

**Eric V. Anslyn**  
Welch Regents Chair  
University Distinguished Teaching Professor

**Business Address:**

The University of Texas at Austin  
Department of Chemistry and Biochemistry  
Norman Hackerman Building  
100 E. 24<sup>th</sup> St. A1590  
Austin, TX. 78712

**Personal:**

Born June 9<sup>th</sup> 1960, Santa Monica CA  
U.S. Citizen  
Married (Roxanna Balden), Two children, Tristan and Tasha

**Education:**

Postdoctoral Work: [12/87-9/89]  
Columbia University, New York, New York  
Research Advisor: Professor Ronald Breslow  
Research: Mechanistic studies of Ribonuclease A mimics. Detailed kinetics analyses of imidazole catalyzed 3'-5' UpU hydrolysis and isomerization. Synthesis and kinetics studies of bis-imidazole  $\beta$ -cyclodextrin catalyzed phosphodiester hydrolyses.

Ph.D., Chemistry: [11/87]  
California Institute of Technology, Pasadena, California  
Research Advisor: Professor Robert Grubbs  
Research: Mechanistic and theoretical studies of olefin metathesis and ring opening metathesis polymerizations catalyzed by group IV and VI metals.

B.S., Chemistry: [5/82]  
California State University, Northridge; GPA= 3.97/4.00  
Research Advisor: Professor Edward Rosenberg  
Research: Mechanistic studies of ligand fluxuations on clusters.

**Research Awards, Honors, and Honorary Positions:**

*ChemComm* collection, "[The Mechanics of Supramolecular Chemistry](#)" for 60<sup>th</sup> Birthday, Edited by Tony James, [Jonathan Sessler](#) and Bruce Gibb

Centenary Prize, from the RSC, 2020

James Flack Norris Award in Physical Organic Chemistry, from ACS, Orlando ACS meeting April 2019

Howard Hughes Medical Institute Professor, 2018-2023

World Leading Researcher, School of Chemistry and Chemical Engineering, Queen's University Belfast, Northern Ireland, 2017-2020.

1<sup>st</sup> Czarnik Award Winner, International Molecular Sensors and Molecular Logic Gates, 2016

Saul Winstein Lecturer, UCLA, May 2014

Edward Leete Award, for Outstanding Contributions to Teaching and Research in Organic Chemistry, from The Organic Division of the ACS, Awarded on September 10<sup>th</sup>, 2013.

Izatt-Christensen Award in Macrocyclic and Supramolecular Chemistry, awarded at the 8<sup>th</sup> ISMSC in Washington DC, July 7<sup>th</sup> to 11<sup>th</sup> 2013.

Senior Visiting Fellow of the Institute for Advanced Study, Hong Kong University of Science and Technology, 2013-2014

Ta-shue Chou Award, For Outstanding Achievements in Physical Organic Chemistry, Feb. 21<sup>st</sup> 2012, Academia Sinica, Taiwan.

Gassman Lecturer, University Minnesota, Oct. 2011

Ramshorn Mark of Excellence, From Dean of the Cockrell School of Engineering, Oct. 29<sup>th</sup> 2009

Visiting Professor, Institute of Chemical and Engineering Sciences, Singapore, Dec. 15<sup>th</sup>-19<sup>th</sup> 2008

Faculty Service Award from the College of Natural Sciences, 2008

Visiting Professor, Hong Kong Baptist University, May 9<sup>th</sup> -11<sup>th</sup> 2007

Honorary Professor, East China University of Science and Technology, Induction May 2007

Adjunct Professor, Department of Biochemistry and Molecular Biology, The University of Texas Medical Branch, Galveston

American Association for the Advancement of Science, Election as a Fellow, 2006

Hamilton Textbook Award, from the University Coop. 2006

Cope Scholar Award. Granted from the ACS in Spring 2006.

Dreyfus Teacher-Scholar Award: 1994-1996

Alfred P. Sloan Research Fellow: 1994-1996

Proctor and Gamble University Research Initiative: 1993-1996

Searle Scholar: 1991-1994

Presidential Young Investigator: 1990-1995

Camille and Henry Dreyfus Young Faculty Award: 1989

National Science Foundation Post-Doctoral Fellowship: 1988

Union Carbide Fellow in Catalysis: Academic Year 86-87

Graduated with B.S. Summa Cum Laude: 1982

Analytical Chemistry Award, C.S.U., Northridge: 1980

#### **Teaching Awards:**

Faculty Service Award, Student Nominated, Spring 2023

2010 Regent's Teaching Awardee, Across the entire Univ. Texas System, Aug. 11<sup>th</sup> 2010

Graduate Teaching Award, UT Austin: 2003

Election to Academy of Distinguished Teachers, UT Austin: 2000

Outstanding Faculty Award, UT Continuing Education: 1999

Jean Holloway Award for Excellence in Teaching: 1999

College of Natural Sciences Teaching Excellence Award: 1995

#### **Work Experience:**

Co-Founder, Erisyon Inc., 2018-present

Welch Regents Chair of Chemistry, 2014-present

Norman Hackerman Chair of Chemistry, 2002-2014

Consultant, Water-Lens, 2012-present

Chief Scientific Officer, Reveal Sciences, 2007-2012

Chief Scientific Officer, Beacon Sciences, 2006-2012

Norman Hackerman Professorship, University of Texas at Austin, 2000-2011

University Distinguished Teaching Professor, University of Texas at Austin, 2000-present, teaching and independent research.

Professor, University of Texas at Austin, 1999-2000

Associate Professor, University of Texas at Austin, 1995-1999

Assistant Professor, University of Texas at Austin, 1989-1995

Head of Synthetic Organic NMR Facility: Cal. Instit. of Tech. 1984-1987

Responsible for all training, maintenance and special experiment design on a JEOL FX-90 and JEOL GX-400. Extensive experience with 2D NMR, polarization transfer, magnetization transfer and NMR of heavy metals.

Teaching Assistant, Cal. State Univ. Northridge, 1983

Introductory Chemistry Laboratory, both first and second semester.

#### **University of Texas Departmental and University Service:**

Attended CNS Commencement, May 7<sup>th</sup> 2023

Presentation, The PolyMath Society, April 5<sup>th</sup> 2023

Chemistry Department, Tenure and Promotions Committee Member, 2022-present

Chair-Endowment Recruiting Committee, Chair, 2022-present

NSF MRSEC, Proto-IRG1, Co-Leader with Adrienne Rosales, Fuel-Driven Polymer and NanoCrystal Assemblies, 2021-present.

Mid-Career/Senior Faculty Recruiting Committee, Spring 2021-present

Panel Discussion Participant, Diversity, Culture and Disabilities Studies, Nov. 18<sup>th</sup> 2020

Departmental Senior Hiring Committee, 2020-2021 academic year

Executive Director, UT Wine Initiative, Fall 2019 - present

Chair, Assistant Professor Recruiting Committee, Fall 2019 to spring 2020  
Chair, Departmental Strategic Planning Committee, Fall 2019  
NSF MRSEC, IRG1 Co-Leader with Delia Milliron, Reconfigurable Materials, 2018-present  
Associate Chairman, 2015-2018  
Provost's Experiential Teaching Committee, 2018-2019  
Texas Ex's Meeting, "Wine Tasting with Professor Eric Anslyn", Home of the Hemsley's in Houston TX  
Chair, Departmental Search Committee for External Chair, 2013-2016  
Head of the Chemistry Department Graduate Studies Committee, 2013-present  
College Natural Sciences, Medical School Planning Committee, 2012  
Departmental Course and Curriculum Reform Committee, 2011-present  
Member, Committee for 210C Laboratory Reevaluation, 2009-2011  
Departmental Faculty Awards Committee, 2009-2014  
Departmental Lecturer Oversight Committee, 2009-present  
Member, Committee for Evaluation of Lecturer Position, 2009-2010  
Design Committee, Laboratory Research Space for the NHB, 2007-2009  
Reviewed Teachings Award Applications: Academy Selection, and Chancellor's Award, Dec. 2008  
Chair, Strategic Planning Committee for The Department of Chemistry and Biochemistry, 2007-2008  
Committee For Evaluation of Dean Rankin, Spring 2007  
AdHoc Tenure and Promotion Committee, Department of Astronomy, Spring 2007  
Departmental Tenure and Promotions Committee, 2004-2008  
Odyssey Lecture to the Public, April 4, 2007  
Hamilton Book Award Committee, 2006  
Dean's Committee for Analysis the Space for ESB, 2006  
Member Departmental Tenure and Promotions Committee, 2004-2008  
Upon invitation, Voltaire's Coffee Discussion Group, "The Mists of Avalon" 2006  
Participant, Academy of Distinguished Teachers Reading Roundup Discussion,  
"The Mists of Avalon", 2003 - present  
Academy of Distinguished Teachers Sub-Committee on "Special Courses", 2005  
Departmental Awards Committee, 2004-present.  
Instructor, Texas Teachers as Scholars, Course on Enzymes, Receptors, and  
Sensing, Spring 2005.  
College of Natural Sciences Tenure and Promotion Committee, 2004-2006  
SPAC Committee Member, 2003-2006  
Organic Division Coordinator, 2003-2015.  
Assistant Graduate Student Advisor 1995-present.  
Chairman, Graduate Student Recruiting Committee for the Chemistry and  
Biochemistry Department, 1995-1999.  
Chairman, Department of Chemistry Safety Committee, 1993-1999.  
College of Natural Sciences Safety Committee, 1995-1999.  
Undergraduate Chemistry Student Advising, 1990-1995.  
Chairman: Organic Chemistry Seminar Series from 1992-1995.  
Lecture to the ACS Student Affiliates, Spring 1999.  
Lecture to the ACS Student Affiliates, Fall 1998.  
Lecture to the ACS Student Affiliates, Fall 1996.  
Lecture to the 1994 Honors Colloquium.  
Lecture to The Young Chemists Society, 1993.  
Departmental Fellowship Committee, 1992-1995.  
Graduate Student Recruitment Committee, 1991.

**Professional and Community Service:**

Co-Organizer, CASE (Catalysis and Sensing for our Environment) June 8<sup>th</sup> to 11<sup>th</sup> 2020, Isle of Skye,  
Scotland  
Scientific Advisor Board Member, the SSPC of Ireland, 2019  
Co-Organizer, ISMSC, July 11<sup>th</sup> to 18<sup>th</sup> 2018, Quebec City, Canada  
Member, External Review Visiting Committee, School of Chemistry, Trinity College Dublin, Nov. 15<sup>th</sup> to  
19<sup>th</sup>, 2015

Member, External Review Visiting Committee, Department of Chemistry at the University of Minnesota, April 7<sup>th</sup>-8<sup>th</sup>, 2014  
Guest Speaker, Westminster Retirement Home, Feb. 4<sup>th</sup> 2013.  
Member, Cope Scholar Awards Selection Committee, 2012-2013.  
Member, NIH SBCA Study Section, Fall 2012-2016.  
DTRA Review, Catalytic Signal Enhancement Work Shop, Arlington VA June 19<sup>th</sup>, 2012.  
ACS National Selection Committee – Arthur C. Cope Scholar Awards 2012  
Pioneer Award Study Section, NIH, Spring 2011  
Organizer, Symposium Honoring Dr. Phillip Magnus, Southwest Regional ACS Meeting, Austin, Nov. 9<sup>th</sup>-11<sup>th</sup> 2011.  
New Innovator Award Study Section, NIH, Spring 2010.  
International Advisory Board, *Chinese Journal of Chemistry*, 2009-present.  
Organizer, International Symposium on Macrocyclic and Supramolecular Chemistry, Las Vegas, July 2008.  
Pacific Chem. Symposium Co-Organizer, Dec. 2005.  
Pacific Chem. Symposium Co-Organizer, Dec. 2000.  
*J. Am. Chem. Soc.*, Manuscript Associate Editor, Oct. 1st 1999 - 2019.  
NIH Medicinal Chemistry A, Study Section Member, 1999-2003.  
*Supramolecular Chemistry*, Editorial Advisory Board, 1999-2004.  
*J. Supramolecular Chemistry*, Editorial Advisory Board, 1999-present.  
*J. Am. Chem. Soc.* Book and Software Associate Editor, 1998-Oct. 1st 1999.  
Symposium Co-Organizer: Southwest Regional ACS Meeting 1993.  
23rd Macrocyclic Conference Co-Organizer: Oahu Hawaii 1998.  
1999 NSF Workshop on Physical Organic Chemistry, Co-organizer.  
1998 NSF Workshop on Physical Organic Chemistry, Co-organizer.  
1997 NSF Workshop on Physical Organic Chemistry, Co-organizer.  
Reviewer of Battelle National Laboratory project on Anion Recognition.  
*Ad Hoc* Member, Bioorganic and Natural Products Study Section, NIH, 1996.  
*Ad Hoc* Member, Medicinal Chemistry A, Study Section, NIH, 1997.

#### Short Courses:

Techniques of Sensing, Victoria Canada, July 2006.  
Physical Organic Chemistry, Trinity University Dublin, Ireland, June 20<sup>th</sup> to 22<sup>nd</sup>, 2007.  
Physical Organic Chemistry at University of Kyushu, Fukuoka, May 2008.  
Solvation, Chirality, and Bonding Theories, Gassman Lecturer Series, University of Minnesota, Oct. 3<sup>rd</sup> – 7<sup>th</sup> 2011.  
Substitution versus Elimination, Toho University, Japan, June 26<sup>th</sup> 2013.  
Binding Forces, Supramolecular Interactions, and Acid/Base Analogies, Dow Chemical Company in Springhouse, PE, April 17<sup>th</sup>, 2014.  
More O'Farrell/Jencks Plots and LFERs, Univ. of Oregon May 16<sup>th</sup> to 20<sup>th</sup> 2014.  
From VBT to MOT and Combining the Two, Shanghai University May 18<sup>th</sup>, 2015  
Bonding, Thermodynamics, Kinetics, and Reaction Coordinates, University of Birmingham, June 27<sup>th</sup>-29<sup>th</sup>, 2017  
Molecular Orbital Theory, and Kinetics/Thermodynamics, and Reaction Coordinates, Queen's University Belfast, March 2020  
Classic Bond Theory, and Quantitative Molecular Orbital Theory, Indiana University, May 16<sup>th</sup>, 2022  
Multi-Dimensional Reaction Coordinates and More O'Farrell/Jencks Plots, Indiana University, May 18<sup>th</sup>, 2022.  
UV/Vis Spectroscopy and the Jablowski Diagram (via zoom), Zhejiang University, Hongzhou, China, May 26<sup>th</sup>, 2023.

#### Consulting Services

Methamphetamine Sentencing Trial (testifying) 1994  
Pharmacopeia 1999  
AstraZeneca 1999  
Labnetics 1999-2001

Rothwell, Figg, Ernst, and Manbeck (expert report) 2001  
 Affimetrics 2003  
 Merck Pharmaceuticals 2004 and 2005  
 Beacon Sciences, Chief Scientific Officer, 2006-2013  
 Reveal Sciences, Chief Scientific Officer, 2007-2013  
 Mimetic Solutions, 2008-present  
 Sterne, Kessler, Goldstein, and Fox (patent reviews) 2006  
 Biggers and Ohanian (patent reviews) 2006  
 Williams and Connolly (expert reports, deposition, testimony) 2006-2008, Boehringer Ingelheim vs. Barr Pharmaceuticals, No. 05-0700 (D. Del.)  
 Skadden, Arps, Slate, Meagher and Flom, (expert reports) 2009-2010, Johnson Matthey vs. Noven and Shire Pharmaceuticals, Civil Action No. 2-07-cv-260-CFE.  
 Jones Day, (Declarations) June 17<sup>th</sup>, 2010, Merial Limited and BASH Agra vs. Virbac S.A. and Virbac Corp., Civil Case No. 4:10-cv-181-Y  
 McDermott, Will, and Emery, (Declarations) July 9<sup>th</sup> 2010, Sandoz vs. Boehringer Ingelheim Int. GMBH, Preliminary Injunction Hearing, 3:10-cv-00437-UATC-MCR  
 McDermott, Will, and Emery (Expert report, deposition) 2011, LEO Pharma vs. TOLMAR, D. Del. Case # 10-cv-0269 and 10-cv-0715  
 Kirkland and Ellis, LLP (Expert report, deposition) Pfizer vs Sandoz Inc., C.A. No: 12-1252-GMS/MPT  
 Williams and Connolly, (Expert report, initial and rebuttal) Pfizer vs Fresenius Kabi, C.A. No: 13-1893 (SLR)  
 Williams and Connolly, (Expert report in preparation) Cephalon, Inc. v. Slayback Pharman Limited Liability Co. C.A. No. 17-1154-CFC  
 Williams and Connolly, (Declaration, deposition) Pharmacyclics LLC v. Acerta Pharma B.V., et al, No. 17-1582 (RGA) (D. Del.) Acerta Pharma B.V. et al v. Pharmacyclics LLC, et al, 18-cv-00581-RGA (D. Del.)  
 Williams and Connolly, (Expert reports, deposition, testifying) Bendeka Patent Litigation, Cephalon, Inc. vs Slayback Pharma Limited Liability Co., C.A. No. 17-1154-CFC (D. Del.)  
 Norton Rose Fulbright Canada LLP, (Expert reports, testifying) Bernard Charles Sherman and Apotex Inc., vs. Pfizer Canada Inc., Pfizer Inc.  
 Williams and Conolly, (Declaration, deposition), Novartis Pharmaceuticals Corp., vs Urobindo Pharma and Micro Labs, Civil Actions No's 20-1426 (LPS) and 21-969 (LPS)

## Patents

1. "Solid-Phase N-Terminal Peptide Capture and Release", Serial No. 62/741,833
2. "Single Molecule Sequencing Peptides Bound To The Major Histocompatibility Complex", Serial No. 62/718,566
3. "Single Molecule Sequencing Identification Of Post-Translational Modifications On Proteins", Serial No. 62/702,318
4. "Molecular Neighborhood Detection By Oligonucleotides", Serial No. 62/697,179
5. "Degradable Polyethylene Glycol Derivatives For Drug Delivery", Serial No. 62/583,334
6. "Improved Single Molecule Peptide Sequencing", Serial No. 15854171.4, Publication No. EP3194980, Publication Date: January 26, 2018
7. "Single Molecule Peptide Sequencing", Serial No. 15/510,962, Publication No. US-2017-0276686-A1, Publication Date: September 28, 2017
8. "Improved Peptide Sequencing", Serial No. 62/050,462
9. "Fluorescent Nitric Oxide Probes and Associated Methods", Serial No. 13/909,345, Publication No. US 2014/0120574 A1, Publication Date: May 01, 2014
10. "Identifying Peptides at the Single Molecule Level", Serial No. 15/461,034, Publication No. US-2017-0242024-A1, Publication Date: August 24, 2017
11. "Flourescent Nitric Oxide Probes and Associated Methods", Serial No. 14/135,918, Publication No. US 2014/0179014 A1, Publication Date: June 26, 2014
12. "Methods of Determining the Presence and/or Concentration of an Analyte in a Sample", Serial No. 10794686.5, Patent No. 2449129, Publication Date: May 09, 2012
13. "Monitoring of Citrate and CA (II) Levels", Serial No. 61/222,285, Publication No. WO 2011/002850, Publication Date: January 06, 2011

14. "Compositions And Method For Detection Of Small Molecules Using Dyes Derivatized with Analyte Responsive Receptors in a Chemiluminescent Assay", Serial No. PCT/US09/35700, Publication No. WO 2009/148651, Publication Date: December 10, 2009
15. "Differential Receptors Create Patterns Diagnostic for Proteins", Serial No. 11/994,353, Publication No. US 2009-0215646 A1, Publication Date: August 27, 2009
16. "System and Method of Analyte Detection Using Differential Receptors", Serial No. PCT/US2006/025696, Publication No. WO 2007/005666 A2, Publication Date: January 11, 2007
17. "Compositions and Methods for the Detection of Chemical Warfare Agents", Serial No. 11/609,202, Publication No. US-2012-0122228-A1, Patent No. 8,377,712, Publication Date: May 17, 2012
18. "Chromogenic Detection of Chemical Agents", Serial No. 60/748,912
19. "System and Method for Integrating Fluids and Reagents in Self-Contained Cartridges Containing Sensor Elements and Reagent Delivery Systems", Serial No. PCT/US05/006350, Publication No. WO 2005/085855-A2, Publication Date: September 15, 2005
20. "Integration of Fluids and Reagents into Self-Contained Cartridges Containing Microchip Sensor Elements", Serial No. 11/022,176, Publication No. US 2006-0257993 A1, Patent No. 8,105,849, Publication Date: November 16, 2006
21. "Synthetic Receptors for the Detection of Analytes", Serial No. 11/172,276, Publication No. US 2006-0024834, Patent No. 7,514,266, Publication Date: February 02, 2006
22. "Synthetic Fluorescent Receptor for the Detection of Heparin in Serum", Serial No. 60/584,615
23. "Portable Instrument for Microarray Analysis", Serial No. 60/548,613
24. "Customized Testing Ensembles for Complex Fluid Analysis Using Portable Integrated Microfluidics/Detecting Units" Serial No. 60/548,190
25. "On-Chip Combination of Chemical and Cellular Panels for Analysis of Fluid Samples", Serial No. 60/548,601
26. "Method and System for the Analysis of Saliva Using a Sensor Array", Serial No. 11/010,816, Publication No. US 2005-0214863 A1, Patent No. 7,651,868, Publication Date: September 29, 2005
27. "Determining Enantiomeric Excess Using Indicator-Displacement Assays", Serial No. 11/839,085, Publication No. US 2007-0292968 A1, Patent No. 7,670,847, Publication Date: December 20, 2007
28. "Multi-Shell Microspheres with Integrated Chromatographic and Detection Layers for Use in Array Sensors", Serial No. 10/544,954, Publication No. US 2006-0228256 A1, Publication Date: October 12, 2006
29. "Methods for Detecting Microbes", Serial No. 60/398,148
30. "Methods for Selecting Analyte Reactive Particles", Serial No. 60/398,235
31. "Capture and Detection of Microbes by Macroporous Bead Methods", Serial No. 60/398,314
32. "Capture and Detection of Microbes by Membrane Methods", Serial No. 08168266.8, Publication. No. EP 2 107 120 A1, Publication Date: July 10, 2009
33. "A Novel Microchip-Based Multi-Analyte Assay System for the Assessment of Cardiac Risk", Serial No. 2003228711, Publication No. AU2003228711, Patent No. 2003228711, Publication Date: November 24, 2003
34. "Method and System for the Detection of Cardiac Risk Factors", Serial No. 10/427,744, Publication No. US 2004-0029259 A1, Patent No. 8,257,967, Publication Date: February 12, 2004
35. "System and Method for the Analysis of Bodily Fluids", Serial No. 12/940,898, Publication No. US-2011-0251075-A1, Publication Date: October 13, 2011
36. "Method of Preparing a Sensor Array", Serial No. 09/775,353, Patent No. 6,649,403
37. "Portable Sensor Array System", Serial No. 08161330.9, Publication No. 2230314, Publication Date: September 22, 2010
38. "Method and Apparatus for the Confinement of Materials in a Micromachined Chemical Sensor Array", Serial No. 02713535.9, Publication No. EP1373874, Publication Date: January 02, 2004
39. "Multimodal Miniature Microscope", Serial No. 11/108,616, Publication No. US 2006-0058611 A1, Patent No. 7,492,535, Publication Date: March 16, 2006
40. "Magnetic-Based Placement and Retention of Sensor Elements in a Sensor Array", Serial No. PCT/US02/03277, Publication No. WO 02/103371, Publication Date: December 27, 2002
41. "System for Transferring Fluid Samples Through a Sensor Array", Serial No. PCT/US01/03316, Publication No. WO 01/55704, Publication Date: August 02, 2001
42. "System and Method for Identifying Nucleic Acids in a Fluid Sample", Serial No. 60/179,294
43. "Method and System for Remotely Collecting and Evaluating Chemical/Biochemical Information", Serial No. PCT/US2000/012409, Publication No. WO 00/68670, Publication Date: November 16, 2000

44. "Sensor Arrays for the Measurement and Identification of Multiple Analytes in Solutions", Serial No. 09/354,882, Patent No. 6,680,206
45. "Method and Apparatus for the Delivery of Samples to a Chemical Sensor Array", Serial No. 00975164.5, Publication No. EP1204859, Patent No. 1204859, Publication Date: May 15, 2002
46. "Method and System for Collecting and Transmitting Chemical Information", Serial No. 09/775,340, Publication No. US 2002-0064422 A1, Publication Date: April 03, 2003
47. "General Signaling Protocols for Chemical Receptors in Immobilized Matrices", Serial No. PCT/US00/19351, Publication No. WO 01/06244, Publication Date: February 25, 2001
48. "Detection System Based on an Analyte Reactive Particle", Serial No. 09/616,355, Patent No. 6,602,702
49. "A Sensor for Tartrate in Wine", Serial No. 60/179,452
50. "Fluid Based Analysis of Multiple Analytes by a Sensor Array", Serial No. 12/372,414, Publication No. US 2009-0258791 A1, Publication Date: October 15, 2009
51. "Electric Tongue", Serial No. 75/634,570, Patent No. 2,832,211, Publication Date: April 13, 2004
52. "Fluid Based Analysis of Multiple Analytes by a Sensor Array: Toward the Development of an Electronic Tongue", Serial No. 60/093,111
53. "A Receptor and Method for Citrate Determination", Serial No. 08/950,712, Patent No. 6,048,732

### Research Publications

- 381) "High-throughput determination of enantiopurity in atroposelective synthesis of aryl triazoles" Lim, J.; Guo, M.; Choi, S.; Miller, S.J.; Anslyn, E.V. *Chem. Sci.* **2023**, *14*, 5992-5999.
- 380) "Pushing Differential Sensing Further: The Next Steps in Design and Analysis of Bio-Inspired Cross-Reactive Arrays" Fargher, H.; d'Oelsnitz, S.; Diaz, D.J. Anslyn, E.V. *Anal. & Sens.* **2023**, doi:10.1002/anse.202200095
- 379) "Shape-shifting p-cyclophanes as portals to switching, sensing, delivery and logic operations in water", Yao, C.-Y.; Hong-Yu, D.; Daly, B.; Chen, Z-Q.; Crory, H.S.; Gunaratne, H.W.; Anslyn, E.V.; de Silva, A.P. *Org. Chem. Front.* **2023**, doi 10.1039/d2q02043b
- 378) "Modular mixing in plasmonic metal oxide nanocrystal gels with thermoreversible links" Kang, J.; Sherman, Z.M.; Crory, H.S.; Conrad, D.L.; Marina, B.; Roman, B.J.; Anslyn, E.V.; Truskett, T.M.; Milliron, D.J. *J. Chem. Phys.* **2023**, *158*, 024903.
- 377) "Determination of enantiomeric excess and diastereomeric excess via optical methods. Application to  $\alpha$ -methyl- $\beta$ -hydroxy-carboxylic acids" Moor, S.R.; Howard, J.R.; Herrera, B.T.; McVeigh, M.S.; Marini, F.; Keating-Clay, A.T.; Anslyn, E.V. *Org. Chem. Front.* **2023**, *10*, 1386-1392. ISSN: 2052-4129.
- 376) "Fluorescent probes for the detection of chemical warfare agents" Meng, W.Q.; Sedgwick, A.; Kwon, N.; Sun, M.; Xiao, K.; He, X.P.; Anslyn, E.V.; James, T.D.; Yoon, J. *Chem. Soc. Rev.* **2023**, *52*, 601-662.
- 375) "Pushing Differential Sensing Further: The Next Steps in Design and Analysis of Bio-Inspired Cross-Reactive Arrays" Fargher, H.; d'Oelsnitz, S.; Diaz, D.; Anslyn, E.V. *Anal. & Sens.* **2023**, ISSN: 2629-2742.
- 374) "Conformational change in ricin toxin A-Chain: A critical factor for inhibitor binding to the secondary pocket" Goto, M.; Higashi, S.; Ohba, T.; Kawata, R.; Suzuki, K.; Saori, S.; Anslyn, E.V.; Saito, R. *Biochem. Biophys. Res. Commun.* **2022**, *30*, 1-4.
- 373) "Data-Driven Prediction of Circular Dichroism-Based Calibration Curves for the Rapid Screening of Chiral Primary Amine Enantiomeric Excess Values" Howard, J.R.; Bhakare, A.; Wolf, C.; Anslyn, E.V. *J. Am. Chem. Soc.* **2022**, *144*, 17269-17276,
- 372) "<sup>11</sup>B-NMR Spectroscopy: Structural Analysis of the Acidity and Reactivity of Phenyl Boronic Acid-Diol Condensations" Valenzuela, S.; Howard, J.R.; Park, H.M.; Sriranjani, D.; Anslyn, E.V. *J. Org. Chem.* **2022**, *87*, 15071-15076.

