

Eric V. Anslyn
Welch Regents Chair
University Distinguished Teaching Professor

Home Address:
8323 Young Lane
Austin, TX 78737

Business Address:
The University of Texas at Austin
Department of Chemistry and Biochemistry
Norman Hackerman Building
100 E. 24th St. A1590
Austin, TX. 78712

Personal:

Born June 9th 1960, Santa Monica CA
U.S. Citizen
Married (Roxanna), 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 β -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:

James Flack Norris Award in Physical Organic Chemistry, from ACS, announced Nov. 2018, awarded 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.
1st Czarnek 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 10th, 2013.
Izatt-Christensen Award in Macrocyclic and Supramolecular Chemistry, awarded at the 8th ISMSC in Washington DC, July 7th to 11th 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. 21st 2012, Academia Sinica, Taiwan.
Gassman Lecturer, University Minnesota, Oct. 2011
Ramshorn Mark of Excellence, From Dean of the Cockrell School of Engineering, Oct. 29th 2009
Visiting Professor, Institute of Chemical and Engineering Sciences, Singapore, Dec. 15th-19th 2008
Faculty Service Award from the College of Natural Sciences, 2008
Visiting Professor, Hong Kong Baptist University, May 9th -11th 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:

2010 Regent's Teaching Awardee, Across the entire Univ. Texas System, Aug. 11th 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:

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:

Chairman, Assistant Professor Recruiting 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-present.
 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 8th to 11th 2020, Isle of Skye,
 Scotland
 Co-Organizer, ISMSC, July 11th to 18th 2018, Quebec City, Canada
 Member, External Review Visiting Committee, School of Chemistry, Trinity College Dublin, Nov. 15th to
 19th, 2015
 Member, External Review Visiting Committee, Department of Chemistry at the University of Minnesota,
 April 7th-8th, 2014
 Guest Speaker, Westminster Retirement Home, Feb. 4th 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 19th, 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. 9th-
 11th 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 - present.

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 20th to 22nd, 2007.
Physical Organic Chemistry at University of Kyushu, Fukuoka, May 2008.
Solvation, Chirality, and Bonding Theories, Gassman Lecturer Series, University of Minnesota, Oct. 3rd – 7th 2011.
Substitution versus Elimination, Toho University, Japan, June 26th 2013.
Binding Forces, Supramolecular Interactions, and Acid/Base Analogies, Dow Chemical Company in Springhouse, PE, April 17th, 2014.
More O'Farrell/Jencks Plots and LFERs, Univ. of Oregon May 16th to 20th 2014.
From VBT to MOT and Combining the Two, Shanghai University May 18th, 2015
Bonding, Thermodynamics, Kinetics, and Reaction Coordinates, University of Birmingham, June 27th-29th, 2017

Consulting Services

Methamphetamine Sentencing Trial (testifying) 1994
Pharmacopeia 1999
AstraZeneca 1999
Labnetics 1999-2001
Rothwell, Figg, Ernst, and Manbeck (expert report) 2001
Affimetrix 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 17th, 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 9th 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 Pharmed 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.)

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

330) "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.

329) "Engineering a Reversible Covalent-Bonding Assembly to Optically Detect ee in b-Chiral Primary Alcohols" Matthew, M.; Featherson, A.L.; Choi, S.; King, S.; Miller, S.J.; Anslyn, E.V. *Chem*, **2019**, 5, 3196-3206.

328) "2-Amino-3'-dialkylaminobiphenyl-base fluorescent intracellular probes for nitric oxide surrogate N₂O₃" 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.* **2019**, in press.

- 327) "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* **2019**, In press
- 326) "Modulating multi-functional ERK complexes by covalent targeting of a recruitment site in vivo" Kaoud, T.S.; Johnson, W.H.; Ebelt, 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.
- 325) "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.
- 324) "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.
- 323) "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.
- 322) "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, DOI: doi: 10.1038/s41557-019-0314-x
- 321) "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, DOI: 10.1021/jacs.9b03844
- 320) "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, DOI: 10.1021/acs.jcim.8b00987
- 319) "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, DOI: 10.1016/bs.mie.2018.10.031
- 318) "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 DOI: 10.1021/acs.joc.9b00447
- 317) "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
- 316) "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
- 315) "Highly Parallel Single-Molecule Identification of Proteins in Zeptomole-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
- 314) "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
- 313) "Hydrogen Peroxide Production Via a Redox Reaction of N,N'-Dimethyl-2,6-Diaza-9,10-Anthraquinonediium by Addition of Bisulfite", Kolesnichenko, I., Anslyn, E.V. *Chem Comm*, **2018**, *54*, 11204-11207.

312) “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. DOI: 10.1002/poc.3827.

311) “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. DOI: 10.1021/acscentsci.8b00193. PMID: 30062113

310) “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

309) “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. DOI: 10.1089/ast.2017.1712. PMID: 29634318

308) “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. DOI: 10.1021/jacs.8b06607. PMID: 30059621

307) “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. DOI: 10.1039/C8NJ00184G

306) “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**, ASAP. PMID: 29466660

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- 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

