Curriculum Vitae
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Geert-Jan Boons

UGA Foundation Distinguished Professor in Biochemical Sciences

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Professor and Chair

Utrecht University
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https://www.uu.nl/en/research/chemical-biology-and-drug-discovery

Date of Birth April 7, 1962 (Oisterwijk, The Netherlands)

Education

1987	First Degree (equivalent to M.Sc.), Chemistry, State University of Leiden (Netherlands)
1991	Ph.D., Synthetic Carbohydrate Chemistry, State University of Leiden (Netherlands), advisor Prof. J.H. van Boom Thesis title: An approach towards the development of a synthetic vaccine against *Neisseria meningitidis*
1991-1992	Postdoctoral Research Assistant, with Prof. S.V. Ley, Imperial College, London (United Kingdom)
1992-1993	Postdoctoral Research Assistant, with Prof. S.V. Ley, University of Cambridge (United Kingdom)

Professional Experience

1987-1988	Research Scientist, Department of Research and Development, N.V. Organon, Oss (Netherlands)
1993-1997	Lecturer, Bioorganic Chemistry, University of Birmingham (United Kingdom)
1997-1998	Professor, Bioorganic Chemistry, University of Birmingham (United Kingdom)
1998-present	Professor, Complex Carbohydrate Research Center and Department of Chemistry, University of Georgia, Athens (USA)

2004-2013	Appointed *Franklin Professor of Chemistry*, Franklin College of Arts and Sciences, University of Georgia
2006	Visiting Professor, Université de Picardie Jules Verne, Amiens (France)
2013-present	Appointed *UGA Foundation Distinguished Professor in Biochemical Sciences*, Franklin College of Arts and Sciences, University of Georgia
2015-present	Professor and Chair, Chemical Biology and Drug Discovery, Departments of Pharmaceutical Sciences and Chemistry, Faculty of Sciences, Utrecht University (Netherlands)

Honors and Awards

1991-1993	Ramsay Memorial Fellowship
2001	Elected co-chair, 2003 Gordon Research Conference on Carbohydrate
2003	Carbohydrate Research Award for Creativity in Carbohydrate Science, European Carbohydrate Organisation at EuroCarb 2003
2003	Elected chair, 2005 Gordon Research Conference on Carbohydrate
2004	Northeast Georgia American Chemical Society (NEGACS) Chemist of the Year Award for Research
2004	Horace S. Isbell Award, Division of Carbohydrate Chemistry, American Chemical Society
2004	Appointed *Franklin Professor of Chemistry*, Franklin College of Arts and Sciences, University of Georgia
2012	Creative Research Inventor's Award, University of Georgia Research Foundation
2013	Appointed *UGA Foundation Distinguished Professor in Biochemical Sciences*, Franklin College of Arts and Sciences, University of Georgia
2014	Roy L. Whistler International Award in Carbohydrate Chemistry, International Carbohydrate Organization (ICO)
2015	Lamar Dodd Creative Research Award, University of Georgia Research Foundation
2015	Claude S. Hudson Award, Division of Carbohydrate Chemistry, American Chemical Society
2016	Arthur C. Cope Mid Career Scholars Award, Arthur C. Cope Fund, American Chemical Society

Professional Service

1994-1998	Member of the Safety Committee of the School of Chemistry, University of Birmingham (United Kingdom)
1995-1998	Member of the Biotechnology Executive Group of the University of Birmingham (United Kingdom)
1997-1999	Member of the Engineering and Physical Sciences Research Council (EPSRC), College for Synthetic and Biological Research (United Kingdom)
1999-2009	Editorial Board Member, *Carbohydrate Research*
2001-present	Editorial Board Member, *Journal of Carbohydrate Chemistry*
2001	Search Committee for Pharmacy Department Head, University of Georgia
2001-2005	Ad Hoc NIH Study Sections: Med Chem A, Bioorganic and Natural Products Chemistry, Innate Immunity and Inflammation, Immunity and Host Defense, Drug Development & Delivery, Synthetic and Biological Chemistry-A
2003-present	Executive Committee Member, Carbohydrate Division of American Chemical Society
2004-present	Member of the Center for Drug Discovery, College of Pharmacy, University of Georgia
2004	Chair of Search Committee for Assistant Professor of Chemistry, Chemistry Department, University of Georgia
2004	Chair of Search Committee for Assistant Professor, Complex Carbohydrate Research Center, University of Georgia
2004-present	Editorial Board Member, *Advances in Carbohydrate Chemistry and Biochemistry*

2005-2008 Permanent Member, Synthetic and Biological Chemistry A NIH Study Section
2007-present Member of the University of Georgia Cancer Center
2007-2012 Steering Committee Member, Consortium for Functional Glycomics (CFG)
2008-present Member of the Nanoscale Science and Engineering Center (NanoSEC), University of Georgia
2008-present Editorial Board Member, *Glycoconjugate Journal*
2008-present Executive Committee Member, Complex Carbohydrate Research Center, University of Georgia
2008-2010 Member of the Lamar Dodd Creative Research Award Selection Committee, University of Georgia
2010-2011 Member of National Academies of Science (NAS) Task Group on Assessing the Importance of Glycomics and Glycosciences
2011-2014 International Advisory Board Member, *European Journal of Organic Chemistry*
2011-present Scientific Advisory Board Member, Alberta Ingenuity Centre for Carbohydrate Science (AICCS)
2011-2012 Member of National Academies of Science (NAS) Committee on Assessing the Importance and Impact of Glycomics and Glycosciences (Report: *Transforming Glycoscience: A Roadmap for the Future*; http://www.nap.edu/catalog.php?record_id=13446)
2011-present Founder of ViaMune, Inc
2012-2014 Scientific Advisor, SCYNEXIS, Inc
2012-present Leader of the Subgroup 'Glycan Synthesis and Microarrays' of the Consortium for Functional Glycomics (CFG) and CFG Steering Committee member
2012-present Associate Director of External Affair, Complex Carbohydrate Research Center, University of Georgia
2013-present Scientific Advisory Board Member, Institute for Chemical Immunology (ICI) (Netherlands)
2013-2015 Editorial Board Member, *Carbohydrate Research*
2014 & 2016 Member of the PE5–Synthetic Chemistry and Materials Starting Grant Evaluation Panel of the European Research Council (ERC)
2014-2018 Treasurer of the American Chemical Society (ACS) Carbohydrate (CARB) Division
2015-present Advisory Board Member, Amphastar Pharmaceuticals, Inc
2015-present Scientific Advisory Board Member, Kaleido Biosciences
2015-present Program Leader, Utrecht Institute of Pharmaceutical Sciences, Utrecht University
2015-present Executive Board Member, Bijvoet Center for Biomolecular Research, Utrecht University
2017-present Scientific Advisory Board Member, Multidisciplinary European Joint Doctorate in the Design and Development of Glyco Drugs (PhD4GlycoDrug consortium)

Conferences/Symposia Organized

RSC Symposium, New Directions in Organic and Bioorganic Chemistry, School of Chemistry, University of Birmingham (United Kingdom) December 10, 1996: Chair

RSC Spring Meeting of the Carbohydrate Group: Synthesis, Structure and Function, School of Chemistry, University of Birmingham (United Kingdom) March 29-April 1, 1998: Chair

Gordon Research Conference on Carbohydrates, Tilton School, NH (USA) June 19-24, 2005: Chair

Symposium 'Carbohydrate Recognition Mechanisms and Applications' at the 231st National Meeting of the American Chemical Society, Chemistry Division of Carbohydrates, Atlanta, GA (USA) March 26-27, 2006: Co-organizer

Georgia Glycoscience Symposia, Complex Carbohydrate Research Center, University of Georgia, Athens, GA (USA) May 12, 2005; May 18, 2006; May 8, 2007; May 16, 2008; April 28, 2015: Co-organizer

Symposium 'Synthetic Oligosaccharides and Glycoconjugates for Preventing and Combating Disease' at the 240th National Meeting & Exposition of the American Chemical Society, Boston, MA (USA) August 23, 2010: Co-organizer

Symposium 'Carbohydrate Recognition in Health and Disease' at the 2010 Pacifichem Conference, Honolulu, HI (USA) December 15-20, 2010: Co-organizer

Georgia Glycoscience Symposium and CFG Workshop, Paradigms for Glycan Action in Development and Disease, Complex Carbohydrate Research Center, University of Georgia, Athens, GA (USA) March 14-15, 2011: Co-organizer

Symposium 'Glycoscience at the Crossroad of Health, Materials, and Energy' at the 244th ACS National Meeting, Philadelphia, PA (USA) August 21-22, 2012: Co-organizer

2013 International Symposium on Chemical Glycobiology, Consortium for Functional Glycomics (CFG) and the Chinese Academy of Sciences (CAS), Shanghai (China) June 29-July 1, 2013: Co-organizer

The 27th International Carbohydrate Symposium, Indian Institute of Science, Bangalore (India) January 12-17, 2014: Scientific Programme Committee member

CFG Workshop in Molecular and Cellular Glycoscience, 'Exploring the Frontiers of Chemical Glycoscience', Bethesda, MD (USA) May 19-20, 2014: Co-organizer

Symposium 'Carbohydrate Recognition in Health and Disease' at Pacifichem 2015, Honolulu, HI (USA) December 15-20, 2015: Co-organizer

Symposium 'Synthesis of Carbohydrates, Glycoconjugates & Glycan-Based Biomaterials' at the XXVIII International Carbohydrate Symposium (ICS 2016), New Orleans, LA (USA) July 18-19, 2016: Co-organizer

Symposium 'Enzymes in Glycoscience' at the 256th ACS National Meeting & Exposition, Boston, MA (USA) Aug 19-23, 2018: Co-organizer

Professional Societies

1986-present Royal Dutch Society of Chemistry (KNCV)
2000-present American Chemical Society (ACS)
2001-present American Association for the Advancement of Science (AAAS)
2002-present Society for Glycobiology
2006-2016 American Society for Microbiology (ASM)