- 371) “Recent advances in fluorescent and colorimetric chemosensors for the detection of warfare agents: a legacy of the 21<sup>st</sup> century”, Kumar, V.; Kim, H.; Pandey, B.; James, T.D.; Yoon, J.; Anslyn, E.V. *Chem. Soc. Rev.* **2022**, 52, 663-704.
- 370) “Ribosome-mediated biosynthesis of pyridazinone oligomers in vitro” Lee, J.; Coronado, J.N.; Cho, N.; Hosford, B.N.; Seo, S.; Kim, D.S.; Kofman, C.; Moore, J.S.; Ellington, A.D.; Anslyn, E.V.; Jewett, M.C. *Nat. Comm.* **2022**, 13, 6322.
- 369) “Molecular Encryption and Steganography Using Mixtures of Simultaneously Sequenced, Sequence-Defined Oligourethanes” Dahlhauser, S.D.; Wight, C.D.; Moor, S.R.; Scanga, R.A.; Ngo, P.; Vera, J.T.; Vera, M.S.; Blake, K.J.; Riddington, I.M.; Reuther, J.F.; Anslyn, E.V. *ACS Cent. Sci.*, **2022**, 8, 1125-1133.
- 368) “Evaluating the Effect of Dye-Dye Interactions of Xanthene-Based Fluorophores in the Fluorosequencing of Peptides” Bachman, J.L.; Wight, C.D.; Bardo, A.M.; Johnson, A.M.; Pavlich, C.I.; Boley, A.J.; Wagner, H.R.; Swaminathan, J.; Iverson, B.L.; Marcotte, E.M.; Anslyn, E.V. *Biocong. Chem.* **2022**, 0000.
- 367) “Chemical Insights into Flexzyme-Mediate tRNA Acylation” Coronado, J.; Ngo, P. Anslyn, E.V. Ellington, A.D. *Cell. Chem. Biol.* **2022**, 0000.
- 366) “Colorimetric Quantification of Linking in Thermoreversible Nanocrystal Gel Assemblies” Kang, J.; Valenzuela, S.A.; Lin, E.Y.; Dominguez, M.N.; Sherman, Z.M.; Truskett, T.M.; Anslyn, E.V.; Milliron, D.J. *Sci. Adv.* **2022**, 8, eabm7364.
- 365) “Effect of pH on the Properties of Hydrogels Cross-Linked via Dynamic Thia-Michael Addition Bonds” FitzSimmons, T.M.; Anslyn, E.V.; Rosales, A. *ACS Polymer Au*, **2022**, 2, 129-136.
- 364) “Assembling Inorganic Nanocrystal Gels” Allison M. Green, Charles K. Ofofu, Jiho Kang, Eric V. Anslyn\*, Thomas M. Truskett\*, and Delia J. Milliron\* *Nano Lett.* **2022**, 22, 4, 1457–1466.
- 363) “Multiplexing the Quantitation of MAP Kinase Activities Using Differential Sensing” Lingyu Zeng, Tamer S. Kaoud, Diana Zamora-Olivares, Amanda L. Bohanon, Yiru Li, Jacey R. Pridgen, Yakndara E. Ekpo, Deborah L. Zhuang, Jessica R. Nye, Mitchell Telles, Michelle Winkler, Sebastian Rivera, Federico Marini\*, Kevin N. Dalby\*, and Eric V. Anslyn\* *J. Am. Chem. Soc.* **2022**, 144, 9, 4017–4025.
- 362) “Studies of Surface Preparation for the Fluorosequencing of Peptides” Caroline M. Hinson, Angela M. Bardo, Cassie E. Shannon, Sebastian Rivera, Jagannath Swaminathan, Edward M. Marcotte\*, and Eric V. Anslyn\* *Langmuir* **2021**, 37, 51, 14856–14865.
- 361) “A self-degradable hydrogel sensor for a nerve agent tabun surrogate through a self-propagating cascade” Doo-HeeLee, Stephanie A.Valenzuela, Manuel N. Dominguez, Mai Otsuka, Delia J. Milliron, Eric V. Anslyn I., *Cell Reports Physical Science* 2, 100552.
- 360) “Electrostatic and Covalent Assemblies of Anion Hydrogel-Coated Gold Nanoshells for Detection of Dry Eye Biomarkers in Human Tears” Wechsler, M.E.; Jocelyn, D.H.; Simmonds, S.P.; Bahrami, K.; Wyse, J.M.; Dahlhauser, S.D.; Reuther, J.F.; VandeWalle, A.N.; Anslyn, E.V.; Peppas, N.A. *Nano Lett.* **2021**, 21, 8734-874
- 359) “The Evolution of Data-Driven Modeling in Organic Chemistry” William, M.L.; Zeng, L. Tobias, G.; Sigman, M.S.; Doyle, A.G.; Anslyn, E.V. *ACS Cent. Sci.* **2021**, 7, 1622-1637.
- 358) “A Data-Driven Approach to the Development and Understanding of Chiroptical Sensors for Alcohols with Remote  $\gamma$ -Stereocenters” Dotson, J.J.; Anslyn, E.V.; Sigman, M.S. *J. Am. Chem. Soc.* **2021**, 143, 45, 19187–19198.
- 357) “Photoredox-Catalyzed Decarboxylative C-Terminal Differentiation for Bulk- and Single-Molecule Proteomics” Zhang, L.; Floyd, B.M.I.; Chilamari, M.; Mages, J.; Swaminathan, J.; Bloom, S.; Marcotte, E.M.; Anslyn, E.V. *ACS Chem. Biol.* **2021**, 16, 11, 2595–2603.



- 356) “Ribosome-mediated incorporation of fluorescent amino acids into peptides *in vitro*” Lee, J.; Schwarz, K.J.; Hao, K.A.; Anslyn, E.V.; Ellington, A.D.; Moore, J.S.; Jewett, M.C. *Chem. Comm.* **2021**, 57, 2661-2664.
- 355) “Effects of linker flexibility on phase behavior and structure of linked colloidal gels” Howard, M.P.; Sherman, Z.M.; Sreenivasan, A.N.; Valenzuela, S.A.; Anslyn, E.V.; Milliron, D.J.; Truskett, T.M. *J. Chem. Phys.* **2021**, 154, 074901.
- 354) “Combination of two analytical techniques improves wine classification by Vineyard, Region, and Climate” Crook, A.A.; Zamora-Oliveres, D.; Bhinderwala, F.; Woods, J.; Winkler, M.; Rivera, S.; Shannon, C.F.; Wagner, H.R.; Zhuang, D.; Lynch, J.E.; Berryhill, N.R.; Runnebaum, R.C.; Anslyn, E.V.; Powers, R. *Food Chemistry*, **2021**, 354, 129531.
- 353) ““Benchtop” Biaryl Coupling Using Pd/Cu Cocatalysis: Application to the Synthesis of Conjugated Polymers” Minus, M.; Moor, S.R.; Pary, F.; Nirmani, L.P.T.; Chwatko, M.; Okeke, B.; Singleton, J.E.; Nelson, T.L.; Lynd, N.; Anslyn, E.V. *Org. Lett.*, **2021**, 23, 2873-2877.
- 352) “The emerging landscape of single-molecule protein sequencing technologies” Antonio, A.J.; Bohlander, P.; Dai, M.; Filius, M.; Howard, C.J.; et. al. Aksimentiev, A.; Anslyn, E.V.;...Joo, C. *Nature Methods*, **2021**, 18, 604-617.
- 351) “High-throughput screening of  $\alpha$ -chiral-primary amines to determine yield and enantiomeric excess” Moor, S.R.; Howard, J.R.; Herrera, B.T.; Anslyn, E.V. *Tetrahedron*, **2021**, 94, 132315.
- 350) “Chemically Triggered Click and Declick Reactions: Application in Synthesis and Degradation of Thermosetting Plastics” Wu, T.; Liang, T.; He, W.; Du, M.; Zhang, S.; Zhang, Y.; Anslyn, E.V.; Sun, X. *ACS Macro Lett*, **2021**, 10, 1125-1131.
- 349) “A Colorimetric Method for Quantifying Cis- and Trans-Alkenes Using an Indicator Displacement Assay” Stephanie Valenzuela; Hannah S. N. Crory; Chao-Yi Yao; James R. Howard; Gabriel Saucedo A. Prasanna de Silva; Eric Van Anslyn *Angewandte Chemie* **2021**, 133, 1-6.
- 348) “Efficient Molecular Encoding in Multifunctional Self-Immolative Urethanes” Dahlhauser, S.D.; Moor, S.R.; Vera, M.S.; York, J.T.; Ngo, P.; Boley, A.J.; Coronado, J.N.; Simpson, Z.B.; Anslyn, E.V. *Cell Rep. Phys. Sci.* **2021**, 100393, 1-13.
- 347) “Ribosome-mediated incorporation of fluorescent amino acids into peptides *in vitro*” Joongoo Lee‡; Kevin J. Schwarz‡; Hao Yu; Antje Krüger; Eric V. Anslyn; Andrew D. Ellington; Jeffrey S. Moore; Michael C. Jewett *Chem. Comm.* **2021**, 57, 2661-2664.
- 346) “Colloidal Nanocrystal Gels from Thermodynamic Principles” Sherman, Z.M.; Green, A.M.; Howard, M.P.; Anslyn, E.V.; Truskett, T.M.; Milliron, D.J. *Acc. Chem. Res.* **2021**, 54, 798-807.
- 345) “Indicator displacement assays (IDAs): the past, present and future” Adam C. Sedgwick; James T. Brewster II; Tianhong Wu; Xing Feng; Steven D. Bull; Xuhong Qian; Jonathan L. Sessler; Tony D. James; Eric V. Anslyn; Xiaolong Sun *Chem. Soc. Rev.* **2021**, 50, 9-38.
- 344) “Effects of linker flexibility on phase behavior and structure of linked colloidal gels” Howard, Michael P.; Sherman, Zachary M.; Sreenivasan, Adithya N.; Valenzuela, Stephanie A.; Anslyn, Eric V.; Milliron, Delia J.; Truskett, Thomas M. *J. Chem. Phys.* **2021**, 154, 074901.

- 343) “Boronic acid based dynamic click chemistry: recent advances and emergent applications” Saurav Chatterjee; Eric V. Anslyn; Anupam Bandyopadhyay *Chem. Sci.*, **2021**, *12*, 1585-1599.
- 342) “K-5 Thin-Layer Chromatography: Three-Dimensional Analysis of Pigments from Plant Materials Using an Interlocking Building-Block Photography Box” Melissa Saldaña; Stephanie A. Valenzuela; Sarah R. Moor; Pedro Metola; Eric V. Anslyn\* *J. Chem. Educ.* **2020**, *97*, 12, 4414-4419.
- 341) “Assembly of Linked Nanocrystal Colloids by Reversible Covalent Bonds” Manuel N. Dominguez; Michael P. Howard; Josef M. Maier; Stephanie A. Valenzuela; Zachary M. Sherman; James F. Reuther; Lauren C. Reimnitz; Jiho Kang; Shin Hum Cho; Stephen L. Gibbs; Arjun K. Menta; Deborah L. Zhuang; Aevi van der Stok; Sarah J. Kline; Eric V. Anslyn\*; Thomas M. Truskett\*; Delia J. Milliron\* *Chem. Mater.* **2020**, *32*, 23, 10235-10245.
- 340) “Sequencing of Sequence-Defined Oligourethanes via Controlled Self-Immolation” Samuel D. Dahlhauser; P. Rogelio Escamilla; Abigail N. VandeWalle; Jordan T. York; Rachel M. Rapagnani; Jasper S. Shei; Samuel A. Glass; Jaime N. Coronado; Sarah R. Moor; Douglas P. Saunders; Eric V. Anslyn *J. Am. Chem. Soc.* **2020**, *142*, 6, 2744-2749.
- 339) “Chemically Triggered Synthesis, Remodeling, and Degradation of Soft Materials” Xiaolong Sun; Malgorzata Chwatko; Doo-Hee Lee; James L. Bachman; James F. Reuther; Nathaniel A. Lynd; Eric V. Anslyn *J. Am. Chem. Soc.* **2020**, *142*, 8, 3913-3922.
- 338) “Solid-Phase Peptide Capture and Release for Bulk and Single-Molecule Proteomics” Cecil J. Howard; Brendan M. Floyd; Angela M. Bardo; Jagannath Swaminathan; Edward M. Marcotte\*; Eric V. Anslyn\* *ACS Chem. Biol.*, **2020**, *15*, 6, 1401-1407.
- 337) “Nanogel receptors for high isoelectric point protein detection: influence of electrostatic and covalent polymer–protein interactions” Marissa E. Wechsler; H. K. H. Jocelyn Dang; Samuel D. Dahlhauser; Susana P. Simmonds; James F. Reuther; Jordyn M. Wyse; Abigail N. VandeWalle; Eric V. Anslyn; Nicholas A. Peppas *Chem. Comm.* **2020**, 56, 6141-6144.
- 336) “Preferential Control of Forward Reaction Kinetics in Hydrogels Crosslinked with Reversible Conjugate Additions” Thomas M. FitzSimons; Felicia Oentoro; Tej V. Shanbhag; Eric V. Anslyn; Adrienne M. Rosales\* *Macromolecules* **2020**, *53*, 10, 3738-3746.
- 335) “Next-Generation TLC: A Quantitative Platform for Parallel Spotting and Imaging” Alexander A. Boulgakov; Sarah R. Moor; Hyun Hwa Jo; Pedro Metola; Leo A. Joyce; Edward M. Marcotte; Christopher J. Welch\*; Eric V. Anslyn\* *J. Org. Chem.* **2020**, *85*, 15, 9447-9453.
- 334) “High-Throughput Determination of Enantiopurity by Microplate Circular Dichroism”, Samantha L. Pilicer; Justin M. Dragna; Adam Garland; Christopher J. Welch; Eric V. Anslyn\*; Christian Wolf\* *J. Org. Chem.* **2020**, *85*, 16, 10858-10864.
- 333) “Capture and Release of Protein–Nanoparticle Conjugates by Reversible Covalent Molecular Linkers” Isaac W. Moran; Melissa M. Sprachman; James L. Bachman; Samuel D. Dahlhauser; Eric V. Anslyn; David J. D. Carter *Bioconjugate Chem.* **2020**, *31*, 9, 2191-2200.
- 332) “Synthesis of 3,6-Bis(dimethylamino)-9H-xanthen-9-one by Stepwise Chemical Redox Cycling” Bachman, J.L.; Pavlish, C.I.; Anslyn, E.V. *Org. Syn.* **2020**, *97*, 21-37.
- 331) “Synthesis of Carboxy ATTO 647N Using Redox Cycling for Xanthone Access” Bachman, J.L.; Pavlich, C.I.; Boley, A.J.; Marcotte, E.M.; Anslyn, E.V. *Org. Lett.* **2020**, *22*, 381-385.
- 330) “2-Amino-3'-dialkylaminobiphenyl-base fluorescent intracellular probes for nitric oxide surrogate N<sub>2</sub>O<sub>3</sub>” Escamilla, P.R.; Shen, Y.; Zhang, Q.; Hernandez, D.S.; Howard, C.J.; Qian, X.; Filonov, D.Y.; Kinev, A.V.; Shear, J.B.; Anslyn, E.V.; Yang, Y. *Chem. Sci.* **2020**, *11*, 1394-1403.

- 329) “Quantification of ERK kinase activity in biological samples using differential sensing” Zamora-Olivares, D.; Kaoud, T.; Zeng, L.; Pridgen, J.R.; Zhuang, D.; Ekpo, Y.E.; Nye, J.R.; Telles, M.; Anslyn, E.V.; Dalby, K. *ACS Chem Biol* **2020**, *15*, 83-92.
- 328) “Reengineering a Reversible Covalent-Bonding Assembly to Optically Detect ee in  $\beta$ -Chiral Primary Alcohols” Minus, M.; Featherson, A.L.; Choi, S.; King, S.; Miller, S.J.; Anslyn, E.V. *Chem*, **2019**, *5*, 3196-3206.
- 327) “Modulating multi-functional ERK complexes by covalent targeting of a recruitment site in vivo” Kaoud, T.S.; Johnson, W.H.; Ebel, N.D.; Pieserchio, A.; Zamora-Olivares, D.; Van Ravenstein, S.X.; Pridgen, J.R.; Edupuganti, R.; Sammons, R.; Cano, M.; Anslyn, E.V.; Dalby, K. *Nat. Comm.* **2019**, *10*, 1-15.
- 326) “Expanding the limits of the second genetic code with ribozymes” Lee, J.; Schwieter, K.E.; Watkins, A.M.; Kim, D.S.; Yu, H.; Schwarz, K.J.; Lim, H.; Coronado, J.; Byrom, M.; Anslyn, E.V.; Ellington, A.D.; Moore, J.; Jewett, M. *Nat. Comm.* **2019**, *10*, 1-12.
- 325) “Design of Chiral Supramolecular Polymers Exhibiting a Negative Nonlinear Response” Chen, X.X.; Lin, X.-Y.; Wu, X.; Gale, P.A.; Anslyn, E.V.; Jiang, Y.-B. *J. Org. Chem.* **2019**, *84*, 14587-14592.
- 324) “Mechanistic studies of a “Declick” reaction” Meadows, M.K.; Sun, X.; Kolesnichenko, I.V.; Hinson, C.M.; Johnson, K.A. *Chem. Sci.* **2019**, *10*, 8817-8824.
- 323) “The Mechanisms of Boronate Ester Formation and Fluorescent Turn-On in Ortho-aminomethylphenylboronic Acids” Sun X; Chapin BM; Metola P; Collins B; Wang B; James TD; Anslyn EV, *Nat. Chem.* **2019**, *11*(9), 768-778.
- 322) “Rapid Optical Determination of Enantiomeric Excess, Diastereomeric Excess, and Total Concentration Using Dynamic-Covalent Assemblies: A Demonstration Using 2-Aminocyclohexanol and Chemometrics” Herrera BT; Moor SR; McVeigh M; Roesner EK; Marini F; Anslyn EV, *J. Am. Chem. Soc.*, **2019**, *141*(28), 11151-11160.
- 321) “Modeling Boronic Acid Based Fluorescent Saccharide Sensors: Computational Investigation of D-Fructose Binding to Dimethylaminomethylphenylboronic Acid” Kearns FL; Robart C; Kemp MT; Vankayala SL; Chapin BM; Anslyn EV; Woodcock HL; Larkin JD, *J. Chem. Inf. Model*, **2019**, *59*(5), 2150-2158.
- 320) “Sortase-Mediated Fluorescent Labeling of CRISPR Complexes” Dillard KE; Schaub JM; Brown MW; Saifuddin FA; Xiao Y; Hernandez E; Dahlhauser SD; Anslyn EV; Ke A; Finkelstein IJ, *Methods Enzymol.* **2019** (616), 43-59.
- 319) “Mathematical Relationships of Individual Stereocenter er Values to dr Values” Herrera, B.T.; Lin, C.-Y.; Wright, A.M.; Moor, S.R.; Anslyn, E.V. *J. Org. Chem.* **2019**, *84*(9), 5922-5926.
- 318) “Improved Xanthone Synthesis, Stepwise Chemical Redox Cycling”, Bachman, James L.; Escamilla, P. Rogelio; Boley, Alexander J.; Pavlich, Cyprian I.; Anslyn, Eric V. *Organic Letters* **2019**, *21*(1), 202-205.
- 317) “Tunable Orthogonal Reversible Covalent (TORC) Bonds: Dynamic Chemical Control over Molecular Assembly”, Reuther, James F.; Dahlhauser, Samuel D.; Anslyn, Eric V. *Angew Chemie, Int. Ed.* **2019**, *58*(1), 74-85.
- 316) “Highly Parallel Single-Molecule Identification of Proteins in Zeptomoloe-scale Mixtures”, Swaminathan, Jagannath; Boulgakov, Alexander A.; Hernandez, Erik T.; Bardo, Angela M.; Bachman, James L.; Marotta, Joseph; Johnson, Amber M.; Anslyn, Eric V.; Marcotte, Edward M. *Nature Biotechnology* **2018**, *36*(11), 1076-1082.
- 315) “Assembly and Translocation of a CRISPR-Cas Primed Acquisition Complex”, Dillard, Kaylee E.; Brown, Maxwell W.; Johnson, Nicole V.; Xiao, Yibei; Dolan, Adam; Hernandez, Erik; Dahlhauser, Samuel D.; Kim, Yoori; Myler, Logan R.; Anslyn, Eric V.; Ke, Ailong; Finkelstein, Ilya J. *Cell* **2018**, *175*(4), 934-946.e15.
- 314) “Hydrogen Peroxide Production Via a Redox Reaction of N,N'-Dimethyl-2,6-Diaza-9,10-Anthraquinonedium by Addition of Bisulfite”, Kolesnichenko, I., Anslyn, E.V. *Chem Comm*, **2018**, *54*, 11204-11207.

- 313) “Self-propagating amplification reactions for molecular detection and signal amplification: Advantages, pitfalls, and challenges” Xiaolong Sun, Doron Shabat, Scott T. Phillips, Eric V. Anslyn *Journal of Physical Organic Chemistry*, **2018**, 31(8), e3827-e3835.
- 312) “Photography Coupled with Self-Propagating Chemical Cascades: Differentiation and Quantitation of G- and V-Nerve Agent Mimics via Chromaticity” Xiaolong Sun, Alexander A. Boulgakov, Leilani N. Smith, Pedro Metola, Edward M. Marcotte, Eric V. Anslyn *ACS Central Science*, **2018**, 4(7), 854-861. PMID: 30062113
- 311) “Di-(2-picolyl)-N-(2-quinolinylmethyl)amine-Functionalized Triarylboron: Lewis Acidity Enhancement and Fluorogenic Discrimination Between Fluoride and Cyanide in Aqueous Solution” Mao-Sen Yuan, Xianchao Du, Zhiqiang Liu, Tianbao Li, Wenji Wang, Eric V. Anslyn, Jinyi Wang *Chemistry. A European Journal*, **2018**, 24(37), 9211-9216. DOI: 10.1002/chem.201800884. PMID: 29709086
- 310) “Fingerprinting Non-Terran Biosignatures” Sarah S. Johnson, Eric V. Anslyn, Heather V. Graham, Paul R. Mahaffy, Andrew D. Ellington *Astrobiology*, **2018**, 18(7), 915-922. PMID: 29634318
- 309) “Optical Analysis of Reaction Yield and Enantiomeric Excess: A New Paradigm Ready for Prime Time” Brenden T. Herrera, Samantha L. Pilicer, Eric V. Anslyn, Leo A. Joyce, Christian Wolf *J. Am. Chem. Soc.*, **2018**, 140(33), 10385–10401. PMID: 30059621
- 308) “2,2'-Bipyridine and hydrazide containing peptides for cyclization and complex quaternary structural control” Hernandez, E.; Escamilla, P.R.; Kwon, S.-Y.; Partridge, J.; McVeigh, M.; Rivera, S.; Reuther, J.F.; Anslyn, E.V. *New J. Chem.* **2018**, 42, 8557-8582.
- 307) “A Versatile Approach to Noncanonical, Dynamic Covalent Single- and Multi-Loop Peptide Macrocycles for Enhancing Antimicrobial Activity” Reuther, James F.; Goodrich, Andrew C.; Escamilla, P. Rogelio; Lu, Tiffany A.; Del Rio, Valarie; Davies, Bryan W.; Anslyn, Eric V. *J. Am. Chem. Soc.*, **2018**, 140, 3768-3774. PMID: 29466660
- 306) “Teaching through Research: Alignment of Core Chemistry Competencies and Skills within a Multidisciplinary Research Framework” Ghanem, Eman; Long, S. Reid; Rodenbusch, Stacia E.; Shear, Ruth I.; Beckham, Josh T.; Procko, Kristen; DePue, Lauren; Stevenson, Keith J.; Robertus, Jon D.; Martin, Stephen; Holliday, Bradley; Jones, Richard A.; Anslyn, Eric V.; Simmons, Sarah L. *J. Chem. Ed.*, **2018**, 95(2), 248-258.
- 305) “Dynamic Covalent Chemistry within Biphenyl Scaffolds: Reversible Covalent Bonding, Control of Selectivity, and Chirality Sensing with a Single System” Ni Cailing; Zha Daijun; Ye Hebo; Hai Yu; Zhou Yuntao; You Lei; Ni Cailing; Ye Hebo; You Lei; Anslyn Eric V *Angewandte Chemie*, **2018**, 57(5), 1300-1305. PubMed ID: 29239090
- 304) “Arresting ‘Loose Bolt’ Internal Conversion from –B(OH)<sub>2</sub> Groups is the Mechanism for Emission Turn-On in *ortho*-Aminomethylphenylboronic Acid-Based Saccharide Sensors” Sun, Xiaolong; James, Tony D.; Anslyn, Eric V. *J. Am. Chem. Soc.*, **2018**, 140(6), 2348-2354. PubMed ID: 29360350
- 303) “Serotonin Analogues as Inhibitors of Breast Cancer Cell Growth” Jose, Jiney; Tavares, Clint D. J.; Ebel, Nancy D.; Lodi, Alessia; Edupuganti, Ramakrishna; Xie, Xuemei; Devkota, Ashwini K.; Kaoud, Tamer S.; Van Den Berg, Carla L.; Anslyn, Eric V.; Tiziani, Stefano; Bartholomeusz, Chandra; Dalby, Kevin N., *ACS Medicinal Chemistry Letters*, **2017**, 8, 1072-1076.
- 302) “Differential Array Sensing for Cancer Cell Classification and Novelty Detection” Alexandra M. Gade, Margaret K. Meadows, Andrew D. Ellington, and Eric V. Anslyn, *Organic and Biomolecular Chemistry*, **2017**, 15, 9866-9874.
- 301) “An Auto-Inductive Cascade for the Optical Sensing of Thiols in Aqueous Media: Application in the Detection of a VX Nerve Agent Mimic.” Sun, X.; Anslyn, E. V., *Angew. Chem., Int. Ed.* **2017**, 56, 9522-9526.
- 300) “Charged poly(N-isopropylacrylamide) nanogels for use as differential protein receptors in a turbidimetric sensor array.” Culver, H. R.; Sharma, I.; Wechsler, M. E.; Anslyn, E. V.; Peppas, N. A., *Analyst*. **2017**, 142, 3183-3193.