- 389) "The Super-Seed Life Project", MRSEC Director's Meeting, Arlington VA., Oct. 3rd 2019
- 388) "The Chemistry of Peptide Fluorosequencing, and Oligourethane Sequencing Methods" 2nd International Symposium on Single Molecular Peptide Sequencing, Tel Aviv, Israel. Sept. 25th 2019
- 387) "Molecular Complexity, Chemometrics, and Other Life Codes", AbSciCon Seattle WA, June 24th 2019
- 386) "Supramolecular Methods for the Rapid Determination of EE and DE", ISMSC 2019, Lecce Italy, June 4th 2019
- 385) "Reversible Covalent Bonding: Assembly, Cascades, and Sequencing" Irish Chemical Conference, Maynooth University, Dublin IR, May 20th, 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 16th, 2019
- 383) "Three Tales of Supramolecular Analytical Chemistry", Bowling Green State Univ. Bowling Green KN, April 17th, 2019
- 382) "Physical Organic Chemistry in the Analytical Science", James Flack Norris Award Lecture, ACS meeting Orlando FL, March 31st, 2019
- 381) "Sequenciable Sequence Defined Polymers" University of Glasgow, Glasgow Scotland, Feb. 19th, 2019
- 380) "Sequenciable Sequence Defined Polymers" St. Andrews University, St. Andrews Scotland, Feb. 19th, 2019
- 379) "Three Tales of Supramolecular Analytical Chemistry" Univ. of Aberdeen, Aberdeen Scotland, Feb. 18th, 2019
- 378) "Sequenciable Sequence Defined Polymers" Scottish Symposium, Univ. Chicago, Chicago IL, Jan. 25th, 2019
- 377) "Three Tales of Supramolecular Analytical Chemistry" Duke University, Raleigh-Duham, N.C. Jan. 14th, 2019
- 376) "Chemometrics, Theory and Applications" Queen's University Belfast, Belfast Ireland, Oct. 7th, 2018
- 375) "Thermodynamic Analytical Methods" Queen's University Belfast, Belfast Ireland, Oct. 6th, 2018
- 374) "Publishing, Being an Educator, Academia vs Industry" Queen's University Belfast, Belfast Ireland, Oct. 5th, 2018
- 373) "Three Tales of Supramolecular Analytical Chemistry" SUNY Albany, Albany NY. Oct. 2nd 2018
- 372) "Three Tales of Supramolecular Analytical Chemistry" University of South Florida, Tampa FL. September 6th 2018
- 371) "Physical Organic Chemistry in the Analytical Sciences" Queen's University Belfast, Belfast Ireland, June 21st, 2018
- 370) "Differential Sensing, Methods and Application" Queen's University Belfast, Belfast Ireland, June 20th, 2018
- 369) "Rapid Optical Methods for Enantiomeric Excess Determination", Chirality Conference, Princeton NY, June 12th 2018
- 368) "Three Tales of Supramolecular Analytical Chemistry" Univ. Oregon, Eugene OR, April. 19th 2018
- 367) "Three Tales of Supramolecular Analytical Chemistry" Oregon State University, Corvallis OR, April. 18th 2018

366) The James and Jeanette Neckers Lectureship in Chemistry, "Supramolecular Methods for the Rapid Determination of Enantiomeric Excess" Hope College, April 6th 2018

365) The James and Jeanette Neckers Lectureship in Chemistry, "Mimicking the Senses of Taste and Smell" Hope College, April 5th 2018

364) "Three Tales of Supramolecular Analytical Chemistry" NYU New York NY, April. 4th 2018

363) "Three Tales of Supramolecular Analytical Chemistry" Temple University, Philadelphia PA, Feb. 22nd 2018

362) "Single Molecule Sequencing of Unnatural Peptides and Oligomers", 1st Single Molecule Peptide Sequencing Conference, Delft Holland, December 11th 2017

361) Haines Lectureship, "Three Tales of Supramolecular Analytical Chemistry" University of South Dakota, Nov. 6th 2017, Vermillion SD

360) "Three Tales of Supramolecular Analytical Chemistry" Texas A&M University, College Station TX, Oct. 27th 2017

359) "Supramolecular Methods for the Rapid Determination of Enantiomeric Excess" Canterbury University, Christchurch New Zealand, September 11th, 2017

358) "Supramolecular Methods for the Rapid Determination of Enantiomeric Excess" University of New South Wales, Sydney Australia, September 8th, 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 7th, 2017

356) "Dynamic Covalent Bonding: Peptide Quaternary Structures, Click and Declick, and Auto-Induction", ACS Meeting, Washington DC, August 20th, 2017.

355) "Three Tales of Supramolecular Analytical Chemistry" Cambridge University, Cambridge England. June 20th

354) "Three Tales of Supramolecular Analytical Chemistry" Oxford University, Oxford England. June 30th

353) "Three Tales of Supramolecular Analytical Chemistry" University of Parma, Parma Italy. June 26th 2017

352) "Life as an Academic" Gargnano Italian School, Gargnano Italy, June 19th, 2017.

351) "Rapid Supramolecular Methods for Reaction Discovery" Gargnano Italian School, Gargnano Italy, June 18th, 2017.

350) "Three Tales of Supramolecular Analytical Chemistry" University of Padova, Padova Italy. June 15th 2017

349) "Dynamic Covalent Bonding: Peptide Quaternary Structures, Click and Declick, and Auto-Induction" May 17th 2017, CASE Conference, Shanghai Polytechnic University, China.

348) "Three Tales of Supramolecular Analytical Chemistry" East China Normal University, May 15th 2017, Shanghai China

347) "Three Tales of Supramolecular Analytical Chemistry" UIUC, Urbana-Champaign, Ill, April 13th 2017

346) "Mimicking the Senses of Taste and Smell" Kilpatrick Lecture, Illinois Institute of Technology, Chicago Ill, April 10th 2017

345) "Two Tales of Supramolecular Analytical Chemistry" University of Arizona, Tucson AZ, March 31st 2017.

344) "Two Tales of Supramolecular Analytical Chemistry" Santa Clara University, Feb. 3rd 2017.