Teaching

1993-1994 Third Year Chemistry, Stereoselective Synthesis (7 Lectures)
Postgraduate Workshop, Modern Synthetic Methods (12 Lectures)

1994-1995 Third Year Chemistry, Stereoselective Synthesis (7 Lectures and 3 Tutorials)
Bioorganic Chemistry for Biochemistry Students (8 Lectures)
Natural Product Synthesis (3 Lectures)
Postgraduate Workshop, Modern Synthetic Methods (3 Lectures)
Demonstrator to Second Year Organic Practical (35 hours)

1995-1996 Third Year Chemistry, Stereoselective Synthesis (7 Lectures and 3 Tutorials)
Second Year Biochemistry, Bioorganic Chemistry (8 Lectures)
Third Year Chemistry, Protein Chemistry (7 Lectures and 2 Tutorials)
Third Year Chemistry, Carbohydrate Chemistry (13 Lectures and 2 Tutorials)
Third Year Chemistry, Natural Product Synthesis (3 Lectures and 1 Tutorials)
Postgraduate Workshop, Modern Synthetic Methods (3 Lectures)
Demonstrator to Second Year Organic Practical (35 hours)

1996-1997 Third Year Chemistry, Stereoselective Synthesis (12 Lectures and 3 Tutorials)
Second Year Biochemistry, Bioorganic Chemistry (11 Lectures)
Third Year Chemistry, Protein Chemistry (7 Lectures and 2 Tutorials)
Third Year Chemistry, Carbohydrate Chemistry (13 Lectures and 2 Tutorials)

1997-1998 Third Year Chemistry, Stereoselective Synthesis (12 Lectures and 3 Tutorials)
Second Year Biochemistry, Bioorganic Chemistry (11 Lectures)
Third Year Chemistry, Protein Chemistry (7 Lectures and 2 Tutorials)
Third Year Chemistry, Carbohydrate Chemistry (9 Lectures and 2 Tutorials)
Third Year Chemistry, Bioorganic chemistry (15 Lectures)

1998-1999 Organic Synthesis (Chemistry 8320), Graduate Course (3 credits)

1999-2000 Organic Spectroscopy (Chemistry 8340), Graduate Course (3 credits)

2000-2001 Organic Synthesis (Chemistry 8320), Graduate Course (3 credits)

2001-2002 Organic Chemistry Seminar (Chemistry 8130), Graduate Course (1 credit)

2002-2003 Organic Synthesis (Chemistry 8320), Graduate Course (3 credits)

2003-2004 Organic Chemistry Seminar (Chemistry 8130), Graduate Course (1 credit)
Organic Synthesis (Chemistry 8320), Graduate Course (3 credits)

2004-2005 Organic Chemistry Seminar (Chemistry 8130), Graduate Course (1 credit)
Organic Synthesis (Chemistry 8320), Graduate Course (3 credits)

2005-2006 Organic Chemistry Seminar (Chemistry 8130), Graduate Course (1 credit)
Organic Synthesis (Chemistry 8320), Graduate Course (3 credits)

2006-2007 Carbohydrate Chemistry and Biology (Chemistry 8390), Graduate Course (3 credits)

2008-2009 Carbohydrate Chemistry and Biology (Chemistry 8390), Graduate Course (3 credits)

2010-2011 Organic Synthesis (Chemistry 8320), Graduate Course (3 credits)

2011-2012 Carbohydrate Chemistry and Biology (Chemistry 8390), Graduate Course (3 credits)

2013-2014 Organic Synthesis (Chemistry 8320), Graduate Course (3 credits)

2015-2016 Carbohydrate Chemistry and Biology (Chemistry 8390), Graduate Course (3 credits)

2016-2017 Organic Chemistry 2 (Lectures and Tutorials)

2017-2018 Carbohydrate Chemistry and Biology (Chemistry 8390), Graduate Course (3 credits)

2017-2018 Organic Chemistry 2 (Lectures and Tutorials)

Postdoctoral Associates Supervised

Anita van Oijen	1994-1997
Alexei Demchenko	1995-2001
Barbra Heskamp	1995-1996
Thomas Stauch	1995-1996
Wallace Macindoe	1996-1998
Maria Esther Arranz-Plaza	1998-2001
Richard Geurtsen	1998-2001
Andre Venot	1998-2015
Edwin Yates	1998
Tong Zhu	1998-2002
Hailong Jiao	1999-2000
Gregory Watt	1999-2002
Therese Buskas	2000-2010
Nikrad Pandurang	2000-2001
Aloysius Siriwardena, Visiting Professor, CNRS, University of Paris (France)	2000-2002
Shaji George	2001-2002
Hammad Hassan, Visiting Profesor, University of Cairo (Egypt)	2001-2002
Bing Li	2001-2004
Jin-Hwan Kim	2002-2007
Quangbin Yang	2002-2005
Jun Guo	2003-2012
Sanjay Kumar	2003-2005
Hyi-Seung Lee	2004-2005
Hui Lui	2004-2005
Jana Rauvolfova	2004-2008
Margreet Wolfert	2004-present
Xiangming Zhu	2005-2006
Michael DeCastro	2006-2008
Galal Elsayed, Visiting Lecturer, University of Cairo (Egypt)	2006
Robert Scott McGavin	2006
Xiuru Li	2007-present
Kaustabh Maiti	2007-2009
Floris van Delft, Visiting Professor, University of Nijmegen (Netherlands)	2008
Frederic Friscourt	2008-2014
Chunxia Li, Visiting Lecturer, Ocean University of China, Qingdao, Shandong (China)	2008-2009
Kai-For Mo	2009-2012
Dinanath Fulse	2009-2010
Zhen Wang	2009-2011
Abu-Baker Abdel-Aal El-Sayed	2010-2013
Nagesh Kolishetti	2010-2014
Ernest Nolen, Visiting Professor, Colgate University, Hamilton NY (USA)	2011
Sophon Kaeothip	2011
Bhahwal Ali Shah, Visiting 2011 Indo-US Research Fellow, Indian Institute of Integrative Medicine (India)	2011-2012
Lin Liu	2012-present
Rajib Panchadhayee	2012-2015
Sourav Sarkar	2012-2014
Qi Gao	2012-2016
Min Huang	2013-2015
Yongjiang Wang, Visiting Professor, Zhejiang University of Science and Technology (China)	2013
Chantelle Capicciotti	2014-2018
Anju Sirohiwal	2014-2015
Ning Ding, Visiting Professor, Fudan University, Shanghai (China)	2014-2016
Maria Jesus Moure Garcia	2015-present
Pradeep Chopra	2015-present
Tiehai Li	2015-present
Yukun Qin, Visiting Professor, IOCAS, Qingdao, Shandong (China)	2015-2016
Oier Aizpurua Olaizola, Visiting Scientist, University Basque Country (Spain)	2016
Postdoc	2017-2018
Nuria Martínez Sáez	2016-present
Victor Somovilla	2017-present
Yugen Zhu	2016-present
Anthony Prudden	2017-present

Graduate Students Supervised

Steven Isles, Ph.D.	1993-1996
Andrew Burton, Ph.D.	1994-1997
Robert Eveson, Ph.D.	1994-1997
Richard Geurtsen, Ph.D.	1994-1998
Robin Gibson, Ph.D.	1994-1998
Tiina Kärkkäinen, M.Sc.	1994-1996
Anne Keromnes, M.Sc.	1994-1997
Nathalie Navarre, Ph.D.	1994-1998

Simeon Bowers, Ph.D.	1995-1998
Sander Henzing, Visiting Student	1995-1996
Floris Hout, Visiting Student	1995-1996
Mathew Johnson, Ph.D.	1995-1998
Frank Reichel, Ph.D.	1995-1998
Tong Zhu, Ph.D.	1995-1998
Gianluca Belogi, Ph.D.	1996-2000
Christopher Clarke, Ph.D.	1996-2000
Michael Haller, Ph.D.	1996-2001
Petri Setälä, M.Sc.	1996
Nicolas Amiot, Ph.D.	1997-2001
Christelle Arles, M.Sc.	1997
Yu Bai, Ph.D.	1997-2000
Martin McWatt, Ph.D.	1997-2000
Cristina De Meo, Ph.D.	1998-2001
Galal Elsayed, Ph.D.	1998-2003
Carmen Galan-Hurtado, Ph.D.	1998-2002
Smita Thobhani, Ph.D.	1998-2001
Paul Dietzel, M.Sc.	1999-2002
Brian Ember, Ph.D.	1999-2006
Debatosh Majumdar, Ph.D.	1999-2004
Malene Ryborg Jørgensen, Visiting Student	1999-2000
Balaji Santhanam, Ph.D.	1999-2004
Christopher Dodson, M.Sc.	2000-2005
Yanhong Li, Ph.D.	2000-2004
Abhijit Roychowdhury, Ph.D.	2000-2005
Charles Stanton, M.Sc.	2000-2004
David Cato, M.Sc.	2001-2005
Sameer Kawatkar, Ph.D.	2001-2006
Douglas Miller, Ph.D.	2001-2008
Arati Prabhu, M.Sc.	2001-2004
Hai Yang, M.Sc.	2001-2006
Sampat Ingale, Ph.D.	2002-2007
Jin Park, Ph.D.	2002-2009
Yu Rao, Ph.D.	2002-2007
Yanghui Zhang, Ph.D.	2002-2007
Wei Zhong, Ph.D.	2002-2007
Vishal Khot, M.Sc.	2003-2007
Alok Mehta, Ph.D.	2003-2008
James Neves, M.Sc.	2003-2008
Xinghai Ning, Ph.D.	2003-2008
Mahalakshmi Vasan, Ph.D.	2003-2008
Jinkeng Asong, Ph.D.	2004-2009
Jidnyasa Gaekwad, Ph.D.	2004-2009
Monique Phillips, M.Sc.	2004-2008
Sailaja Arungundram, Ph.D.	2005-2010
Shailesh Ambre, Ph.D.	2005-2012
Srinivasa Koutha, Ph.D.	2005-2013
Yusuf Vohra, Ph.D.	2005-2010
Thomas Boltje, Visiting Student	2005-2006
Ph.D.	2006-2011
Jessica Cardot, Ph.D.	2006-2011
Matthew Foote, M.Sc.	2006-2010
Pamela Thompson, Ph.D.	2006-2011
Qinghui Wang, Visiting Student	2007-2008
Kanar Al-Mafraji, Technician	2007-2011
Roshan Baliga, Ph.D.	2007-2013
Omkar Dhamale, Ph.D.	2007-2013
Petr Ledin, Ph.D.	2007-2013
Ngalle Eric Mbua, Ph.D.	2007-2012
Radha Sardar, Ph.D.	2007-2012
Krajang Talabnin, Visiting Student	2007-2008
Abu-Baker Abdel-Aal El-Sayed, Visiting Student	2008
Zoeisha Chinoy, Ph.D.	2008-2014
Tao Fang, Ph.D.	2008-2014
Brian Sanders, Postgraduate	2008-2010
Huiquig Li, Technician	2009-2012
Ye Ji, Postgraduate	2009-2012
Josette Wilkes, Ph.D.	2009-2016
Wei Huang, Ph.D.	2010-2016
Anthony Prudden, Ph.D.	2010-2016
Nitin Supekar, Ph.D.	2010-2016
Chengli Zong, Ph.D.	2010-2016
Loek Eggermont, Visiting Student	2011
Qi Gao, Visiting Student	2011-2012
Robert Chapman, Ph.D.	2011-2017
Manish Hudlikar, Ph.D.	2011-2017
Apoorva Joshi, Ph.D.	2011-2018
Tiantian Sun, Ph.D.	2011-2017
Nuria Martínez Sáez, Visiting Student	2012
Yi Gu, Ph.D.	2012-present
Apoorva Srivastava, Ph.D.	2012-present
Melanie Edlin, Postgraduate	2013-2015
Weiyu Li, Postgraduate	2013-2015
Zeshi Li, Ph.D.	2013-present
Weigang Lu, Ph.D.	2013-present
Ivan Gagarinov, Ph.D.	2014-present
Alexandra Walker, M.Sc.	2014-2016
Kun Yuan, Ph.D.	2014-present
Huzi Sun, Ph.D.	2014-present
Mehman Bunyatov, Ph.D.	2015-present
Ingrid 't Hart, Ph.D.	2015-present
Fan Yi, Visiting Student	2015
Frederik Broszeit,	