- 299) "Differentiation and Identification of Cachaca Wood Extracts Using Peptide-Based Receptors and Multivariate Data Analysis." Ghanem, E.; Afsah, S.; Fallah, P. N.; Lawrence, A.; LeBovidge, E.; Raghunathan, S.; Rago, D.; Ramirez, M. A.; Telles, M.; Winkler, M.; Schumm, B.; Makhnejia, K.; Portillo, D.; Vidal, R. C.; Hall, A.; Yeh, D.; Judkins, H.; da Silva, A. A.; Franco, D. W.; Anslyn, E. V. *ACS Sens.* **2017**, *2*, 641-647.
- 298) "Recognition of Viologen Derivatives in Water by N-Alkyl Ammonium Resorcinarene Chlorides" Beyeh, N. K.; Jo, H. H.; Kolesnichenko, I.; Pan, F.; Kalenius, E.; Anslyn, E. V.; Ras, R. H. A.; Rissanen, K., *J. Org. Chem.* **2017**, *82*, 5198-5203.
- 297) "Boronic Acid Mediated Coupling of Catechols and N-Hydroxylamines: A Bioorthogonal Reaction to Label Peptides" Meadows, M.K.; Roesner, E.K.; Lynch, V.M.; James, T.D.; Anslyn, E.V., *Organic Letters*, **2017**, *19*, 3179-3182.
- 296) "Dynamic covalent chemistry enables formation of antimicrobial peptide quaternary assemblies in a completely abiotic manner" Reuther, J.F.; Dees, J.L.; Kolesnichenko, I.V.; Hernandez, E.T.; Ukraintsev, D.V.; Guduru, R.; Whiteley, M.; Anslyn, E.V., *Nature Chemistry*, **2017**, *10*, 45-50.
- 295) "Tuning thiol addition to squaraines by *ortho*-substitution and the use of serum albumin" Diehl, K.L.; Bachman, L.; Anslyn, E.V., *Dyes and Pigments*, **2017**, *141*, 316-324.
- 294) "An efficient methodology to introduce *o*-(aminomethyl)phenyl-boronic acids into peptides: alkylation of secondary amines" Hernandez, E.T.; Kolesnichenko, I.V.; Reuther, J.F.; Anslyn, E.V., *New J. Chem.* **2017**, *41*, 126-133.
- 293) "Discovery of a potent inhibitor of MELK that inhibits expression of the anti-apoptotic protein Mcl-A and TNBC cell growth" Edupuganti, R.; Taliaferro, J.M.; Want, Q.; Xie, X.; Cho, E.J.; Vidhu, F.; Ren, P.; Anslyn, E.V.; Bartholomeusz, C.; Dalby, K.N., *Biorganic & Medical Chemistry*, **2017**, *25*, 2609-2616.
- 292) "Disaggregation is a Mechanism for Emission Turn-On of *ortho*-Aminomethylphenylboronic Acid-Based Saccharide Sensors" Chapin, B.M.; Metola, P.; Vankayala, S.L.; Woodcock, H.L.; Mooibroek, T.J.; Lynch, V.M.; Larkin, J.D.; Anslyn, E.V., *J. Am. Chem. Soc.*, **2017**, *139*, 5568-5578.
- 291) "Reversible Macrocyclization of Peptides with a Conjugate Acceptor" Johnson, A.M.; Anslyn, E.V., *Org. Lett.*, **2017**, *19*, 1654-1657.
- 290) "New Autoinductive Cascade for the Optical Sensing of Fluoride: Application in the Detection of Phosphoryl Fluoride Nerve Agents" Sun, X.; Dahlhauser, S.D.; Anslyn, E.V., *J. Am. Chem. Soc.*, **2017**, *139*, 4635-4638.
- 289) "Coupling Activity-Based Detection, Target Amplification, Colorimetric and Fluorometric Signal Amplification, for Quantitative Chemosensing of Fluoride Generated from Nerve Agents" Sun, X.; Reuther J.F.; Phillips, S.T.; Anslyn, E.V., *Chem. Eur. J.*, **2017**, *23*, 3903-3909.
- 288) "Solution-phase and solid-phase sequential, selective modification of side chains in KDYWEC and KDYWE as models for usage in single-molecule protein sequencing" Hernandez, E.T.; Swaminathan, J.; Marcotte, E.M.; Anslyn, E.V., *New J. Chem.*, **2017**, *41*, 462-469.
- 287) "Practical Applications of Supramolecular Chemistry" Kolesnischenko, I.; Anslyn, E.V. *Chem. Soc. Rev.* **2017**, *46*, 2385-2390.
- 286) "Thermodynamic Studies of dynamic metal ligands with copper(II), cobalt(II), zinc(II) and nickel(II)" Long, S.R.; Lin, C.; Anslyn, E.V., *J. Coord. Chem.*, **2017**, *70*, 1-9 Online.
- 285) "Rapid Determination of Enantiomeric Excess via NMR Spectroscopy: A Research-Informed Experiment" Fossey, J.S.; Anslyn, E.V.; Brittain, W.D.G.; Bull, S.D.; Chapin, B.M.; Le Duff, C.S.; James, T.D.; Lees, G.; Lim, S.; Lloyd, J.A.C.; Manville, C.V.; Payne, D.T.; Roper, K.A., *J. Chem. Educ.*, **2017**, *94*, 79-84.

- 284) “Click-fluors”: Triazole-linked saccharide sensors” Zhai, W.; Chapin, B.M.; Yoshizawa, A.; Wang, H.; Hodge, S.A.; James, T.D.; Anslyn, E.V.; Fossey, J.S., *Organic Chemistry Frontiers*, **2016**, 3, 918-928.
- 283) “The Bull-James assembly as a chiral auxiliary and shift reagent in kinetic resolution of alkyne amines by the CuAAC reaction” Brittain W.D.G.; Chapin, B.; Zhai, W.; Lynch, V.M.; Buckley, B.R.; Anslyn, E.V.; Fossey, J.S., *Org. Biomol. Chem.*, **2016**, 14, 10778-10782.
- 282) “Differential sensing of oils by conjugates of serum albumins and 9,10-distyrylanthracene probes: a cautionary tale” Li, X.; Zamora-Olivares, D.; Diehl, K.L.; Tian, W.; Anslyn, E.V., *J. Supramolecular Chem.*, **2016**, 29, 308-314.
- 281) “Structural and Thermodynamic Analysis of a Three-Component Assembly Forming *ortho*-Iminophenylboronate Esters” Chapin, B.M.; Metola, P.; Lynch, V.M.; Stanton, J.F.; James, T.D.; Anslyn, E.V., *J. Org. Chem.*, **2016**, 81 (18), 8319-8330.
- 280) “A racemate-rules effect supramolecular polymer for ee determination of malic acid in the high ee region” Chen, X.; Jiang, Y.; Anslyn, E.V., *Chem. Commun.*, **2016**, 52, 12669-12671.
- 279) “Click and chemically triggered declclick reactions through reversible amine and thiol coupling via a conjugate acceptor” Diehl, K.L.; Kolesnichenko, I.V.; Robotham, S.A.; Bachman, J.L.; Zhong, Z.; Brodbelt, J.S.; Anslyn, E.V., *Nature Chem.*, **2016**, 8, 968-973.
- 278) “Four Simultaneously Dynamic Covalent Reactions. Experimental Proof of Orthogonality” Seifert, H.M.; Trejo, K.R.; Anslyn, E.V., *J. Am. Chem. Soc.*, **2016**, 138, 10916-10924.
- 277) “Physical Organic Chemistry by Any Other Name Would Smell as Sweet” Chapin, B.M.; Anslyn, E.V., *Isr. J. Chem.*, **2016**, 56, 38-45.
- 276) “From substituent effects to applications: enhancing the optical response of a four-component assembly for reporting ee values” Lin, C.; Giuliano, M.W.; Ellis, B.D.; Miller, S.J.; Anslyn, E.V., *Chemical Science*, **2016**, 7, 4085-4090.
- 275) “Synthesis of alanyl nucleobase amino acids and their incorporation into proteins” Talukder, P.; Dedkova, L.M.; Ellington, A.D.; Yakovchuk, P.; Lim, J.; Anslyn, E.V.; Hecht, S.M., *Bioorg. Med. Chem.* **2016**, 24, 4177-4187.
- 274) “Supramolecular Chemistry at the interface of biology, materials and medicine” Anslyn, E.V.; Zimmerman, S.C., *Beilstein J. Org. Chem.*, **2016**, 12, 1101-1102. PMID: 27340497
- 273) “Model Building Using Linear Free Energy Relationship Parameters-Eliminating Calibration Curves for Optical Analysis of Enantiomeric Excess” Lin, C.; Y; Lim, S.; Anslyn, E.V., *J. Am. Chem. Soc.*, **2016**, 138, 8045-8047. PMID: 27304670
- 272) “Synthesis and structural analyses of phenylethynyl-substituted tris(2-pyridylmethyl)amines and their copper(II) complexes” Lim, J.; Lynch, V.M.; Edupuganti, R.; Ellington, A.; Anslyn, E.V., *Dalton Transactions*, **2016**, 45, 10585 – 10598. PMID: 27264275
- 271) “Art, auto-mechanics, and supramolecular chemistry. A merging of hobbies and career” Anslyn, E.V.; *Beilstein J. Org. Chem.*, **2016**, 12, 362-376. PMID: 26977197
- 270) “Introduction: Supramolecular Chemistry” Huang, F.; Anslyn, E.V., *Chem. Rev.*, **2015**, 115, 6999-7000. PMID: 26263840
- 269) “Chromogenic/Fluorogenic Ensemble Chemosensing Systems” Wu, J.; Kwon, B.; Liu, W. Anslyn, E.V.; Wang, P.; Kim, J.S., *Chem. Rev.*, **2015**, 115, 7893-7943. PMID: 25965103

- 268) "Sensitization of NO-Releasing Ruthenium Complexes to Visible Light" Becker, T.; Kupfer, S.; Wolfram, W.; Borls, H.; Schuvert, U.S.; Anslyn, E.; Dietzek, B.; Grafe, S.; Schiller, A., *Chem. Eur. J.*, **2015**, 21, 15554-15563. PMID: 26394612
- 267) "Application of a High-Throughput Enantiomeric Excess Optical Assay Involving a Dynamic Covalent Assembly: Parallel Asymmetric Allylation and Ee Sensing of Homoallylic Alcohols" Jo, H.H.; Gao, X.; You, L. Anslyn, E.V.; Krische, M.J., *Chem. Sci.*, **2015**, 6, 6747-6753. PMID: 27014433
- 266) "A Synergistic Combinatorial and Chiroptical Study of Peptide Catalysts for Asymmetric Baeyer-Villiger Oxidation" Giuliano, Michael; Lin, Chung-Yon; Romney, David; Miller, Scott; Anslyn, E.V., *Adv. Synth. Catal.*, **2015**, 357, 2301-2309. PMID: 26543444
- 265) "Cooperative Binding of Divalent Diamides by N-Alkyl Ammonium Resorcinarene Chlorides" Beyeh, Kodiah; Ala-Korpi, Altti; Pan, Fangfang; Jo, Hyun Hwa; Anslyn, E.V.; Rissanen, Kari, *Chem. Eur. J.*, **2015**, 21, 9556-9562. PMID: 26014834.
- 264) "Predicting the Composition of Red Wine Blends Using an Array of Multicomponent Peptide-Based Sensors" Ghanem, Eman; Hopfer, Helene; Navarro, Andrea; Ritzer, Maxwell; Mahmood, Lina; Gredell, Morgan; Cubley, Ashley; Bolen, Jessica; Fattah, Rabia; Teasdale, Katherine; Lieu, Linh; Chua, Tedmund; Marini, Federico; Heymann, Hildegard; Anslyn, E.V., *Molecules*, **2015**, 20, 9170-9182. PMID:26007178.
- 263) "Expanded Porphyrin-Anion Supramolecular Assemblies: Environmentally Responsive Sensors for Organic Solvents and Anions" Zhang, Zhan; Kim, Dong Sub; Lin, Chung-Yon; Zhang, Huacheng; Lammer, Aaron; Lunch, Vincent; Popov, Ilya; Miljanic, Ognjen; Anslyn, E.V.; Sessler, Jonathan, *J. Am. Chem. Soc.*, **2015**, 137, 7769-7774. PMID:25965790.
- 262) "Dynamic Aminal-Based TPA Ligands" Zhou, Yuntao; Yuan, Yaofeng; You, Lei; Anslyn, E.V., *Chem. Eur. J.*, **2015**, 21, 8207-8213. PMID: 25919126.
- 261) "Dynamic covalent binding and chirality sensing of mono secondary amines with a metal-templated assembly" Zhou, Yuntao; Ren, Yulong; Zhang, Ling; You, Lei; Yuan, Yaofeng; Anslyn, E.V., *Tetrahedron* 71, **2015**, 3515-3521.
- 260) "Next-Generation Sequencing as Input for Chemometrics in Differential Sensing Routines" Goodwin, Sara; Gade, Alexandra; Byrom, Michelle; Herrera, Baine; Spears, Camille; Anslyn, E.V.; Ellington, Andrew, *Angew. Chem.*, **2015**, 54, 6339-6342. PMID: 25826754.
- 259) "Recent Advances in Supramolecular Analytical Chemistry Using Optical Sensing" You, Lei; Zha, Daijun; Anslyn, E.V., *Chemical Reviews*, **2015**, 115, 7840-7892. PMID: 25719867.
- 258) "Chiral Amine Enantiomeric Excess Determination Using Self-Assembled Octahedral Fe(II)-Imine Complexes" Dragna, Justin; Gade, Alexandra; Tran, Lee; Lynch, Vince; Anslyn, E.V., *Chirality*, **2015**, 27, 294-298. PMID: 25664936.
- 257) "Differential sensing for the regio- and stereoselective identification and quantitation of glycerides" Diehl, K.L.; Ivy, M.A.; Rabidoux, S.; Petry, S.M.; Muller, G.; Anslyn, E.V. *Proc. Natl. Acad. Sci.*, **2015**, E3977-E3986. PMID: 26175025
- 256) "Design and Synthesis of Synthetic Receptors for Biomolecule Recognition", Diehl, K.L.; Bachman, J.L.; Chapin, B.M.; Edupuganti, R.; Escamilla, P.R.; Gade, A.M.; Hernandez, E.T.; Jo, H.H.; Johnson, A.M.; Koesnichenko, I.V.; Lim, J.; Lin, C.-Y.; Meadows, M.K.; Seifert, H.M.; Zamore-Olivares, D.; Anslyn, E.V. *Monographs in Supramolecular Chemistry*, No. 14, Synthetic Receptors for Biomolecules: Design Principles and Applications, **2015**, 39-85, RSC.
- 255) "Reaction-based Indicator displacement Assay (RIA) for the selective colorimetric and fluorometric detection of peroxyxynitrite" Sun, X.; Lacina, K.; Ramsamy, E.C; Flower, S.E.; Fossey, J.S.; Qian, X.; Anslyn, E.V.; Bull, S.D.; James, T.D., *Chem. Sci.* **2015**, 6, 2963-2967.

- 254) “Mechanistic studies on covalent assemblies of metal-mediated hemi-aminal ethers” Jo, H.H.; Edupuganti, R.; You, L.; Dalby, K.N.; Anslyn, E.V., *Chem. Sci.* **2015**, Vol 6 Issue 1, 158-164. PMID: 25530834.
- 253) “Quantification of a Pharmacodynamic ERK End Point in Melanoma Cell Lysates: Toward Personalized Precision Medicine” Warthaka, M.; Adelman, C.H.; Kaoud, T.S.; Edupuganti, R.; Yan, C.; Johnson, W.H.; Ferguson, C.; Tavares, C.D.; Pence, L.J.; Anslyn, E.V.; Ren, R.; Tsai, K.Y.; Dalby, K.N.; *ACS Med. Chem. Lett.* **2015**, 6, 47–52. PMID: 25589929.
- 252) “Grape and wine sensory attributes correlate with pattern-based discrimination of Cabernet Sauvignon wines by a peptidic sensor array” Umali, A.P.; Ghanem, E.; Hussain, H.; Kao, A.; Tu-Ting, Z.; Linna, G.; Wilkins, B.J.; Hobza, C.; Quach, D.K.; Fredell, M. *Tetrahedron*, **2015**, 3095-3099.
- 251) “Exploitation of the majority rules effect for the accurate measurement of high enantiomeric excess values using CD spectroscopy” Seifert, H.M.; Jiang, Y.; Anslyn, E.V., *Chemical Communications*. **2014**, Vol. 50 Issue 97, 15330-15332. PMID: 25347688.
- 250) “Differential Sensing of MAP Kinases Using SOX-Peptides” Zamora-Olivares, D.; Kaoud, T.S.; Jose, J.; Ellington, A.; Dalby, K.N.; Anslyn, E.V., *Angew. Chem. Int. Ed.* **2014**, 53, 14064–14068. PMID: 25319433.
- 249) “Antiproliferative and cytotoxic activities of 5-(nonyloxy) tryptamine derivatives in breast cancer cells” Tavares, C.D.J.; Jose, J.; Devkota, A.K.; Park, J.; Kaoud, T.; Anslyn, E.V.; Dalby, K.N., *Cancer Research*, **2014**, 74 (19 Supplement) 5462-5462.
- 248) “Well Plate Circular Dichroism Reader for the Rapid Determination of Enantiomeric Excess” Metola, P.; Nichols, S.M.; Kahr, B.; Anslyn, E.V. *Chem. Sci.*, **2014**, 42, 4278-4282. PMID: 25386332.
- 247) “Rapid Determination of Enantiomeric Excess of  $\alpha$ -Chiral Aldehydes Using Circular Dichroism Spectroscopy” Barman, S.; Anslyn, E.V. *Tetrahedron*, **2014**, 70, 1357-1362.
- 246) “Characterization of a Fluorescent Probe for Imaging Nitric Oxide” Ghebremariam, Y.T.; Huang, N.F.; Kambhampati, S.; Volz, K.S.; Joshi, G.G.; Anslyn, E.V. Cooke, J.P. *J. Vascular Res.* **2014**, 51, 68-79. PMID: 24335468.
- 245) “Exploring Naphthyl-Carbohydrazides as Inhibitors of Influenza A Viruses” Barman, S.; You, L.; Chen, R.; Codrea, V.; Kago, G.; Edupuganti, R.; Roberus, J.; Krug, R.; Anslyn, E.V. *Eur. J. Med. Chem.* **2014**, 71, 81-90. PMID: 24287556.
- 244) “Rapid Optical Methods for Enantiomeric Excess Analysis: From Enantioselective Indicator Displacement Assays to Exciton Coupled Circular Dichroism” Jo, H.H.; Lin, C.-Y.; Anslyn, E.V. *Acc. Chem. Res.* **2014**, 47, 2212-2221. PMID: 24892802.
- 243) “Rhodium-Catalyzed Asymmetric Hydrogenation of Unprotected NH Imines Assisted by a Thiourea” Zhao, Q.; Wen, J.; Tan, R.; Huang, K.; Metola, P.; Wang, R.; Anslyn, E.V.; Zhang, X. *Angew. Chem. Int. Ed.* **2014**, 53, 8467-8470. PMID: 24939397.
- 242) “Synthesis and Biological Evaluation of Pyrido[2,3-d]pyrimidine-2,4-dione Derivatives as eEF-2K Inhibitors” Edupuganti, R.; Wang, Q.; Tavares, C.D.; Chitgian, C.; Bachman, J.; Ren, P.; Anslyn, E.V.; Dalby, K. *Bioorg. Med. Chem.* **2014**, 22, 17 4910-4916. PMID: 25047940.
- 241) “The Effect of Alkylation, Protonation, and Hydroxy Group Substitution on Reversible Alcohol and Water Addition to 2- and 4-Formyl Pyridine Derivatives” Barman, S.; Diehl, K.; Anslyn, E.V. *RSC Adv.* **2014**, 4, 28893-28900.
- 240) “The Use of Principal Component Analysis and Discriminant Analysis in Differential Sensing Routines” Stewart, S.; Adams, M.; Anslyn, E.V. *Chem. Soc. Rev.* **2014**, 43, 70-84. PMID: 23995750.



- 239) "Differentiation of Functional Groups and Biologically Relevant Anions Using AT-PAMAM Dendrimers" Long, S.E.; Bonizzoni, M.; Ray, B.; Anslyn, E.V. *Supramolecular Chemistry*, **2013**, *25*, 641-649. PMID: 24223479.
- 238) "Sulfur Incorporation Generally Improves Ricin Inhibition in Pterin-appended Glycine-phenylalanine dipeptide Mimics" Wiget, P.A.; Manzano, L.A.; Pruet, J.M.; Gao, G.; Ryota, S.; Monzingo, A.F.; Jasheway, K.R.; Robertus, J.D.; Anslyn, E.V. *Bioorg. Med. Chem. Lett.*, **2013**, *23*, 6799-6804. PMID: 24432385.
- 237) "In-Situ Generation of Differential Sensors that Fingerprint Kinases and the Cellular Response to Their Expression" Zamora-Olivares, D.; Kaoud, T.; Dalby, K.; Anslyn, E.V. *J. Am. Chem. Soc.* **2013**, *135*, 14814-14820. PMID: 23991633.
- 236) "A Selective and Sensitive Chromogenic and Fluorogenic Detection of a Sulfur Mustard Simulant", Kumar, V.; Anslyn, E.V. *Chem. Sci.* **2013**, *4*, 4292-4297.
- 235) "Array Sensing Using Optical Methods for Detection of Chemical and Biological Hazards" Diehl, K.; Anslyn, E.V. *Chem. Soc. Rev.* **2013**, *42*, 8596-8611. PMID: 23999658.
- 234) "Studies of Reversible Conjugate Additions" Zhong, Y.; Xu, Y.; Anslyn, E.V. *Eur. J. Org. Chem.* **2013**, *23*, 5171-5021.
- 233) "A Selective Turn-On Fluorescent Sensor for Sulfur Mustard Simulants" Kumar, V.; Anslyn, E.V. *J. Am. Chem. Soc.* **2013**, *135*, 6338-6344. PMID: 23544452.
- 232) "On the Rate of Boronate Ester Formation in Ortho-Aminomethyl-functionalized Phenyl Boronic Acids", Collins, B.E.; Metola, P.; Anslyn, E.V. *Supramolecular Chemistry*, **2013**, *25*, 79-86. PMID: 23441105.
- 231) "Peptide-Conjugated Pterins as Inhibitors of Ricin Toxin A" Saito, R.; Pruet, J.; Manzano, L.A.; Jasheway, K.; Monzingo, A.F.; Wiget, P.A.; Ishan, K.; Anslyn, E.V.; Robertus, J.D. *J. Med. Chem.* **2013**, *56*, 320-329. PMID: 23214944.
- 230) "Dynamic Thiol Exchange with  $\beta$ -Sulfido- $\alpha$ ,  $\beta$ -Unsaturated Carbonyl Compounds and Dithianes" Joshi, G.; Anslyn, E.V. *Organic Letters* **2012**, *14*(18), 4714-4717. PMID: 22934665.
- 229) "A Mechanically Controlled Indicator Displacement Assay" Sakibara, K.; Joyce, L.A.; Mori, T.; Fujisawa, T.; Shabbir, S.H.; Hill, J.P. Anslyn, E.V.; Ariga, K. *Angew Chem* **2012**, *51*(38), 9643-9646. PMID: 22930528.
- 228) "Statistics: Linear Discriminant Analysis (LDA), Principal Component Analysis (PCA), and Artificial Neural Networks (ANN) in Supramolecular Chemistry" in *Encyclopedia of Supramolecular Chemistry* Maynor, M.S.; Adams, M.M.; Lavigne, J.J.; Anslyn, E.V. **2012**, 709-730.
- 227) "Discrimination of vicinal-diol-containing flavonoids and black teas by arrays of host-indicator ensembles" Zhang, X.; Anslyn, E.V.; Qian, X. *Supramolecular Chemistry* **2012**, *24*(7), 520-525.
- 226) "Optimized 5-Membered Heterocycle-Linked Pterins for the Inhibition of Ricin Toxin A" Pruet, J.M.; Saito, R.; Manzano, L.A.; Jasheway, K.R.; Wiget, P.A.; Kamat, I.; Anslyn, E.V.; Robertus, J.D. *ACS Medicinal Chemistry Letters* **2012**, *3*(7), 588-591. PMID: 23050058.
- 225) "Exploration of plasticizer and plastic explosive detection and differentiation with serum albumin cross-reactive arrays" Adams-Ivy, M.; Gallagher, L.T.; Ellington, A.D.; Anslyn, E.V. *Chemical Science* **2012**, *3*, 1773-1779.
- 224) "Enantio- and Chemoselective Differentiation of Protected  $\alpha$ -Amino Acids and  $\beta$ -Homoamino Acids with a Single Copper(II) Host" Joyce, L. A.; Canary, J.W.; Anslyn, E.V. *Chem. Eur. J.* **2012**, *18*, 8064-8069. PMID: 22592912.