343) "Rapid Supramolecular Methods for Reaction Discovery" Tianjin University, Feb. 25th 2017, Tianjin China

342) "Mechanistic Studies of Boronic Acid Chemistry", Northwestern University Burn's Celebration, Jan. 23rd, 2017

341) "Two Tales of Supramolecular Analytical Chemistry" Univ. Nebraska, Jan. 13th 2017

340) "DARPA Progress Update", Scripps La Jolla, Dec. 19th, 2016

339) "Supramolecular Methods for the Analysis of Enantiomeric Excess", NYU Abu Dhabi, November 8th, 2016

338) "Mimicking the Senses of Taste and Smell", NYU Abu Dhabi, Nov. 7th 2016

337) "Two Tales of Supramolecular Analytical Chemistry" University of Basel, October 14th 2016, Basel, Switzerland

336) "Two Tales of Supramolecular Analytical Chemistry" EPFL, October 13th 2016, Lausanne, Switzerland

335) "Two Tales of Supramolecular Analytical Chemistry" University of Fribourg, October 12th 2016, Fribourg, Switzerland

334) "Two Tales of Supramolecular Analytical Chemistry" University of Bern, October 11th 2016, Bern, Switzerland

333) "Two Tales of Supramolecular Analytical Chemistry" ETH, October 10th 2016, Zurich, Switzerland

332) "Next-Gen Sequencing for Bio-Hints" NASA-Biosignature Workshop, September 8th, Washington DC

331) "Short Vignettes of Supramolecular Analytical Chemistry" MSMLG, July 25th, 2016, Bath, UK

330) "Optical Methods for Reaction Discovery, From Conception to Practice" ISMSC Conference, July 11th, 2016, Seoul, Korea

329) "Supramolecular Chemistry Methods for the Rapid Determination of Enantiomeric Excess Values" ISBBN Conference, May 27th, 2016, Changsha, China

328) "Supramolecular Analytical Chemistry" Oklahoma State University, April 7th, 2016, Stillwater, Ok

327) "Mimicking the Senses of Taste and Smell" Cal State University, February 17th, 2016, Long Beach, CA

- 326) "Supramolecular Methods for the Rapid Determination of Enantiomeric Excess" Cal State University, February 17th, 2016, Long Beach, CA
- 325) "Supramolecular Analytical Chemistry" Israel Chemical Society, February 9th, 2016, Tel-Aviv, Israel
- 324) "Differential Sensing: Concepts and Applications" Pacific Chem, Dec. 14th, 2015, Honolulu, HI
- 323) "Rapid Supramolecular Methods for Ee Determination" Pacific Chem, Dec. 14th, 2015, Honolulu, HI
- 322) "Three Tales of Supramolecular Analytical Chemistry", Dartmouth College, Oct. 28th, 2015. Hanover CT
- 321) "Rapid Supramolecular Methods for Ee Determination" Merck Pharmaceuticals, Rahway NJ, September 25th, 2015.
- 320) "Rapid Supramolecular Methods for Ee Determination" Boehringer Ingelheim, Ridgefield CT, September 10th, 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 20th, 2015
- 311) "Differential Sensing: Concepts and Applications" Shanghai University, May 19th, 2015
- 310) "Supramolecular Approaches for the Rapid Analysis of Enantiomeric Excess" Zhejiang University, Hangzhou China, May 18th 2015
- 309) "Supramolecular Sensing, a Short Course" Fujian Institute for Research on Structure and Matter, Fuzhou China, May 15th 2015
- 308) "Differential Sensing: Concepts and Applications" Fujian Institute for Research on Structure and Matter, Fuzhou China, May 15th 2015
- 307) "Differential Sensing, An Introduction" 2nd Symposium on Aggregation Induced Emission, Guangzhou China, May 16th 2015
- 306) "Differential Sensing: Concepts and Applications" Wuhan University, Wuhan China, May 14th 2015
- 305) "Differential Sensing: Concepts and Applications" Wuhan University of Science and Technology, Wuhan China, May 13th 2015
- 304) "Differential Sensing: Concepts and Applications" Institute of Biotechnology and NanoScience, Singapore, May 12th 2015
- 303) "Rapid Supramolecular Method for Ee Determination", Massachusetts Institute of Technology, Cambridge, Massachusetts, April 10th, 2015.
- 302) "Differential Sensing, Concepts & Methods", Massachusetts Institute of Technology, Cambridge, Massachusetts, April 9th, 2015.
- 301) "Differential Sensing, Concepts & Methods" Xavier University, New Orleans, Louisiana, Jan. 26th, 2015.
- 300) "Three Tales of Supramolecular Analytical Chemistry", Univ. Melbourne, Melbourne Australia, Dec. 16th 2014.
- 299) "Three Tales of Supramolecular Analytical Chemistry", Univ. New South Wales, Sydney Australia, Dec. 15th 2014.
- 298) "Differential Sensing, Concepts and Applications" RACI Meeting, Adelaide Australia, Dec. 10th 2014.
- 297) "Differential Sensing, Biological Applications", MSMLG, Shanghai China, Nov. 11th, 2014.
- 296) "Three Tales of Supramolecular Analytical Chemistry", Univ. Utah, Oct. 2nd, 2014.
- 295) "Three Tales of Supramolecular Analytical Chemistry", Michigan State Univ., Sept. 3rd, 2014.
- 294) "Rapid Optical Methods for the Determination of Ee Values", Stereochemistry GRC, RI, July 29th, 2014.
- 293) "Differential Sensing for Wine Classification" ASEV Conference, Austin TX, May 24th, 2014.
- 292) "Three Tales of Supramolecular Analytical Chemistry" University of Rome, Italy, May 18th, 2014.
- 291) "Three Tales of Supramolecular Analytical Chemistry" University Florence, Italy, May 16th 2014.
- 290) "Three Tales of Supramolecular Analytical Chemistry" Parma University, Italy, May 13th 2014.
- 289) "Supramolecular Analytical Chemistry", ISMC 2014, Pavia Italy, Plenary Lecture, May 10th 2014.
- 288) "Three Tales of Supramolecular Analytical Chemistry", Saul Winstein Lecturer, UCLA, May 22nd 2014.