Visiting Student	2015-2016	Liangwei Zhang, Ph.D.	2016-present
Ph.D.	2016-present	Ashley Carter, Ph.D.	2017-present
Shubham Sharma, Ph.D.	2015-present	Gerlof Bosman, Ph.D.	2017-present
Enrico Verpalen, M.Sc.	2016-2018	Gael Vos, Ph.D.	2017-present
Ph.D.	2018-present	Rosanne van Beek, Ph.D.	2017-present
Na Wei, Technician	2016-present	Sayani Chowdhurry, Ph.D.	2017-present
Dushen Chen, Ph.D.	2016-present	Yanyan Liu, Ph.D.	2017-present
Minglong Liu, Ph.D.	2016-present	Xiufen Liu, Technician	2017-present
Xianke Meng, Ph.D.	2016-present		
Lifeng Sun, Ph.D.	2016-present		

Lectures/Seminars (from 1993, in reverse chronological order)

281	September 10, 2018	Symposium: Human Milk Oligosaccharides "Mama's Sweet Immunological Secrets", Utrecht (Netherlands)
	Lecture	**Complexity of human milk oligosaccharides and biological function**
280	August 21, 2018	256th ACS National Meeting & Exposition, Boston, MA (USA)
	Invited lecture	**Glycan complexity and biological recognition**
279	July 2, 2018	NIH Common Fund Glycoscience Program, Bethesda, MD (USA)
	Presentation	**Streamlining the chemoenzymatic synthesis of asymmetrical glycans of biological importance**
278	June 27, 2018	GLYCOTREAT consortium annual meeting, Oegstgeest (Netherlands)
	Keynote lecture	**Deconstructing and reconstructing heparan sulfate**
277	June 7-8, 2018	CarboMet workshop 'The Role of Carbohydrates in the Gut Microbiome', Brussels (Belgium)
	Presentation	**Chemoenzymatic synthesis of human milk oligosaccharides**
276	May 29, 2018	InnoSyn, Geleen (Netherlands)
	Seminar	**Streamlining complex carbohydrate synthesis through enzymatic procedures**
275	May 23, 2018	Leiden University Medical Center (LUMC), Leiden (Netherlands)
	Seminar	**Functional glycomics using synthetic glycans**
274	May 3, 2018	1st International Symposium on Glycovirology 2018, Schöntal (Germany)
	Keynote lecture	**Cell-surface glyco-engineering to reveal functional receptors for Lassa virus**
273	April 23, 2018	12th Georgia Glycoscience Symposium, Georgia State University, Atlanta, GA (USA)
	Invited lecture	**Functional glycomics through cell surface glyco-editing**
272	March 20, 2018	Session 'Recent Advances in Catalytic Carbohydrate Reaction Development' at the 255th ACS National Meeting, New Orleans, LA (USA)
	Invited lecture	**Cell-surface glyco-engineering using sialyl transferases and modified CMP-Neu5Ac derivatives**
271	March 19, 2018	Session 'Frontiers in Glycoscience, Bridging the Gap Between Carbohydrate & Polysaccharide Chemistries' at the 255th ACS National Meeting, New Orleans, LA (USA)
	Invited lecture	**Streamlining complex carbohydrate synthesis through enzymatic procedures**

270	March 7, 2018	Center for Vaccines and Immunology, UGA, Athens, GA (USA)
	Seminar	**Chemical approaches to develop carbohydrate-based vaccines and immune modulators**
269	February, 9, 2018	CIC bioGUNE, Bilbao (Spain)
	Seminar	**Functional glycomics through chemical synthesis**
268	January 24, 2018	Max Planck Institute, Potsdam (Germany)
	Seminar	**Glycan complexity and biological recognition**
267	January 23, 2018	Freie Universität Berlin, Dahlem (Germany)
	Seminar	**Deconstructing and reconstructing heparan sulfate: from polymers to monomers to multivalent materials**
266	December 1, 2017	Aspen Pharma, Oss (Netherlands)
	Seminar	**Chemical synthesis of heparan sulfate oligosaccharides**
265	November 30, 2017	Carbohealth 2017 Symposium, Carbohydrate Competence Center, Zwolle (Netherlands)
	Keynote lecture	**Functional glycomics through chemical synthesis**
264	November 10, 2017	2017 Southeast Regional Meeting ACS (SERMACS), Charlotte, NC (USA)
	Keynote lecture	**Functional glycomics through chemical synthesis**
263	October 23, 2017	Pfizer Inc, Chesterfield, MO (USA)
	Seminar	**Functional glycomics through chemical synthesis**
262	October 11, 2017	Radboud UMC, Nijmegen (Netherlands)
	Seminar	**Glycan complexity and biological recognition**
261	October 9, 2017	Institute of Microbiology, ETH Zürich (Switzerland)
	Seminar	**Functional glycomics through chemoenzymatic synthesis**
260	September 27, 2017	MMD mini-symposium: Chemical Immunology, Radboud UMC, Nijmegen (Netherlands)
	Invited lecture	**Immune modulation through protein glycosylation**
259	September 7, 2017	RSC Carbohydrate Group Meeting 2017, Dublin (Ireland)
	Plenary lecture	**Functional glycomics through chemical synthesis**
258	August 30-31, 2017	NIH Common Fund Glycoscience Program, Bethesda, MD (USA)
	Presentation	**Streamlining the chemoenzymatic synthesis of asymmetrical glycans of biological importance**
257	Juli 6, 2017	European Symposium of Organic Chemistry (ESOC) 2017, Köln (Germany)
	Plenary lecture	**Complex glycans in health and disease**
256	Juli 3, 2017	European Carbohydrate Symposium - EUROCARB 2017, Barcelona (Spain)
	Plenary lecture	**Functional glycomics through chemical synthesis**
255	June 6, 2017	IBC's 5th Annual Bioconjugates - From Targets to Therapeutics, San Diego, CA (USA)
	Invited lecture	**Synthetic approaches to glycoconjugate vaccine development**
254	May 2, 2017	Stratingh Institute for Chemistry, University of Groningen (Netherlands)
	Seminar	**Functional glycomics through chemical synthesis**
253	April 14, 2017	University of Wisconsin, Madison, WI (USA)
	Seminar	**Fully synthetic carbohydrate-based vaccines and immune modulators**

