

**Personal Details**

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Year of birth: 1973  
Civil status: married  
Citizenship: Austria  
Current position: Privatdozent at BOKU–University of Natural Resources and Life Sciences, Vienna  
Co-founder and CSO of DirectSens GmbH  
Unique identifiers: orcid.org/0000-0002-5058-5874; scopus.com author ID: 7201360898  
Web site: ludwiglab.eu

**Education**

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2015/03/17 Habilitation (Dr. habil) in Biotechnology and Bioelectrochemistry  
2004/05/25 Doktor der Bodenkultur (Dr. nat. techn.) with distinction, in Biotechnology and Biochemistry, BOKU–University of Natural Resources and Applied Life Sciences, Vienna  
2001 – 2004 Doctoral studies at BOKU, thesis supervisor: Prof. Dietmar Haltrich  
1999 – 2000 Diplom-Ingenieur (Dipl.-Ing.) in Food- and Biotechnology, BOKU – University of Natural Resources and Applied Life Sciences, Vienna, Austria, supervisor: Prof. D. Haltrich  
1999 Erasmus exchange student at Delft Technical University, the Netherlands, Klyver Laboratory (6 months), supervisor: Prof. J. G. Kuenen

**Career**

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2013 Founder of DirectSens GmbH  
2011 – Lecturer at BOKU–University of Natural Resources and Life Sciences  
2011 – 2014 Key Researcher at the Austrian Centre of Industrial Biotechnology (ACIB)  
2009 – 2011 APART Fellow of the Austrian Academy of Sciences at the Department of Biochemistry and Structural Biology, Lund University, Sweden with Prof. Lo Gorton  
2006 – 2009 Module Manager and Researcher at the Research Centre Applied Biocatalysis, Graz, Austria.  
2004 – 2006 Postdoctoral Fellow at the Research Centre Applied Biocatalysis, Graz, Austria.  
2000 – 2004 Graduate Assistant at BOKU–University of Natural Resources and Life Sciences, Vienna

**Selected Awards and Distinctions**

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2012 International DropSens Award for Applied Electroanalytical Chemistry  
2011 RIZ Genius Award for Innovative Sensor Technology  
2009 APART-fellowship of the Austrian Academy of Sciences awarded  
2004 Science Award of the Austrian Society for Biotechnology (ÖGBT)

**Teaching**

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2015 – Lecturing “Biotechnological Processes and Products” at the Univ. of Applied Sciences Campus Vienna  
2011 – Lecturing “Computational Biology” at BOKU, Vienna  
2010 – Lecturing “Fermentation and Enzyme Technology” at the Univ. of Applied Sciences Campus Vienna  
2009 – Lecturing “Protein Modeling – from Sequence to Structure” at BOKU, Vienna  
2005 – Lecturing "Biochemical Reaction Engineering" at BOKU, Vienna  
2005 – Tutoring the practical course "Enzyme Technology" at BOKU, Vienna

## Supervision and Co-supervision (accumulated numbers)

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9	Postdoctoral fellows
12	PhD students
63	Master students
27	Guest researchers

## Scientific Key Qualifications & Research Interests

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- Biochemical engineering, reaction optimization, process up-scaling and modeling
- Cultivation and screening of microorganisms, recombinant overexpression and down-stream processing of proteins, optimisation of fermentation processes
- Enzyme characterization by steady-state-, transient-state-, thermodynamical- and electrochemical techniques
- Bioinformatics and structural biology, comparative (homology) modeling and docking of proteins
- Electrochemical techniques for protein characterization and analytical techniques, electron transfer processes
- Biosensor and biofuel cell development, characterization of protein-electrode interfaces

## Major Research Grants and Funding

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2015	Electron transfer in Cellulose degrading enzymes, Austrian Science Fund	3 years	€ 228,407
2013	BIOENERGY, European Commission, FP7 People	4 years	€ 262,779
2013	INDOX, European Commission, FP7	3 years	€ 481,582
2013	Preseed financing from AWS for DirectSens GmbH	2 years	€ 140,000
2012	Preseed financing from Accent for DirectSens GmbH	1 year	€ 60,000
2012	Engineering of bioelement interfaces, BOKU-AIT-NTU Int. Graduate School	3 years	€ 158,000
2011	3 <sup>rd</sup> generation glucose biosensor, funding agency: Tecnet	1 year	€ 68,000
2010	Applied research project, Austrian Centre of Industrial Biotechnology (ACIB)	5 years	€ 558,000
2009	Lactose biosensor project, Research Centre Applied Biocatalysis	6 months	€ 26,300
2009	Direct electron transfer of redox enzymes, Austrian Academy of Sciences	2 years	€ 135,000
2009	3D-nanobiodevices, European Commission, FP7	3 years	€ 332,000
2007	Glucose biosensor, Austrian Science Fund	3 years	€ 208,000
2006	Novel laccases for biosensors, Research Centre Applied Biocatalysis	3 years	€ 284,000

## Professional Society Memberships

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DECHEMA (since 2015)

American Society for Microbiology (since 2009)

American Chemical Society (since 2003)

Austrian Association of Molecular Life Sciences and Biotechnology (since 2001)

Electrochemical Society (2010-2012)

## Scientific Track Record

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134	articles in peer reviewed journals in SCI journals
3	review articles
2	patents in regionalisation/nationalisation process in the US and Europe
31	lectures (8 invited) at International Conferences
36	invited Seminars in Industry and Academia
206	posters and proceeding articles at national and international conferences
7	non-peer reviewed articles in newspapers and magazines
2524	citations in 1215 documents
28	h-index
134	articles reviewed since 2005