- 287) "Differential Sensing Methods: Mimicking the Senses of Taste and Smell with Supramolecular Chemistry", Boekelheide Lecturer, Univ. of Oregon, May 9th, 2014.
- 286) "Supramolecular Chemistry Approaches for the Rapid Determination of Ee Values", Univ. of Oregon, May 13th, 2014
- 285) "Biological Applications of Supramolecular Analytical Chemistry" Mardi Gras Symposium, Tulane University, Jan. 27th, 2014.
- 284) "Three Tales of Supramolecular Analytical Chemistry", Tulane University, Jan. 17th 2014
- 283) "Supramolecular Analytical Chemistry" University of Geneva, Chemistry Day, Jan. 27th 2014
- 282) "Supramolecular Analytical Chemistry", Chinese Chemical Biology Symposium, East China University of Science and Technology, Shanghai China, Sept. 17th 2013
- 281) "Three Tales of Supramolecular Analytical Chemistry", University of California, Riverside, Sept. 25th 2013
- 280) Izatt Christensen Award Lecture, 8th ISMSC, "Three Tales of Supramolecular Analytical Chemistry" Arlington VA, July 10th, 2013.
- 279) "Supramolecular Analytical Chemistry" Toho University, Toho Japan, June 25th, 2013.
- 278) "Supramolecular Analytical Chemistry" Tsukuba Institute for Material Science, Tsukuba Japan, June 24th 2013.
- 277) "Supramolecular Approaches to Rapid Ee Determination" ISACS 10 Conference, Kyoto Japan, June 20th, 2013.
- 276) "Supramolecular Analytical Chemistry" Penn. State Univ., State College PA, May 28th 2013
- 275) "Supramolecular Analytical Chemistry", Carleton College, Northfield MN, April 19th 2013
- 274) "Supramolecular Analytical Chemistry", U.C. Davis, March 13th 2013
- 273) "Supramolecular Analytical Chemistry", California Institute of Technology, March 11th 2013
- 272) "Supramolecular Analytical Chemistry", Plenary Lecture at the HKUST Symposium on Advances in Biomedical Engineering, Hong Kong, Jan. 12th, 2013.
- 271) "Supramolecular Analytical Chemistry" Chinese University of Hong Kong, Jan. 10th, 2013.
- 270) "Supramolecular Analytical Chemistry" University of Hong Kong, Jan. 9th, 2013.
- 269) "Supramolecular Methods for the Rapid Determination of Enantiomeric Excess" South China University of Technology, Guangzhou China, Jan. 7th, 2013.
- 268) "Supramolecular Analytical Chemistry" International Kyoto Conference on Organic Chemistry (IKCOC-12), Kyoto Japan, Nov. 13th, 2012.
- 267) "Supramolecular Analytical Chemistry" Texas Tech., Lubbock TX, Oct. 3rd 2012.
- 266) "Supramolecular Analytical Chemistry" Univ. of Alabama, Tuscaloosa AL, Sept. 13th, 2012.
- 265) "Supramolecular Analytical Chemistry" University of Arlington, Arlington TX, July 30th 2012.
- 264) "Supramolecular Analytical Chemistry" Ewha University, Seoul Korea, July 13th, 2012.
- 263) "Supramolecular Approach to High-Throughput Ee Analysis" Seoul National University, June 12th, 2012.
- 262) "Supramolecular Analytical Chemistry" MSMLG, Seoul Korea, July 11th, 2012.
- 261) "Supramolecular Approach to High-Throughput Ee Analysis" Chirality Conference, Fort Worth TX, June 11th, 2012.
- 260) "Supramolecular Analytical Chemistry", University Distinguished Lecturer, Hong Kong University of Science and Technology, Hong Kong, April 16th, 2012.
- 259) "Supramolecular Analytical Chemistry", Columbia University, NYC, April 5th, 2012.
- 258) "Supramolecular Analytical Chemistry", ISEOFM2012, Shanghai China, March 11th, 2012.
- 257) "Supramolecular Approaches to High-Throughput Screening of Enantiomeric Excess". Merck Pharmaceutical Rahway NJ, March 21st 2012.
- 256) "Supramolecular Approaches to High-Throughput Screening of Enantiomeric Excess". National Dong Hwa University, Taiwan, Feb. 24th, 2012.
- 255) "Supramolecular Approaches to High-Throughput Screening of Enantiomeric Excess", National Chao Tung University, Taiwan, Feb. 23rd, 2012.
- 254) "Supramolecular Approaches to High-Throughput Screening of Enantiomeric Excess", National Taiwan University, Feb. 22nd, 2012.
- 253) "Supramolecular Analytical Chemistry" Ta-shue Chou Memorial Lectures, Feb. 12st, 2012, Academia Sinica. Taiwan.
- 252) "Supramolecular Rapid EE Analysis" New York University, Jan. 27th, 2012.
- 251) "Supramolecular Analytical Chemistry" Montana State University, Dec. 1st, 2011.
- 250) "Supramolecular Rapid EE Analysis" Southwest Regional ACS Meeting, Austin TX, Nov. 9th 2011.
- 249) "Supramolecular Analytical Chemistry", Pennsylvania State University, Oct. 24th, 2011.
- 248) "Supramolecular Analytical Chemistry" Macalester College, Saint Paul, MN, Oct. 5th, 2011.
- 247) "Supramolecular Rapid EE Analysis" Gassman Lecturer Series, University of Minnesota, Oct. 6th, 2011.