252	April 5, 2017	Symposium 'Advances in Polysaccharides: Practice and Applications' at the 253rd ACS National Meeting & Exposition 2017, San Francisco, CA (USA)
	Invited lecture	**Chemo-enzymatic synthesis and functional properties of well-defined human milk oligosaccharides**
251	April 4, 2017	Symposium 'Biogenesis, Biochemistry, Synthesis and Application of Lipopolysaccharides' at the 253rd ACS National Meeting & Exposition 2017, San Francisco, CA (USA)
	Invited lecture	**Differential induction of innate immune responses by synthetic lipid A derivatives**
250	April 3, 2017	Anselme Payen Symposium at the 253rd ACS National Meeting & Exposition 2017, San Francisco, CA (USA)
	Invited lecture	**Precision biomaterials based on synthetic heparin sulfate oligosacharides**
249	March 17, 2017	KNCV Medicinal Chemistry Spring Meeting 2017 'Small Molecules and Biologicals in Cancer Immunotherapy', Utrecht (Netherlands)
	Invited lecture	**Synthetic vaccines and immune modulators for cancer**
248	March 10, 2017	3rd Chemical Immunology Conference, Amsterdam (Netherlands)
	Invited lecture	**Carbohydrate-based cancer vaccine**
247	March 7, 2017	David de Wied Colloquium, Utrecht University, Utrecht (Netherlands)
	Seminar	**Deconstructing and reconstructing heparin sulfate**
246	January 20, 2017	13th Aarhus Winter Meeting on Modern Trends in Chemistry, Aarhus (Denmark)
	Invited lecture	**Metal free click reactions for site-specific modification of proteins and glycoproteins**
245	January 6, 2017	4th International Conference on Cellular & Molecular Bioengineering (ICCMB4), Singapore (Singapore)
	Plenary lecture	**Deconstructing and reconstructing heparan sulfate**
244	December 2, 2016	College of Chemistry and Engineering, Peking University, Beijing (China)
	Xingda lecture	**Functional glycomics through chemical synthesis**
243	December 1, 2016	Tsinhua University, Beijing (China)
	Invited lecture	**Fully synthetic vaccines and immune modulators**
242	November 14, 2016	Pierre and Marie Curie University (UPMC), Paris (France)
	Seminar	**A fully synthetic carbohydrate-based vaccine for cancer**
241	August 25, 2016	Pfizer Inc, Chesterfield, MO (USA)
	Seminar	**Site specific conjugations for the development of vaccines and immuno-therapeutics**
240	August 23, 2016	Cope Award Symposium at the 252nd ACS National Meeting & Exposition, Philadelphia, PA (USA)
	Arthur C. Cope mid career scholars award lecture	**Functional glycomics through chemical synthesis**
239	July 25, 2016	Gordon Research Conference on Stereochemistry, Newport, RI (USA)
	Invited lecture	**Carbohydrate complexity and molecular recognition**
238	July 20, 2016	XXVIII International Carbohydrate Symposium (ICS 2016), New Orleans, LA (USA)
	Claude S. Hudson award lecture	**An integrated approach to uncover ligands of heparan sulfate binding proteins**

237	July 11, 2016	Gordon Research Conference on Proteoglycans, Andover, NH (USA)
	Invited lecture	**An integrated approach to uncover ligands of heparan sulfate binding proteins**
236	July 4, 2016	27th European Colloquium on Heterocyclic Chemistry (ECHC 2016), Amsterdam (Netherlands)
	Invited lecture	**Metal free click reactions for glycoconjugate modification**
235	June 28, 2016	NIH Common Fund Glycoscience Program, Bethesda, MD (USA)
	Presentation	**Streamlining the chemoenzymatic synthesis of asymmetrical glycans of biological importance**
234	June 22, 2016	XV Meeting-School on Carbohydrate Chemistry (CSCC15), Certosa di Pontignano, Siena (Italy)
	Plenary lecture	**An integrated approach to uncover ligands for heparan sulfate binding proteins**
233	June 15, 2016	Advanced Functional Polymers for Medicine 2016 seminar, University of Twente, Enschede (Netherlands)
	Invited lecture	**Deconstructing en reconstructing heparan sulfate**
232	April 22, 2016	Glycoscience Japan - The Netherlands, 4th bilateral NWO-JSPS 'Glycobiology in Health and Disease', Leiden (Netherlands)
	Invited lecture	**An integrated approach to uncover ligands for heparan sulfate binding proteins**
231	March 16, 2016	CARB Symposium 'From mAb to ADCs: Tailored Antibodies & Dedicated Chemistry Technologies for Site Specific ADCs' at the 251st ACS National Meeting & Exposition, San Diego, CA (USA)
	Invited lecture	**Preparation of well-defined antibody-drug conjugates through glycan remodeling and strain promoted azidealkyne cycloadditions**
230	March 16, 2016	CARB Symposium 'Click Chemistry in Carbohydrate, Materials Science & Biomedicine: Symposium in honor of Prof. Sharpless's 75th birthday' at the 251st ACS National Meeting & Exposition, San Diego, CA (USA)
	Invited lecture	**Metal free click reactions for glycoconjugate modification**
229	January 22, 2016	M&M 2016 Symposium, Utrecht University (Netherlands)
	Invited lecture	**Functional glycomics through chemical synthesis**
228	December 17, 2015	Symposium 'Carbohydrate Recognition in Health and Disease' at Pacifichem 2015, Honolulu, HI (USA)
	Invited lecture	**Functional glycomics through chemical synthesis**
227	September 25, 2015	Tongji University, Shanghai (China)
	Invited lecture	**A fully synthetic carbohydrate-based vaccine for cancer**
226	September 22, 2015	Nanjing Pharmaceutical University, Nanjing (China)
	Invited lecture	**Therapeutic cancer vaccine**
225	September 22, 2015	ANP Conference Technology, Nanjing (China)
	Invited lecture	**An integrated approach to identify ligands for heparin sulfate binding proteins**
224	September 8, 2015	University of Georgia, Athens, GA (USA)
	Norman L. Allinger lecture	**Adventures with complex carbohydrates**
223	August 7, 2015	Georgia Institute of Technology, Atlanta, GA (USA)
	Seminar	**Functional glycomics**

222	July 19-24, 2015	FASEB Science Summer Conference 'Origins and Benefits of Biologically Active Components in Human Milk', Big Sky, MT (USA)
	Invited lecture	**Unraveling functions of milk oligosaccharides using chemo-enzymatic synthesis**
221	July 16, 2015	Symposium marking the accomplishments of Professor David R. Bundle, University of Alberta, Edmonton (Canada)
	Invited lecture	**An integrated approach to uncover ligands for heparin sulfate binding proteins**
220	June 26, 2015	Utrecht Chemistry Day 2015, Utrecht (Netherlands)
	Keynote lecture	**An integrated approach to uncover ligands for heparan sulfate binding proteins**
219	June 15, 2015	Gordon Research Conference on Carbohydrates, West Dover, VT (USA)
	Invited lecture	**Functional glycomics through chemical synthesis**
218	May 28, 2015	NIH-FDA Glycoscience Research Day, NIH, Bethesda, MD (USA)
	Invited lecture	**An integrated approach to uncover ligands for heparan sulfate binding proteins**
217	April 18, 2015	1st Southeast Glycobiology Symposium, Georgia Consortium of Glycoscience, Georgia State University, Atlanta, GA (USA)
	Invited lecture	**An integrated approach to uncover ligands for heparan sulfate binding proteins**
216	March 23, 2015	CARB Symposium 'Glycomimetic Compounds: An Untapped Source of Novel Therapeutics' at the 249th ACS National Meeting, Denver, CO (USA)
	Invited lecture	**Well-defined antibody-drug conjugates (ADCs) through site-specific conjugation**
215	March 23, 2015	Symposium on 'Frontiers in Glycoscience' at the 249th ACS National Meeting, Denver, CO (USA)
	Keynote lecture	**Integrated approach to uncover ligands for heparan sulfate binding proteins**
214	March 2-3, 2015	2015 Suddath Symposium - Immunology & ImmunoEngineering, Georgia Tech, Atlanta, GA (USA)
	Invited lecture	**Synthetic approaches for rationale vaccine development**
213	October 28-31, 2014	15th Tetrahedron Symposium - Asia Edition 'Challenges in Bioorganic and Organic Medicinal Chemistry', Singapore (Singapore)
	Keynote lecture	**Functional glycomics through chemical synthesis**
212	October 18, 2014	American Chemical Society St. Louis Award Symposium, MO (USA)
	Invited lecture	**Functional glycomics through chemical synthesis**
211	September 22, 2014	Pennsylvania State University, College of Medicine, Hershey, PA (USA)
	Seminar	**Functional glycomics through chemical synthesis**
210	August 10-11, 2014	Session 'Glycoconjugates: Design, Chemistry, Characterization, and Manufacturing' at the 248th ACS National Meeting, San Francisco, CA (USA)
	Invited lecture	**Development of fully synthetic self-adjuvanting cancer vaccines**
209	June 24-27, 2014	15th Tetrahedron Symposium 'Challenges in Bioorganic and Organic Medicinal Chemistry', London (United Kingdom)
	Plenary lecture	**Functional glycomics through chemical synthesis**
208	June 5-7, 2014	37th Steenbock Symposium 'The Future of Chemical Biology', University of Wisconsin, Madison (USA)
	Invited lecture	**Functional glycomics through chemical synthesis**

207	June 4-6, 2014	IBC's 2nd Annual, Bioconjugates: From Targets to Therapeutics, San Francisco, CA (USA)
	Featured presentation	**Metal free click reactions for site-specific protein and glycoprotein modification**
206	May 28-30, 2014	XI Carbohydrate Symposium, Logroño, La Rioja (Spain)
	Plenary lecture	**Functional glycomics through chemical synthesis**
205	May 19-20, 2014	CFG Workshop in Molecular and Cellular Glycoscience, 'Exploring the Frontiers of Chemical Glycoscience', Bethesda, MD (USA)
	Invited lecture	**Asymmetric synthesis for complex N-linked glycans**
204	April 14, 2014	University of Colorado, Boulder (USA)
	Seminar	**A carbohydrate-based therapeutic vaccine for cancer**
203	March 17, 2014	Symposium 'New Directions in Carbohydrate Synthesis' at the 247th ACS National Meeting, Dallas, TX (USA)
	Invited lecture	**General approach for the synthesis of libraries of symmetrical and asymmetrical N-glycans**
202	March 11, 2014	Tufts University, Medford, MA (USA)
	Seminar	**Functional glycomics through chemical synthesis**
201	January 25, 2014	2nd Annual Physician Oncology Symposium 'Connections that Cure', Athens Regional Medical Center, Athens, GA (USA)
	Invited lecture	**Carbohydrates, cancer, and vaccines**
200	January 12-17, 2014	The 27th International Carbohydrate Symposium, Indian Institute of Science, Bangalore (India)
	Roy Whistler 2014 award lecture	**Functional glycomics through chemical synthesis**
199	December 9, 2013	Department of Infectious Diseases, UGA, Athens, GA (USA)
	Seminar	**Functional glycomics through chemical synthesis**
198	November 29, 2013	Utrecht University (Netherlands)
	Seminar	**Functional glycomics through chemical synthesis**
197	November 17-20, 2013	Annual Conference of the Society for Glycobiology, St. Petersburg, FL (USA)
	Invited lecture	**Context dependent glycan recognition through the next generation of glycan microarray**
196	November 17, 2013	Consortium for Functional Glycomics (CFG) Satellite Symposium 'Development and Application of Transformative Technologies in Glycobiology', St. Petersburg, FL (USA)
	Invited lecture	**Selective labeling strategies for glycoconjugates of living cells**
195	November 1, 2013	UGA-GRU Cancer Research Retreat, Lake Oconee, GA (USA)
	Seminar	**A fully synthetic, multi-component cancer vaccine**
194	October 11, 2013	ICB&DD 7th Annual Symposium 'Frontiers in Glycosciences and Chemical Biology', Stony Brook University, NY (USA)
	Plenary lecture	**Glycoscience: downsizing or oversizing**
193	October 9, 2013	University of North Carolina, Chapel Hill, NC (USA)
	Seminar	**Glycoscience: downsizing or oversizing**
192	September 19, 2013	Molecular Basis of Disease Area of Focus (MBDAF), Georgia State University, Atlanta, GA (USA)
	MBD distinguished lecture	**Glycoscience: downsizing or oversizing**
191	September 8-9, 2013	Session 'Current Topics in Glycobiology' at the 246th ACS National Meeting, Indianapolis, IN (USA)
	Invited lecture	**Chemo-enzymatic synthesis of asymmetrically substituted multi-antennary glycans for microarray development**

