

# Sijbren Otto

University of Groningen  
Centre for Systems Chemistry, Stratingh Institute  
Nijenborgh 4, 9747 AG Groningen  
The Netherlands  
email: s.otto@rug.nl  
tel/fax: ++31 (0)50-363 8639 / 363 4296  
homepage: <http://www.otto-lab.com>

---

## 1. PERSONAL

### Personal data

Date of birth August 3, 1971  
Marital status Married, 3 children (born 2007, 2009 and 2013)  
Nationality Netherlands  
Sex Male

### Degrees

1994 M.Sc. University of Groningen – The Netherlands  
• Principal subject: physical organic chemistry  
• Subsidiary subject: biochemistry  
1998 Ph.D. University of Groningen- The Netherlands  
(with Prof. J.B.F.N. Engberts – physical organic chemistry in water)

### Academic employment

1998 - 1999 Post doctoral researcher – Lehigh University, Bethlehem, USA  
(with Prof. S.L. Regen)  
1999 - 2001 Marie Curie Postdoctoral Fellow – University of Cambridge,  
(with Prof. J.K.M. Sanders)  
2001 - 2009 Royal Society University Research Fellow – University of Cambridge, UK  
(independent position as Research Group Leader)  
2008 - 2009 Guest Teacher (gastdocent) – University of Groningen, The Netherlands  
2009 - 2011 Assistant Professor – University of Groningen, The Netherlands  
2011 - 2016 Associate Professor – University of Groningen, The Netherlands  
2016 - present Full Professor – University of Groningen, The Netherlands

### Honours and awards

1994 M.Sc. *Cum laude*  
1998 Ph.D. *Cum laude*  
1999 Marie Curie Fellowship, University of Cambridge, UK  
2000 Junior Research Fellowship, Wolfson College, Cambridge, UK  
2001 Royal Society University Research Fellowship, University of Cambridge, UK  
2005 Royal Society Merit Increment  
2011 European Research Council (ERC) Starting Grant (1.5 M €)  
2013 NWO VICI grant (1.5 M €)  
2013 Elected Fellow of the Royal Society of Chemistry (FRSC)  
2013 Visiting Professor, University of Strasbourg, France  
2017 European Research Council (ERC) Advanced Grant (2.5 M €)  
2018 Visiting Professor, Ludwig Maximilian University, Munich, Germany  
2018 Supramolecular Chemistry Award from the Royal Society of Chemistry -UK)

## 2. PROFESSIONAL SERVICE AND MANAGEMENT

### Membership of professional societies

- Member of the UK Royal Society of Chemistry (RSC)
- Member of the Royal Dutch Chemistry Association (KNCV)
- Honorary member of the Israel Chemical Society

### Professionalisation

2010	Academic Leadership, University of Groningen (4 days)
2014	Masterclass “Leaders in Chemistry”, Hilversum, the Netherlands (5 days) on invitation by NWO
2016	Time Management Course

### Editorship of scientific journals

- Joined Editor-in-Chief of the *Journal of Systems Chemistry* (2010-2015)

### Editorial board of scientific journals

- Member of the Editorial Board of the *New Journal of Chemistry* (2013 – present)
- Member of the Editorial Board of the *Adv. Phys. Org. Chem.* (2015 – present)
- Member of the Editorial Board of *Chem* (2015 – 2018)

### Scientific executive boards (external)

#### Assessment panels

2001 - present	Membership of PhD committees in Manchester, Sheffield, Bordeaux, Strasbourg St. Andrews, Amsterdam, Geneva, Aarhus
2001 – present	External Advisor for staff appointments/promotions at several European universities
2010	Member of the Evaluation Panel International Research Training Group, Münster, Germany
2012	Panel member of the NWO TOP/ECHO grant program
2012	Panel member of the NASA Astrobiology Institute (multimillion grants) program
2013	Panel member of the NWO TOP/ECHO grant program
2014	Panel member of the NWO TOP/ECHO grant program
2017	Panel member of the NWO TOP/ECHO grant program
2018 - present	Independent Scientific Committee of ATTRACT (CERN)