- 223) "Identification of Influenza Virus Inhibitors Targeting NSIA Utilizing Fluorescence Polarization-Based High-Throughput Assay" Cho, E.J.; Xia, S.; Ma, L.; Robertus, R.M.; Anslyn, E.V.; Montelione, G.T.; Ellington, A. *Biomolecular Screening* **2012**, 17(4), 448-459.
- 222) "Pattern-based Discrimination of Organic Acids and Red Wine Varietals by Arrays of Synthetic Receptors" Gallagher, L.T.; Heo, J.S.; Lopez, M.A.; Ray, B.M.; Xiao, J.; Umali, A.P.; Zhang, A.; Dharmarajan, S.; Heymann, H.; Anslyn, E.V. *Supramolecular Chemistry* **2012**, 24(2), 143-148.
- 221) "Oxoanion Recognition by Benzene-based Tripodal Pyrrolic Receptors" Bill, N.L.; Kim, D.; Kim, S.K.; Park, J.S.; Lynch, V.M.; Young, N.J.; Hay, B.P.; Yang, Y.; Anslyn, E.V.; Sessler, J.L.; Meisner, J.S. *Supramolecular Chemistry* **2012**, 24(1), 72-76.
- 220) "An Exciton-Coupled Circular Dichroism Protocol for the Determination of Identity, Chirality, And Enantiomeric Excess of Chiral Secondary Alcohols" You, L.; Pescitelli, F.; Anslyn, E.V.; Di Bari, L. *J. Am. Chem. Soc.* **2012**, 134, 7117-7125. PMID: 22439590.
- 219) "Correlating Sterics Parameters and Diastereomeric Ratio Values for a Multicomponent Assembly To Predict Exciton-Coupled Circular Dichroism Intensity and Thereby Enantiomeric Excess of Chiral Secondary Alcohols" You, L.; Berman, J.S.; Lucksanawichien, A.; Anslyn, E.V. *J. Am. Chem.* **2012**, 134, 7126-7134. PMID: 22439636.
- 218) "In Situ Assembly of Octahedral Fe(II) Complexes for the Enantiomeric Excess Determination of Chiral Amines Using Circular Dichroism Spectroscopy" Dragna, J.M.; Pescitelli, G.; Tran, L.; Lynch, V.M.; Anslyn, E.V. *J. Am. Chem. Soc.* **2012**, 134, 4398-4407. PMID: 22272943.
- 217) "Discrimination and Classification of Ginsenosides and Ginsengs Using Bis-Boronic Acid Receptors in Dynamic Multicomponent Indicator Displacement Sensor Arrays" Zhang, X.; You, L.; Anslyn, E.V.; Qian, X. *Chem. Eur. J.* **2012**, 18, 1102-1110. PMID: 22213109.
- 216) "PAMAM dendrimer induced aggregation of 5(6)-carboxyfluorescein" Bonizzoni, M.; Long, R.; Anslyn, E.V. *J. Org. Chem.* **2012**, 77, 1258-1266. PMID: 22145833.
- 215) "Uses of Differential Sensing and Arrays in Chemical Analysis" Adams, M.M., Joyce, L.A.; Anslyn, E.V. *Supramolecular Chemistry, From Molecules to Nanomaterials*, John Wiley and Sons, Sussex UK, Vol. 2, 709-732.
- 214) "Competition Experiments" You, L.; Anslyn, E.V. *Supramolecular Chemistry, From Molecules to Nanomaterials*, John Wiley and Sons, Sussex UK, Vol. 1, 135-160.
- 213) "Identification of Influenza Virus Inhibitors Targeting NSIA Utilizing Fluorescence Polarization-Based High-Throughput Assay" Cho, E.J.; Xia, S.; Ma, L.C.; Robertus, J.; Krug, R.M.; Anslyn, E.V.; Montelione, G.T.; Ellington, A.D. *J. Biomol. Screening*, **2012**, 17, 448-4509. PMID: 22223052.
- 212) "Uses of Differential Sensing and Arrays in Chemical Analysis", Anslyn, E.V.; Joyce, L.A.; Adams, M.M. *Supramolecular Chemistry: from Molecules to Nanomaterials*, Steed, J.W.; Gale, P.A. (Eds.), John Wiley and Sons Ltd, Chichester, UK, **2012**, pp 709-730.
- 211) "Dynamic multi-component covalent assembly for the reversible binding of secondary alcohols and chirality sensing" You, Lei; Berman, Jeffrey S.; Anslyn, E.V. *Nature Chemistry* **2011**, 3, 943-948. PMID: 22109274.
- 210) "Artificial Receptors for the Recognition of Phosphorylated Molecules" Hargrove, A.E.; Nieto, S.; Zhang, T.; Sessler, J.L.; Anslyn, E.V. *Chemical Reviews* **2011** 603-782. PMID: 21910402.
- 209) "Identifying Protein Variants with Cross-Reactive Aptamer Arrays" Stewart, Sara; Syrett, Angel; Pothukuchy, Arti; Bhadra, Sancheeta; Ellington, Andrew; Anslyn, E.V. *ChemBioChem* **2011**, 2021-2024. PMID: 21796750.
- 208) "Enthalpy- vs Entropy-Driven Complexation of Homoallylic Alcohols by Rhodium(I) Complexes" Kang, Sung Ok; Lynch, Vincent M; Day, Victor W., Anslyn, E.V. *Organometallics* **2011**, 6233-6240. PMID: 22328800.

- 207) "Dynamic Multicomponent Hemiaminal Assembly" You, Lei; Long, S Reid; Lynch, Vincent M., Anslyn, E.V. *Chem. Eur. J.* **2011** 11017-11023. PMID: 21919095.
- 206) "Circular dichroism of multi-component assemblies for chiral amine recognition and rapid ee determination" Metola, Pedro; Anslyn, E.V.; James, Tony D.; Bull, Steven D. *Chemical Science* **2011**, 156-161.
- 205) "A Simple Method for the Determination of Enantiomeric Excess and Identity of Chiral Carboxylic Acids" Joyce, L.A.; Maynor, M.S.; Dragna, J.M.; da Cruz, G.; Lynch, V.M.; Canary, J.W.; Anslyn, E.V. *J. Am. Chem. Soc.* **2011**, 13746-13752. PMID: 21780788.
- 204) "Rapid determination of enantiomeric excess: a focus on optical approaches" Leung, D.; Kang, Sung-Ok, Anslyn, E.V. *Chem. Soc. Rev.* **2011**, 41, 448-479. PMID: 21892514.
- 203) "Structure-Based Design of Ricin Inhibitors" Jasheway, K.; Pruet, J.; Anslyn, E.V.; Robertus, J.D. *Toxins*, **2011**, 3, 1233-1248. PMID: 22069693.
- 202) "7-Substituted Pterins Provide a New Direction for Ricin A Chain Inhibitors" Pruet, J. M.; Anslyn, E.V. *Eur. J. Med. Chem.* **2011**, 46, 3608-3615. PMID: 21641093.
- 201) "Rapid Determination of Enantiomeric Excess of alpha-Chiral Cyclohexanones Using Circular Dichroism Spectroscopy" Leung, D.; Anslyn, E.V. *Org. Lett.* **2011**, 9, 2298-2301. PMID: 21486023.
- 200) "Synthesis and Evaluation of Derivatives as Potential Influenza NS1A Protein Inhibitors" You, L; Cho, E.J.; Leavitt, J.; Ma, J.C.; Montelione, G.; Anslyn, E.V.; Krug, R.M.; Ellington, A.; Robertus, J.D. *Bioorg. Med. Chem. Lett.* **2011**, 21, 3007-3011. PMID: 21478016.
- 199) "Chemical Functionalization of Oligodeoxynucleotides with Multiple Boronic Acids for the Polyvalent Binding of Saccharides" Hargrove, A.E.; Ellington, A.D.; Anslyn, E.V.; Sessler, J.; *Bioconj. Chem.* **2011**, 22, 388-396. PMID: 21299200.
- 198) "Discrimination of Flavonoids and Red Wine Varietals by Arrays of Differential Peptidic Sensors" Umali, A. LeBoeuf, S.E.; Newberry, R.W.; Kim, S.; Tran, L.; Rome, W.A.; Tian, T.; Taing, D.; Hong, J.; Kwan, M.; Heymann, H.; Anslyn, E.V. *Chem. Sci.* **2011**, 2, 439-445.
- 197) "A Fluorescence Based Cyclodextrin Sensor to Detect Aromatic Nitro Explosives" Ponnu, A.; Anslyn, E.V. *Supramolecular Chemistry*, **2010**, 22, 65-71.
- 196) "Development of an online citrate/Ca(2+) sensing system for dialysis" Yang, Y.; Szamosfalvi, B.; Yee, J.; Frinak, S.; Anslyn, E.V. *Analyst* **2010**, 317-320. PMID: 20959934.
- 195) "Serum Albumins as Differential Receptors for the Discrimination of Fatty Acids and Oils" Kubarych, C.J.; Adams, M.M.; Anslyn, E.V. *Organic Letters* **2010**, 12, 21, 4780-4783. PMID: 20942411.
- 194) "Boronic Acid Porphyrin Receptor for Ginsenoside Sensing" Hargrove, A.E.; Reyes, R.N.; Riddington, I.; others *Organic Letters* **2010**, 12, 21, 4804-4807. PMID: 20860384.
- 193) "Supramolecular and Chemical Cascade Approaches to Molecular Sensing" Anslyn, E.V. *J. Am. Chem. Soc.* **2010**, 132, 45 15833-15835. PMID: 21067151.
- 192) "The uses of supramolecular chemistry in synthetic methodology development: Examples of anion and neutral molecular recognition" Joyce, L.A.; Shabbir, S.H.; Anslyn, E.V. *Chemical Society Reviews* **2010**, 39, 10, 3621-3632. PMID: 20714470.
- 191) "A General Approach to Differential Sensing Using Synthetic Molecular Receptors" Umali, A.; Anslyn, E.V.; *Current Opinion in Chemical Biology* **2010**, 14, 685-692. PMID: 20801075.

- 190) "Chemosensory Models: Approaches and Applications of Differential Sensing" Anslyn, E.V.; Rotello, V.M.; *Current Opinion in Chemical Biology* **2010**, *14*, 683-684. PMID: 20863741.
- 189) "A Highly Selective Low-Background Fluorescent Imaging Agent for Nitric Oxide" Yang, Y.; Seidlits, S.; Adams, M.M.; Lynch, V.M.; Schmidt, C.E.; Anslyn, E.V.; Shear, J.B. *J. Am. Chem. Soc.* **2010**, *132*, 13114-13116. PMID: 20672823.
- 188) "Analysis of Citric Acid in Beverages: Use of an Indicator Displacement Assay" Umali, A.; Anslyn, E.V.; Wright, A.T.; Blieden, C.R.; Smith, C.K.; Tian, T.; Truong, J.A.; Crumm, C.E.; Garcia, J.E.; Lee, S.; Mosier, M.; Nguyen, C.P. *J. Chem. Ed.* **2010**, *87*, 832-835.
- 187) "Amino-terminated PAMAM Dendrimers Electrostatically Uptake Numerous Anionic Indicators" C. Rainwater, E.V. Anslyn, *Chem. Comm.* **2010**, *46*, 2904-2906. PMID: 20386817.
- 186) "Acyl Radical Insertion for the Direct Formation of New 7-Substituted Pterin Analogs" J. Pruet, J. Robertus, E.V. Anslyn, *Tet. Lett.*, **2010**, *51*, 2539-2540. PMID: 20436939.
- 185) "Algorithms for the Determination of Binding Constants and Enantiomeric Excess in Complex Host: Guest Equilibria Using Optical Measurements" A. Hargrove, Z. Zhong, J. Sessler, E.V. Anslyn. *New J. Chem.* **2010**, *34*, 348-354. PMID: 20539751.
- 184) "A Facile Circular Dichroism Protocol for Rapid Determination of Enantiomeric Excess and Concentration of Chiral Primary Amines" Nieto, S.; Dragna, J.M.; Anslyn, E.V. *Chem. Eur. J.*, **2010**, *16*, 227-232. PMID: 19946914.
- 183) "Combinatorial Methods for Chemical and Biological Sensors, edited by Radislav A. Potyralo and Vladimir M. Mirsky" Bonizzoni, M.; Anslyn, E.V. *J. Am. Chem. Soc.* **2009**, *131*, 14597-14598. A book review.
- 182) "Differential Sensing Using Proteins: Exploiting the Cross-Reactivity of Serum Albumin to Pattern Individual Terpenes and Terpenes in Perfume" Adams, M.M.; Anslyn, E.V. *J. Am. Chem. Soc.* **2009**, *131*, 17068-17069. PMID: 19904949.
- 181) "Secondary Alcohol Hemiacetal Formation: An in Situ Carbonyl Activation Strategy" You, L.; Anslyn, E.V. *Org. Lett.* **2009**, *22*, 5126-5129. PMID: 19835394.
- 180) "Conversion of Cellulose to Hexitols Catalyzed by Ionic Liquid-Stabilized Ruthenium Nanoparticles and a Reversible Binding Agent" Zhu, Y.; Kong, Z.N.; Stubbs, L.P.; Hunag, L.; Shen, S.; Anslyn, E.V.; Maguire, J.A. *Chem. Sus. Chem.* **2009**, *67-70*. PMID: 20024980.
- 179) "Pattern-Based Recognition for the Rapid Determination of Identity, Concentration, and Enantiomeric Excess of Subtly Different Diols" Shabbir, S.H.; Joyce, L.A.; deCruz, G.M.; Lynch, V.M.; Sorey, S.; Anslyn, E.V. *J. Am. Chem. Soc.* **2009**, *131*, 13125-13131. PMID: 19691315.
- 178) "Pattern-Based Recognition of Thiols and Metals Using a Single Squarane Indicator" Hewage, H.S.; Anslyn, E.V. *J. Am. Chem. Soc.* **2009**, *131*, 13099-13106. PMID: 19691345.
- 177) "The Use of Differential Receptors to Pattern Peptide Phosphorylation" Zhang, T.; Edwards, N.Y.; Bonizzoni, M.; Anslyn, *J. Am. Chem. Soc.* **2009**, *131*, 11976-11984. PMID: 19642684.
- 176) "A General Protocol for Creating High-Throughput Screening Assays for Reaction Yield and Enantiomeric Excess" Shabbir, S.H.; Regan, C.J.; Anslyn, E.V. *Proc. Natl. Acad. Sci.*, **2009**, *106*, 10487-10492.
- 175) "Guidelines for Pattern Recognition Using Differential Receptors and Indicator Displacement Assays" Kitamura, M.; Shabbir, S.; Anslyn, E.V. *J. Org. Chem.*, **2009**, *74*, 4479-4489. PMID: 19459597.

- 174) "Probing Intramolecular B-N Interactions in Ortho-Aminomethyl Arylboronic Acids", Collins, B.; Anslyn, E.V. *J. Org. Chem.* **2009**, *74*, 4055-4060. PMID: 19391608.
- 173) "Rapid Enantiomeric Excess and Concentration Determination Using Simple Racemic Metal Complexes", Nieto, S.; Lynch, V.M.; Anslyn, E.V.; Hyunwoo, K.; Chin, J. *Org. Lett.* **2008**, *22*, 5167-5170. PMID: 18939802.
- 172) "Pattern Recognition Based Identification of Nitrated Explosives" Ponnu, A.; Edwards, N.; Anslyn, E.V. *New J. Chem.* **2008**, *32*, 848-855.
- 171) "Using Enantioselective Indicator Displacement Assays to Determine the Enantiomeric Excess of  $\alpha$ -Amino Acids" Leung, D.; Folmer-Andersen, J.F.; Lynch, V.; Anslyn, E.V. *J. Am. Chem. Soc.* **2008**, *130*, 12318-12327. PMID: 18714996.
- 170) "Transitioning Enantioselective Indicator Displacement Assays for  $\alpha$ -Amino Acids to Protocols Amenable to High-Throughput Screening" Leung, D.; Anslyn, E.V. *J. Am. Chem. Soc.* **2008**, *130*, 12328-12333. PMID: 18714993.
- 169) "Synthesis of a Novel Bisphosphonium Salt Based on 2,2'-Bis(diphenylphosphino)-1,1'-binaphthyl (Binap), Nieto, S.; Metola, P.; Lynch, V.M.; Anslyn, E.V. *Organometallics*, **2008**, *27*, 3608-3610.
- 168) "A Colorimetric Chemodosimeter for Pd(II): A Method for Detecting Residual Palladium in Cross-Coupling Reactions" Houk, R.J.T.; Wallace, K.J.; Hewage, H.S.; Anslyn, E.V. *Tetrahedron*, **2008**, *36*, 8271-8278. PMID: 19122841.
- 167) "High-Throughput Screening of Identity, Enantiomeric Excess, and Concentration Using MLCT Transitions in CD Spectroscopy," Nieto, S.; Lynch, V. M.; Anslyn, E. V.; Kim, H.; Chin, J., *J Am Chem Soc*, **2008**, *130*, 9232-9233. PMID: 18572934.
- 166) "Chromogenic Cross-Linker for the Characterization of Protein Structure by Infrared Multiphoton Dissociation Mass Spectrometry," Gardner, M. W.; Vasicek, L. A.; Shabbir, S.; Anslyn, E. V.; Brodbelt, J. S., *Anal Chem.*, **2008**, *80* (13), 4807-4819. PMID: 18517224.
- 165) "Electrophilic coordination catalysis: a summary of previous thought and a new angle of analysis," Houk, R. J.; Monzinger, A.; Anslyn, E. V., *Acc Chem Res.*, **2008**, *41*(3), 401-10. PMID: 18229891.
- 164) "A pattern recognition based fluorescence quenching assay for the detection and identification of nitrated explosive analytes," Hughes, A.D.; Glenn, I. C.; Patrick, A. D.; Ellington, A.; Anslyn, E. V.; *Chemistry, A Eur. J.*, **2008**, *14*(6), 1822-7. PMID: 18161712.
- 163) "Novel chemiluminescent detection of chemical warfare simulant" Hewage, H.; Wallace, K.J.; Anslyn, E.V. *Chem. Commun.* **2007**, 3909-3011.
- 162) "A colorimetric respond to hydrogen sulfide" Wallace, K.J.; Cordero, S.R.; Tan, C.P.; Lynch, V.M.; Anslyn, E.V. *Sens. and Actu.* **2007**, *120*, 362-367.
- 161) "Two methods for the determination of enantiomeric excess and concentration of a chiral sample with a single spectroscopic measurement," Zhu, L.; Shabbir, S. H.; Anslyn, E. V., *Chemistry Eur. J.* **2007**, *13*(1), 99-104. PMID: 17066491.
- 160) "Sequencing and characterization of oligosaccharides using infrared multiphoton dissociation and boronic acid derivitization in a quadrupole ion trap," Pikulski, M.; Hargrove, A.; Shabbir, S. H.; Anslyn, E. V.; Brodbelt, J. S., *Am Soc Mass Spectrom.* **2007** *18*(12), 2094-106. PMID: 17936010.
- 159) "Pattern Based Peptide Recognition," Collins, B. E.; Anslyn, E. V., *Chem. Eur. J.* **2007**, *13*(17), 4700-8. PMID: 17487907.

- 158) "The discriminatory power of differential receptor arrays is improved by prescreening-a demonstration in the analysis of tachykinins and similar peptides," Wright, A. T.; Edwards, N. Y.; Anslyn, E. V.; McDevitt, J. T.; *Angew Chem Int Ed Engl.* **2007**, *46*(43), 8212-5. PMID: 17899565.
- 157) "Boronic Acid Based Peptidic Receptors for Pattern-Based Saccharide Sensing in Neutral Aqueous Media, an Application in Real-Life Samples" Edwards, N.Y.; Sager, T.W.; McDevitt, J.T.; Anslyn, E.V. *J. Am. Chem. Soc.* **2007**, *129*, 13575-13583. PMID: 17927178.
- 156) "A Cationic Host Displaying Positive Cooperativity in Water" A.D. Hughes, E.V. Anslyn, *Proc. Natl. Acad. Sci.* **2007**, *104*, 6538-6543. PMID: 17420472.
- 154) "Luminescent Assays for Ketones and Aldehydes Employing Catalytic Signal Amplification" R. Houk, E.V. Anslyn, *New J. Chem.* **2007**, *31*, 729-735.
- 153) "Supramolecular Analytical Chemistry" E.V. Anslyn, *J. Org. Chem.* **2007**, *72*, 787-699. PMID: 17253783.
- 152) "Using an Indicator Displacement Assay to Monitor Glucose Oxidase Activity in Blood Serum" T. Zhang, E.V. Anslyn, *Org. Lett.* **2007**, *9*, 1627-1629. PMID: 17391039.
- 151) "Micromachined microfluidic chemiluminescent system for explosives detection", Y. S. Park, H. S. Hewage, D. P. Neikirk, E. V. Anslyn, SPIE Defense and Security Symposium **2007**, Conference 6554, *Chemical and Biological Sensing VIII*, April 11-12, 2007, paper [6554-02].
- 150) "Smart microplates: integrated photodiodes for detecting bead-based chemiluminescent reactions," Yoon S. Park, Matthew M. Andringa, Dean P. Neikirk, Himali S. Hewage, and Eric V. Anslyn, 5th IEEE International Conference on Sensors, paper # B1L-E-4, Daegu, Korea, October 22 - 25, **2006**.
- 149) "Differential Receptor Arrays and Assays for Solution-Based Molecular Recognition," Aaron T. Wright; Eric V. Anslyn, *Chem. Soc. Rev.*, **2006**, *35*, 14-28. PMID: 16365639.
- 148) "A Colorimetric Boronic Acid Based Sensing Ensemble for Carboxy and Phospho Sugars", Tianzhi Zhang; Eric V. Anslyn, *Org. Lett.*, **2006**, *8*, 1649 -1652. PMID: 16597132.
- 147) "Rational Design, Synthesis, and Application of a New Receptor for the Molecular Recognition of Tricarboxylate Salts in Aqueous Media" Antonio Frontera; Jeroni Morey; Antonia Oliver; M. Neus Piña; David Quiñero; Antoni Costa; Pablo Ballester; Pere M. Deyà; Eric V. Anslyn. *J. Org. Chem.*, **2006**, *71* (19), 7185 -7195. PMID: 16958511.
- 146) "Carbonyl Coordination Chemistry from a New Angle: A Computational Study of  $\alpha$ -Carbon Acidity Based on Electrophile Coordination Geometry," Ronald J. T. Houk; Eric V. Anslyn; John F. Stanton *Org. Lett.*, **2006**, *8*(16), 3461 -3463. PMID: 16869635.
- 145) "Detection of chemical warfare simulants by phosphorylation of a coumarin oximate," Karl J. Wallace; Ruth I. Fagbemi; Frantz J. Folmer-Andersen; Jeroni Morey; Vincent M. Lynch; Eric V. Anslyn, *Chem. Communications*, **2006**, *37*, 3886-3888. PMID: 17268659.
- 144) "Micromachined chemiluminescent system for explosives detection," Yoon Park, Dean P. Neikirk, and Eric V. Anslyn, in *Proceedings of SPIE*, Volume 6398, <sup>SEP</sup>Optically Based Biological and Chemical Detection for Defense III, John C. Carrano, Arturas Zukauskas, Eds., 63980R (Oct. 13, **2006**)
- 143) "Indicator-displacement assays" Binh T. Nguyen, Eric V. Anslyn, *Coor. Chem. Rev.* **2006**, *250*, 3118-3127.
- 142) "A Structural Investigation of the N-B Interaction in an o-(N,N-Dialkylaminomethyl)arylboronate System" Zhu, Lei; Shabbir, Shagufta H.; Gray, Mark; Lynch, Vincent M.; Sorey, Steven; Anslyn, Eric V. *J. Am. Chem. Soc.* **2006**, *128*, 1222-1232. PMID: 16433539.

- 141) "Signal amplification by allosteric catalysis" Zhu, Lei; Anslyn, Eric V *Angew. Chem., Int. Ed.* **2006**, *45*, 1190-1196. PMID: 16432908.
- 140) "Pattern-Based Discrimination of Enantiomeric and Structurally Similar Amino Acids: An Optical Mimic of the Mammalian Taste Response" Folmer-Andersen, J. Frantz; Kitamura, Masanori; Anslyn, Eric V. *J. Am. Chem. Soc.* **2006**, *128*, 5652-5653. PMID: 16637629.
- 139) Modern Physical Organic Chemistry, a textbook, Eric Anslyn and Dennis Dougherty, University Science Books, **2005**.
- 138) "A Functional Assay for Heparin in Serum Using a Designed Synthetic Receptor", Aaron T. Wright; Zhenlin Zhong; Eric V. Anslyn, *Angew. Chem.* **2005**, *44*(35), 5679-5682. PMID: 16086350.
- 137) "A Differential Array of Metalated Synthetic Receptors for the Analysis of Tripeptide Mixtures," Aaron T. Wright; Eric V. Anslyn; John T. McDevitt, *J Am Chem. Soc.* **2005**, *127*(49): 17405-11. PMID: 16332090.
- 136) "Differential Receptors Create Patterns That Distinguish Various Proteins", Aaron Wright, M. Griffin, Z. Zhong, S. McCleskey, E.V. Anslyn, J.T. McDevitt, *Angew. Chem.* **2005**, *117*, 6533-6536. PMID: 16155962.
- 135) "Colorimetric Detection of Chemical Warfare Simulants", Karl Wallace, Jeroni Morey, Eric V. Anslyn, *New J. Chem.*, **2005**, *29*, 1469-1474.
- 134) "Preparation of 1,3,5-Tris(aminomethyl)-2,4,6-triethylbenzene from Two Versatile 1,3,5-Tri(halosubstituted) 2,4,6-Triethylbenzene Derivatives" Karl Wallace, Robert Hanes, Eric Anslyn, Jeroni Morey, Kathleen Kilway, Jay Siegel, *Synthesis*, **2005**, *12*, 2080-2083.
- 133) "Heavy metal analysis using a Heck-catalyzed cyclization to create coumarin", Q. Wu, E.V. Anslyn, *J. Mat. Chem.* **2005**, *15*, 2815-2819.
- 132) "An Artificial Siderophore for the Detection of Iron(III)" K. J. Wallace, M. Gray, Z. Zhong, V. Lynch, E.V. Anslyn, *Dalton Trans.* **2005**, *14*, 2436-2441. PMID: 15995754.
- 131) "Naked-Eye Detection of Histidine by Regulation of Cu(II) Coordination Modes" J. Frantz Folmer-Andersen, Vince Lynch, E.V. Anslyn, *Chem. Eur. J.*, **2005**, *11*(18), 5319-5326. PMID: 16003820.
- 130) "Colorimetric Enantiodiscrimination of .alpha.-Amino Acids in Protic Media "Folmer-Andersen, J. Frantz; Lynch, Vincent M.; Anslyn, Eric V. *J. Am. Chem. Soc.*, **2005**, *127*, 7986-7987. PMID: 15926802.
- 129) "Guidelines in implementing enantioselective indicator-displacement assays for .alpha.-hydroxycarboxylates and diols", Zhu, Lei; Zhong, Zhenlin; Anslyn, Eric V. *J. Am. Chem. Soc.*, **2005**, *127*, 4260. PMID:015783208.
- 128) Abiotic Guanidinium Receptors for Anion Molecular Recognition and Sensing, R.J.T. Houk, S.L. Tobey, E.V. Anslyn, *Topics Curr. Chem.* **2005**, Springer-Verlag, Vol. 255, p 199.
- 127) "Guanidinium-Based Anion Receptors" In Encyclopedia of Supramolecular Chemistry, 1<sup>st</sup> Ed., Tobey, S.L.; Anslyn, E.: Eds. Atwood, J.L.; Steed, J.W. Marcel-Dekker, **2004**.
- 126) "Thermodynamic Analysis of Receptors Based on Guanidinium/Boronic Acid Groups for the Complexation of Carboxylates, a-Hydroxycarboxylates, and Diols: Driving Force for Binding and Cooperativity" Wiskur, S.L.; Lavigne, J.J.; Metzger, A.; Tobey, S.L.; Lynch, V.; Anslyn, E.V. *Chem. Eur. J.* **2004**, *10*, 3792-3804. PMID: 15281164
- 125) "Self-Assembling dimeric and trimeric aggregates based on solvophobic and charge-pairing interactions" *Supramolecular Chemistry*, **2004**, *16*, 521-528.