190	July 7-11, 2013	17th European Carbohydrate Symposium, Tel Aviv (Israel)
	Plenary lecture	**Glycoscience oversized**
189	June 29-July 1, 2013	2013 International Symposium on Chemical Glycobiology, Consortium for Functional Glycomics (CFG) and the Chinese Academy of Sciences (CAS), Shanghai (China)
	Invited lecture	**Chemo-enzymatic synthesis of asymmetrically substituted multi-antennary glycans for probing structure activity relationships**
188	April 19, 2013	Colgate University, Hamilton, NY (USA)
	Jean Dreyfus Boissevain lecture	**A fully synthetic multicomponent vaccine for cancer**
187	April 16-18, 2013	World Vaccine Congress & Expo, Washington, DC (USA)
	Invited lecture	**Harnessing the power of the immune system to build stronger cancer vaccines**
186	April 8-9, 2013	Symposium 'Heparin: Challenges and Opportunities for a Biological Drug' at the Spring 2013 ACS National Meeting, New Orleans, LA (USA)
	Invited lecture	**Identification of ligands for chemokines and cytokines using a heparin sulfate microarray**
185	March 22, 2013	TEDxUGA, University of Georgia, Athens (USA)
	Invited lecture	**Carbohydrates – Cancer – Vaccines**
184	February 21-22, 2013	NICHD Workshop on Bioactive Glycans in Human Milk, Bethesda, MD (USA)
	Invited lecture	**Chemo-enzymatic synthesis of asymmetrically substituted multi-antennary glycans for probing structure activity relationships**
183	January 7, 2013	Pfizer, Chesterfield, MO (USA)
	Invited lecture	**Fully synthetic vaccines and immune modulators**
182	November 11, 2012	Joint meeting of the Society for Glycobiology (SFG) & American Society for Matrix Biology (ASMB), San Diego, CA (USA)
	Invited lecture	**A rational approach to synthetic vaccines**
181	November 6, 2012	SWRM Glycochemistry Symposium at the 68th Southwest Regional Meeting (SWRM) of the ACS, Baton Rouge, LA (USA)
	Invited lecture	**Chemical methods for biomarker discovery**
180	October 4, 2012	Clemson University, SC (USA)
	Seminar	**A fully synthetic carbohydrate-based vaccine for cancer**
179	August 21, 2012	Session 'Glycoscience at the Crossroad of Health, Materials, and Energy' at the 244th ACS National Meeting & Exposition, Philadelphia, PA (USA)
	Invited lecture	**Fully synthetic immune modulators and tripartite vaccines for cancer**
178	July 26, 2012	26th International Carbohydrate Symposium, Madrid (Spain)
	Invited lecture	**Chemo-enzymatic synthesis of asymmetrically substituted multi-antennary glycans for microarray development**
177	July 21, 2012	CIC biomaGUNE, Workshop 'Increasing the Impact of Glycoscience through New Tools and Technologies', San Sebastian (Spain)
	Keynote lecture	**Fully synthetic vaccines and immune modulators**
176	June 1, 2012	SCYNEXIS, Durham, NC (USA)
	Seminar	**Fully synthetic immune modulators**
175	April 23, 2012	University of North Caroline, Charlotte (USA)
	Seminar	**A fully synthetic carbohydrate-based vaccine for cancer**

174	March 31, 2012	1st CDT Conference, Center for Diagnostics & Therapeutics, Georgia State University, Atlanta (USA)
	Invited lecture	**Chemical methods for biomarker discovery**
173	March 15, 2012	Academia Sinica, Taipei (Taiwan)
	Invited lecture	**Glycomics through synthetic oligosaccharides**
172	January 23, 2012	College of Veterinary Medicine, UGA, Athens, GA (USA)
	Seminar	**Carbohydrate-based vaccines and immune modulators**
171	November 9-12, 2011	2011 Annual Conference of the Society for Glycobiology, Seattle, WA (USA)
	Invited lecture	**Chemical methods for biomarker discovery**
170	November 10, 2011	Infectious Disease Research Institute, Seattle, WA (USA)
	Seminar	**Self-adjuvanting vaccines**
169	November 1, 2011	Cellular Biology, UGA, Athens, GA (USA)
	Seminar	**Carbohydrate-based cancer vaccines and immune modulators**
168	October 3-4, 2011	Carbohydrate Moieties as Vaccine Candidates Workshop, NIAID, Rockville, MD (USA)
	Invited lecture	**A fully synthetic multi-component carbohydrate-based cancer vaccine**
167	September 4-7, 2011	9th International Meeting of the Portuguese Carbohydrate Chemistry Group/5th Iberian Carbohydrate Meeting, Vila Real (Portugal)
	Plenary lecture	**Modulation of biological responses with synthetic glycoconjugates**
166	June 28, 2011	Pfizer, BioTherapeutics Unit CovX, San Diego, CA (USA)
	Invited lecture	**New approaches for metal-free click reactions: applications to glycoscience**
165	June 27, 2011	22nd American Peptide Symposium, Bioconjugation Session, San Diego, CA (USA)
	Keynote lecture	**Metal-free click reactions for protein labeling and glycoproteomics**
164	June 19-24, 2011	Gordon Research Conference on Carbohydrates, Waterville, ME (USA)
	Invited lecture	**Carbohydrate-based multicomponent vaccines**
163	June 7, 2011	94th Canadian Chemistry Conference and Exhibition, Carbohydrate and Glycobiology Symposium, Montréal, Quebec (Canada)
	Invited lecture	**Beyond metal- and azide-mediated click reaction: application to glycoscience**
162	May 26, 2011	Shandong University, College of Life Science, Jinan (China)
	Seminar	**Carbohydrate-based vaccines and immuno-modulators**
161	May 25, 2011	Nankai University, College of Chemistry and College of Pharmay, Beijing (China)
	Seminar	**Towards a fully synthetic carbohydrate-based vaccine for cancer**
160	May 24, 2011	Tsinghua University, Beijing (China)
	Seminar	**Towards a fully synthetic carbohydrate-based vaccine for cancer**
159	April 28, 2011	Momenta Pharmaceuticals, Cambridge, MA (USA)
	Invited lecture	**An integrated approach for ligand identification for heparan sulfate binding proteins**

158	April 25, 2011	Research Collaboration Symposium 'Hot Topics in Next-Generation Vaccines R&D', Georgia Research Alliance/Centers for Disease Control and Prevention/CDC Foundation, CDC, Atlanta, GA (USA)
	Invited lecture	**Self-adjuvanting cancer vaccines**
157	March 28, 2011	Session 'Click Chemistry Approaches in Carbohydrate Chemistry' at the 241st National Meeting & Exposition of the American Chemical Society, Anaheim, CA (USA)
	Invited lecture	**Beyond metal- and azide-mediated click reaction: application to glycoscience**
156	March 27, 2011	Claude S. Hudson Award in Carbohydrate Chemistry Symposium at the 241st National Meeting & Exposition of the American Chemical Society, Anaheim, CA (USA)
	Invited lecture	**Combinatorial carbohydrate synthesis for glycomics**
155	March 25, 2011	Hunter College, New York, NY (USA)
	Seminar	**A fully synthetic multi-component carbohydrate-based cancer vaccine**
154	March 23, 2011	Expanding the Chemical Space for Carbohydrates: Roadmap to Automated Synthesis, NIH, Bethesda, MD (USA)
	Invited lecture	**Modular synthesis of heparan sulfate oligosaccharides for array development**
153	March 7, 2011	Pharmaceutical and Biomedical Sciences, UGA, Athens, GA (USA)
	Seminar	**Towards a fully synthetic carbohydrate-based vaccine for cancer**
152	Jan 24, 2011	MedImmune, Gaithersburg, MD (USA)
	Invited lecture	**Synthetic carbohydrate-based diagnostics, vaccines and immune modulators**
151	Dec 15-20, 2010	2010 International Chemical Congress of Pacific Basin Societies (Pacifichem), Honolulu, HI (USA)
	Invited lecture	**Fully synthetic three-component carbohydrate-based vaccine for cancer**
150	Nov 30-Dec 4, 2010	Joint 66th Southwest and 62nd Southeastern Regional Meeting of the American Chemical Society, New Orleans, LA (USA)
	Invited lecture	**New approaches for metal-free click reactions: applications to glycoscience**
149	Sept 19-21, 2010	Consortium for Functional Glycomics Workshop on Glycan Array / Bioinformatics, Atlanta, GA (USA)
	Invited lecture	**Glycosylaminoglycan arrays and label-free detection**
148	Sept 2, 2010	Novartis Vaccines Workshop - Moving Conjugate Vaccines Into The Future, Siena (Italy)
	Invited lecture	**Fully synthetic carbohydrate-based vaccines and immuno-modulators**
147	August 23, 2010	Session 'Synthetic Oligosaccharides and Glycoconjugates for Preventing and Combating Disease' at the 240th National Meeting & Exposition of the American Chemical Society, Boston, MA (USA)
	Invited lecture	**Modular synthesis of heparin sulfate oligosaccharides for array development**
146	August 22, 2010	Session 'Wolfrom-Isbell-New Investigator Award Symposium' at the 240th National Meeting & Exposition of the American Chemical Society, Boston, MA (USA)
	Invited lecture	**Development of a fully synthetic three-component carbohydrate-based cancer vaccine**