#### Scientific board membership (external)

2005 - 2010	Coordinator of a COST D-31 Working Group on dynamic combinatorial chemistry
2006 - 2010	Coordinator of the Marie Curie Training Network on Dynamic Combinatorial Chemistry (11 European partners, €2.4M)
2007 - 2009	Committee member of the Royal Society of Chemistry Organic Reaction Mechanisms Group
2008 - 2012	Coordinator of COST CM0703 Working Group 1 (Integration of genetic and metabolic subsystems)
2008 - 2012	Representative of the Netherlands on the Management Committee of COST action CM0703 (Systems Chemistry)
2009 - 2012	International partner in the ARCADE project (FP7-REGPOT programme) aimed at the development of the Institute of Organic and Pharmaceutical Chemistry of the National Hellenic Research Foundation, Athens, Greece.
2010 - 2018	Board member of the Netherlands Institute for Catalysis Research (NIOK)
2011 - 2012	Member of the Program Committee of the NWO ChemThem “Out-of-Equilibrium Self-Assembly” (2.5M €)
2011 - present	Member of the Netherlands Institute for Catalysis Research (NIOK) Research Committee

2011 - 2015	Representative of the Netherlands on the Management Committee of COST action CM1005 (Supramolecular Chemistry in Water)
2011 - 2012	Chairman and Grant Holder of COST action CM0703 on Systems Chemistry (involving 50 European research groups)
2014	Member of the Core team of the Dutch Catalysis Roadmap
2014 - 2017	Chairman and Grant Holder of COST action CM1304 on Emergence and Evolution in Complex Chemical Systems (involving >80 European research groups)
2014 - 2016	Vice-Chair of the annual Netherlands' Catalysis & Chemistry Conference (NCCC) – > 500 participants.
2015	Chair of SysChem2015 (International conference on Systems Chemistry) at Rolduc, the Netherlands. Four-day meeting with approx. 120 participants.
2016 – present	Chemistry representative on the steering group of the Dutch Origins Center.
2017 - 2018	Chair of the annual Netherlands' Catalysis & Chemistry Conference (NCCC) – > 500 participants.
2018 - 2020	Vice Chair and Chair of the Gordon Conference on Systems Chemistry

### Executive boards (internal)

2009	Organiser of the Opening Symposium for the Centre for Systems Chemistry
2012 - present	Member of the Board of the Stratingh Institute for Chemistry
2012 - 2019	Chair of the Stratingh Institute Staff meetings
2012 - 2016	Member of the Library Committee
2013	Organiser of a conference on Systems Chemistry in Groningen (about 100 participants)
2014 - 2019	Adjunct-director of teaching, responsible for the Chemistry Master education
2014 - present	Member of the committee that oversees teaching aspects for the design of the new Zernikeborg building.

## 3. TEACHING

### Professionalisation and didactic schooling

2010	Academic teaching qualification (BKO; basiskwalificatie onderwijs)
2010	Completed the course “Essay tests” which is part of the “Training for Lecturers” programme of the Education Centre for the University (UOCG)

### Courses taught / coordinated (internal)

2008 - 2014	Coordinator of 2 <sup>nd</sup> year undergraduate labs "Synthesis 2"
2009 - present	Masters course on "Reaction Mechanisms" 50%
2009 - present	Masters course on "Supramolecular Chemistry" 50% for chemistry students
2009 - present	Master course on “Supramolecular Chemistry” 50% for nanoscience topmaster students (part of NS001)
2009 - 2011	Undergraduate course on "Systems chemistry and the Origin of Life" 25%
2011 - present	Undergraduate course on "Soft Molecular Materials" 50%
2011 - 2014	First-year symposium (course on literature research and presentation skills) 50%
2013 - present	Masters course on “Synthetic Biology and Systems Chemistry” 50%

### Courses taught (external)

2002 - 2007	Senior demonstrator of advanced organic chemistry labs (Cambridge)
2004 - 2008	Annual lecture course and tutorials on "Molecular recognition and organic mechanism" for third year undergraduate students 50% (University of Cambridge)
2005	Erasmus lectures on noncovalent interactions and dynamic

2006	combinatorial chemistry (University of Neuchatel) Graduate course on dynamic combinatorial chemistry (University of Amsterdam)
2006 - 2010	Design and organisation of the graduate training program for the Marie Curie Research Training Network on Dynamic Combinatorial Chemistry of which I was coordinator.
2009	National graduate course on "Systems chemistry" Technical University Eindhoven, The Netherlands.
2012	Graduate Course, University of Utrecht, The Netherlands.
2014	Winterschool WISPOC 2014, Bressanone, Italy. "The Systems Chemistry of Synthetic Reaction Networks"
2012 – 2016	Design and organisation of the graduate training program for the Marie Curie Research Training Network on Replication and Adaptation in Dynamic Molecular Networks of which I was coordinator.
2014	Summerschool Challenges in Supramolecular Chemistry, Strasbourg, France. "Supramolecular Systems Chemistry"
2017 - present	Dutch Graduate Course on Supramolecular Chemistry

### Supervision of students and postdocs

Exchange students	34 from 19 different countries
Bachelor students	16
Master students	22
PhD students	17
Postdocs	21

## 4. OUTREACH

- Appearances on national television, radio, newspapers
- Reddit – ask me anything, Feb 2017
- Museum exhibit
- Public lectures on the origin and synthesis of life to audiences ranging from primary and secondary school children to learned societies
- Host for secondary school student projects
- Animations explaining the group's research to a general audience
- "Gruninger Science"; program initiated by Jim Ottelé (PhD student of the Otto group) explaining science carried out at the University of Groningen to the inhabitants of the city of Groningen.