- 124) "Tuning the Specificity of a Synthetic Receptor Using a Selected Nucleic Acid Receptor", Manimala, Joseph C.; Wiskur, Sheryl L.; Ellington, Andrew D.; Anslyn, Eric V. *J. Am. Chem. Soc.* **2004**, *126*, 16515-16519. PMID: 15600355.
- 123) "Synthetic receptors for Anion Recognition" In *Fundamentals of Anion Separations*: Moyer, B.A.; Singh, R.P., Eds. Plenum Pub. Corp., **2004**, 59-69.
- 122) "Catalytic Signal Amplification Using a Heck Reaction. An Example in the Fluorescence Sensing of Cu(II)" Wu, Qiaoyin; Anslyn, Eric V. *J. Am. Chem. Soc.*, **2004**, *126*, 14682-14683. PMID: 15535668.
- 121) "Using Indicator-Displacement Assays in Test Strips and To Follow Reaction Kinetics" Nguyen, Binh T.; Wiskur, Sheryl L.; Anslyn, Eric V. *Organic Letters*, 2004, *6*, 2499-2501. PMID: 15255675
- 120) "Guanidinium Groups Act as General-Acid Catalysts in Phosphoryl Transfer Reactions: A Two-Proton Inventory on a Model System" Piatek, Anna M.; Gray, Mark; Anslyn, Eric V. *J. Am. Chem. Soc.* **2004**, *126*, 9878-9879. PMID: 15303835.
- 119) Molecular recognition and indicator-displacement assays for phosphoesters, *Tetrahedron*, T. Zhang, E.V. Anslyn, **2004**, *60*, 11117-11124.
- 118) Synthetic Receptors as Sensors, E.V. Anslyn, *Tetrahedron*, **2004**, *60*, 11055-11056.
- 117) FRET induced by an 'allosteric' cycloaddition reaction regulated with exogenous inhibitor and effectors, L. Zhu, V.M. Lynch, E.V. Anslyn, *Tetrahedron*, **2004**, *60*, 7267-7275.
- 116) Cooperative Metal Coordination and Ion-Pairing in Tripeptide Recognition, A.T. Wright, E.V. Anslyn, *Org. Lett.* **2004**, *9*, 1341-1344. PMID: 15101737
- 115) Threshold Detection Using Indicator-Displacement Assays: An Application in the Analysis of Malate in Pinot Noir Grapes, Piatek, A.; Bobbick, Y.; Anslyn, E.V. *J. Am. Chem. Soc.* **2004**, *126*, 6072-6077. PMID: 15137773
- 114) Facile Quantification of Enantiomeric Excess and Concentration with Indicator-Displacement Assays: An Example in the Analysis of Alpha-Hydroxy Acids, L. Zhu, E.V. Anslyn, *J. Am. Chem. Soc.* **2004**, *126*, 3676-3677. PMID: 15038696
- 113) "Rate of Enolate Formation is Not very Sensitive to the Hydrogen Bonding Ability of Donors to Carbonyl Oxygen Lone Pair Acceptors; A Ramification of the Principle of Non-Perfect Synchronization for General-Acid-Catalyzed Enolate Formation", Z. Zhenlin, T. S. Snowden, M.D. Best, E.V. Anslyn, *J. Am. Chem. Soc.* **2004**, *126*, 3488-3495. PMID: 15025476
- 112) "A far-red fluorescent contrast agent to image epidermal growth factor receptor expression." Hsu, E.R. Anslyn, E.V.; Dharmawardhane, S.; Alizadeh-Naderi, R.; Aaron, J.S.; Sokolov, K.V.; El-Naggar, A.K.; Gillenwater, A.M.; Richards-Kortum, R.R. *Photochem. Photobiol.* **2004**, *79*, 272-279. PMID: 15115300
- 111) "Asymmetric Enolate Alkylation via Templatation with Chiral Synthetic Receptors" Postnikova, B.J.; Anslyn, E.V., *Tetrahedron*. **2004**, *45*, 501-504.
- 110) "Towards nanoscale three-dimensional fabrication using two-photon initiated polymerization and near-field excitation" B.J. Postnikova, J. Currie, T. Doyle, R.E. Hanes, E.V. Anslyn, J.B. Shear, and D.E. Vanden Bout, *Microelec. Eng.* **2003**, *69*, 459-465.
- 109) "Citrate and calcium determination in flavored vodkas using artificial neural networks" McCleskey, Shawn C.; Floriano, Pierre N.; Wiskur, Sheryl L., and others, *Tetrahedron*, Elsevier Science B.V., 2003, *50*, 10089.



- 108) “2,6-Di(pyrimidin-4-yl)pyridine Ligands with Nitrogen-Containing Auxiliaries: The Formation of Functionalized Molecular Clefts upon Metal Coordination” Folmer-Andersen, J. Frantz; Aiet-Haddou, Hassan; Lynch, Vincent M., and others, *Inorg. Chem.*, **2003**, *42*, 8674. PMID: 14686488
- 107) “Energetics of Phosphate Binding to Ammonium and Guanidinium Containing Metallo-Receptors in Water”, S.L. Tobey, E. V. Anslyn, *J. Am. Chem. Soc.* **2003**, *125*, 14807. PMID: 14640656
- 106) “Triton X-100 Enhances Ion-Pairing Molecular Recognition in Water. Further Development of an IP3 Chemosensor”, K. Niikura, E.V. Anslyn *J. Org. Chem.* **2003**, *68*, 10156. PMID: 14682714
- 105) “Studies into the Thermodynamic Origin of Negative Cooperativity in Ion-Pairing Molecular Recognition” S.L. Tobey, E.V. Anslyn, *J. Am. Chem. Soc.* **2003**, *125*, 10963. PMID: 12952478
- 104) “Determination of Inorganic Phosphate in Serum and Saliva using a Synthetic Receptor” S.L. Tobey, E.V. Anslyn, *Org. Lett.* **2003**, *5*, 2029. PMID: 12790520
- 103) “Controlling the Oxygenation Level of Hemoglobin by Using a Synthetic Receptor for 2,3-Bisphosphoglycerate”, *Angew. Chem. Int. Ed. Eng.* **2003**, *42*, 3005. PMID: 12851955
- 102) “A Multicomponent Sensing Ensemble in Solution: Differentiation Between Structurally Similar Analytes” S.L. Wiskur, P.N. Floriano, E.V. Anslyn, J.T. McDevitt, *Angew. Chem. Int. Ed. Eng.* **2003**, *42*, 2070. PMID: 12746826
- 101) “C3V Symmetric Receptors Show High Selectivity and High Affinity for Phosphate” S.L. Tobey, B.D. Jones, E.V. Anslyn, *J. Am. Chem. Soc.* **2003**, *125*, 4026. PMID: 12670205
- 100) “Differential Receptors Create Patterns Diagnostic for ATP and GTP” *J. Am. Chem. Soc.* **2003**, *125*, 1114. PMID: 12553782
- 99) “Preorganized Bis-Zinc Phosphodiester Cleavage Catalysts Possessing Natural Ligands: A Lesson Pertinent to Bimetallic Artificial Enzymes” Karin Worm, E.V. Anslyn, *Chem. Eur. J.* **2003**, *9*, 741-747. PMID: 12569466
- 98) “Guanidinium Containing Receptors for Anions” Best, M.D.; Tobey, S.L.; Anslyn, E.V. *Coordination Chemistry Reviews*, **2002**, 3-15.
- 97) “Mimicking the Mammalian Sense of Taste through Single-Component and Multicomponent Analyte Sensors” ACS Symposium Series 825, **2002**, 276.
- 96) “Remarkable Cooperativity Between a Zn(II) Ion and Guanidinium/Ammonium Groups in the Hydrolysis of RNA” H. Ait-Haddou, J. Sumaoka, S.L. Wiskur, F.J. Folmer-Andersen, E.V. Anslyn, *Angew. Chem. Int. Ed. Eng.* **2002**, *41*, 4014. PMID: 12412066
- 95) “Ion-Pairing Molecular Recognition in Water: Aggregation at Low Concentrations that is Entropy-Driven” R. Mikhail, Y. Ionue, S. Tobey, A. Metzger, E. Anslyn, *J. Am. Chem. Soc.* **2002**, *124*, 14959. PMID: 12475338
- 94) “Trinuclear Copper(II) Complex Showing High Selectivity for the Hydrolysis of 2'-5' over 3'-5' for UpU and 3'-5' over 2'-5' for ApA Ribonucleotides” M. Komiyama, S. Kina, Z. Matsumura, J. Sumoaka, S. Tobey, V.M. Lynch, E.V. Anslyn, *J. Am. Chem. Soc.* **2002**, *124*, 13731. PMID: 12431103
- 93) “Synthesis and Uses of PS-Thiourea”, J.C. Manimala, E.V. Anslyn, J. Manimala, E.V. Anslyn, *Eur. J. Org. Chem.* **2002**, *23*, 3893.
- 92) “A Molecular Receptor for Carboxylic Acids. Selectivity Achieving by Steric Constraints”, M. Hashizumi, S. Tobey, E.V. Anslyn, *Supramolecular Chemistry*. **2002**, *14*, 511.
- 91) “Stochastic Sensing of IP<sub>3</sub> Has Far-Reaching Consequences”, E.V. Anslyn, J.B. Shear, *Chemistry & Biology*, **2002**, *9*(7), 779-780. PMID: 12144920

- 90) "Novel C3-Symmetric Molecular Scaffolds with Potential Facial Differentiation", G. Henrich, V.M. Lynch, E.V. Anslyn, *Chemistry-A European Journal*, **2002**, 8(10), 2274-2278. PMID:12012411
- 89) "1,3,5-2,4,6-Functionalized, Facially Segregated Benzenes-Exploitation of Sterically Predisposed Systems in Supramolecular Chemistry," G. Henrich, E.V. Anslyn, *Chemistry-A European Journal*, 2002, **8** (10), 2218-2224. PMID: 12012405
- 88) "Toward the Development of Miniaturized Imaging Systems for Detection of Pre-Cancer", M.R. Descour, A-H. O. Karkkainen, J.D. Rogers, C. Liang, R.S. Weinstein, J.T. Rantala, B, Kilic, E. Madenci, R.R. Richards-Kortum, E.V. Anslyn, R.D. Dupuis, R.J. Schul, C.G. Willison, C.P. Tiggles, *IEEE Journal of Quantum Electronics*, **2002**, 38(2), 122-130.
- 87)"Toward a Stable Hydroxyphosphorane," R. E. Hanes, Jr., V. M. Lynch, E. V. Anslyn and K. N. Dalby, *Org. Lett.*, **2002**, 4 (2), 201-203. PMID: 11796050
- 86) "A Colorimetric Sensing Ensemble for Heparin," Z. Zhong, E.V. Anslyn, *J. Am. Chem. Soc.*, **2002**, 124 (31); 9014-9015. PMID: 12148981
- 85) "Competitive Indicator Methods for the Analysis of Citrate Using Colorimetric Assays," S.C. McCleskey, A. Metzger, C.S. Simmons, E.V. Anslyn, *Tetrahedron*, **2002**, 58, 621-628.
- 84) "A Highly Efficient Method for the Synthesis of Guanidinium Derivatives", J.C. Manimala, E.V. Anslyn, *Tet. Lett.*, **2002**, 43, 565-567.
- 83) "Development of a Micromachined Fluidic Structure for a Biological and Chemical Sensor Array," Y-S. Sohn, A.P. Goodey, E.V. Anslyn, J.T. McDevitt, J.B. Shear, D.P. Neikirk, *Kluwer Academic Publisher*, **2001**, 177-178.
- 82) "Teaching Old Indicators New Tricks," S.L. Wiskur, H. Ait-Haddou, J.J. Lavigne, E.V. Anslyn, *Accounts of Chemical Research*, **2001**, 34, 963-972. PMID: 11747414
- 81)"Artificial Receptors for Enolizations and pKa Shifts", T.S. Snowden, E.V. Anslyn, *Bioorg. Med. Chem.* **2001**, 9, 2467-2478. PMID: 11553488
- 80) "Achieving Large Color Changes in Response to the Presence of Amino Acids: A Molecular Sensing Ensemble with Selectivity for Aspartate," H. Ait-Haddou, S.L. Wiskur, V.M. Lynch, E.V. Anslyn, *J. Am. Chem. Soc.*, **2001**, 45, 11296-11297. PMID: 11697975
- 79) "Using a Synthetic Receptor to Create an Optional-Sensing Ensemble for a Class of Analytes: A Colorimetric Assay for the Aging of Scotch," S.L. Wiskur, E.V. Anslyn, *J. Am. Chem. Soc.*, **2001**, 41, 10109-10110. PMID: 11592895
- 78) "Sensing a Paradigm Shift in the Field of Molecular Recognition: From Selective to Differential Receptors," J.J. Lavigne, E.V. Anslyn, *Angew. Chemie*, **2001**, 40, 3118-3130.
- 77) "A Cascade of Reactions involving Anchimeric Assistance Leads to a Highly "Crowded," Hexakis [(Acyloxy) Methyl] Benzene" G. Henrich, V.M. Lynch, E.V. Anslyn *Chemical Communications* 2001, 23, 2436-2437. PMID: 12240002
- 76) "pKa Values and Geometries of Secondary and Tertiary Amines Complexed to Boronic Acids – Implications for Sensor Design," S. Wiskur, J.J. Lavigne, H. Ait-Haddou, V. Lynch, Y.U. Chiu, J.W. Canary, E.V. Anslyn, *Org. Lett.* **2001**, 3, 1311-1314. PMID: 11348222
- 75) "Characterization of Multicomponent Monosaccharide Solutions Using an Enzyme-Based Sensor Array" T. E. Curey, A. Goodey, A. Tsao, J. Lavigne, Y. Sohn, J. T. McDevitt, E. V. Anslyn, D. Neikirk, and J. B. Shear, *Bioanal. Chem.* **2001**, 293, 178-184. PMID: 11399030

- 74) "Development of Multi-analyte Sensor Arrays Composed of Chemically Derivatized Polymeric Microspheres Localized in Micromachined Cavities," A. Goodey, J. J. Lavigne, S. M. Savoy, M. Rodriguez, T. Curey, A. Tsao, G. Simmons, J. Wright, S.-J. Yoo, Y. Sohn, E. V. Anslyn, J. B. Shear, D. P. Neikirk, J. T. McDevitt, *J. Am. Chem. Soc.* **2001**, 123, 2559-2570. PMID: 11456925
- 73) "Metal triggered fluorescence sensing of citrate using a synthetic receptor," L. Cabell, M.D. Best, J.J. Lavigne, S.E. Schneider, D.M. Perrault, M.-K. Monahan, E.V. Anslyn, *J. Chem. Soc. Perkins Trans II.* **2001**, 315-323.
- 72) "Liquid Flow Through an Array-Based Chemical Sensing System," Sohn, Y.-S.; Tsao, A.; Anslyn, E. V.; McDevitt, J. T.; Shear, J. B.; Neikirk, D. P. *SPIE-Int. Soc. Opt. Eng.* 4177, *Microfluidic Devices and Systems III*, **2000**, 212-219.
- 71) "Azacalixarene: Synthesis, Conformational Analysis and Recognition Behavior Toward Anions," K. Niikura, E.V. Anslyn, *J. Chem. Soc., Perkins Trans. 2.* **2000**, 2769.
- 70) "Coupling Rational Design with Libraries Leads to an ATP Selective Chemosensor," S.S. Schneider, E.V. Anslyn, *J. Am. Chem. Soc.* **2000**, 122, 542-543.
- 69) "Teaching Old Indicators New Tricks: A Colorimetric Chemosensing Ensemble for Tartrate/Malate in Beverages," J.J. Lavigne, E.V. Anslyn, *Angew. Chemie*, **1999**, 38, 3666-3669. PMID:10649318
- 68) "The Mammalian Sense of Taste and Multi-Component Sensor Arrays Mimics," J. J. Lavigne, A.L. Meyer, J.M. Vann, C.A. Lavigne, E.V. Anslyn, *Leatherhead Food RA, Food Industry Journal*. **1999**, 23, 458-461.
- 67) "Single-Analyte to Multianalyte Fluorescence Sensors," J.J. Lavigne, A. Metzger, K. Niikura, L.A. Cabell, S.M. Savoy, J.S.-J. Yoo, J.T. McDevitt, D.P. Neikirk, J.B. Shear, E.V. Anslyn, *Proc. SPIE-Int. Soc. Opt. Eng.*, **1999**, 3602, 220-231.
- 66) "Anion Recognition: (Synthetic receptors for anions, application in sensors)," T.S. Snowden, E.V. Anslyn, *Curr. Opin. in Chem. Biol.* **1999**, 3, 740-746. PMID: 10651521
- 65) "A Competition Assay for Determining Glucose-6-phosphate Concentration with a Tris-Boronic Acid Receptor", L. A. Cabell, E. V. Anslyn, *Tet. Lett.* **1999**, 40, 7753-7756.
- 64) "A Comparison of NH-p versus Lone Pair Hydrogen Bonding Effects Carbon Acid pK<sub>a</sub> Shifts," T. Snowden, E.V. Anslyn, *J. Am. Chem. Soc.* **1999**, 121, 6324-6325.
- 63) "Optical Sensing of Inorganic Anions Employing a Synthetic Receptor and Ionic Colorimetric Dyes," K. Niikura, A. Bisson, and E.V. Anslyn, *J. Chem. Soc., Perkin Trans. 2*, (6), **1999**, 1111-1114.
- 62) "Single Analyte to Multi-Analyte Fluorescence Sensors", J.J. Lavigne, A. Metzger, K. Niikura, L.A. Cabell, S.M. Savoy, J.S.-J. Yoo, McDevitt, J.T., D. Neikirk, J.B. Shear, E.V. Anslyn, *Proc. SPIE*, **1999**, 220.
- 61) Book review of Ligand-Receptor Energetics: A Guide for the Perplexed. By Irving M. Klotz. E.V. Anslyn, *J. Am. Chem. Soc.*, **1998**, 120, 1348.
- 60) "Solution-Based Analysis of Multiple Analytes by a Sensor Array: Toward the Development of an Electronic Tongue," D.P. Neikirk, S.M. Savoy, J.J. Lavigne, S.J. Yoo, E.V. Anslyn, J.T. McDevitt, J.B. Shear, *Proc. SPIE*, **1998**, 3539.
- 59) "Molecular Recognition and Solid Phase Organic Synthesis: Synthesis of Unnatural Oligomers, Techniques for Monitoring Reactions, and the Analysis of Combinatorial Libraries," S. Schneider, E.V. Anslyn, "Advances in Supramolecular Chemistry", 1998, Vol. 5, 55-120.

- 58) "Solid Phase Synthesis Method for Oligoguanidiniums", S. S. Schneider, P. Bishop, O. Bishop, E.V. Anslyn, *Tetrahedron*. **1998**, 54,15063-15086.
- 57) "Chemosensor with Selectivity for Inositol-trisphosphate", K. Niikura, A. Metzger, and E.V. Anslyn. *J. Am. Chem. Soc.* **1998**, 120, 8533-8534.
- 56) "Solution-Based Analysis of Multiple Analyte by a Sensor Array: Toward the Development of an "Electronic Tongue," J. L. Lavigne, S. Savoy, M.B. Clevenger, J.E. Ritchie, B. McDoniel, S.-J. Yoo, E.V. Anslyn, J.T. McDevitt, J.B. Shear, D. Neikirk, *J. Am. Chem. Soc.* **1998**, 120, 6429-6430.
- 55) "A Chemosensor for Citrate in Beverages", A. Metzger, E.V. Anslyn, *Angew. Chem., Int. Ed. Eng.* **1998**, 37, 649-652.
- 54) "Micromachined Storage Wells for Chemical Sensing Beads in an 'Artificial Tongue'," S.J. Yoo, J. Lavigne, S. Savoy, J.B. McDoniel, E.V. Anslyn, J.T. McDevitt, J.B. Shear, *Proc. SPIE*, **1997**, 322.
- 53) "Recognition of Anions through NH-p-Hydrogen Bonds in a Bicyclic Cyclophane. Selectivity for Nitrate", A. Bisson, V. Lynch, E.V. Anslyn, *Angew. Chemie. Int. Ed. Eng.* **1997**, 36, 2340-2342.
- 52) "The Ratio Between Endocyclic and Exocyclic Cleavage of Pyranoside Acetals is Dependent Upon the Anomer, the Temperature, the Aglycon Group, and the Solvent," J. L. Liras, V. Lynch, E.V. Anslyn, *J. Am. Chem. Soc.* **1997**, 119, 8191-8200.
- 51) "In Vitro Selection Without Intervening Amplification", J. Smith, E.V. Anslyn, *Angew. Chemie.* **1997**, 36, 1879.
- 50) "Non-Aqueous Titrations as a Tool in the Study of Molecular Recognition Phenomena. Uses in Distinguishing Hydrogen Bonding From Proton Transfer, the Measurement of Complex Induced pKa Shifts, and The Ability to Distinguish the Catalytic Roles of General Acids and Bases," C.L. Hannon, D.A. Bell, A.M. Kelly-Rowley, L.A. Cabell. E.V. Anslyn, *J. Phys. Org. Chem.* **1997**, 10, 396-404.
- 49) "Guanidinium Functional Groups for the Recognition of RNA, and as Catalysts for the Hydrolysis of RNA", L.A. Cabell, D. Perrault, E.V. Anslyn, *Bioorg. Med. Chem.* **1997**, 5, 1209-1220.
- 48) "A Synthetic Receptor Selective for Citrate", A. Metzger, E.V. Anslyn, *Angew. Chem., Int. Ed. Eng.* **1997**, 36, 862-865.
- 47) "Unifying the Current Data on the Mechanism of Cleavage/Tranesterification of RNA", D. M. Perrault, E.V. Anslyn, *Angew. Chem.* **1997**, 36, 433 -450.
- 46) "Solid and Solution Phase Organic Syntheses of Oligomeric Thioureas," J. Smith, J.L. Liras, S.F. Schneider, E.V. Anslyn, *J. Org. Chem.* **1996**, 61, 8811-8818. PMID: 11667859
- 45) "Hydrogen Bonding Receptors: Open-Chain Catalytic Systems," D. W. Bell, E. V. Anslyn, Supramolecular Chemistry Vol. II, 1996, Chapter 13.
- 44) "On the Site of Cleavage of Pyranoside Acetals. Endo versus Exocyclic Cleavage", J. L. Liras, E.V. Anslyn, Molecular Design and Bioorganic Catalysis. Wilcox, C.S.; Hamilton, A. D. Eds. NATO SAI Series, Vol. 478, Kluwer Acad. Pub., Boston, 1996. pp 1-15.
- 43) "Dimerization Constants for Phosphoric Acid Diesters", J. DeFord, F. Chu, E.V. Anslyn, *Tetrahedron Lett.* **1996**, 37, 1925-1928.
- 42) Book review: The Lock and Key Principle. The state of the Art - 100 E.V. Edited by J.-P. Behr, *Angew. Chem., Int. Ed. Engl.*, **1995**, 34, 2293.

- 41) "Imidazole-Zinc Catalysts for RNA Hydrolysis", F. Chu, J. Smith, V. M. Lynch, E.V. Anslyn. *Inorg. Chem.* **1995**, *34*, 5689-5690.
- 40) "Establishing a Cationic AAA-DDD Hydrogen Bonding Complex", D. W. Bell, E. V. Anslyn, *Tetrahedron*, **1995**, *51*, 7161-7172.
- 39) "An Alcohol Recognition Motif: Clear Evidence of Binding Site Cooperativity in the Complexation of Cyclohexanediols by Neutral Polyaza-Clefts", D. A. Bell, S. G. Diaz, V. M. Lynch, E. V. Anslyn, *Tetrahedron Lett.* **1995**, *36*, 4155-4158.
- 38) "Molecular Recognition of Enolates of Active Methylene Compounds in Acetonitrile. The Interplay between Complementarity and Basicity and the Use of Hydrogen Bonding to Lower Guest pK<sub>a</sub>s", A.M. Kelly-Rowley, E.V. Anslyn, *J. Am. Chem. Soc.* **1995**, *117*, 3438-3447.
- 37) "The Advantages of Using Rigid Polyaza-Clefts for Molecular Recognition", D. M. Perrault, X. Chen, E.V. Anslyn, *Tetrahedron*. **1995**, *51*, 353-362.
- 36) "Radioactive End Labeling to Determine Hydrolytic Rates of Nuclease Mimics", J. Smith, E.V. Anslyn, *Anal. Biochem.* **1994**, *220*, 53-57. PMID: 7978257
- 35) "Facile Stereospecific Syntheses of Four of the Six 1,2,3,4-Cyclohexanetetrols: Increasing the Accessibility of Cyclitols for Probing Molecular Recognition of Saccharides," C.-Y. Huang, E.V. Anslyn, C.-Y. Huang, L.A. Cabell, E.V. Anslyn. *Syn. Comm.* **1994**, *24*, 2757.
- 34) "Complexation of Phosphoric Acid Diesters with Polyaza-Clefts in Chloroform: Effects of Phosphodiester Dimerization Changing Cavity Size, and Preorganizing Amine Recognition Units," F. Chu, L. S. Flatt, E.V. Anslyn, *J. Am Chem. Soc.* **1994**, *116*, 4194-4204.
- 33) "Molecular Recognition of Cyclitols by Neutral Polyaza-Receptors: The Strength and Influence of Intramolecular Hydrogen Bonds Between Vicinal Alcohols," C.-Y. Huang, E.V. Anslyn, *J. Am. Chem. Soc.* **1994**, *116*, 2778-2792.
- 32) "Endocyclic and Exocyclic Cleavage of Pyranoside in Both Methanol and Water Detected by a Novel Probe," J. L. Liras, E.V. Anslyn, *J. Am. Chem. Soc.* **1994**, *116*, 2645-2646.
- 31) "Complexation of Carbonyl Compounds with an Organic Salt Dominated by Acid-Base Interactions", D. Bell, E.V. Anslyn, *J. Org. Chem.* **1994**, *59*, 512-514.
- 30) "Bis-Alkylguanidinium Receptors for Phosphodiester, Effects of Counter Ions, Solvent Systems, and Cavity Flexibility Upon Complexation", D. Kneeland, K. Ariga, E.V. Anslyn, *J. Am. Chem. Soc.* **1993**, *115*, 10042-10055.
- 29) "The Guanidinium Group: Its Biological Role and Synthetic Analogs," C. L. Hannon, E.V. Anslyn, Bioorganic Chemistry Frontiers, Volume III, Ed. H. Dugas, Springer-Verlag, 1993, pp193-256.
- 28) "Strategies for Phosphodiester Complexation and Catalysis," D. Kneeland, K. Ariga, F.Y. Chu, E.V. Anslyn, *Supramolecular Chemistry*, **1993**, *1*, 201-208.
- 27) "Enhanced Imidazole Catalyzed RNA Hydrolysis Induced by a Bis-Alkyl Guanidinium Receptor" J. Smith, K. Ariga, E.V. Anslyn, *J. Am. Chem. Soc.*, **1993**, *115*, 362-364.
- 26) "Artificial Enzyme Design Concepts, and Applications to Phosphoryl Transfer Reactions", Anslyn, E.V., 1993 McGraw-Hill Yearbook of Science and Technology, McGraw-Hill, New York, 1993.
- 25) "A Columnar Scaffold Formed from Twisted Monomers", C.-Y. Huang, V. Lynch, E.V. Anslyn, *Angew. Chem., Int. Ed. Engl.*, **1992**, *31*, 1244-1246.