- 246) "Supramolecular Analytical Chemistry" Gassman Lecturer Series, University of Minnesota, Oct. 4th 2011.
- 245) "Triggered Reactions for Creating Optical Responses" Methods and Applications of Fluorescence, Strasbourg France, September 13th, 2011.
- 244) "Supramolecular Chirality and Enantiomeric Excess Determination" University of Birmingham, England, July 11th, 2011
- 243) "Supramolecular Chirality and Enantiomeric Excess Determination" University of Bath, England, July 8th, 2011
- 242) "Supramolecular Chirality and Enantiomeric Excess Determination" 6th ISMSC, Brighton England, July 5th, 2011
- 241) "Patterning Chirality and Enantiomeric Excess" National University Singapore, June 9th, 2011.
- 240) "Pattern Recognition and Supramolecular Chemistry" National University Singapore, June 8th, 2011.
- 239) "Supramolecular Analytical Chemistry" Nan Qiang Lecture, Xiamen University, Xiamen, China, June 6th 2011.
- 238) "Supramolecular Analytical Chemistry" Fujian Institute of Structure and Matter, Fuzhou, China, June 4th 2011.
- 237) "Supramolecular Analytical Chemistry" Zhejiang University, Hangzhou, China, June 1st 2011.
- 236) "Supramolecular Analytical Chemistry" Hong Kong University, Hong Kong, China, May 30th 2011.
- 235) "Supramolecular Analytical Chemistry" Scripps Florida, Jupiter Florida, April 28th 2011.
- 234) "Supramolecular Analytical Chemistry" ETH, Zurich, Switzerland, April 4th, 2011.
- 233) "Biomimetic Sensing" Breslow 80th Birthday Symposium, Anaheim ACS meeting, March 27th, 2011.
- 232) "Supramolecular Analytical Chemistry" University of Toronto, Mississauga, Feb. 29th 2011.
- 231) "Supramolecular Analytical Chemistry" University of Toronto, St. George, Feb. 28th 2011.
- 230) "Supramolecular Analytical Chemistry" 2010-2011 Organic Synthesis Lecturer, U.C. Berkeley, Feb. 7th 2011.
- 229) "Supramolecular Analytical Chemistry" University of Maryland Distinguished Departmental Lecture, Jan. 28th 2011.
- 228) "Mechanistic Studies and Analytical Uses of Boronic Acids" Pacificchem, Honolulu HI, Dec. 20th, 2010.
- 227) "Supramolecular Analytical Chemistry" Pacificchem, Honolulu HI, Dec. 15th 2010.
- 226) "Supramolecular Analytical Chemistry" 2nd MSMLG, Ankara Turkey, October 21st 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, 1st International Conference on Molecular Recognition, Crete, Greece, June 7th 2010.
- 222) "Supramolecular Analytical Chemistry" 33^a Reunao Anual Sociedade Brasileira de Quimica, Aqua di Lindoia, Brazil, May 31st 2010.
- 221) "Supramolecular Analytical Chemistry" University of Sao Paulo, Sao Paulo Brazil, May 28th, 2010.
- 220) "Supramolecular Analytical Chemistry" Burkenstock Conference, Brunnen, Switzerland, May 3rd, 2010
- 219) "Supramolecular Analytical Chemistry" North Carolina St. Univ., Raleigh-Durham, April 23rd 2010
- 218) "Supramolecular Analytical Chemistry" Duke University, Raleigh-Durham, April 22nd 2010
- 217) "Supramolecular Analytical Chemistry" Univ. North Carolina, Chapel Hill NC, April 21st 2010
- 216) "Supramolecular Analytical Chemistry" Southern Methodist University, Dallas TX, Feb. 26th 2010
- 215) "Supramolecular Analytical Chemistry" University of Colorado, Boulder CO, Jan. 25th 2010
- 214) "Problems in the Anslyn Group" NSF Physical Organic Workshop, Austin TX, Jan. 9th 2010
- 213) "Supramolecular Analytical Chemistry" Dains Lecture, Univ. Kansas, Lawrence KS, Dec. 11th 2009
- 212) "Supramolecular Analytical Chemistry" RISE Lecturer, Univ. Puerto Rico, San Juan, Nov. 13th 2009
- 211) "Supramolecular Analytical Chemistry" Univ. Ill. Urbana-Champaign, Oct. 12th 2009
- 210) "Supramolecular Analytical Chemistry" Univ. South Carolina, Columbia S.C. Sept. 11th 2009.
- 209) "Differential Arrays from Peptides, Metals, and Indicators" 10th International Conference on Calixarene Chemistry, Seoul South Korea, July 15th 2009.
- 208) "Supramolecular Analytical Chemistry", University of Warsaw, Warsaw Poland, June 15th 2009.
- 207) "Supramolecular Analytical Chemistry", Bruno-Werelmann-Lecture, University of Essen, Essen Germany, June 15th, 2009.
- 206) "Supramolecular Analytical Chemistry", University of Kiel, Otto Diels Institute of Organic Chemistry, Kiel Germany, June 11th, 2009
- 205) "Supramolecular Analytical Chemistry" Munchener Chemische Gesellschaft Lecture, Ludwig-Maximilians_Universitat Munchen, Germany, June 9th, 2009
- 204) "Supramolecular Analytical Chemistry" Taft Memorial Lecture, Univ. California Irvine, April 29th, 2009
- 203) "Supramolecular Analytical Chemistry" New York University, NYC, Feb. 20th 2009
- 202) "Supramolecular Analytical Chemistry" Cambridge University, Cambridge, England, Jan. 15th 2009
- 201) "Supramolecular Analytical Chemistry" University of East Anglia, Norwich, England, Jan. 14th 2009