145	August 1-6, 2010	25th International Carbohydrate Symposium (ICS2010), Tokyo (Japan)
	Invited lecture	**Modular synthesis of heparan sulfate oligosaccharides for array development**
144	June 14, 2010	Mayo Clinic College of Medicine, Scottsdale, AZ (USA)
	Seminar	**Towards a fully synthetic carbohydrate-based vaccine for cancer**
143	January 28, 2010	University of Auburn, AL (USA)
	Seminar	**A fully synthetic carbohydrate-based vaccine for cancer**
142	December 2, 2009	20th International Symposium on Glycoconjugates - Glycans: From Molecules to Structures to Therapeutics, San Juan, PR (USA)
	Plenary lecture	**Modulation of biological functions with synthetic carbohydrate-based macromolecules**
141	October 22-23, 2009	NIH/NIGMS Workshop, Levering Glycan Array Screens with Biological, Computational and Structural Data, Bethesda, MD (USA)
	Invited lecture	**Unraveling motif recognition by heparan sulfate binding proteins**
140	October 5, 2009	PennState University, PA (USA)
	Seminar	**Towards a fully synthetic carbohydrate-based vaccine for cancer**
139	September 8, 2009	University of Iowa, Iowa City (USA)
	Seminar	**Towards a fully synthetic carbohydrate-based vaccine for cancer**
138	August 17, 2009	238th National Meeting of the American Chemical Society, Washington, DC (USA)
	Invited lecture	**Synthetic oligosaccharides as vaccine candidates for microbes classified as bioterrorism agents**
137	July 19-23, 2009	Mucins in Health and Disease - 10th International Workshop on Carcinoma-associated Mucins, Cambridge (United Kingdom)
	Invited lecture	**Overcoming the poor immunogenicity of tumor-associated glycopeptides**
136	April 6-7, 2009	Bijvoet Tutorial Symposium 2009, Soesterberg (Netherlands)
	Invited lecture	**Modulation of biological functions with synthetic carbohydrate-based macromolecules**
135	March 29 - April 2, 2009	67th Harden - Decoding the Biology of Heparan Sulphate Proteoglycans, Cambridge (United Kingdom)
	Invited lecture	**Probing biological functions of heparan sulfate using synthetic compounds**
134	March 22-26, 2009	237th National Meeting of the American Chemical Society, Salt Lake City, Utah (USA)
	Invited lecture	**Chemical synthesis and immunological properties of synthetic vaccine candidates and immune modulators**
133	March 14-16, 2009	CFG/NIH Workshop, Glycan Microarray Technology and Applications, La Jolla, CA (USA)
	Invited lecture	**Parallel combinatorial synthesis of heparan sulfate derivatives for array development**
132	January 22, 2009	Gordon Research Conference on Glycobiology, Ventura, CA (USA)
	Invited lecture	**Chemical tools for glycoproteomics: novel click reagent and glycopeptide specific antibodies**

131	November 13, 2008	University of California, Davis (USA)
	Seminar	**Modulation of biological functions with synthetic glycoconjugates**
130	October 10, 2008	Kemisk Institute, University of Copenhagen (Denmark)
	Seminar	**Glycosidase inhibitors as novel cancer therapeutics**
129	October 9, 2008	University of Southern Denmark, Odense (Denmark)
	Seminar	**Modulation of biological functions with synthetic glycoconjugates**
128	October 8, 2008	Faculty of Life Sciences, University of Copenhagen (Denmark)
	Seminar	**Modulation of biological functions with synthetic glycoconjugates**
127	October 6, 2008	University of Bristol (United Kingdom)
	Seminar	**Modulation of biological functions with synthetic glycoconjugates**
126	September 16, 2008	FDA CBER DBPAP, Bethesda, MD (USA)
	Invited lecture	**Fully synthetic vaccines and immune modulators**
125	July 27-Aug 1, 2008	XXIV International Carbohydrate Symposium, Oslo (Norway)
	Lecture	**Fast click reactions for labeling of living cells and nano-particles**
124	June 17, 2008	Bio2008, San Diego, CA (USA)
	Invited lecture	**Chemical approaches for protein glycosylation**
123	April 25, 2008	Shanghai Institute of Organic Chemistry (China)
	Seminar	**Fully synthetic carbohydrate-based cancer vaccines and immune modulators**
122	April 23, 2008	PepCon 2008, Shenzhen (China)
	Invited lecture	**Increasing the antigenicity of tumor-associated glycopeptides by targeting Toll-like receptors**
121	April 15, 2008	Northwestern University, Evanston, IL (USA)
	Seminar	**Modulation of biological functions with synthetic carbohydrate-based macromolecules**
120	February 11, 2008	Tulane University, New Orleans, LA (USA)
	Seminar	**The development of a fully synthetic carbohydrate-based cancer vaccine**
119	February 8, 2008	University of Cincinnati, OH (USA)
	Seminar	**Towards a fully synthetic carbohydrate-based cancer vaccine**
118	November 15, 2007	Temple University, Philadelphia, PA (USA)
	Seminar	**Towards a fully synthetic carbohydrate-based cancer vaccine**
117	November 11-14, 2007	Society for Glycobiology 2007 Conference, Boston, MA (USA)
	Invited lecture	**Chemical glycobiology and vaccine development**
116	September 7, 2007	National Chaio-Tung University, Taipei (Taiwan)
	Invited lecture	**Glycosidase inhibitors as novel anticancer therapeutics**
115	September 5, 2007	National Tsing-Hua University, Taipei (Taiwan)
	Invited lecture	**Towards a fully synthetic vaccine for cancer**
114	September 3, 2007	Academia Sinica, Taipei (Taiwan)
	Invited lecture	**Synthetic cancer vaccines and immune modulators**
113	June 17-22, 2007	Gordon Research Conference on Carbohydrates, Tilton, NH (USA)
	Invited lecture	**Synthetic compounds to probe biological functions of complex carbohydrates**
112	June 6-10, 2007	The Young(-ish!) Giants of Chemistry, Edinburgh (United Kingdom)
	Plenary lecture	**Towards a fully synthetic three-component cancer vaccine**

111	March 27, 2007	University of Glasgow (United Kingdom)
	Seminar	**The development of a fully synthetic carbohydrate-based cancer vaccine**
110	March 7-9, 2007	Indian Institute of Chemical Biology, Kolkata (India)
	Invited lecture	**The development of a three-component carbohydrate-based cancer vaccine**
109	February 6, 2007	University of Michigan, Ann Arbor (USA)
	Seminar	**The development of a three-component carbohydrate-based cancer vaccine**
108	February 5, 2007	Wayne State University, Detroit, MI (USA)
	Seminar	**The development of a three-component carbohydrate-based cancer vaccine**
107	January 22, 2007	University of Illinois, Urbana-Champaign (USA)
	Seminar	**The development of a three-component carbohydrate-based cancer vaccine**
106	November 10, 2006	University of Tennessee, Chattanooga (USA)
	Seminar	**The development of a three-component carbohydrate-based cancer vaccine**
105	October 17, 2006	Tufts University, Boston, MA (USA)
	Seminar	**A fully synthetic three-component cancer vaccine**
104	September 10-14, 2006	232nd National Meeting of the American Chemical Society, San Francisco, CA (USA)
	Invited lecture	**Towards a fully synthetic carbohydrate-based anti-cancer vaccine**
103	August 22-23, 2006	Cambridge Healthtech Institute, Boston, MA (USA)
	Invited lecture	**A fully synthetic three-component cancer vaccine**
102	August 6-9, 2006	2nd International Symposium on Biomolecular Chemistry, Konan University, Kobe (Japan)
	Invited lecture	**Increasing the antigenicity of tumor associated carbohydrates by targeting Toll-like receptors**
101	August 4, 2006	Tokyo Institute of Technology (Japan)
	Seminar	**Stereoselective glycosylations using chiral auxiliaries**
100	July 23-28, 2006	23rd International Carbohydrate Symposium, Whistler, British Columbia (Canada)
	Keynote lecture	**A fully synthetic three-component cancer vaccine**
99	June 28, 2006	Ventana Medical Systems, Inc., Tucson, AZ (USA)
	Seminar	**Synthetic tumor associated carbohydrate antigens for imaging and cancer vaccine development**
98	June 12, 2006	Duke University, Durham, NC (USA)
	Seminar	**Increasing the antigenicity of tumor associated carbohydrates by targeting Toll-like receptors**
97	May 31, 2006	CERMAV-CNRS, Grenoble (France)
	Seminar	**Glycosidase inhibitors as novel anti-cancer therapeutics**
96	May 29, 2006	Université Claude Bernard, Lyon (France)
	Seminar	**Glycosidase inhibitors as novel anti-cancer therapeutics**
95	May-June, 2006	Université de Picardie Jules Vernes, Amiens (France)
94	**Seminar**	**Glycosidase inhibitors as novel anti-cancer therapeutics**
	Seminar	**Stereoselective glycosylations using chiral auxiliaries**
93	April 17-20, 2006	22nd Conference on Combinatorial Chemistry (JCCF 22), Osaka (Japan)
	Invited lecture	**Glycosidase inhibitors as novel anti-cancer therapeutics**