- 24) Book Review of - Jeffrey, G.A.; Saenger, W., Hydrogen Bonding in Biological Structures, Springer-Verlag, New York, 1991, E.V. Anslyn *J. Am. Chem. Soc.* **1992**, *114*, 4446.
- 23) "Binding Multiple Phosphodiester With A Polyazacleft", L.S. Flatt, E.V. Anslyn, *Tetrahedron Lett.*, **1992**, *33*, 2785-2788.
- 22) "Intermolecular Versus Intramolecular Hydrogen Bonding Competition in the Complexation of Cyclitols by a Twisted Polyaza Cleft," C.-Y. Huang, L.A. Cabell, V. Lynch, E.V. Anslyn, *J. Am. Chem. Soc.*, **1992**, *114*, 1900-1901.
- 21) "Manipulating the Stoichiometry and Strength of Phosphodiester Binding to a Bisguanidine Cleft in DMSO/Water Solutions," K. Ariga, E.V. Anslyn, Accepted for Publication in *J. Org. Chem.* **1992**, *57*, 417-419.
- 20) "Enolate Complexation in Acetonitrile with a Neutral Polyazacleft," A.M. Kelly-Rowley, L.A. Cabell, E.V. Anslyn, *J. Am. Chem. Soc.*, **1991**, *113*, 9687-9688.
- 19) "Twisted Polyaza Clefts for the Complexation of Cyclohexane-Polyols", C-Y. Huang, L.A. Cabell, E.V. Anslyn, *Tetrahedron Lett.*, **1990**, 7411-7414.
- 18) "Dichlorobis (h-5-chlorocyclopentadienyl)titanium, (ClC<sub>5</sub>H<sub>4</sub>)<sub>2</sub>TiCl<sub>2</sub>," E.V. Anslyn, R.H. Grubbs, C. Felten, D. Rehder, *Inorg. Syn.* **1992**, *29*, 198-201.
- 17) "Ribonuclease Mimics" Breslow, Ronald; Anslyn, Eric; Huang, Deeng-Lih; *Tetrahedron*, **1991**, *47*, 2365-2376.
- 16) "Mechanistic Studies on Metal to Ligand Hydrogen Transfer in the Thermal Reactions of H (m-H) Os<sub>3</sub>(CO)<sub>10</sub>(CNR): Evidence for Proton Barrier Tunneling in a Metal to Ligand Hydrogen Transfer," E.V. Anslyn, M. Green, G. Nicola, E. Rosenberg. *Organometallics* **1991**, *10*, 2600-2605.
- 15) "Proton Inventory of a Bifunctional Ribonuclease Model," E.V. Anslyn, R. Breslow, *J. Am. Chem. Soc.*, **1989**, *111*, 8931.
- 14) "Geometric Evidence on the Ribonuclease Model Mechanism," E.V. Anslyn, R. Breslow, *J. Am. Chem. Soc.*, **1989**, *111*, 5972.
- 13) "On the Mechanism of Catalysis by Ribonuclease: Cleavage and Isomerization of the Dinucleotide UpU Catalyzed by Imidazole Buffers," E.V. Anslyn, R. Breslow, *J. Am. Chem. Soc.*, **1989**, *111*, 4473.
- 12) "On the Mechanism of Action of Ribonucleases: Dinucleotide Cleavage Catalyzed by Imidazole and Zn<sup>+2</sup>," R. Breslow, D.L. Huang, E.V. Anslyn, *Proc. Natl. Acad. Sci. USA*, **1989**, *86*, 1746. PMID: 2467290
- 11) "Synthesis, Reactivity and Kinetic Studies of Bis(h5-cyclo-pentadienyl) Titanium Methylidene Phosphine Complexes," J.D. Meinhart, E.V. Anslyn, R.H. Grubbs, *Organometallics*, **1989**, *8*, 583.
- 10) "Structures and Reactivity of Neutral and Cationic Molybdenum Methylidene Complexes", E.V. Anslyn, W.A. Goddard III, *Organometallics*, **1989**, *8*, 1550.
- 9) "Synthesis and Structures of Titanium and Chromium Bimetallic Complexes of the Type Cp<sub>2</sub>Ti(Cl)O(CH<sub>3</sub>)CCr(CO)<sub>5</sub>", E.V. Anslyn, R.H. Grubbs, *Organometallics*, **1988**, *7*, 2137.
- 8) "Substituent Effects on the Cleavage Rates of Titanocene Metallacyclo-butanes," W.C. Finch, E.V. Anslyn, R.H. Grubbs, *J. Am. Chem. Soc.*, **1988**, *110*, 2406.
- 7) "Metallacyclobutadiene vs. Metallatetrahedran Structures for Cl<sub>3</sub>MoC<sub>3</sub>H<sub>3</sub> Complexes", E.V. Anslyn, M.J. Brusch, W.A. Goddard III, *Organometallics*, **1988**, *7*, 98.

- 6) "A Mechanistic Study of the Reaction of  $\text{H}_2\text{Os}_3(\text{CO})_{10}$  with Terminal Alkynes," E. Rosenberg, E.V. Anslyn, L. Milone, S. Aime, R. Gobetto, D. Osella, *Gaz. Chim. Ital.*, **1988**, 118, 299.
- 5) "On the mechanism of action of ribonucleases: dinucleotide cleavage catalyzed by imidazole and zinc(2+)," R. Breslow, D.L. Huang, E.V. Anslyn, *Proc. Natl. Acad. Sci. U. S. A.*, **1989**, 86, 1746-50.
- 4) "The Mechanism of Titanocene Metallacyclobutane Cleavage and the Nature of the Reactive Intermediate," E.V. Anslyn, R.H. Grubbs, *J. Am. Chem. Soc.*, **1987**, 109, 4880-4890.
- 3) "Solution Structures and Dynamics of  $[\text{H}_2\text{Os}_3(\text{CO})_{10}(\text{s,p-vinyl})]$  Complexes," S. Aime, R. Gobetto, D. Osella, L. Milone, E. Rosenberg, E.V. Anslyn, *Inorganica Chimica Acta*, **1986**, 111, 95.
- 2) "Reaction of  $\text{Cp}_2\text{Ti}=\text{CH}_2$  with Organic Halides; Evidence for a Radical Mechanism," S.L. Buchwald, E.V. Anslyn, R.H. Grubbs, *J. Am. Chem. Soc.*, **1985**, 107, 1766.
- 1) "Kinetic Deuterium Isotope Effects on m-Hydride and Carbonyl Ligand Migrations," E. Rosenberg, E.V. Anslyn, C. Barner-Thorsen, S. Aime, D. Osella, R. Gobetto, L. Milone, *Organometallics*, **1984**, 3, 1790.

### Invited Lectures/Seminars

- 414) "Synthesis and Sequencing of Biotic and Abiotic Polymers" Univ. North Carolina, Chapel Hill, N.C., Feb. 23<sup>rd</sup>, 2023.
- 413) "Synthesis and Sequencing of Biotic and Abiotic Polymers" Duke University., Raleigh N.C., Feb. 21<sup>st</sup>, 2023.
- 412) "Synthesis and Sequencing of Biotic and Abiotic Polymers" North Carolina State Univ., Durham N.C., Feb. 20<sup>th</sup>, 2023.
- 411) "Supramolecular Methods for the Rapid EE and DE Screening" 1<sup>st</sup> North American Supramolecular Chemistry Conference (NASC), New Orleans, LA, Dec. 20<sup>th</sup>, 2022.
- 410) "Bringing New Chemistry to Ribosome Mediated Polymerization" ARO review, Duck Key, FL, Dec. 13<sup>th</sup> 2022.
- 409) "New Chemical Tools for the Synthesis/Characterization of Sequence-Defined Polymers", ARO review, Duck Key, FL, Dec. 13<sup>th</sup> 2022.
- 408) "Enabling the Chemistry of Fluorosequencing", 3<sup>rd</sup> Single Molecular Protein Sequencing Conference, Delft Netherlands, Oct. 2<sup>nd</sup>, 2022.
- 407) "Synthesis and Sequencing of Sequence-Defined Polymers" Univ. Glasgow, Cronin Research Group, Glasgow, Scotland, Sept. 16<sup>th</sup> 2022.
- 406) "Synthesis and Sequencing of Sequence-Defined Polymers" St. Andrews Univ., St. Andrews, Scotland, Sept. 15<sup>th</sup> 2022.
- 405) "Synthesis and Sequencing of Sequence-Defined Polymers" Univ. British Columbia, Vancouver, Canada, August 8<sup>th</sup> 2022.
- 404) "Supramolecular Methods for Rapid ee and dr Reaction Screening", MSMLG, Dublin IR, July 15<sup>th</sup>, 2022.
- 403) "Synthesis and Sequencing of Sequence-Defined Polymers" Notre Dame, South Bend In, May 25<sup>th</sup>, 2022.
- 402) "Synthesis and Sequencing of Sequence-Defined Polymers" Purdue University, West Lafayette In, May 19<sup>th</sup>, 2022.
- 401) "Synthesis and Sequencing of Sequence-Defined Polymers" The Frank Mather's Lecture, Indiana University, Bloomington In, May 17<sup>th</sup>, 2022.
- 400) "Synthesis and Sequencing of Sequence-Defined Polymers" Univ. Ill. Champagne Urbana, Feb. 10<sup>th</sup>, 2022.
- 399) "Sequencing Sequence-Defined Polymers" Univ. Nebraska, Nov. 4<sup>th</sup>, 2021.
- 398) "Sequencing Sequence-Defined Polymers" Southwest Regional ACS Meeting, Austin TX, Nov. 2<sup>nd</sup>, 2021.
- 397) "Exploring Agnostic Approaches to Chemistry on Other Planets" Caltech, April 5<sup>th</sup>, 2021.
- 396) "Studies of Nerve Agents: Transition State Analogs, New Threats, Antidotes, and Sensing Routines" DTRA Command, March 10<sup>th</sup> 2021
- 395) "Getting Into Medical School", Warrior Scholar Project, Yale University, March 10<sup>th</sup>, 2021
- 394) "The Chemistry of Peptide Fluorosequencing, and Oligourethane Sequencing Methods" Mercer College, July 9<sup>th</sup> 2020
- 393) "Differential Sensing. Theory and Applications in the Wine Industry" Rossi Lecture, UC Davis Enology and Viticulture Depart. March 9<sup>th</sup> 2020

- 392) “Two Tales of Supramolecular Analytical Chemistry”, UC Davis Miller Symposium, Keynote Speaker, March 6<sup>th</sup> 2020
- 391) “Mimicking the Senses of Taste and Smell” Austin Community College, Austin TX Feb. 27<sup>th</sup> 2020
- 390) “Three Tales of Supramolecular Analytical Chemistry” Northwestern Univ. Feb. 19<sup>th</sup> 2020, Evanston IL.
- 389) “The Super-Seed Life Project”, MRSEC Director’s Meeting, Arlington VA., Oct. 3<sup>rd</sup> 2019
- 388) “The Chemistry of Peptide Fluorosequencing, and Oligourethane Sequencing Methods” 2<sup>nd</sup> International Symposium on Single Molecular Peptide Sequencing, Tel Aviv, Israel. Sept. 25<sup>th</sup> 2019
- 387) “Molecular Complexity, Chemometrics, and Other Life Codes”, AbSciCon Seattle WA, June 24<sup>th</sup> 2019
- 386) “Supramolecular Methods for the Rapid Determination of EE and DE”, ISMSC 2019, Lecce Italy, June 4<sup>th</sup> 2019
- 385) “Reversible Covalent Bonding: Assembly, Cascades, and Sequencing” Irish Chemical Conference, Maynooth University, Dublin IR, May 20<sup>th</sup>, 2019
- 384) “Fun Facts about the Wizard of Oz, and the Life of Judy Garland”, Sustainability and Well-Being Lecture, Queen’s Univ. Belfast, May 16<sup>th</sup>, 2019
- 383) “Three Tales of Supramolecular Analytical Chemistry”, Bowling Green State Univ. Bowling Green OH, April 17<sup>th</sup>, 2019
- 382) “Physical Organic Chemistry in the Analytical Science”, James Flack Norris Award Lecture, ACS meeting Orlando FL, March 31<sup>st</sup>, 2019
- 381) “Sequencible Sequence Defined Polymers” University of Glasgow, Glasgow Scotland, Feb. 19<sup>th</sup>, 2019
- 380) “Sequencible Sequence Defined Polymers” St. Andrews University, St. Andrews Scotland, Feb. 19<sup>th</sup>, 2019
- 379) “Three Tales of Supramolecular Analytical Chemistry” Univ. of Aberdeen, Aberdeen Scotland, Feb. 18<sup>th</sup>, 2019
- 378) “Sequencible Sequence Defined Polymers” Scottish Symposium, Univ. Chicago, Chicago IL, Jan. 25<sup>th</sup>, 2019
- 377) “Three Tales of Supramolecular Analytical Chemistry” Duke University, Raleigh-Durham, N.C. Jan. 14<sup>th</sup>, 2019
- 376) “Chemometrics, Theory and Applications” Queen’s University Belfast, Belfast Ireland, Oct. 7<sup>th</sup>, 2018
- 375) “Thermodynamic Analytical Methods” Queen’s University Belfast, Belfast Ireland, Oct. 6<sup>th</sup>, 2018
- 374) “Publishing, Being an Educator, Academia vs Industry” Queen’s University Belfast, Belfast Ireland, Oct. 5<sup>th</sup>, 2018
- 373) “Three Tales of Supramolecular Analytical Chemistry” SUNY Albany, Albany NY. Oct. 2<sup>nd</sup> 2018
- 372) “Three Tales of Supramolecular Analytical Chemistry” University of South Florida, Tampa FL. September 6<sup>th</sup> 2018
- 371) “Physical Organic Chemistry in the Analytical Sciences” Queen’s University Belfast, Belfast Ireland, June 21<sup>st</sup>, 2018
- 370) “Differential Sensing, Methods and Application” Queen’s University Belfast, Belfast Ireland, June 20<sup>th</sup>, 2018
- 369) “Rapid Optical Methods for Enantiomeric Excess Determination”, Chirality Conference, Princeton NY, June 12<sup>th</sup> 2018
- 368) “Three Tales of Supramolecular Analytical Chemistry” Univ. Oregon, Eugene OR, April. 19<sup>th</sup> 2018
- 367) “Three Tales of Supramolecular Analytical Chemistry” Oregon State University, Corvallis OR, April. 18<sup>th</sup> 2018
- 366) The James and Jeanette Neckers Lectureship in Chemistry, “Supramolecular Methods for the Rapid Determination of Enantiomeric Excess” Hope College, April 6<sup>th</sup> 2018
- 365) The James and Jeanette Neckers Lectureship in Chemistry, “Mimicking the Senses of Taste and Smell” Hope College, April 5<sup>th</sup> 2018
- 364) “Three Tales of Supramolecular Analytical Chemistry” NYU New York NY, April. 4<sup>th</sup> 2018
- 363) “Three Tales of Supramolecular Analytical Chemistry” Temple University, Philadelphia PA, Feb. 22<sup>nd</sup> 2018
- 362) “Single Molecule Sequencing of Unnatural Peptides and Oligomers”, 1<sup>st</sup> Single Molecule Peptide Sequencing Conference, Delft Holland, December 11<sup>th</sup> 2017
- 361) Haines Lectureship, “Three Tales of Supramolecular Analytical Chemistry” University of South Dakota, Nov. 6<sup>th</sup> 2017, Vermillion SD
- 360) “Three Tales of Supramolecular Analytical Chemistry” Texas A&M University, College Station TX, Oct. 27<sup>th</sup> 2017
- 359) “Supramolecular Methods for the Rapid Determination of Enantiomeric Excess” Canterbury University, Christchurch New Zealand, September 11<sup>th</sup>, 2017
- 358) “Supramolecular Methods for the Rapid Determination of Enantiomeric Excess” University of New South Wales, Sydney Australia, September 8<sup>th</sup>, 2017
- 357) “Undergraduate Education at the University of Texas at Austin, What’s Special About Us?” The Mellor Lecture in Chemical Education, University of New South Wales, Sydney Australia, September 7<sup>th</sup>, 2017
- 356) “Dynamic Covalent Bonding: Peptide Quaternary Structures, Click and DeClick, and Auto-Induction”, ACS Meeting, Washington DC, August 20<sup>th</sup>, 2017.



- 355) “Three Tales of Supramolecular Analytical Chemistry” Cambridge University, Cambridge England. June 20<sup>th</sup>
- 354) “Three Tales of Supramolecular Analytical Chemistry” Oxford University, Oxford England. June 30<sup>th</sup>
- 353) “Three Tales of Supramolecular Analytical Chemistry” University of Parma, Parma Italy. June 26<sup>th</sup> 2017
- 352) “Life as an Academic” Gargnano Italian School, Gargnano Italy, June 19<sup>th</sup>, 2017.
- 351) “Rapid Supramolecular Methods for Reaction Discovery” Gargnano Italian School, Gargnano Italy, June 18<sup>th</sup>, 2017.
- 350) “Three Tales of Supramolecular Analytical Chemistry” University of Padova, Padova Italy. June 15<sup>th</sup> 2017
- 349) “Dynamic Covalent Bonding: Peptide Quaternary Structures, Click and DeClick, and Auto-Induction” May 17<sup>th</sup> 2017, CASE Conference, Shanghai Polytechnic University, China.
- 348) “Three Tales of Supramolecular Analytical Chemistry” East China Normal University, May 15<sup>th</sup> 2017, Shanghai China
- 347) “Three Tales of Supramolecular Analytical Chemistry” UIUC, Urbana-Champaign, Ill, April 13<sup>th</sup> 2017
- 346) “Mimicking the Senses of Taste and Smell” Kilpatrick Lecture, Illinois Institute of Technology, Chicago Ill, April 10<sup>th</sup> 2017
- 345) “Two Tales of Supramolecular Analytical Chemistry” University of Arizona, Tuscon AZ, March 31<sup>st</sup> 2017.
- 344) “Two Tales of Supramolecular Analytical Chemistry” Santa Clara University, Feb. 3<sup>rd</sup> 2017.
- 343) “Rapid Supramolecular Methods for Reaction Discovery” Tianjin University, Feb. 25<sup>th</sup> 2017, Tianjin China
- 342) “Mechanistic Studies of Boronic Acid Chemistry”, Northwestern University Burn’s Celebration, Jan. 23<sup>rd</sup>, 2017
- 341) “Two Tales of Supramolecular Analytical Chemistry” Univ. Nebraska, Jan. 13<sup>th</sup> 2017
- 340) “DARPA Prograss Update”, Scripps La Jolla, Dec. 19<sup>th</sup>, 2016
- 339) “Supramolecular Methods for the Analysis of Enantiomeric Excess”, NYU Abu Dhabi, November 8<sup>th</sup>, 2016
- 338) “Mimicking the Senses of Taste and Smell”, NYU Abu Dhabi, Nov. 7<sup>th</sup> 2016
- 337) “Two Tales of Supramolecular Analytical Chemistry” University of Basel, October 14<sup>th</sup> 2016, Basel, Switzerland
- 336) “Two Tales of Supramolecular Analytical Chemistry” EPFL, October 13<sup>th</sup> 2016, Lausanne, Switzerland
- 335) “Two Tales of Supramolecular Analytical Chemistry” University of Fribourg, October 12<sup>th</sup> 2016, Fribourg, Switzerland
- 334) “Two Tales of Supramolecular Analytical Chemistry” University of Bern, October 11<sup>th</sup> 2016, Bern, Switzerland
- 333) “Two Tales of Supramolecular Analytical Chemistry” ETH, October 10<sup>th</sup> 2016, Zurich, Switzerland
- 332) “Next-Gen Sequencing for Bio-Hints” NASA-Biosignature Workshop, September 8<sup>th</sup>, Washington DC
- 331) “Short Vignettes of Supramolecular Analytical Chemistry” MSMLG, July 25<sup>th</sup>, 2016, Bath, UK
- 330) “Optical Methods for Reaction Discovery, From Conception to Practice” ISMSC Conference, July 11<sup>th</sup>, 2016, Seoul, Korea
- 329) “Supramolecular Chemistry Methods for the Rapid Determination of Enantiomeric Excess Values” ISBBN Conference, May 27<sup>th</sup>, 2016, Changsha, China
- 328) “Supramolecular Analytical Chemistry” Oklahoma State University, April 7<sup>th</sup>, 2016, StillWater, Ok
- 327) “Mimicking the Senses of Taste and Smell” Cal State University, February 17<sup>th</sup>, 2016, Long Beach, CA
- 326) “Supramolecular Methods for the Rapid Determination of Enantiomeric Excess” Cal State University, February 17<sup>th</sup>, 2016, Long Beach, CA
- 325) “Supramolecular Analytical Chemistry” Israel Chemical Socceity, February 9<sup>th</sup>, 2016, Tel-Aviv, Israel
- 324) “Differential Sensing: Concepts and Applications” Pacific Chem, Dec. 14<sup>th</sup>, 2015, Honolulu, HI
- 323) “Rapid Supramolecular Methods for Ee Determination” Pacific Chem, Dec. 14<sup>th</sup>, 2015, Honolulu, HI
- 322) “Three Tales of Supramolecular Analytical Chemistry”, Dartmouth College, Oct. 28<sup>th</sup>, 2015. Hanover CT
- 321) “Rapid Supramolecular Methods for Ee Determination” Merck Pharmaceuticals, Rahway NJ, September 25<sup>th</sup>, 2015.
- 320) “Rapid Supramolecular Methods for Ee Determination” Boehringer Ingelheim, Ridgefield CT, September 10<sup>th</sup>, 2015.
- 319) “Differential Sensing: Concepts and Applications” IUPAC-Busan, Korea, August 10, 2015
- 318) “Differential Sensing: Concepts and Applications”, University of Birmingham, Birmingham, England, July 20, 2015
- 317) “Rapid Supramolecular Methods for Ee Determination” University of Birmingham, Birmingham, England, July 17, 2015
- 316) “Graduate Student, Post-Doc, Assistant Professor, Getting Tenure, and Beyond: The Life of an Academic Scientist” University of Birmingham, Birmingham, England, July 16, 2015
- 315) “Rapid Supramolecular Method for Ee Determination”, CASE Conference, Dublin, Ireland, July 9, 2015
- 314) “Rapid Supramolecular Methods for Ee Determination”, Physical Organic Conference, June 23, 2015
- 313) “Methods of Thermodynamic Analysis in Supramolecular Chemistry”, NSF Workshop, June 2, 2015

- 312) “Graduate Student, Post-Doc, Assistant Professor, Getting Tenure, and Beyond: The Life of an Academic Scientist” Shanghai University, May 20<sup>th</sup>, 2015
- 311) “Differential Sensing: Concepts and Applications” Shanghai University, May 19<sup>th</sup>, 2015
- 310) “Supramolecular Approaches for the Rapid Analysis of Enantiomeric Excess” Zhejiang University, Hangzhou China, May 18<sup>th</sup> 2015
- 309) “Supramolecular Sensing, a Short Course” Fujian Institute for Research on Structure and Matter, Fuzhou China, May 15<sup>th</sup> 2015
- 308) “Differential Sensing: Concepts and Applications” Fujian Institute for Research on Structure and Matter, Fuzhou China, May 15<sup>th</sup> 2015
- 307) “Differential Sensing, An Introduction” 2<sup>nd</sup> Symposium on Aggregation Induced Emission, Guangzhou China, May 16<sup>th</sup> 2015
- 306) “Differential Sensing: Concepts and Applications” Wuhan University, Wuhan China, May 14<sup>th</sup> 2015
- 305) “Differential Sensing: Concepts and Applications” Wuhan University of Science and Technology, Wuhan China, May 13<sup>th</sup> 2015
- 304) “Differential Sensing: Concepts and Applications” Institute of Biotechnology and NanoScience, Singapore, May 12<sup>th</sup> 2015
- 303) “Rapid Supramolecular Method for Ee Determination”, Massachusetts Institute of Technology, Cambridge, Massachusetts, April 10<sup>th</sup>, 2015.
- 302) “Differential Sensing, Concepts & Methods”, Massachusetts Institute of Technology, Cambridge, Massachusetts, April 9<sup>th</sup>, 2015.
- 301) “Differential Sensing, Concepts & Methods” Xavier University, New Orleans, Louisiana, Jan. 26<sup>th</sup>, 2015.
- 300) “Three Tales of Supramolecular Analytical Chemistry”, Univ. Melbourne, Melbourne Australia, Dec. 16<sup>th</sup> 2014.
- 299) “Three Tales of Supramolecular Analytical Chemistry”, Univ. New South Wales, Sydney Australia, Dec. 15<sup>th</sup> 2014.
- 298) “Differential Sensing, Concepts and Applications” RACI Meeting, Adelaide Australia, Dec. 10<sup>th</sup> 2014.
- 297) “Differential Sensing, Biological Applications”, MSMLG, Shanghai China, Nov. 11<sup>th</sup>, 2014.
- 296) “Three Tales of Supramolecular Analytical Chemistry”, Univ. Utah, Oct. 2<sup>nd</sup>, 2014.
- 295) “Three Tales of Supramolecular Analytical Chemistry”, Michigan State Univ., Sept. 3<sup>rd</sup>, 2014.
- 294) “Rapid Optical Methods for the Determination of Ee Values”, Stereochemistry GRC, RI, July 29<sup>th</sup>, 2014.
- 293) “Differential Sensing for Wine Classification” ASEV Conference, Austin TX, May 24<sup>th</sup>, 2014.
- 292) “Three Tales of Supramolecular Analytical Chemistry” University of Rome, Italy, May 18<sup>th</sup>, 2014.
- 291) “Three Tales of Supramolecular Analytical Chemistry” University Florence, Italy, May 16<sup>th</sup> 2014.
- 290) “Three Tales of Supramolecular Analytical Chemistry” Parma University, Italy, May 13<sup>th</sup> 2014.
- 289) “Supramolecular Analytical Chemistry”, ISMC 2014, Pavia Italy, Plenary Lecture, May 10<sup>th</sup> 2014.
- 288) “Three Tales of Supramolecular Analytical Chemistry”, Saul Winstein Lecturer, UCLA, May 22<sup>nd</sup> 2014.
- 287) “Differential Sensing Methods: Mimicking the Senses of Taste and Smell with Supramolecular Chemistry”, Boekelheide Lecturer, Univ. of Oregon, May 9<sup>th</sup>, 2014.
- 286) “Supramolecular Chemistry Approaches for the Rapid Determination of Ee Values”, Univ. of Oregon, May 13<sup>th</sup>, 2014
- 285) “Biological Applications of Supramolecular Analytical Chemistry” Mardi Gras Symposium, Tulane University, Jan. 27<sup>th</sup>, 2014.
- 284) “Three Tales of Supramolecular Analytical Chemistry”, Tulane University, Jan. 17<sup>th</sup> 2014
- 283) “Supramolecular Analytical Chemistry” University of Geneva, Chemistry Day, Jan. 27<sup>th</sup> 2014
- 282) “Supramolecular Analytical Chemistry”, Chinese Chemical Biology Symposium, East China University of Science and Technology, Shanghai China, Sept. 17<sup>th</sup> 2013
- 281) “Three Tales of Supramolecular Analytical Chemistry”, University of California, Riverside, Sept. 25<sup>th</sup> 2013
- 280) Izatt Christensen Award Lecture, 8<sup>th</sup> ISMSC, “Three Tales of Supramolecular Analytical Chemistry” Arlington VA, July 10<sup>th</sup>, 2013.
- 279) “Supramolecular Analytical Chemistry” Toho University, Toho Japan, June 25<sup>th</sup>, 2013.
- 278) “Supramolecular Analytical Chemistry” Tsukuba Institute for Material Science, Tsukuba Japan, June 24<sup>th</sup> 2013.
- 277) “Supramolecular Approaches to Rapid Ee Determination” ISACS 10 Conference, Kyoto Japan, June 20<sup>th</sup>, 2013.
- 276) “Supramolecular Analytical Chemistry” Penn. State Univ., State College PA, May 28<sup>th</sup> 2013
- 275) “Supramolecular Analytical Chemistry”, Carleton College, Northfield MN, April 19<sup>th</sup> 2013
- 274) “Supramolecular Analytical Chemistry”, U.C. Davis, March 13<sup>th</sup> 2013
- 273) “Supramolecular Analytical Chemistry”, California Institute of Technology, March 11<sup>th</sup> 2013