## 5. GRANT SUPPORT

2001 - 2009	Royal Society University Research Fellowship: £552,810
2003 - 2006	EPSRC / GlaxoSmithKline – Case award for new academics: £57,000.
2004 - 2007	EPSRC – Dynamic combinatorial chemistry £1,093,157 (with Prof. Jeremy K. M. Sanders as PI).
2005 - 2010	EU: COST D-31 Working Group on dynamic combinatorial chemistry (as coordinator)
2005 - 2009	EU: Marie Curie Early Stage Training Host Fellowship : £113,693 (with Dr. F. Hollfelder as coordinator)
2006 - 2008	EPSRC: Adventurous chemistry: £51,621
2006 - 2008	EU: Marie Curie Individual Postdoctoral Fellowship for Dr. Enda Bergin £103,645
2006 - 2010	EU: Marie Curie Research Training Network REVCAT: £213,023

(with Prof. J. Reek as coordinator)

2006 - 2010 EU: Marie Curie Research Training Network DCC: €2,387,452  
(as coordinator)

2007 - 2009 EU: Marie Curie Individual Postdoctoral Fellowship for Dr. Karine Barral:  
£103,645

2007 - 2010 Cambridge Graduate Training Programme in Medicinal Chemistry: £89,400

2008 - 2012 EPSRC: From Dynamic combinatorial to systems chemistry  
(with Prof Sanders; total value £1,724,775; transferred to Groningen:  
£862,388)

2010 - 2011 EU: Marie Curie Individual Postdoctoral Fellowship for Dr. Yang Han:  
€169,992

2010 - 2014 NWO ECHO grant: Self-replication driven by self-organisation: €260,000

2010 - 2014 EU: Marie Curie Initial Training Network Dynamol  
(with Dr. J. Nitschke as coordinator): €236,993

2011 - 2013 EU: Marie Curie Individual Postdoctoral Fellowship for Dr. Morteza  
Malakoutikhah: €169,035

2011 - 2013 EU: Marie Curie Individual Postdoctoral Fellowship for Dr. Vittorio  
Saggiomo: €184,041

2011 - 2016 ERC Starting Grant: REPLI, Self replication in dynamic molecular networks  
€1,499,702

2012 - 2016 EU: Marie Curie Initial Training Network READ Replication and adaptation in  
molecular networks €3,036,050 (as coordinator)

2012 - 2016 NWO ChemThem Out-of-equilibrium assembly of dynamic combinatorial  
hydrogels. €500,000 (as PI; collaboration with Dr Jasper van der Gucht,  
University of Wageningen).

2013 - 2023 NWO Gravity Grant (as one of 6 main applicants) €26M Research Centre for  
Functional Molecular Systems

2013 - 2018 NWO Vici grant (€1.5 M) Molecular recognition and self-replication in  
dissipative molecular networks

2013 - 2015 EU: Marie Curie Individual Postdoctoral Fellowship for Dr. Andrea-Nekane  
Roig Alba: €175,975

2013 - 2017 EU: COST Action on Emergence and Evolution of Complex Chemical  
Systems (as Main Applicant; budget approximately 140k per year)

2014 - 2018 Zernike Dieptestrategie (RUG) as PI with Marrink van Ooijen as co-applicants:  
Towards Darwinian Evolution of Synthetic Charge-Transport Materials. 1.5  
PhD positions + 92k for equipment and consumables.

2014 - 2018 EU: Marie Curie Initial Training Network ResMoSys  
(with Dr. J. Nitschke as coordinator): approximately €240k

2017 - 2022 ERC Advanced Grant: ToDL, Towards de-novo life €2,5M

2017 - 2018 EU: Marie Curie Individual Postdoctoral Fellowship for Dr. Charalampos  
(Babis) Pappas: €165,599

2018 - 2019 EU: Marie Curie Individual Postdoctoral Fellowship for Dr. Kai Liu: €165,599