- 200) "Supramolecular Analytical Chemistry" University of Sheffield, Sheffield England, Jan. 13th, 2009
- 199) "Supramolecular Analytical Chemistry" National Singapore University, Dec. 19th, 2008.
- 198) "Supramolecular Analytical Chemistry" Institute of Chemical and Engineering Sciences, Singapore, Dec. 16th, 2008.
- 197) "Supramolecular Analytical Chemistry" Yale University, Princeton NY, Nov. 5th, 2008.
- 196) "Supramolecular Analytical Chemistry" Sanofi-Aventis, Tucson AR, Oct. 8th, 2008.
- 195) "Supramolecular Analytical Chemistry" University Michigan, Ann Arbor, MI, Sept. 16th 2008
- 194) "Supramolecular Analytical Chemistry" Scripps Institute, San Diego CA., August 13th, 2008.
- 193) "Supramolecular Chemistry and Pattern Recognition" Tohoku University Department of Chemical Engineering, Sendai Japan, June 9th 2008
- 192) "Supramolecular Analytical Chemistry" Tohoku University Department of Chemistry, Sendai Japan, June 9th 2008
- 191) "Supramolecular Analytical Chemistry" University of Kyoto, Kyoto Japan, June 6th 2008
- 190) "Supramolecular Analytical Chemistry" University of Osaka, Osaka, Japan June 5th 2008
- 189) "Supramolecular Analytical Chemistry" University of Kyushu, Fukuoka, Japan, June 3rd 2008
- 188) "Supramolecular Analytical Chemistry" University of Nebraska, Lincoln, May 2nd 2008
- 187) "Supramolecular Analytical Chemistry" Trinity University, San Antonio TX, March 27th 2008
- 186) "Supramolecular Chemistry and Pattern Recognition" New York Academy of Sciences, Symposium on Chemical Neurobiology, Feb. 22nd, 2008.
- 185) "Supramolecular Analytical Chemistry" Indiana University, Dec. 7th, 2007.
- 84) "Supramolecular Analytical Chemistry" Purdue University, Bachmann-Pearce named lecture, Dec. 6th, 2007
- 183) "Supramolecular Analytical Chemistry" University of New Orleans, Oct. 19th, 2007.
- 182) "Supramolecular Analytical Chemistry" Xiamen University, China, Sept. 26th, 2007.
- 181) "Contrasting Selective vs. Differential Sensors" XXXV CSI, Xiamen China, Sept. 24th 2007.
- 180) "Colorimetric Methods for Enantiomeric Excess Determination" Organic Reactions and Process Gordon Conference, July 17th, 2007.
- 179) "Inorganic and Organic Receptors for Analytical Purposes" International Symposium on Photochemical and Photophysical Phenomenon, Dublin Ireland, June 27th, 2007.
- 178) "A Marriage of Supramolecular Chemistry with Pattern Recognition" University of Edinburgh, Scotland, June 19th, 2007.
- 177) "A Marriage of Supramolecular Chemistry with Pattern Recognition" Durham University, England, June 15th, 2007.
- 176) "A Marriage of Supramolecular Chemistry with Pattern Recognition" University of Bath, England, June 13th, 2007.
- 175) "A Marriage of Supramolecular Chemistry with Pattern Recognition" University of Southampton, England, June 11th 2007.
- 174) "Opportunities in the United States for Asians" Hong Kong Baptist University, May 10th, 2007.
- 173) "Supramolecular Analytical Chemistry" Hong Kong Baptist University, May 9th 2007.
- 172) "Supramolecular Analytical Chemistry" International Symposium on Molecular Machines and Sensing", May 7th, Shanghai, China
- 171) "Supramolecular Analytical Chemistry" Bowling Green State University, April 28th, 2007
- 170) "Supramolecular Analytical Chemistry" University of Florida, Gainesville, March 22nd, 2007.
- 169) "Supramolecular Analytical Chemistry" University of Illinois, Carbondale, Feb. 23rd, 2007.
- 168) "Supramolecular Chemistry and Pattern Recognition, A Complementary Match" Frye Lectureship, Univ. Arkansas, Fayetteville, Feb. 12th 2007
- 167) "Supramolecular Chemistry and Pattern Recognition, A Complementary Match" Northwestern University, Jan. 18th, 2007
- 166) "Supramolecular Chemistry and Pattern Recognition, A Complementary Match" Tufts University, Dec. 4th 2006
- 165) "The Power of Differential Receptors Rather Than Selective Receptors" University of Basel, Oct. 30th 2006
- 164) "Supramolecular Chemistry and Pattern Recognition: A Complementary Match" University of Berne, Oct. 31st, 2006
- 163) "Supramolecular Analytical Chemistry" University of Neuchatel, Nov. 1st, 2006.
- 162) "Combining Supramolecular Chemistry with Chemometrics" University of Fribourg, Nov. 2nd 2006.
- 161) "Teaching Supramolecular Chemistry New Tricks" University of Lausanne, EPFL, Nov. 3rd 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 17th, 2006. Rahway NJ
- 158) "A Marriage of Supramolecular Chemistry with Pattern Recognition" June 26th, 2nd ISMSC, Victoria Canada.
- 157) "Supramolecular Chemistry and Pattern Recognition: A Complementary Match", June 16th. 2006, Oviedo Universidad. Oviedo, Spain.
- 156) "Supramolecular Chemistry and Pattern Recognition: A Complementary Match", June 14th, 2006 Autonomica Quimica. Madrid, Spain.
- 155) "Supramolecular Chemistry and Pattern Recognition: A Complementary Match", June 12th, 2006, Institute Catala d'Investigacio Quimica, Tarragona, Spain.
- 154) "Supramolecular Chemistry and Pattern Recognition: A Complementary Match" June 9th, 2006, Valencia Universidad, Valencia Spain.
- 153) "Supramolecular Chemistry and Pattern Recognition: A Complementary Match", June 7th, 2006, Universidad de Illes Balears, Mallorca Spain.
- 152) "Supramolecular Chemistry and Pattern Recognition: A Complementary Match", Apr. 13th 2006, Northeastern Univ. Boston, MA.
- 151) "Supramolecular Chemistry and Pattern Recognition: A Complementary Match", Mar. 10th 2006, Iowa State Univ., Ames, IO.
- 150) "Supramolecular Chemistry and Pattern Recognition: A Complementary Match", Feb. 9th 2006, Univ. Arizona, Tucson, AZ.
- 149) "Supramolecular Chemistry and Pattern Recognition: A Complementary Match", Jan. 12th 2006, Univ. Tennessee, Knoxville TN.
- 148) "A Marriage of Supramolecular Chemistry and Pattern Recognition", Jan. 9th 2006, Structural and Functional Organic Chemistry GRC, Santa Ynez CA.
- 147) "Physical Organic Chemistry of Molecular Recognition Processes", Dec. 18th, Pacific Chem., Honolulu, HI.
- 146) "A Marriage of Supramolecular Chemistry and Pattern Recognition", Dec. 17th, Pacific Chem., Honolulu, HI.
- 145) "Structural and Functional Assays for Boronic Acids", Dec. 15th, Pacific Chem., Honolulu, HI.
- 144) "Supramolecular Chemistry and Pattern Recognition: A Complementary Match, Nov. 14th, Univ. of Toledo, Toledo Ohio.
- 142) "Supramolecular Chemistry and Pattern Recognition: A Complementary Match", Oct. 10th, Wuhan University, Wuhan, China.
- 141) "Supramolecular Chemistry and Pattern Recognition: A Complementary Match", Sept. 15th, Washington University, St. Louis MO.
- 140) "Organic Chemistry Approaches to Single and Multi Analyte Sensing" June 16th, University of Turku, Finland.
- 139) "Organic Chemistry Approaches to Single and Multi Analyte Sensing" June 13th, Symposium on Synthetic Receptors, Lund Sweden.
- 138) "Organic Chemistry Approaches to Single and Multi Analyte Sensing" May 28th, Merck Pharmaceuticals, Rahway NJ.
- 137) "Organic Chemistry Approaches to Single and Multi Analyte Sensing" April 15^h, University of Zurich.
- 136) "Organic Chemistry Approaches to Single and Multi Analyte Sensing" April 14th, University of Geneva.
- 135) "Organic Chemistry Approaches to Single and Multi Analyte Sensing" April 12th, Swiss School on Supramolecular Chemistry.
- 134) "Organic Chemistry Approaches to Single and Multi Analyte Sensing" March 9th, Univ. Mass. Amherst.
- 133) "Organic Chemistry Approaches to Single and Multi Analyte Sensing" March 8th 2005, Brown University.
- 132) "Organic Chemistry Approaches to Single and Multi Analyte Sensing" Nov. 17th, Cal. State Univ. Northridge.
- 131) "A Marriage of Supramolecular Chemistry and Pattern Recognition" Nov. 4th, Brauman-Bell Lecture, Baylor College of Dentistry, Dallas TX.
- 130) "A Marriage of Supramolecular Chemistry and Pattern Recognition" Oct. 8th, Marquette University.
- 129) "A Marriage of Supramolecular Chemistry and Pattern Recognition" Sept. 8th 2004, SCT meeting, Prague, Czech Rep..
- 128) "A Marriage of Supramolecular Chemistry and Pattern Recognition" July 27th, XII ISSC, Notre Dame University.
- 127) "Organic and Organometallic Approaches to Molecular Sensing" July 12th, University of Bristol, England.
- 126) "Organic and Organometallic Approaches to Molecular Sensing" July. 8th, Bioanalytical Gordon Conference, Queen's College Oxford England.
- 125) "Organic and Organometallic Approaches to Molecular Sensing" July. 5th, Organic Mechanisms Conference, University College Dublin Ireland.
- 124) "Organic and Organometallic Approaches to Molecular Sensing" July. 2nd, Trinity College Dublin Ireland.
- 123) "Organic and Organometallic Approaches to Molecular Sensing" July. 1st, Queen's College Belfast Ireland.