- 272) "Supramolecular Analytical Chemistry", Plenary Lecture at the HKUST Symposium on Advances in Biomedical Engineering, Hong Kong, Jan. 12<sup>th</sup>, 2013.
- 271) "Supramolecular Analytical Chemistry" Chinese University of Hong Kong, Jan. 10<sup>th</sup>, 2013.
- 270) "Supramolecular Analytical Chemistry" University of Hong Kong, Jan. 9<sup>th</sup>, 2013.
- 269) "Supramolecular Methods for the Rapid Determination of Enantiomeric Excess" South China University of Technology, Guangzhou China, Jan. 7<sup>th</sup>, 2013.
- 268) "Supramolecular Analytical Chemistry" International Kyoto Conference on Organic Chemistry (IKCOC-12), Kyoto Japan, Nov. 13<sup>th</sup>, 2012.
- 267) "Supramolecular Analytical Chemistry" Texas Tech., Lubbock TX, Oct. 3<sup>rd</sup> 2012.
- 266) "Supramolecular Analytical Chemistry" Univ. of Alabama, Tuscaloosa AL, Sept. 13<sup>th</sup>, 2012.
- 265) "Supramolecular Analytical Chemistry" University of Arlington, Arlington TX, July 30<sup>th</sup> 2012.
- 264) "Supramolecular Analytical Chemistry" EWHA University, Seoul Korea, July 13<sup>th</sup>, 2012.
- 263) "Supramolecular Approach to High-Throughput Ee Analysis" Seoul National University, June 12<sup>th</sup>, 2012.
- 262) "Supramolecular Analytical Chemistry" MSMLG, Seoul Korea, July 11<sup>th</sup>, 2012.
- 261) "Supramolecular Approach to High-Throughput Ee Analysis" Chirality Conference, Fort Worth TX, June 11<sup>th</sup>, 2012.
- 260) "Supramolecular Analytical Chemistry", University Distinguished Lecturer, Hong Kong University of Science and Technology, Hong Kong, April 16<sup>th</sup>, 2012.
- 259) "Supramolecular Analytical Chemistry", Columbia University, NYC, April 5<sup>th</sup>, 2012.
- 258) "Supramolecular Analytical Chemistry", ISEOFM2012, Shanghai China, March 11<sup>th</sup>, 2012.
- 257) "Supramolecular Approaches to High-Throughput Screening of Enantiomeric Excess". Merck Pharmaceutical Rahway NJ, March 21<sup>st</sup> 2012.
- 256) "Supramolecular Approaches to High-Throughput Screening of Enantiomeric Excess". National Dong Hwa University, Taiwan, Feb. 24<sup>th</sup>, 2012.
- 255) "Supramolecular Approaches to High-Throughput Screening of Enantiomeric Excess", National Chao Tung University, Taiwan, Feb. 23<sup>rd</sup>, 2012.
- 254) "Supramolecular Approaches to High-Throughput Screening of Enantiomeric Excess", National Taiwan University, Feb. 22<sup>nd</sup>, 2012.
- 253) "Supramolecular Analytical Chemistry" Ta-shue Chou Memorial Lectures, Feb. 12<sup>st</sup>, 2012, Academia Sinica. Taiwan.
- 252) "Supramolecular Rapid EE Analysis" New York University, Jan. 27<sup>th</sup>, 2012.
- 251) "Supramolecular Analytical Chemistry" Montana State University, Dec. 1<sup>st</sup>, 2011.
- 250) "Supramolecular Rapid EE Analysis" Southwest Regional ACS Meeting, Austin TX, Nov. 9<sup>th</sup> 2011.
- 249) "Supramolecular Analytical Chemistry", Pennsylvania State University, Oct. 24<sup>th</sup>, 2011.
- 248) "Supramolecular Analytical Chemistry" Macalester College, Saint Paul, MN, Oct. 5<sup>th</sup>, 2011.
- 247) "Supramolecular Rapid EE Analysis" Gassman Lecturer Series, University of Minnesota, Oct. 6<sup>th</sup>, 2011.
- 246) "Supramolecular Analytical Chemistry" Gassman Lecturer Series, University of Minnesota, Oct. 4<sup>th</sup> 2011.
- 245) "Triggered Reactions for Creating Optical Responses" Methods and Applications of Fluorescence, Strasbourg France, September 13<sup>th</sup>, 2011.
- 244) "Supramolecular Chirality and Enantiomeric Excess Determination" University of Birmingham, England, July 11<sup>th</sup>, 2011
- 243) "Supramolecular Chirality and Enantiomeric Excess Determination" University of Bath, England, July 8<sup>th</sup>, 2011
- 242) "Supramolecular Chirality and Enantiomeric Excess Determination" 6<sup>th</sup> ISMSC, Brighton England, July 5<sup>th</sup>, 2011
- 241) "Patterning Chirality and Enantiomeric Excess" National University Singapore, June 9<sup>th</sup>, 2011.
- 240) "Pattern Recognition and Supramolecular Chemistry" National University Singapore, June 8<sup>th</sup>, 2011.
- 239) "Supramolecular Analytical Chemistry" Nan Qiang Lecture, Xiamen University, Xiamen, China, June 6<sup>th</sup> 2011.
- 238) "Supramolecular Analytical Chemistry" Fujian Institute of Structure and Matter, Fuzhou, China, June 4<sup>th</sup> 2011.
- 237) "Supramolecular Analytical Chemistry" Zhejiang University, Hangzhou, China, June 1<sup>st</sup> 2011.
- 236) "Supramolecular Analytical Chemistry" Hong Kong University, Hong Kong, China, May 30<sup>th</sup> 2011.
- 235) "Supramolecular Analytical Chemistry" Scripps Florida, Jupiter Florida, April 28<sup>th</sup> 2011.
- 234) "Supramolecular Analytical Chemistry" ETH, Zurich, Switzerland, April 4<sup>th</sup>, 2011.
- 233) "Biomimetic Sensing" Breslow 80<sup>th</sup> Birthday Symposium, Anaheim ACS meeting, March 27<sup>th</sup>, 2011.
- 232) "Supramolecular Analytical Chemistry" University of Toronto, Mississauga, Feb. 29<sup>th</sup> 2011.
- 231) "Supramolecular Analytical Chemistry" University of Toronto, St. George, Feb. 28<sup>th</sup> 2011.
- 230) "Supramolecular Analytical Chemistry" 2010-2011 Organic Synthesis Lecturer, U.C. Berkeley, Feb. 7<sup>th</sup> 2011.

- 229) "Supramolecular Analytical Chemistry" University of Maryland Distinguished Departmental Lecture, Jan. 28<sup>th</sup> 2011.
- 228) "Mechanistic Studies and Analytical Uses of Boronic Acids" Pacificchem, Honolulu HI, Dec. 20<sup>th</sup>, 2010.
- 227) "Supramolecular Analytical Chemistry" Pacificchem, Honolulu HI, Dec. 15<sup>th</sup> 2010.
- 226) "Supramolecular Analytical Chemistry" 2<sup>nd</sup> MSMLG, Ankara Turkey, October 21<sup>st</sup> 2010.
- 225) "Supramolecular Analytical Chemistry" EuChemMS Chemistry Conference, Nurnberg, Germany, August 31, 2010.
- 224) "Supramolecular Analytical Chemistry" Sanofi Aventis, Frankfurt, Germany, September 2, 2010.
- 223) "Supramolecular Analytical Chemistry" Aegean Conference, 1<sup>st</sup> International Conference on Molecular Recognition, Crete, Greece, June 7<sup>th</sup> 2010.
- 222) "Supramolecular Analytical Chemistry" 33<sup>rd</sup> Reunao Anual Sociedade Brasileira de Quimica, Aqua di Lindoia, Brazil, May 31<sup>st</sup> 2010.
- 221) "Supramolecular Analytical Chemistry" University of Sao Paulo, Sao Paulo Brazil, May 28<sup>th</sup>, 2010.
- 220) "Supramolecular Analytical Chemistry" Burkenstock Conference, Brunnen, Switzerland, May 3<sup>rd</sup>, 2010
- 219) "Supramolecular Analytical Chemistry" North Carolina St. Univ., Raleigh-Durham, April 23<sup>rd</sup> 2010
- 218) "Supramolecular Analytical Chemistry" Duke University, Raleigh-Durham, April 22<sup>nd</sup> 2010
- 217) "Supramolecular Analytical Chemistry" Univ. North Carolina, Chapel Hill NC, April 21<sup>st</sup> 2010
- 216) "Supramolecular Analytical Chemistry" Southern Methodist University, Dallas TX, Feb. 26<sup>th</sup> 2010
- 215) "Supramolecular Analytical Chemistry" University of Colorado, Boulder CO, Jan. 25<sup>th</sup> 2010
- 214) "Problems in the Anslyn Group" NSF Physical Organic Workshop, Austin TX, Jan. 9<sup>th</sup> 2010
- 213) "Supramolecular Analytical Chemistry" Dains Lecture, Univ. Kansas, Lawrence KS, Dec. 11<sup>th</sup> 2009
- 212) "Supramolecular Analytical Chemistry" RISE Lecturer, Univ. Puerto Rico, San Juan, Nov. 13<sup>th</sup> 2009
- 211) "Supramolecular Analytical Chemistry" Univ. Ill. Urbana-Champagne, Oct. 12<sup>th</sup> 2009
- 210) "Supramolecular Analytical Chemistry" Univ. South Carolina, Columbia S.C. Sept. 11<sup>th</sup> 2009.
- 209) "Differential Arrays from Peptides, Metals, and Indicators" 10<sup>th</sup> International Conference on Calixarene Chemistry, Seoul South Korea, July 15<sup>th</sup> 2009.
- 208) "Supramolecular Analytical Chemistry", University of Warsaw, Warsaw Poland, June 15<sup>th</sup> 2009.
- 207) "Supramolecular Analytical Chemistry", Bruno-Werelmann-Lecture, University of Essen, Essen Germany, June 15<sup>th</sup>, 2009.
- 206) "Supramolecular Analytical Chemistry", University of Kiel, Otto Diels Institute of Organic Chemistry, Kiel Germany, June 11<sup>th</sup>, 2009
- 205) "Supramolecular Analytical Chemistry" Munchener Chemische Gesellschaft Lecture, Ludwig-Maximilians\_ Universitat Munchen, Germany, June 9<sup>th</sup>, 2009
- 204) "Supramolecular Analytical Chemistry" Taft Memorial Lecture, Univ. California Irvine, April 29<sup>th</sup>, 2009
- 203) "Supramolecular Analytical Chemistry" New York University, NYC, Feb. 20<sup>th</sup> 2009
- 202) "Supramolecular Analytical Chemistry" Cambridge University, Cambridge, England, Jan. 15<sup>th</sup> 2009
- 201) "Supramolecular Analytical Chemistry" University of East Anglia, Norwich, England, Jan. 14<sup>th</sup> 2009
- 200) "Supramolecular Analytical Chemistry" University of Sheffield, Sheffield England, Jan. 13<sup>th</sup>, 2009
- 199) "Supramolecular Analytical Chemistry" National Singapore University, Dec. 19<sup>th</sup>, 2008.
- 198) "Supramolecular Analytical Chemistry" Institute of Chemical and Engineering Sciences, Singapore, Dec. 16<sup>th</sup>, 2008.
- 197) "Supramolecular Analytical Chemistry" Yale University, Princeton NY, Nov. 5<sup>th</sup>, 2008.
- 196) "Supramolecular Analytical Chemistry" Sanofi-Aventis, Tucson AR, Oct. 8<sup>th</sup>, 2008.
- 195) "Supramolecular Analytical Chemistry" University Michigan, Ann Arbor, MI, Sept. 16<sup>th</sup> 2008
- 194) "Supramolecular Analytical Chemistry" Scripps Institute, San Diego CA., August 13<sup>th</sup>, 2008.
- 193) "Supramolecular Chemistry and Pattern Recognition" Tohoku University Department of Chemical Engineering, Sendai Japan, June 9<sup>th</sup> 2008
- 192) "Supramolecular Analytical Chemistry" Tohoku University Department of Chemistry, Sendai Japan, June 9<sup>th</sup> 2008
- 191) "Supramolecular Analytical Chemistry" University of Kyoto, Kyoto Japan, June 6<sup>th</sup> 2008
- 190) "Supramolecular Analytical Chemistry" University of Osaka, Osaka, Japan June 5<sup>th</sup> 2008
- 189) "Supramolecular Analytical Chemistry" University of Kyushu, Fukuoka, Japan, June 3<sup>rd</sup> 2008
- 188) "Supramolecular Analytical Chemistry" University of Nebraska, Lincoln, May 2<sup>nd</sup> 2008
- 187) "Supramolecular Analytical Chemistry" Trinity University, San Antonio TX, March 27<sup>th</sup> 2008
- 186) "Supramolecular Chemistry and Pattern Recognition" New York Academy of Sciences, Symposium on Chemical Neurobiology, Feb. 22<sup>nd</sup>, 2008.

- 185) "Supramolecular Analytical Chemistry" Indiana University, Dec. 7<sup>th</sup>, 2007.
- 84) "Supramolecular Analytical Chemistry" Purdue University, Bachmann-Pearce named lecture, Dec. 6<sup>th</sup>, 2007
- 183) "Supramolecular Analytical Chemistry" University of New Orleans, Oct. 19<sup>th</sup>, 2007.
- 182) "Supramolecular Analytical Chemistry" Xiamen University, China, Sept. 26<sup>th</sup>, 2007.
- 181) "Contrasting Selective vs. Differential Sensors" XXXV CSI, Xiamen China, Sept. 24<sup>th</sup> 2007.
- 180) "Colorimetric Methods for Enantiomeric Excess Determination" Organic Reactions and Process Gordon Conference, July 17<sup>th</sup>, 2007.
- 179) "Inorganic and Organic Receptors for Analytical Purposes" International Symposium on Photochemical and Photophysical Phenomenon, Dublin Ireland, June 27<sup>th</sup>, 2007.
- 178) "A Marriage of Supramolecular Chemistry with Pattern Recognition" University of Edinburgh, Scotland, June 19<sup>th</sup>, 2007.
- 177) "A Marriage of Supramolecular Chemistry with Pattern Recognition" Durham University, England, June 15<sup>th</sup>, 2007.
- 176) "A Marriage of Supramolecular Chemistry with Pattern Recognition" University of Bath, England, June 13<sup>th</sup>, 2007.
- 175) "A Marriage of Supramolecular Chemistry with Pattern Recognition" University of Southampton, England, June 11<sup>th</sup> 2007.
- 174) "Opportunities in the United States for Asians" Hong Kong Baptist University, May 10<sup>th</sup>, 2007.
- 173) "Supramolecular Analytical Chemistry" Hong Kong Baptist University, May 9<sup>th</sup> 2007.
- 172) "Supramolecular Analytical Chemistry" International Symposium on Molecular Machines and Sensing", May 7<sup>th</sup>, Shanghai, China
- 171) "Supramolecular Analytical Chemistry" Bowling Green State University, April 28<sup>th</sup>, 2007
- 170) "Supramolecular Analytical Chemistry" University of Florida, Gainesville, March 22<sup>nd</sup>, 2007.
- 169) "Supramolecular Analytical Chemistry" University of Illinois, Carbondale, Feb. 23<sup>rd</sup>, 2007.
- 168) "Supramolecular Chemistry and Pattern Recognition, A Complementary Match" Frye Lectureship, Univ. Arkansas, Fayetteville, Feb. 12<sup>th</sup> 2007
- 167) "Supramolecular Chemistry and Pattern Recognition, A Complementary Match" Northwestern University, Jan. 18<sup>th</sup>, 2007
- 166) "Supramolecular Chemistry and Pattern Recognition, A Complementary Match" Tufts University, Dec. 4<sup>th</sup> 2006
- 165) "The Power of Differential Receptors Rather Than Selective Receptors" University of Basel, Oct. 30<sup>th</sup> 2006
- 164) "Supramolecular Chemistry and Pattern Recognition: A Complementary Match" University of Berne, Oct. 31<sup>st</sup>, 2006
- 163) "Supramolecular Analytical Chemistry" University of Neuchatel, Nov. 1<sup>st</sup>, 2006.
- 162) "Combining Supramolecular Chemistry with Chemometrics" University of Fribourg, Nov. 2<sup>nd</sup> 2006.
- 161) "Teaching Supramolecular Chemistry New Tricks" University of Lausanne, EPFL, Nov. 3<sup>rd</sup> 2006
- 160) "A Marriage of Supramolecular Chemistry with Pattern Recognition" ACS Meeting, Fall 2006, San Francisco, Cope Scholar Award Presentation
- 159) "Practical Sensing Applications" Merck Pharmaceuticals, August 17<sup>th</sup>, 2006. Rahway NJ
- 158) "A Marriage of Supramolecular Chemistry with Pattern Recognition" June 26<sup>th</sup>, 2<sup>nd</sup> ISMSC, Victoria Canada.
- 157) "Supramolecular Chemistry and Pattern Recognition: A Complementary Match", June 16<sup>th</sup>. 2006, Oviedo Universidad. Oviedo, Spain.
- 156) "Supramolecular Chemistry and Pattern Recognition: A Complementary Match", June 14<sup>th</sup>, 2006 Autonomica Quimica. Madrid, Spain.
- 155) "Supramolecular Chemistry and Pattern Recognition: A Complementary Match", June 12<sup>th</sup>, 2006, Institute Catala d'Investigacio Quimica, Tarragona, Spain.
- 154) "Supramolecular Chemistry and Pattern Recognition: A Complementary Match" June 9<sup>th</sup>, 2006, Valencia Universidad, Valencia Spain.
- 153) "Supramolecular Chemistry and Pattern Recognition: A Complementary Match", June 7<sup>th</sup>, 2006, Universidad de Illes Balears, Mallorca Spain.
- 152) "Supramolecular Chemistry and Pattern Recognition: A Complementary Match", Apr. 13<sup>th</sup> 2006, Northeastern Univ. Boston, MA.
- 151) "Supramolecular Chemistry and Pattern Recognition: A Complementary Match", Mar. 10<sup>th</sup> 2006, Iowa State Univ., Ames, IO.
- 150) "Supramolecular Chemistry and Pattern Recognition: A Complementary Match", Feb. 9<sup>th</sup> 2006, Univ. Arizona, Tucson, AZ.

- 149) "Supramolecular Chemistry and Pattern Recognition: A Complementary Match", Jan. 12<sup>th</sup> 2006, Univ. Tennessee, Knoxville TN.
- 148) "A Marriage of Supramolecular Chemistry and Pattern Recognition", Jan. 9<sup>th</sup> 2006, Structural and Functional Organic Chemistry GRC, Santa Ynez CA.
- 147) "Physical Organic Chemistry of Molecular Recognition Processes", Dec. 18<sup>th</sup>, Pacific Chem., Honolulu, HI.
- 146) "A Marriage of Supramolecular Chemistry and Pattern Recognition", Dec. 17<sup>th</sup>, Pacific Chem., Honolulu, HI.
- 145) "Structural and Functional Assays for Boronic Acids", Dec. 15<sup>th</sup>, Pacific Chem., Honolulu, HI.
- 144) "Supramolecular Chemistry and Pattern Recognition: A Complementary Match, Nov. 14<sup>th</sup>, Univ. of Toledo, Toledo Ohio.
- 142) "Supramolecular Chemistry and Pattern Recognition: A Complementary Match", Oct. 10<sup>th</sup>, Wuhan University, Wuhan, China.
- 141) "Supramolecular Chemistry and Pattern Recognition: A Complementary Match", Sept. 15<sup>th</sup>, Washington University, St. Louis MO.
- 140) "Organic Chemistry Approaches to Single and Multi Analyte Sensing" June 16<sup>th</sup>, University of Turku, Finland.
- 139) "Organic Chemistry Approaches to Single and Multi Analyte Sensing" June 13<sup>th</sup>, Symposium on Synthetic Receptors, Lund Sweden.
- 138) "Organic Chemistry Approaches to Single and Multi Analyte Sensing" May 28<sup>th</sup>, Merck Pharmaceuticals, Rahway NJ.
- 137) "Organic Chemistry Approaches to Single and Multi Analyte Sensing" April 15<sup>h</sup>, University of Zurich.
- 136) "Organic Chemistry Approaches to Single and Multi Analyte Sensing" April 14<sup>th</sup>, University of Geneva.
- 135) "Organic Chemistry Approaches to Single and Multi Analyte Sensing" April 12<sup>th</sup>, Swiss School on Supramolecular Chemistry.
- 134) "Organic Chemistry Approaches to Single and Multi Analyte Sensing" March 9<sup>th</sup>, Univ. Mass. Amherst.
- 133) "Organic Chemistry Approaches to Single and Multi Analyte Sensing" March 8<sup>th</sup> 2005, Brown University.
- 132) "Organic Chemistry Approaches to Single and Multi Analyte Sensing" Nov. 17<sup>th</sup>, Cal. State Univ. Northridge.
- 131) "A Marriage of Supramolecular Chemistry and Pattern Recognition" Nov. 4<sup>th</sup>, Brauman-Bell Lecture, Baylor College of Dentistry, Dallas TX.
- 130) "A Marriage of Supramolecular Chemistry and Pattern Recognition" Oct. 8<sup>th</sup>, Marquette University.
- 129) "A Marriage of Supramolecular Chemistry and Pattern Recognition" Sept. 8<sup>th</sup> 2004, SCT meeting, Prague, Czech Rep..
- 128) "A Marriage of Supramolecular Chemistry and Pattern Recognition" July 27<sup>th</sup>, XII ISSC, Notre Dame University.
- 127) "Organic and Organometallic Approaches to Molecular Sensing" July 12<sup>th</sup>, University of Bristol, England.
- 126) "Organic and Organometallic Approaches to Molecular Sensing" July. 8<sup>th</sup>, Bioanalytical Gordon Conference, Queen's College Oxford England.
- 125) "Organic and Organometallic Approaches to Molecular Sensing" July. 5<sup>th</sup>, Organic Mechanisms Conference, University College Dublin Ireland.
- 124) "Organic and Organometallic Approaches to Molecular Sensing" July. 2<sup>nd</sup>, Trinity College Dublin Ireland.
- 123) "Organic and Organometallic Approaches to Molecular Sensing" July. 1<sup>st</sup>, Queen's College Belfast Ireland.
- 122) "Organic and Organometallic Approaches to Molecular Sensing" June. 14<sup>th</sup>, Bioorganic Gordon Conference, Protor Academy.
- 121) "Organic and Organometallic Approaches to Molecular Sensing" June. 1<sup>st</sup>, London Ontario Canada, Canadian Chemical Society Meeting.
- 120) "Organic and Organometallic Approaches to Molecular Sensing" Mar. 31<sup>st</sup>, Simon Fraser Univ.
- 119) "Organic and Organometallic Approaches to Molecular Sensing" Mar. 30<sup>th</sup>, Univ. British Columbia.
- 118) "Organic and Organometallic Approaches to Molecular Sensing" Mar. 29<sup>th</sup>, Univ. of Victoria.
- 117) "Organic and Organometallic Approaches to Molecular Sensing" Mar. 28<sup>th</sup>, Anaheim ACS meeting.
- 116) "Organic and Organometallic Approaches to Molecular Sensing" Mar. 19<sup>th</sup>, University of Houston.
- 115) "Organic and Organometallic Approaches to Molecular Sensing" Jan. 27<sup>th</sup>, Laval University.
- 114) "RNA Hydrolysis and Catalysis of Cleavage" Jan. 26<sup>th</sup>, Laval University.
- 113) "Uses of Indicator-Displacement Assays", Jan. 15<sup>th</sup>, 2004, Sundial Beach Resort, NSF Young Supramolecular Chemist Conference.
- 112) "Organic Chemistry Approaches to Single and Multi-Analyte Sensing" Dec. 8<sup>th</sup>, U.C.S.D.
- 113) "Organic Chemistry Approaches to Single and Multi-Analyte Sensing" Nov. 3<sup>rd</sup>, Halliburton Corporation.
- 112) "Organic Chemistry Approaches to Single and Multi-Analyte Sensing" University of Montana, Oct. 20<sup>th</sup>
- 111) "Organic Chemistry Approaches to Single and Multi-Analyte Sensing" Oct. 17<sup>th</sup> Montana State University
- 110) "Organic Chemistry Approaches to Molecular Sensing", Sept. 18<sup>th</sup>, Georgia Tech.

- 109) "Organic Chemistry Approaches to Molecular Sensing" Sept. 8<sup>th</sup>, NYC ACS Meeting Symposium on Supramolecular Chemistry.
- 108) "Organic Chemistry Approaches to Molecular Sensing" April 28<sup>th</sup>, Astra Zeneca.
- 107) "Organic Chemistry Approaches to Molecular Sensing" April 28<sup>th</sup>, U. Alberta.
- 106) "The Power of Supramolecular Chemistry in Sensing" Jan. 30<sup>th</sup>, New Mexico State Univ.
- 105) "Organic Structures for Chemical Sensing" Dec. 4<sup>th</sup>, Texas Tech University
- 104) "Artificial Phosphodiesterases", Dec. 3<sup>rd</sup>, Texas Tech University
- 103) "Organic Structures for Chemical Sensing" Sept. 23<sup>rd</sup>, University of Pennsylvania.
- 102) "Organic Structures for Chemical Sensing" Sept. 6<sup>th</sup> UT Arlington 2002 Boston ACS Meeting.
- 101) "Organic Structures for Chemical Sensing" Aug. 18<sup>th</sup> 2002 Boston ACS Meeting.
- 100) "Organic Chemistry Approaches to Single and Multi-Analyte Sensing" May 23<sup>rd</sup>, 2002 North Dakota State University
- 99) "Organic Chemistry Approaches to Single and Multi-Analyte Sensing" April 11<sup>th</sup>, 2002 Notre Dame University.
- 98) "The Impact of Array Sensors on Supramolecular Chemistry" Symposium Honoring Roger Tsien, ACS Meeting, April 9<sup>th</sup>, 2002. Orlando Fl.
- 97) "Organic Chemistry Approaches to Single and Multi-Analyte Sensing" Jan. 24<sup>th</sup>, 2002 Clemson University.
- 96) "Organic Chemistry Approaches to Single and Multi-Analyte Sensing" Dec. 7<sup>th</sup>, 2001 University of Reno.
- 95) "Organic Chemistry Approaches to Single and Multi-Analyte Sensing" Nov. 8<sup>th</sup>, 2001 University of Utah.
- 94) "Organic Approaches to Sensor Development" NATO Conference on Sensing, Prague, Czech Rep. Sept 1<sup>st</sup> 2001.
- 93) "Anion Receptors", Chicago ACS meeting, Anion recognition symposium, Aug. 27<sup>th</sup> 2001.
- 92) "Organic Chemistry Approaches to Single and Multi Analyte Sensing", LSU, May 4<sup>th</sup>, 2001.
- 91) "Organic Chemistry Approaches to Single and Multi Analyte Sensing", Pharmacopeia, Mar. 22<sup>nd</sup>, 2001.
- 90) "Sensing in the Anslyn Group", Breslow Birthday Symposium, Mar. 23<sup>rd</sup>, New York.
- 89) "Application of Nano Technology to Diagnostics", AADR Conference, Chicago, Mar. 9<sup>th</sup> 2001.
- 88) "Organic Chemistry Approaches to Single and Multi Analyte Sensing", Colorado St. Univ., Jan. 23<sup>rd</sup>, 2001.
- 87) "Organic Chemistry Approaches to Single Analyte and Multianalyte Sensing", Pacific Chem., Honolulu Hawaii, Dec, 12<sup>th</sup> 2000
- 86) "Differential vs. Selective Sensing, a Fertile Ground for Combinatorial Chemistry", Conference on Combinatorial Chemistry in Molecular Recognition, Saarbrucken Germany, Dec. 9<sup>th</sup> 2000.
- 85) "Organic Chemistry Approaches to Single Analyte and Multianalyte Sensing", Rochester University, Sept. 30<sup>th</sup> 2000
- 84) "Single and Multi Analyte Sensing", ISSC 2000, Aug. 2<sup>nd</sup>, Fukuoka Japan
- 83) "Organic Chemistry Approaches to Single Analyte and Multianalyte Sensing", Rochester University, Sept. 29<sup>th</sup> 2000.
- 82) "Organic Chemistry Approaches to Single Analyte and Multianalyte Sensing", UT Southwestern Medical School
- 81) "Designed and Combinatorial Receptors", University of Pavia, Italy, April 18<sup>th</sup>, 2000.
- 80) "Designed and Combinatorial Receptors", University of Parma, Italy, April 17<sup>th</sup>, 2000.
- 79) "The Mammalian Sense of Taste, and Mimics Thereof" Germany Agricultural Society Conference, April 13<sup>th</sup>, 2000, Cologne.
- 78) "Designed and Combinatorial Receptors", University of Bonn, Germany, April 10<sup>th</sup>, 2000.
- 77) "Designed and Combinatorial Receptors", University of Munich, Germany, April 14<sup>th</sup>, 2000.
- 76) "Mimicking the Mammalian Sense of Taste", Spring ACS Meeting, San Francisco, ACS Symposium on Taste and Smell.
- 75) "Organic Chemistry Approaches to Single Analyte and Multianalyte Sensing", Penn. State University, Mar. 13<sup>th</sup>, 2000.
- 74) "Designed and Combinatorial Receptors", Gordon Research Conference on Sensors, Jan. 25<sup>th</sup> 2000, Ventura Ca.
- 73) "Organic Chemistry Approaches to Single Analyte and Multianalyte Sensing", University of North Carolina, Chapel Hill, Dec. 2<sup>nd</sup> 1999
- 72) "Organic Chemistry Approaches to Single Analyte and Multianalyte Sensing", North Carolina State University, Dec. 1<sup>st</sup> 1999
- 71) "Organic Chemistry Approaches to Single Analyte and Multianalyte Sensing", Arizona State University, Feb. 3<sup>rd</sup> 2000.
- 70) "Organic Chemistry Approaches to Single Analyte and Multianalyte Sensing", University Miss. St. Louis, Nov. 8<sup>th</sup> 1999.
- 69) "Organic Chemistry Approaches to Single Analyte and Multianalyte Sensing", Washington University, Nov. 8<sup>th</sup> 1999.

