

# Sebastian Wendeborn, PhD

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## Summary

*Academic (Professor, Head of Institute) and industrial senior scientist & manager in R&D (PhD in organic chemistry) with extended and proven track record in innovation, interdisciplinary research activities (crop protection, herbicides, fungicides, crop enhancement, computational chemistry, process research, laboratory automation, solid phase synthesis), leading local and international projects and teams towards success. More than 100 publications and patent applications.*

**skills & interests** • chemistry • biochemistry • managing science & scientists • interdisciplinary collaboration

## Education

- 9/1987 -9/1992** Graduate student, PhD defense **15.9.1992** (Philadelphia & San Diego USA)  
U of Pennsylvania Total synthesis of natural products and their analogs. Mode of action studies of DNA cleaving chemicals  
U of California Research director: Professor K.C. Nicolaou
- 11/1986 -7/1987** Research Scholar in Molecular Biology. (Philadelphia. / USA)  
The Wistar Cloning and characterization of a tumor associated antigen  
Institute Research Supervisor: Dr. A. Ross
- 9/1984 -9/1986** Studies of Chemistry, Vordiplom (equivalent to Bachelor of Science) 1986. (Freiburg / Germany)  
U of Freiburg.

## Experience

- 1.1.2019 -present** Head of Institute for Chemistry and Bioanalytics, Professor (Muttensz / Switzerland)  
School of Life Leading Multidisciplinary institute at the University of Applied Sciences and Arts Northwestern  
Sciences Switzerland. Collaborations, Research, Teaching
- 1/2017 -12/2018** Senior Chemical Expert (Stein / Switzerland)  
Syngenta Crop Evaluation and implementation of strategic chemical technologies for R&D, design and synthesis of  
Protection modern fungicides, university and Contract Research Organization collaborations, photo-redox chemistry
- 10/2014-12/2016** Head of Chemical Innovation (Stein / Switzerland)  
Syngenta Crop Overall responsibility for process research, crop enhancement chemistry, laboratory automation,  
Protection analytical support and biophysics, identification and evaluation of new research opportunities. Responsible  
for up to 30 employees: coaching, mentoring, goal setting, performance management. Resource  
allocations to projects and strategic project portfolio decisions
- 5/2012 -9/2014** Head of Process Research & Crop Enhancement Chemistry (Stein / Switzerland)  
Syngenta Crop Overall responsibility for process research, crop enhancement chemistry, laboratory automation,  
Protection analytical support and biophysics. Evaluation, identification and implementation of strategic collaborations  
with academic laboratories in the area of crop enhancement. Responsible for recruitment of PhD-level  
team leaders and organization of internship program for chemical research (since 2004)
- 5/2009 -4/2012** Head of Process Research (Stein / Switzerland)  
Syngenta Crop Establishment of global process research activities in Crop Protection, including recruitment, on-boarding  
Protection and mentoring of new team leaders. Coordinating process research activities at research centres in  
Switzerland and India and allocation of resources to support all indications at all research sites  
(Switzerland, Great Britain, India). Implementation of new chemical technologies in process research  
(pressure laboratory for hydrogenations and reactions with other gases; react-IR). Transfer of projects  
from process research to development
- 9/2004 -4/2009** Group Leader Chemistry Fungicide Research & Computational Chemistry (Basel / Switzerland)  
Syngenta Crop Responsible for chemical research towards new fungicides, education and on-boarding of new co-workers  
Protection in the area of fungicidal research (fungicide classes, mode of actions, biochemistry, and design). Scientific

and managerial responsibility for a team of computational experts working in the area of computer assisted molecular modelling in support of fungicide and insecticide research

- 8/2001 -8/2003**  
Syngenta Crop Protection  
**Group Leader Optimization Chemistry** (Basel / Switzerland)  
Responsible for optimization of identified chemical lead-structures in advanced research projects in herbicide and fungicide chemistry
- 2/2000 -7/2001**  
Novartis AG  
**Head of DNA Recognition Project** (Basel / Switzerland)  
Scientific and managerial responsibility for multidisciplinary project to develop chemical agents for site directed mutagenesis as a tool to genetically modify crop plants
- 1/1997 -1/2000**  
Novartis AG  
**Research Scientist** (Basel / Switzerland)  
Solid phase combinatorial chemistry and herbicide research
- 1/1994 -12/1996**  
Ciba-Geigy AG  
Central Res. Labs  
**Research Scientist** (Basel / Switzerland)  
Design and synthesis of sugar- and backbone-modified building blocks for antisense oligonucleotides and solid phase combinatorial chemistry
- 11/1992 12/1993**  
ETH-Zürich  
**Postdoctoral fellow** (Zürich / Switzerland)  
Oligonucleotide chemistry, prebiotic chemistry  
Research director: Professor A. Eschenmoser

## Institutional responsibilities, Management & Supervision

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- Head of Institute for Chemistry and Bioanalytics, HLS/FHNW
- Leadership team of School of Life Sciences, FHNW
- responsible for 10 Professors in the department
- responsible 2 PhD-level and 2 technical Staff

## Teaching

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Teaching at School of Life Sciences FHNW: • medicinal chemistry • carbohydrate chemistry • chemistry of aromatic compounds • structure and activity • biochemistry

## Memberships & other scientific activities

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- Ciba Geigy postdoctoral fellowship (1992 - 1993)
- U of California, San Diego, Graduate Fellowship (1991 - 1992)
- Doctoral Fellowship from the Verband der Chemischen Industrie (1989 – 1990)
- University of Pennsylvania Graduate Fellowship (1987 – 1988)
- Member of the IUPAC Division III Sub-Committee on Biotechnology (since 2003)
- Member of the Swiss Chemical Society (since 2012)
- Member of the executive board of the European Federation of Biotechnology (since 2019), Vice-Chair Plant, Agriculture & Food Division
- Stiftungsrat des Schweizerischen Zentrums für Angewandte Humantoxikologie, SCAHT (since 2020)
- organizing committee Green4Good (plant biotechnology)
- organizing summer school “Digitalization in Chemistry - Structure, reaction data properties & automatization”
- peer reviewing activity for numerous journals
- Organization EFB Online Event 2021