- 122) "Organic and Organometallic Approaches to Molecular Sensing" June. 14th, Bioorganic Gordon Conference, Protor Academy.
- 121) "Organic and Organometallic Approaches to Molecular Sensing" June. 1st, London Ontario Canada, Canadian Chemical Society Meeting.
- 120) "Organic and Organometallic Approaches to Molecular Sensing" Mar. 31st, Simon Fraser Univ.
- 119) "Organic and Organometallic Approaches to Molecular Sensing" Mar. 30th, Univ. British Columbia.
- 118) "Organic and Organometallic Approaches to Molecular Sensing" Mar. 29th, Univ. of Victoria.
- 117) "Organic and Organometallic Approaches to Molecular Sensing" Mar. 28th, Anaheim ACS meeting.
- 116) "Organic and Organometallic Approaches to Molecular Sensing" Mar. 19th, University of Houston.
- 115) "Organic and Organometallic Approaches to Molecular Sensing" Jan. 27th, Laval University.
- 114) "RNA Hydrolysis and Catalysis of Cleavage" Jan. 26th, Laval University.
- 113) "Uses of Indicator-Displacement Assays", Jan. 15th, 2004, Sundial Beach Resort, NSF Young Supramolecular Chemist Conference.
- 112) "Organic Chemistry Approaches to Single and Multi-Analyte Sensing" Dec. 8th, U.C.S.D.
- 113) "Organic Chemistry Approaches to Single and Multi-Analyte Sensing" Nov. 3rd, Halliburton Corporation.
- 112) "Organic Chemistry Approaches to Single and Multi-Analyte Sensing" University of Montana, Oct. 20th
- 111) "Organic Chemistry Approaches to Single and Multi-Analyte Sensing" Oct. 17th, Montana State University
- 110) "Organic Chemistry Approaches to Molecular Sensing", Sept. 18th, Georgia Tech.
- 109) "Organic Chemistry Approaches to Molecular Sensing" Sept. 8th, NYC ACS Meeting Symposium on Supramolecular Chemistry.
- 108) "Organic Chemistry Approaches to Molecular Sensing" April 28th, Astra Zeneca.
- 107) "Organic Chemistry Approaches to Molecular Sensing" April 28th, U. Alberta.
- 106) "The Power of Supramolecular Chemistry in Sensing" Jan. 30th, New Mexico State Univ.
- 105) "Organic Structures for Chemical Sensing" Dec. 4th, Texas Tech University
- 104) "Artificial Phosphodiesterases", Dec. 3rd, Texas Tech University
- 103) "Organic Structures for Chemical Sensing" Sept. 23rd, University of Pennsylvania.
- 102) "Organic Structures for Chemical Sensing" Sept. 6th UT Arlington 2002 Boston ACS Meeting.
- 101) "Organic Structures for Chemical Sensing" Aug. 18th 2002 Boston ACS Meeting.
- 100) "Organic Chemistry Approaches to Single and Multi-Analyte Sensing" May 23rd, 2002 North Dakota State University
- 99) "Organic Chemistry Approaches to Single and Multi-Analyte Sensing" April 11th, 2002 Notre Dame University.
- 98) "The Impact of Array Sensors on Supramolecular Chemistry" Symposium Honoring Roger Tsien, ACS Meeting, April 9th, 2002. Orlando Fl.
- 97) "Organic Chemistry Approaches to Single and Multi-Analyte Sensing" Jan. 24th, 2002 Clemson University.
- 96) "Organic Chemistry Approaches to Single and Multi-Analyte Sensing" Dec. 7th, 2001 University of Reno.
- 95) "Organic Chemistry Approaches to Single and Multi-Analyte Sensing" Nov. 8th, 2001 University of Utah.
- 94) "Organic Approaches to Sensor Development" NATO Conference on Sensing, Prague, Czech Rep. Sept 1st 2001.
- 93) "Anion Receptors", Chicago ACS meeting, Anion recognition symposium, Aug. 27th 2001.
- 92) "Organic Chemistry Approaches to Single and Multi Analyte Sensing", LSU, May 4th, 2001.
- 91) "Organic Chemistry Approaches to Single and Multi Analyte Sensing", Pharmacopeia, Mar. 22nd, 2001.
- 90) "Sensing in the Anslyn Group", Breslow Birthday Symposium, Mar. 23rd, New York.
- 89) "Application of Nano Technology to Diagnostics", AADR Conference, Chicago, Mar. 9th 2001.
- 88) "Organic Chemistry Approaches to Single and Multi Analyte Sensing", Colorado St. Univ., Jan. 23rd, 2001.
- 87) "Organic Chemistry Approaches to Single Analyte and Multianalyte Sensing", Pacific Chem., Honolulu Hawaii, Dec, 12th 2000
- 86) "Differential vs. Selective Sensing, a Fertile Ground for Combinatorial Chemistry", Conference on Combinatorial Chemistry in Molecular Recognition, Saarbrucken Germany, Dec. 9th 2000.
- 85) "Organic Chemistry Approaches to Single Analyte and Multianalyte Sensing", Rochester University, Sept. 30th 2000
- 84) "Single and Multi Analyte Sensing", ISSC 2000, Aug. 2nd, Fukuoka Japan
- 83) "Organic Chemistry Approaches to Single Analyte and Multianalyte Sensing", Rochester University, Sept. 29th 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 18th, 2000.
- 80) "Designed and Combinatorial Receptors", University of Parma, Italy, April 17th, 2000.