92	April 5, 2006	Institute of Human Virology, Baltimore, MD (USA)
	Seminar	**Increasing the antigenicity of tumor associated carbohydrates by targeting Toll-like receptors**
91	March 26-30, 2006	231st National Meeting of the American Chemical Society, Atlanta, GA (USA)
	Invited lecture	**Glycosidase inhibitors as novel cancer therapeutics**
90	February 19-25, 2006	GLYCANS 2006, Indian Institute of Science, Bangalore (India)
	Invited lecture	**Glycosidase inhibitors as novel cancer therapeutics**
89	January 23, 2006	Albert Einstein College of Medicine, Bronx, NY (USA)
	Seminar	**Telling glycosidase inhibitors what to do**
88	November 21, 2005	The Royal Swedish Academy of Science, Stockholm (Sweden)
	Invited lecture	**Telling glycosidase inhibitors what to do**
87	November 4, 2005	University of Virginia, Charlottesville (USA)
	Seminar	**Telling glycosidase inhibitors what to do**
86	October 14, 2005	van Boom Symposium, Leiden Institute of Chemistry (Netherlands)
	Invited lecture	**Smart molecules inspired by Jacques van Boom**
85	October 12, 2005	Utrecht University (Netherlands)
	Seminar	**Glycosidase inhibitors as novel cancer therapeutics**
84	August 28-Sept. 1, 2005	230th National Meeting of the American Chemical Society, Washington, DC (USA)
	Invited lecture	**Stereoselective glycosylations using chiral auxiliaries**
83	May 25-June 1, 2005	Annual Meeting of the Canadian Society for Chemistry, Saskatoon, SK (Canada)
	Invited lecture	**Stereoselective glycosylations using chiral auxiliaries**
82	April 29-30, 2005	2nd Annual Carbohydrate Symposium, Alberta Ingenuity Centre for Carbohydrate Science, Lake Louise, AB (Canada)
	Plenary lecture	**Complex glycocongugates: new synthetic methods and exploring biological functions**
81	March 13-17, 2005	229th National Meeting of the American Chemical Society, San Diego, CA (USA)
	Invited lecture	**Stereoselective glycosylations using chiral auxiliaries**
80	March 6-11, 2005	Gordon Research Conference on Glycobiology, Ventura, CA (USA)
	Invited lecture	**Telling glycosidase inhibitors what to do**
79	December 21, 2004	University of Nijmegen (Netherlands)
	Seminar	**Complex carbohydrates and the fight between host and pathogens**
78	November 17-20, 2004	Joint Meeting of the Society for Glycobiology and the Japanese Society for Carbohydrate Research, Honolulu, HI (USA)
	Invited lecture	**Synthetic lipopolysaccharides and peptidoglycan derivatives as novel therapeutics for septic shock**
77	November 12, 2004	Iowa State University, Ames (USA)
	Seminar	**Complex glycoconjugates: new synthetic methods and exploring biological functions**
76	August 22-26, 2004	American Chemical Society National Meeting, Philadelphia, PA (USA)
	Invited lecture	**Synthesis and biological evaluation of lipopolysaccharide and peptidoglycan derivatives**
75	June 23-27, 2004	22nd International Carbohydrate Symposium, Glasgow (United Kingdom)
	Seminar	**The use of chiral auxiliaries for stereoselective glycosylations**

74	May 12, 2004	University of California, Los Angeles (USA)
	Seminar	**Unraveling cellular activation using chemical genomics**
73	March 18, 2004	University of St. Andrews (United Kingdom)
	Seminar	**Synthetic glycoconjugates in infection and immunity**
72	March 17, 2004	University of Dundee (United Kingdom)
	Seminar	**Synthetic glycoconjugates in infection and immunity**
71	March 15, 2004	GlaxoSmithKline, Stevenage (United Kingdom)
	Seminar	**Synthetic glycoconjugates in infection and immunity**
70	February 12, 2004	Case Western Reserve University, Cleveland, OH (USA)
	Seminar	**Complex glycoconjugates: new synthetic approaches and probing biological functions**
69	February 11, 2004	University of Toledo, OH (USA)
	Seminar	**Complex glycoconjugates: new synthetic approaches and probing biological functions**
68	January 16, 2004	Georgia State University, Atlanta, GA (USA)
	Seminar	**Complex synthetic carbohydrates and infection and immunity**
67	December 17, 2003	University of Lund (Sweden)
	Seminar	**Complex glycoconjugates: new synthetic approaches and probing biological functions**
66	December 16, 2003	Stockholm University (Sweden)
	Seminar	**Complex glycoconjugates: new synthetic approaches and probing biological functions**
65	December 15, 2003	University of Gothenburg (Sweden)
	Seminar	**Glycoconjugates and the fight between host and pathogen**
64	December 11, 2003	University of Oxford (United Kingdom)
	Seminar	**Complex glycoconjugates: new synthetic approaches and probing biological functions**
63	October 20, 2003	National Cancer Institute, NIH, Bethesda, MD (USA)
	Seminar	**Selective mannosidase inhibitors as cancer therapeutics**
62	October 6, 2003	University of Missouri, St. Louis (USA)
	Seminar	**Complex glycoconjugates: new synthetic approaches and probing biological functions**
61	Sept. 7-11, 2003	Glycobiology Symposium, ACS Meeting, New York, NY (USA)
	Invited lecture	**Multivalency and the mode of action of bacterial sialidases**
60	July 7, 2003	Eurocarb12 meeting, Grenoble (France)
	Carbohydrate research award lecture	**Complex glycoconjugates: new synthetic approaches and probing biological functions**
59	May 15, 2003	Carlsberg Institute, Copenhagen (Denmark)
	Seminar	**Synthesis and biological properties of neoglycoproteins**
58	May 14, 2003	University of Copenhagen (Denmark)
	Seminar	**Multivalency and modular proteins**
57	April 29, 2003	UCLA NanoSystems Seminar Series, UCLA, Los Angeles, CA (USA)
	Invited lecture	**Modulating biological properties with carbohydrate-based macromolecules and nanoparticles**
56	March 3, 2003	Gordon Research Conference on Glycobiology, Ventura, CA (USA)
	Invited lecture	**Chemical approaches to glycobiology**
55	January 17, 2003	Indian Institute of Science, Bangalore (India)
	Seminar	**Synthesis and biological properties of neoglycoproteins**
54	January 14, 2003	XVII International Symposium on Glycoconjugates, Bangalore (India)
	Invited lecture	**Synthesis and proinflammatory effects of peptidoglycan-derived neoglycopeptide polymers**

53	November 10, 2002	Society for Glycobiology Annual Meeting, Boston, MA (USA)
	Invited lecture	**Synthetic oligosaccharides and glycoprotein remodeling**
52	October 16, 2002	Wayne State University, Detroit, MI (USA)
	Seminar	**Synthetic glycoconjugates and the innate and adaptive immune system**
51	September 16, 2002	University of Alberta, Edmonton (Canada)
	Seminar	**Synthetic oligosaccharides and glycoprotein remodeling**
50	July 14, 2002	Third Pan-Pacific Conference on Sialoglycoscience and Other Novel Forms of Glycosylation, Brisbane (Australia)
	Invited lecture	**Chemistry & biochemistry of sialic acids and associated proteins**
49	July 8, 2002	XXIst International Carbohydrate Symposium, Cairns (Australia)
	Plenary lecture	**Synthetic glycoconjugates and the innate and adaptive immune system**
48	February 18, 2002	8th Ibn Sina Conference of Heterocyclic Chemistry, Luxor (Egypt)
	Invited lecture	**Synthetic lipopolysaccharides and peptidogylcan derivatives as novel therapeutics for septic chock**
47	October 17, 2001	Synthesis towards Bioactive Compounds Autumn Graduate School, Arnhem (Netherlands)
	Invited lecture	**Synthetic oligosaccharides and glycoconjugates in drug discovery**
46	August 28, 2001	ACS National Meeting, Chicago, IL (USA)
	Invited lecture	**Novel methods for liquid polymer-supported synthesis of well-defined oligosaccharides and chemical libraries**
45	April 3, 2001	Ibis, Carlsbad, CA (USA)
	Seminar	**Combinatorial carbohydrate chemistry**
44	March 21, 2001	University of Lund (Sweden)
	Seminar	**Synthetic glycoconjugates and the innate and adoptive immune system**
43	March 20, 2001	University of Könstanz (Germany)
	Seminar	**Synthetic glycoconjugates and the innate and adoptive immune system**
42	March 4-5, 2001	Elementis Specialties, Hightstown, NJ (USA)
	Seminar	**Carbohydrate-based polymers**
41	April 10-12, 2000	Bio-Organic Chemistry Series, Molecular Pharmacology & Therapeutics Program Research, Sloan-Kettering Institute, New York, NY (USA)
	Invited lecture	**Semi-synthetic and fully synthetic carbohydrate-based vaccines**
40	March 25-28, 2000	7th Ibn Sina International Conference on Pure and Applied Heterocyclic Chemistry, Alexandria (Egypt)
	Invited lecture	**The synthesis of oligosaccharides of biological importance by polymer supported approaches**
39	December 3, 1999	Umea University (Sweden)
	Seminar	**Semi-synthetic and fully-synthetic carbohydrate-based vaccines**
38	November 30, 1999	University of Glasgow (United Kingdom)
	Seminar	**Synthetic saccharides to probe carbohydrate-protein interactions**
37	October 18-21, 1999	Regional ACS meeting, Knoxville, TN (USA)
	Invited lecture	**The preparation well-defined saccharides and chemical libraries**