- 68) "Organic Chemistry Approaches to Single Analyte and Multianalyte Sensing", Texas A&M University, Sept. 10th 1999.
- 67) "Organic Chemistry Approaches to Single Analyte and Multianalyte Sensing", University of Texas at Austin, Oct. 14th 1999.
- 66) "Organic Chemistry Approaches to Single Analyte and Multianalyte Sensing", Carnegie Mellon University, Apr. 19th, 1999.
- 65) "Organic Approaches to Single Analyte and Multianalyte Sensing", University of Missouri, Kansas City, Feb. 24th, 1999
- 64) "From Single Analyte to Multi-Analyte Sensing Methodologies, Synthetic Receptors put to a Practical Use," ISPE Conference, Jan. 26th 1999
- 63) "From Single Analyte to Multi-Analyte Sensing Methodologies, Synthetic Receptors Put to a Practical Use", Virginia Commonwealth University, Nov. 10th, 1998
- 62) "From Single Analyte to Multi-Analyte Sensing Methodologies, Synthetic Receptors put to a Practical Use," University of Delaware, Oct. 27th, 1998
- 61) "From Single Analyte to Multi-Analyte Sensing Methodologies, Synthetic Receptors put to a Practical Use," Montana State University, Oct. 19th, 1998
- 60) "From Single Analyte to Multi-Analyte Sensing Methodologies, Synthetic Receptors put to a Practical Use", University of Montana, Oct. 16th, 1998
- 59) "From Single Analyte to Multi-Analyte Sensing Methodologies, Synthetic Receptors put to a Practical Use", NSF Workshop on Physical Organic Chemistry, June 1998
- 58) "The Site of Cleavage of Pyranosides, and New Sensing Methodologies" Wichita State University. Feb. 4th 1997.
- 57) "Supramolecular Catalysis: Reaction Mechanisms," Fifth Chemical Congress of North America, Cancun Mexico, Nov. 1997.
- 56) "Physical Organic Chemistry of Catalysis and Sensing", Scripps Institute for Chemical Sciences, La Jolla, CA, Oct. 24th 1997
- 55) "Sensor Based upon Synthetic Receptors", NSF Workshop on Physical Organic Chemistry, June 1997, Gold Lake Colorado
- 54) "Artificial Receptors as Catalysis and Sensors", Procter and Gamble Corp. May 1997
- 53) "Catalysts, Sensors, Mechanistic Probes: Molecular Recognition in Action." University of Oita, Oita Japan, Jan. 1997
- 52) "Catalysts, Sensors, Mechanistic Probes: Molecular Recognition in Action," University of Kyushu, Kyushu Japan, 1997
- 51) "Catalysts, Sensors, Mechanistic Probes: Molecular Recognition in Action." Kurume Research Center, Kurume Japan, Jan. 1997
- 50) "Catalysts, Sensors, Mechanistic Probes: Molecular Recognition in Action," University of Hiroshima, Hiroshima Japan, Jan. 1997
- 49) "Catalysts, Sensors, Mechanistic Probes: Molecular Recognition in Action." Ministry of Science and Education, Tsukuba Japan, Jan. 1997
- 48) "Enzymatic and Solution Acetal Hydrolysis Mechanisms," NSF Workshop, Squam Lake, NH. July 1996.
- 47) "Supramolecular Catalysis of Phosphoryl and Glycosyl Transfers", University of Arkansas, Fayetteville, Ark. Jan. 15th 1996
- 46) "Guanidinium Catalyzed Phosphoryl Transfers", Pacific Chemistry Conference, Dec. Honolulu, HA. 18th 1995.
- 45) "Methods in Combinatorial Libraries of RNA and Oligomeric Guanidiniums", Southwest Regional ACS Meeting Memphis Nov. 1995.
- 44) "Methods in Combinatorial Libraries of RNA and Oligomeric Guanidiniums", Procter and Gamble Corp. Cincinnati OH Sept. 25th 1995.
- 43) "Endocyclic vs. Exocyclic Cleavage of Pyranosides", NATO Conference on Bioorganic Chemistry, Johnstown, PA. May 18th 1995.
- 42) "Catalysis of Glycosyl and Phosphoryl Transfers", Purdue University, May 1st 1995.
- 41) "A Phosphorane  $pK_a$  Determined via Pulse Radiolysis", ACS Meeting, Anaheim CA, April 1995.
- 40) "Mechanistic Aspects of Supramolecular Catalysis", Syracuse University, Syracuse, NY, Jan. 24th 1995.
- 39) "Mechanistic Aspects of Supramolecular Catalysis", Clinical Diagnostic Systems Incorporated, Rochester N.Y. Jan. 26th 1995.
- 38) "Mechanistic Aspects of Supramolecular Catalysis", Rochester University, Rochester, NY, Jan. 27th 1995.



- 37) "Mechanistic Aspects of Supramolecular Catalysis", McGill University, Montreal, Quebec, Canada, Oct. 4th 1994.
- 36) "Mechanistic Aspects of Supramolecular Catalysis", University of Montreal, Montreal, Quebec, Canada, Oct. 5th 1994.
- 35) "Mechanistic Aspects of Supramolecular Catalysis", Sherbrooke University, Sherbrooke, Quebec, Canada, Oct. 3rd 1994.
- 34) "Mechanistic Aspects of Supramolecular Catalysis", Eli Lilly Corp. Indianapolis, IN, June 30th 1994.
- 33) "Mechanistic Aspects of Supramolecular Catalysis", University of Wisconsin, Madison, May 19th 1994.
- 32) "Artificial Restriction Endonucleases", Searle Scholars Conference, Chicago, May 16th 1994.
- 31) "Mechanistic Aspects of Supramolecular Catalysis", Massachusetts Institute of Technology, Boston MA. May 9th 1994.
- 30) "Mechanistic Aspects of Supramolecular Catalysis", Polaroid Corporation, Boston MA. May 6th 1994.
- 29) "Mechanistic Aspects of Supramolecular Catalysis", University of Illinois, Urbana-Champaign, IL. May 4th 1994.
- 28) "Mechanistic Aspects of Supramolecular Catalysis", University of Pennsylvania, Philadelphia Penn. May 2nd 1994.
- 27) "Mechanistic Aspects of Supramolecular Catalysis" Smith-Kline, Beecham, Philadelphia Penn. April 29th 1994.
- 26) "Mechanistic Aspects of Supramolecular Catalysis Stanford University", Palo Alto, CA. April 20th 1994.
- 25) MARION MERRILL DOW LECTURE "Mechanistic Aspects of Supramolecular Catalysis", University of California, Berkeley CA. April 19th 1994.
- 24) "Mechanistic Aspects of Supramolecular Catalysis", University of California, Los Angeles CA. April 14th 1994.
- 23) "Mechanistic Aspects of Supramolecular Catalysis", California Institute of Technology, Pasadena CA. April 13th 1994.
- 22) "Mechanistic Aspects of Supramolecular Catalysis", Texas A & M University, Dec. 9th 1993.
- 21) "Mechanistic Aspects of Supramolecular Catalysis", Alcon Corp. Dec. 8th, 1993.
- 20) "Organic Catalysts for RNA Hydrolysis", Genta Incorporation, San Diego, CA August 10th 1993.
- 19) "Catalysis of Phosphodiester Hydrolysis by Bis-Guanidinium Receptors", XVIII International Symposium on Macrocyclic Chemistry, University of Twente, Netherlands, July 1993.
- 18) "Polyazaclefts for Molecular Recognition and Catalysis", Strasbourg University, France, July 1993.
- 17) "Polyazaclefts for Molecular Recognition and Catalysis", University of Munich, July 1993.
- 16) "Phosphodiester Hydrolysis Catalysts", 76th Canadian Chemical Conference, Sherbrooke, Quebec, June 1993.
- 15) "Physical Organic Studies of Biological Relevance", NSF Reactive Intermediates Conference, Lake Tahoe, June 1993.
- 14) "Polyaza Clefts for Molecular Recognition and Catalysis", New York University, March 5th 1993.
- 13) "Phosphodiester Hydrolysis Catalysts", ICI Pharmaceuticals, March 8th 1993.
- 12) "Polyaza Clefts for Molecular Recognition and Catalysis", SUNY Stony Brook, March 4th 1993.
- 11) "Polyaza Clefts for Molecular Recognition and Catalysis", Columbia University, March 3rd 1993.
- 10) "Molecular Recognition of Carbohydrates, Enolates, and Phosphodiester", U.T. Arlington, Nov. 1992.
- 9) "Molecular Recognition of Carbohydrates, Enolates, and Phosphodiester", Carnegie Mellon University, Nov. 1992.
- 8) "Complexation of Reactive Intermediates", XVII International Symposium Macrocyclic Chemistry, Provo, UT August 1992.
- 7) "Molecular Recognition of Carbohydrates, Enolates, and Phosphodiester", Hiroshima University, July 1992.
- 6) "Molecular Recognition of Carbohydrates, Enolates, and Phosphodiester", Tokyo Institute of Technology, July 1992.
- 5) "General Acid Catalysts for Phosphodiester Cleavage", XIII International Symposium of Molecular Recognition and Inclusion, July 26th 1992, Kyoto Japan.
- 4) "Phosphodiester Receptors for a Variety of Solvents", Short Talk, Bioorganic Gordon Conference, Plymouth State College, June 1992.
- 3) "Polyaza Clefts for Molecular Recognition Purposes", University of Houston, April 3rd 1992.
- 2) "Synthesis of Polyazaclefts for Bioorganic Studies", Princeton University, April 26th 1991.
- 1) "Ribonuclease A Mimics", The University of Texas at Dallas, Nov. 31st 1990.

#### **Research Support:**

##### **PAST SUPPORT**

1. National Science Foundation, High Risk Research Program, "Mixed Valent Molecular Ferromagnets," 1990-1991, \$50,000.

2. National Science Foundation, Post-Doctoral Research Supplement, "Carbohydrate Complexing Agents", 1989-1990, \$32,000.
3. Texas Advanced Technology Program "Degradation of Aromatic Pollutants by an Artificial Oxidase", 1989-1991, \$105,000.
4. Texas Advanced Technology Program "Molecular Recognition Driven Co-Facial Assembly of Metallomacrocycles", 1989-1991, \$125,000.
5. The Robert A. Welch Foundation (F-1151) "Selective and Asymmetric Catalytic Olefin Hydrogenation", June 1st 1989-May 31st 1992; \$75,000.
6. Searle Foundation "Artificial Restriction Endonucleases", March 1st 1991-Feb. 28th 1994 \$162,000. One-year extension granted.
7. Camille and Henry Dreyfus Foundation (NF-89-35) "Bioorganic Catalyst Development", Sept. 1st 1989-Aug. 31 1994, \$25,000.
8. Monsanto Corporation "Research Support Donation as Part of Presidential Young Investigator Program", \$10,000 1990.
9. Texas Advanced Technology Program, "Rationally Designed Degradation Enzymes for Aromatic Pollutants", 1992-1994, \$160,409 (Co-PI with Jon Robertus).
10. North Atlantic Treaty Organization "Receptors for Co-Factor Hydrolysis", 1993-1994, \$12,000 (Co-PI with Franz Schmittchen in Munich, Germany).
11. National Science Foundation, Presidential Young Investigator Award (CHE-9057208) "Development of Artificial Enzymes", Nov. 1st 1990-Oct. 31st 1995, \$125,000 (base), \$375,000 (with matching funds).
12. National Institutes of Health "Carbohydrate Artificial Receptors and Mechanistic Probes", 1994-1997, \$270,000.
13. National Institutes of Health "Artificial Metallonucleases", 1994-1997, \$270,000
14. Texas Advanced Technology, "On-Line Sensors for the Analysis of Common Beverage Additives", 1998-2000, \$150,000.
15. National Institutes of Health "The Development of an Electronic Tongue" (E. Anslyn, PI: total for four groups), (E. Anslyn, PI: total for four groups) 1998-2001, \$783,008.
16. National Science Foundation – NER Program "Molecular Duplex Formation" (M. Krische P.I., total for two groups), (M. Krische P.I., total for two groups), 2002-2004, \$100,000.
17. Army Research Office, MURI, "Texas Consortium for the Development of Biological Sensors", \$2,999,000 (A. Ellington, PI; total for 10 groups) 05/01/1999-04/30/2004.
18. Beckman Foundation Technologies Initiative "Center for the Design and Fabrication of Sensor Arrays", \$2,500,000 (J. Shear, PI; total for 8 groups) 7/99 - 6/04.
19. National Science Foundation "Artificial Metalloenzymes for RNA Hydrolysis", \$310,000, 9/01/00-8/30/03.
20. Department of Defense "Anion Receptors and Selectors", PI with Co-PI Jonathan Sessler, \$350,000, 2000-2003.
21. National Science Foundation, "Multi-Modal Miniature Microscopes", Rebecca Richard-Kortum, PI, with three Co-PIs, 303,000, 2000-2003.
22. National Institutes of Health "Further Development of the UT Electronic Tongue" (E. Anslyn, PI: total for four groups), (E. Anslyn, PI: total for four groups) 2002-2006, \$900,000.
23. National Institutes of Health "Model Studies of Low Barrier Hydrogen Bonds in Catalysis", 2002-2006, \$750,000.
24. National Institutes of Health "Micro-Array Analysis of Saliva" (PI with 7 other co-PI's), (PI with 7 other co-PI's), 2002-2006, \$4,000,000.
25. National Institutes of Health "The Molecular Recognition of Urine" 2005-2006, \$100,000.
26. Welch Foundation "TI-3D" 07/06/07-12/31/07, \$100,000.
27. Welch Foundation "Creating Configurationally Stable Phosphoranes" 06/01/07-05/31/10, \$150,000.
28. Henry Ford Health & Hosp Svcs "Sponsored Research" 06/01/07-05/31/10, \$80,000.
29. Beacon/Emergent "Chemically Induced Electron Exchange Luminescence(CIEEL)" 03/01/07-02/28/08, \$90,000.
30. NSF-DFG "Optical Methods for EE Analysis of Simple Carboxylic Acids" 09/01/06-08/31/10, \$429,00.
31. Welch Foundation "Peptides as Differential Sensors" 06/01/07-05/31/10", \$150,000.
32. DARPA "Discovery of Functional Block Copolymers Through Single Molecule Sequencing" 09/01/14-08/31/18, \$1,154,631.
33. DTRA "Rapid, Selective, and Sensitive Sensors for Nerve Agents" 09/01/15-08/31/18, \$439,223

#### CURRENT SUPPORT

Funding Agency	Project Title	Project Period	Total Project Amount	Annual Project Amount	PI or Co-I
----------------	---------------	----------------	----------------------	-----------------------	------------

ARMY	New Chemical Tools to Synthesize and Characterize Sequence-Defined Polymers	10/01/2017 – 09/30/2020	\$234,282	\$117,141	PI
NIH	Sensor Arrays Based on Molecularly Imprinted Polymers for Diagnosis of Sjogren's Syndrome	04/01/2016 – 06/30/2021	\$679,594	\$135,919	Co-I
NIH	Further Improving and Utilizing HTS Methods for <i>EE</i> Determinations	12/01/2017 – 11/30/2021	\$1,374,904	\$377,305	PI
NSF MRSEC	Center for Dynamics and Control of Materials - IRG 1	09/01/2017 – 08/31/2023	\$2,599,999	\$95,500	Co-I
NSF	GOALI: Utilizing Rapid Assays for Determining Enantiomeric Excess and Catalyst Discovery in Pharma	06/01/2017 – 05/31/2021	\$450,000	\$150,000	PI
HHMI	Accelerating Professional Development for Undergraduate Science Majors	01/01/2018 – 12/31/2023	\$1,500,000	\$93,985	Co-I
ERISYON SRA	Applications of Single Molecule Protein Sequencing	04/01/2018 – 03/31/2021	\$145,169	\$92,760	Co-I

### Past Students and Post-doctoral Associates and Current Positions

Christine Hannon (MS)	Marietta Corporation (Cortland, NY)
Colin Kubarych (MS)	Private Mountain Climbing Instructor, Austin TX
Dr. Aaron Wright (Phd)	PNNL
Dr. Adrian Bisson (PD)	BFF Technical Fabrics (Taunton, UK)
Dr. Akin Davulcu (MS)	Bristol Meyers Squibb (New Brunswick, NJ)
Dr. Alexandra Gade (Phd)	Focus Forward (Cleveland, OH)
Dr. Alona Umali (PD)	ATMI, Inc. (Burnet, TX)
Dr. Amanda Hargrove (Phd)	Assistant Professor, Duke University
Dr. Amber Johnson (PD)	Eurofins Lancaster Laboratories
Dr. Andrew Hughes (Phd)	Dow Chemical (Springhouse, PA)
Dr. Anna Piatek (PD)	Professor, University of Warsaw (Poland)
Dr. Anne Kelly-Rowley (Phd)	Dow Chemical Company. Midland, MI
Dr. Aravindan Ponnu (PD)	Postdoctoral Fellow, University of Texas at Austin
Dr. Axel Metzger (PD)	Advanced Proteome Therapeutics Inc. (Boston, MA)
Dr. Binh Nguyen (Phd)	BASF Corp, Pasadena, Texas
Dr. Brenda Postnikova (Phd)	Grenoble, France
Dr. Brette Chapin (Phd)	Durham University (UK)
Dr. Byron Collins (Phd)	Dallas Fire Department
Dr. Carol Dallaire (PD)	National Research Council Canada
Dr. Chance Rainwater (Phd)	Rice University, Tech Transfer Office
Dr. Chia-yu Huang (Phd)	Venenum Biodesign (Trenton, NJ)
Dr. Chung-yon Lin (Phd)	The Scripps Research Institute
Dr. Denise Perreault (Phd)	DOW AgroSciences (Indianapolis, IN)
Dr. Diana Leung (Phd)	Lecturer, University Alabama
Dr. Diana Zamora-Olivares (Phd) (PD)	FRI Instructor, UT Austin
Dr. Diane Kneeland (PD)	University of Texas, Austin, TX

Dr. Dwayne Bell (Phd)	Assistant Professor, Framingham State University
Dr. Eric Hernandez (Phd)	Harvard University
Dr. Feiya-Chu (Phd)	Database Marketing Group
Dr. Frantz Folmer-Andersen (Phd)	SUNY (New Paltz, NY)
Dr. Gunther Hennrich (PD)	Professor, University of Madrid (Spain)
Dr. Gururaj Joshi (PD)	Inselspital Bern (Switzerland)
Dr. Hassan Ait-Haddou (PD)	Senior Director R&D, Pall Corporation (Port Washington, NY)
Dr. Helen Seifert (Phd)	MIT
Dr. Himali Hewage (Phd)	Professor, Austin Community College
Dr. Hyun Hwu Jo (Phd)	NYU
Dr. Jaebum Lim (PD)	Samsung SDI Material (Korea)
Dr. Jeff Pruet (Phd)	Assistant Professor, Valparaiso University
Dr. Jennifer Liras (Phd)	Director, Pfizer Corporation (Cambridge, MA)
Dr. Jeroni Morey Salvà (PD)	Lecturer, Universitat de les Illes Balears
Dr. Jiney Jose (PD)	Research Fellow, Auckland Cancer Research Center (New Zealand)
Dr. John Lavigne (Phd)	Professor, University of South Carolina
Dr. Joseph Manimala (Phd)	Section Manager, Lonza (Washington, DC)
Dr. Joseph Smith (Phd)	Independent Businessman (Austin, TX)
Dr. Joy (Qiaoyin) Wu (MS)	Senior Research Associate II, Gilead Sciences (San Mateo, CA)
Dr. Jun Sumaoka (PD)	Tokyo Institute of Technology (Japan)
Dr. Justin Dragna (Phd)	Chief Security Officer, Water Lens (Austin, TX)
Dr. Karin Worm (PD)	Principal Scientist, Avila Therapeutics (NY)
Dr. Karl Wallace (PD)	Associate Professor, U of Southern Mississippi (Hattiesburg, MS)
Dr. Katharine Diehl (Phd)	Postdoctoral Fellow, Princeton University
Dr. Katsuhiko Ariga (PD)	MANA Principal Investigator NIMS (Japan)
Dr. Kazunari Matsumura (PD)	Professor, Shibaura Institute of Technology
Dr. Kenichi Niikura (PD)	Associate Professor, Hokkaido University (Japan)
Dr. Kochar Anurada (PD)	Perkin Elemer LAS (Waltham, MA)
Dr. Larry Cabell (Phd)	Program Manager, SW Research Institute (San Antonio, TX)
Dr. Lei You (PD)	Fujian Institute for the Study of Structure and Matter
Dr. Lei Zhu (PD)	Associate Professor, Florida State University (Tallahassee, FL)
Dr. Leo Joyce (Phd)	Merck Pharmaceuticals (Rahway, NJ)
Dr. Mao-Sen Yuan (PD)	Professor, Northwest A&F University (China)
Dr. Marc Maynor (PD)	Deceased
Dr. Marco Bonizzoni (PD)	Professor, University of Alabama
Dr. Margaret Meadows (Phd)	Northwestern University
Dr. Mark Gray (PD)	Senior Lecturer, University of Sunderland (Sunderland UK)
Dr. Masanori Kitamura (PD)	Associate Professor, Kanazawa University (Japan)
Dr. Michael Best (Phd)	Associate Professor, University of Tennessee (Knoxville, TN)
Dr. Michelle Adams Ivy (Phd)	R&D Team Leader, INVISTA (Columbia, SC)

Dr. Mineo Hashizume (PD)	Associate Professor, Tokyo University of Science (Japan)
Dr. Ngong Kodiah Beyeh (PD)	Adjunct Professor, University of Jyvaskyla (Finland)
Dr. Nicola Edwards (PD)	Associate Professor, Misericordia University (Dallas, PA)
Dr. Paola Gomez-Tagle (PD)	Professor, University of Mexico, Mexico City
Dr. Patricia Bishop (PD)	Manager, Purdue University (Lafayette, IN)
Dr. Paul Wiget (PD)	Assistant Professor, Samford University (Birmingham, AL)
Dr. Pedro Metola (Phd)	Research Educator, University of Texas at Austin
Dr. Ramakrishna Edupuganti (PD)	University of Texas
Dr. Robert Hanes (PD)	Director, Sparx Engineering (Houston, TX)
Dr. Ron Houk (Phd)	Senior Engineer, Seagate Technology (Dublin, CA)
Dr. Ryota Saito (PD)	Associate Professor, Toho University (Japan)
Dr. S. Reid Long (Phd)	Scientific Advisor, Parker Highlander PLLC (Austin, TX)
Dr. Sanmitra Barman (PD)	Assistant Professor, BML Munjal University (India)
Dr. Sara Stewart Goodwin (Phd)	Manager, Cold Spring Harbor Laboratory (Woodbury, NY)
Dr. Shagufta Shabbir (Phd)	Lecturer, University of Texas
Dr. Shawn McClesky Rimassa (Phd)	Head of Oilfield Application Technology, BASF (Houston, TX)
Dr. Sheryl Wiskur (Phd)	Assistant Professor, University of South Carolina (Columbia, SC)
Dr. Sonia Nieto Alonso (PD)	Professor, University of Zaragoza (Spain)
Dr. Stephen Schneider (Phd)	Director, Cempra Pharmaceuticas (Raleigh-Durham, NC)
Dr. Sung-Ok Kang (PD)	Oakridge National Laboratories (Oakridge, TN)
Dr. Suzanne Toby (Phd)	Angewandte Chemie International (Weinheim, Germany)
Dr. Sylvia Diaz (MS)	Chemistry Lab Coordinator, UT Pan-Am (Edinburg, TX)
Dr. Tetsuo Yamasaki (PD)	Kayushu University (Miyazaki, Japan)
Dr. Tian Zhang (Phd)	Cargill Corporation
Dr. Tim Snowden (Phd)	Associate Professor, University of Alabama (Tuscaloosa, AL)
Dr. Vinod Kumar (PD)	Scientist, Defence R&D Organization (Gwalior, India)
Dr. Xiaohong Chen (PD)	R&D, AkzoNoble (Houston, TX)
Dr. Youjun Yang (PD)	Associate Professor, East China University (China)
Dr. Zhenlin Zhong (PD)	Professor, Wuhan University (China)
Kathy Miller (MS)	Lecturer, University of Texas
Lisa S. Flatt (MS)	3M Company, Research Associate, MN
Paul Thompson (MS)	Research Scientist, SW Research Institute, Inc. (San Antonio, TX)
Shannon O'Neil (MS)	Cargill Acidulants, Eddyville, IA
Sheila Ziphel (MS)	Associate Scientist II, Gilead Sciences (San Francisco, CA)
Traci (Simpson) Smith (MS)	Holland, MI
Wenlei Zhai	University of Birmingham
William Brittain	University of Birmingham
Xiaojun Zhang	Consultant, Shanghai Archie Consulting Co., Ltd. (China)
Xing Li (PD)	Student, East China University (China)
Ye Zhong	Student, East China University (China)