- 79) "The Mammalian Sense of Taste, and Mimics Thereof" Germany Agricultural Society Conference, April 13th, 2000, Cologne.
- 78) "Designed and Combinatorial Receptors", University of Bonn, Germany, April 10th, 2000.
- 77) "Designed and Combinatorial Receptors", University of Munich, Germany, April 14th, 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. 13th, 2000.
- 74) "Designed and Combinatorial Receptors", Gordon Research Conference on Sensors, Jan. 25th 2000, Ventura Ca.
- 73) "Organic Chemistry Approaches to Single Analyte and Multianalyte Sensing", University of North Carolina, Chapel Hill, Dec. 2nd 1999
- 72) "Organic Chemistry Approaches to Single Analyte and Multianalyte Sensing", North Carolina State University, Dec. 1st 1999
- 71) "Organic Chemistry Approaches to Single Analyte and Multianalyte Sensing", Arizona State University, Feb. 3rd 2000.
- 70) "Organic Chemistry Approaches to Single Analyte and Multianalyte Sensing", University Miss. St. Louis, Nov. 8th 1999.
- 69) "Organic Chemistry Approaches to Single Analyte and Multianalyte Sensing", Washington University, Nov. 8th 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", Proctor 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 Stoney Brook, March 4th 1993.
- 11) "Polyaza Clefts for Molecular Recognition and Catalysis", Columbia University, March 3rd 1993.
- 10) "Molecular Recognition of Carbohydrates, Enolates, and Phosphodiesters", 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 Schmitdchen 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 – 09/30/2019	\$234,282	\$117,141	PI
NIH	Sensor Arrays Based on Molecularly Imprinted Polymers for Diagnosis of Sjogren's Syndrome	04/01/2016 – 03/31/2021	\$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 – 05/31/2020	\$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 – 03/31/2019	\$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 Pharmaceuticlas (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)
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