austrian Society of Hygiene, Microbiology and Preventive Medicine)
2003 – 2005	Member of the Think Tank of the FWF Wissenschaftsfonds

## Fund Raising

Since 1997 I have raised 33 third party fund projects from Germany, Austria, Denmark, the US and the EU as PI and Co-PI. I received an **ERC Advanced Grant 2011 and the Wittgenstein Award in 2019**. In total the research of my group was supported between 1997 and 2019 by more than **11 M€**. My philosophy is to stimulate independent grant submissions by younger researchers and our department is currently involved in many additional ongoing third-party funded projects including **four ERC Starting and one Consolidator Grant**.

## Invited Talks

since 1993 **239 invited talks** at university seminars and international conferences in 28 countries

## Publication Output

I have published between 1992 - November 2021 in my six major research fields (nitrification, single cell microbiology, microbiome, wastewater microbiology,

endosymbionts, sulfate reduction) 274 papers and more than 30 book chapters. According to Scopus (Nov. 2021) my publications have been cited 42,840 (ISI: 40,308; Google Scholar: 63,192) and I have an H-index of 110 (ISI: 107; Google Scholar: 135). Seven of my publications appeared in Nature (plus a News & Views piece), three in Science, 13 in PNAS (all direct submission) and two in PLoS Biology. More info about my publications can be found at:

Scopus: <https://www.scopus.com/authid/detail.uri?authorId=57200814774>  
ResearcherID: <https://publons.com/researcher/2814586/michael-wagner/>  
GoogleScholar: [https://scholar.google.com/citations?user=JF6OQ\\_0AAAAJ&hl=de](https://scholar.google.com/citations?user=JF6OQ_0AAAAJ&hl=de)

## Honors and Awards

2021 Highly Cited Researcher (<http://highlycited.com>)  
2020 Highly Cited Researcher (<http://highlycited.com>)  
2020 Hans-Günter-Schlegel-Lecturer of the Association for General and Applied Microbiology (VAAM) for outstanding scientific achievements for Microbiology in Germany  
2019 **Wittgenstein Award** of the Austrian Science Fund (FWF) on behalf of the Austrian Ministry for Science (1.5 Mio €). **Highest science award in Austria.**  
2019 Visiting Professor in Engineering Science at the University of Oxford, UK  
2018 **Jim Tiedje Award of the International Society for Microbial Ecology (ISME)**, lifetime achievement award of the society  
2018 Highly Cited Researcher (<http://highlycited.com>)  
2017 **Elected Member of the European Molecular Biology Organisation (EMBO)**  
2017 Highly Cited Researcher (<http://highlycited.com>)  
2016 **Full member of the Austrian Academy of Sciences**  
2016 Highly Cited Researcher (<http://highlycited.com>)  
2015 **Schrödinger Prize of the Austrian Academy of Sciences**  
2015 Highly Cited Researcher (<http://highlycited.com>)  
2014 Einstein Professor of the Chinese Academy of Sciences  
2014 Honorary doctorate of the University of Aalborg, Denmark  
2014 Highly Cited Researcher (<http://highlycited.com>)  
2013 Member of the American Academy of Microbiology  
2011 ERC Advanced Grant Winner “NITRICARE: Nitrification Reloaded – a Single Cell Approach”  
2009 **Elected member of the German National Academy of Sciences, Leopoldina**  
2009 Corresponding member of the Austrian Academy of Sciences (ÖAW)  
2009 Founding member of the European Academy of Microbiology  
2008 Main Award of the City of Vienna for Life and Technical Sciences  
2006 James M. Craig Memorial Lecturer; Oregon State University, USA (only non-American presenter to receive this)

2003	Division N lecturer, 103 <sup>rd</sup> General Meeting of the American Society for Microbiology; Washington, DC, USA.
2002	Main Award of the German Society for Hygiene and Microbiology
1997	Young Researchers Award of the German Society for Hygiene and Microbiology
1996	Karl-Imhoff-Award (“Belobigung”) of the Abwassertechnischen Vereinigung (German Water and Waste Water Association)

## Patents

since 1998                      three patents

## Organization of International Conferences

As president of the local organizing committee of the **ISME-11 meeting in Vienna** (2006) I was strongly involved in organizing the scientific program for this meeting, which attracted 2000 participants from 65 countries. As **ISME president** I have organized together with my team the **ISME-15 conference in Seoul** (South Korea) with more than 1600 participants that took place in August 2014. As ISME past president I was involved in organizing ISME-16 in Montreal, Canada. Furthermore, I am member of the Scientific Advisory Committee for the International Conferences on Nitrification (ICoN; five conferences up to now) and have organized together with Holger Daims and Christa Schleper the ICoN5 meeting 2017 in Vienna. I was also a member of the **Program and Steering Committees of the Microbe 2017 Meeting of the American Society for Microbiology (ASM)** (~10,000 participants).

## SARS-CoV-2 pandemic response activities

In March 2020 I initiated together with colleagues the Vienna Covid-19 detection initiative (<https://www.maxperutzlabs.ac.at/vcdi>) that repurposed lab equipment to build a high-throughput RT-qPCR testing pipeline. Furthermore, we developed a smart testing pipeline that combines gargling, pooling, and RT-qPCR. This approach is now offered by the City of Vienna to all citizens free of charge and is a major pillar in the fight against the pandemic in Austria. Based on these inventions, I coordinated in June and July 2020 pilot studies for monitoring SARS-CoV-2 in 11 Viennese schools. Based on the great success of this pilot project, I initiated a nationwide SARS-CoV-2 monitoring study in 250 Austrian schools that determines several times per year the prevalence of infected pupils and teachers (dark figure study) in a representative sample consisting of almost 15.000 persons. We have completed six measurement rounds in the last school year and our approach was partly adopted for the routine school monitoring in Austria in the school year 2021/2022. Our study provided new insights into the role of children and schools in the pandemic and the sensitivity of antigen tests versus PCR tests for detecting infections in asymptomatic pupils. Some results from our study were published in *Lancet Regional Health: Europe* and in *Eurosurveillance* with me as the last author. Our findings were also covered extensively in the media including interviews in the main news in Austria, Germany and the Netherlands and numerous articles in major national and international newspapers and newsmagazines.

## Positions Offered

2011	Professor for Microbial Interactions at the ETH Zürich, Switzerland
2008	“Head-hunted” for Governors Chair at the University of Tennessee/Oak Ridge National Labs
2008	“Head-hunted” as Head of the Institute for Molecular Infection Biology at the University of Würzburg
2002	Full Professor for General Microbiology; University Hamburg, Germany

- 2002 Director of the Ecophysiology Department at the Max-Planck Institute Marburg, Germany
- 2002 Director of the Institute for Hydrobiology at the German Research Center for Environmental Health (Neuherberg, Germany)
- 2002 Chair in Microbial Ecology at the University Groningen (Netherlands)
- 2001 Associate professor with tenure (Microbial Ecology) at the Northwestern University (Evanston, USA).

Vienna, November, 2021