36	September 10-12, 1999	Bioorganic Conference, Firbush (United Kingdom)
	Invited lecture	**Synthesis of conformationally constrained trisaccharides and complexation properties with concanavalin A**
35	January 18, 1999	University of Alberta, Edmonton (Canada)
	Seminar	**The preparation well-defined saccharides and chemical libraries**
34	July 10, 1998	Johnson & Johnson, New Jersey (USA)
	Seminar	**Carbohydrates for drug delivery**
33	July 1-5, 1998	XVII – French National Carbohydrate Meeting (France)
	Invited lecture	**The preparation well-defined saccharides and chemical libraries**
32	April 14, 1998	University of Bristol (United Kingdom)
	Seminar	**Combinatorial carbohydrate chemistry**
31	March 26-28, 1998	WEB-Meeting, Munich (Germany)
	Invited lecture	**The preparation of homogenous glycoforms of IgG**
30	March 11, 1998	University of Sheffield (United Kingdom)
	Seminar	**Combinatorial carbohydrate chemistry**
29	November 26, 1997	University of Liverpool (United Kingdom)
	Seminar	**Combinatorial carbohydrate chemistry**
28	November 12, 1997	University of London, King's College (United Kingdom)
	Seminar	**Combinatorial carbohydrate chemistry**
27	October 13, 1997	University of Cambridge (United Kingdom)
	Seminar	**Combinatorial carbohydrate chemistry**
26	September 30, 1997	University of Oxford (United Kingdom)
	Seminar	**Combinatorial carbohydrate chemistry**
25	September 12, 1997	University of Grenoble (France)
	Seminar	**Combinatorial carbohydrate chemistry**
24	July 6-11, 1997	Eurocarb, Utrecht (Netherlands)
	Keynote lecture	**A latent-active glycosylation strategy for the preparation of oligosaccharide libraries**
23	June 22-27, 1997	Gordon Research Conference on Carbohydrates, Tilton, NH (USA)
	Invited lecture	**Combinatorial carbohydrate chemistry**
22	June 20, 1997	CCRC, University of Georgia, Athens, GA (USA)
	Seminar	**The preparation of well-defined oligosaccharides and chemical libraries**
21	April 17, 1997	RSC Meeting, University of Nottingham (United Kingdom)
	Invited lecture	**The preparation of well-defined oligosaccharides and chemical libraries**
20	April 3, 1997	University of Lund (Sweden)
	Seminar	**The preparation of well-defined oligosaccharides and chemical libraries**
19	February 27, 1997	SmithKline Beecham Biologicals, Rixensart (Belgium)
	Seminar	**Synthetic carbohydrate-based vaccines**
18	February 21, 1997	National Institute for Public Health, Bilthoven (Netherlands)
	Seminar	**Synthetic carbohydrate-based vaccines**
17	February 12, 1997	University of Durham (United Kingdom)
	Seminar	**New methods for convergent oligosaccharide synthesis**
16	October 10, 1996	University of East Anglia (United Kingdom)
	Seminar	**Combinatorial carbohydrate chemistry**
15	September 9, 1996	RSC Carbohydrate Group Autumn Meeting, UCL (United Kingdom)
	Invited lecture	**Combinatorial carbohydrate chemistry**
14	July 21-26, 1996	XVIII International Carbohydrate Symposium, Milan (Italy)
	Lecture	**Combinatorial carbohydrate chemistry**

13	May 14, 1996	Imperial College, London (United Kingdom)
	Seminar	**New methods for convergent oligosaccharide synthesis**
12	March 20, 1996	University of Southampton (United Kingdom)
	Seminar	**New methods for convergent oligosaccharide synthesis**
11	March 25, 1996	RSC Carbohydrate Group Spring Meeting, St. Andrews (United Kingdom)
	Invited lecture	**Synthetic oligosaccharides as tools in glycobiology**
10	February 20, 1996	University of Nottingham (United Kingdom)
	Seminar	**New methods for convergent oligosaccharide synthesis**
9	November 29, 1995	University of Leicester (United Kingdom)
	Seminar	**Recent advances in oligosaccharide synthesis**
8	November 22, 1995	UMIST, Manchester (United Kingdom)
	Seminar	**New methods for convergent oligosaccharide synthesis**
7	September 15-17, 1995	Bioorganic Conference, Firbush (United Kingdom)
	Invited lecture	**Carbohydrate chemistry and biochemistry**
6	September 5-8, 1995	RCS Autumn Meeting, Sheffield (United Kingdom)
	Invited lecture	**Synthetic oligosaccharides as tools in glycobiology**
5	July 2-7, 1995	Eurocarb VIII, Sevilla (Spain)
	Lecture	**New chemoselective glycosylation**
4	April 2, 1994	Pfizer Central Research, Sandwich (United Kingdom)
	Seminar	**Towards carbohydrate-based drugs**
3	March 31, 1994	SmithKline Beecham Pharmaceuticals, Harlow (United Kingdom)
	Seminar	**New methods for oligosaccharide synthesis**
2	February 4, 1994	The Wellcome Foundation Limited, Beckenham (United Kingdom)
	Seminar	**Towards carbohydrate-based drugs**
1	October 24, 1993	Glaxo Group Research, Greenford (United Kingdom)
	Seminar	**New methods for oligosaccharide synthesis**

Publications (in reverse chronological order)

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281 Yu, S.-H., P. Zhao, P.K. Prabhakar, T. Sun, A. Beedle, G.J. Boons, K.W. Moremen, L. Wells, and R. Steet. 2018. Defective mucin-type glycosylation on α-dystroglycan in COG-deficient cells increases its susceptibility to bacterial proteases. *J. Biol. Chem.* **293**(37): 14534-14544.

280 Yi, F., X. Hong, A.B. Kumar, C. Zong, G.J. Boons, C.R. Scott, F. Turecek, B.H. Robinson, and M.H. Gelb. 2018. Detection of mucopolysaccharidosis III-A (Sanfilippo Syndrome-A) in dried blood spots (DBS) by tandem mass spectrometry. *Mol. Genet. Metab.* In press (DOI: 10.1016/j.ymgme.2018.05.005).

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278 Hogan, J.D., J.A. Klein, J. Wu, P. Chopra, G.J. Boons, L. Carvalho, C. Lin, and J. Zaia. 2018. Software for peak finding and elemental composition assignment for glycosaminoglycan tandem mass spectra. *Mol. Cell. Proteomics* **17**(7): 1448-1456.

277 Chinoy, Z.S., F. Friscourt, C. Capicciotti, P. Chiu, and G.J. Boons. 2018. Chemo-enzymatic synthesis of asymmetrical multi-antennary *N*-glycans to dissect glycan-mediated interactions between human sperm and oocytes. *Chem. Eur. J.* **24**(31): 7970-7975. ***Selected as a VIP paper.***

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275 Zhao Y., J.Y. Jeong, D.F. Thieker, Y. Xu, C. Zong, G.J. Boons, J. Liu, R.J. Woods, K.W. Moremen, I.J. Amster. 2018. A traveling wave ion mobility spectrometry (TWIMS) study of the Robo1-heparan sulfate interaction. *J. Am. Soc. Mass Spectrom.* **29**(6): 1153-1165.

274 Lu, W., C. Zong, P. Chopra, L. Pepi, Y. Xu, I.J. Amster, J. Liu, and G.J. Boons. 2018. Controlled chemoenzymatic synthesis of heparan sulfate oligosaccharides. *Angew. Chem. Int. Ed.* **57**(19): 5340-5344.

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268 Supekar, N.T., V. Lakshminarayanan, C. Capicciotti, A. Sirohiwal, C.S. Madsen, M.A. Wolfert, P.A. Cohen, S.J. Gendler, and G.J. Boons. 2018. Synthesis and immunological evaluation of a multicomponent cancer vaccine candidate containing a long MUC1 glycopeptide. *ChemBioChem* **19**(2): 121-125.

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Patents Issued (in reverse chronological order)

Boons, G.J. and Z. Wang; US Utility Patent Number 9,938,312, titled "*Compounds and Methods for Chemical and Chemo-Enzymatic Synthesis of Complex Glycans*" issued April 10, 2018. Assignee: University of Georgia Research Foundation, Inc. (UGARF Case 1678).

Boons, G.J., J. Guo, X. Ning, and M.A. Wolfert; US Utility Patent Number 9,932,297, titled "*Alkynes and Methods of Reacting Alkynes with 1,3-Dipole-functional Compounds*" issued on April 3, 2018. Assignee: University of Georgia Research Foundation, Inc. (UGARF Case 1388).

Boons, G.J., T. Buskas, S. Ingale, and M.A. Wolfert; U.S. Letters Patent Serial Number 9,446,144, titled "*Glycolipopeptide and Uses Thereof*" issued on September 20, 2016. Assignee: University of Georgia Research Foundation, Inc. (UGARF Case 1229).

Boons, G.J., F. Friscourt, P.A. Ledin, and N.G. Mbua; US Utility Patent Serial Number 9,315,468, titled "*Methods Including Latent 1,3-Dipole-Functional Compounds and Materials Prepared Thereby*", issued on April 19, 2016. Assignee: University of Georgia Research Foundation, Inc. (UGARF Case 1695).

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Boons, G.J., A.P. Venot, K. Al-Mafraji, and S. Arungundram; U.S. Patent Application Serial Number 14/754,175, titled "*Heparan Sulfate Synthesis*" filed on June 29, 2015. Assignee: University of Georgia Research Foundation, Inc. (UGARF Case 1509).

Boons, G.J., P.A. Cohen, S.J. Gendler, V. Lakshminarayanan, and M.A. Wolfert: U.S. Continuation Patent Application Serial Number 14/695,413, titled "*Immunogenic Vaccine*" filed on April 24, 2015. Assignees: University of Georgia Research Foundation, Inc. (UGARF Case 1596); Mayo Foundation Medical Education & Research (Mayo Case 2010-246).

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Boons, G.J., K.-F. Mo, H. Li, A. Digiandomenico, C.K. Stover, and Q. Wang; U.S. National Stage Application Number 61/823,009, titled "*Synthetic Oligosaccharide Subunits of the PSL Exopolysaccharide of Pseudomonas Aeruginosa and Uses Thereof*", filed on May 14, 2013; International Application Number PCT/US2014/037839, filed on May 13, 2014. Assignees: University of Georgia Research Foundation, Inc. (UGARF Case 2350); MedImmune, LLC.

Boons, G.J., X. Li, and M.S. Hudlikar; U.S. Provisional Patent Application Number 62/561,027, titled "*Antibody Drug Conjugate for Delivery of Paclitaxel*", filed on September 20, 2017. Assignee: University of Georgia Research Foundation, Inc. (UGARF Case 2018-035).