

**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. 24<sup>th</sup> 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  $\beta$ -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:**

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.  
Comps Class Project Awardee, Carleton College, Northfield MN.  
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:**

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:**

Welch Regents Chair of Chemistry, 2014-present  
Norman Hackerman Chair of Chemistry, 2002-2014  
Chief Scientific Officer, Titralyte, 2012-present  
Chief Scientific Officer, Reveal Sciences, 2007-present  
Chief Scientific Officer, Beacon Sciences, 2006-present  
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:**

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-present  
Head of the Chemistry Department Graduate Studies Committee, 2013-present  
College Natural Sciences, Medical School Planning Committee, 2012-present  
Departmental Course and Curriculum Reform Committee, 2011-present  
Member, Committee for 210C Laboratory Reevaluation, 2009-2011  
Departmental Faculty Awards Committee, 2009-present  
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 Teaching 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:**

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 - 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 Batelle 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

#### **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)

#### **Patents**

01. Eric Anslyn and Axel Metzger, "Receptor and method for citrate determination", U.S. Patent No. 6048732, Issued April 11, 2000

02. John McDevitt, Eric Anslyn, Jason Shear and Dean Neikirk, "General signaling protocol for chemical receptors in immobilized matrices," U.S. Patent No. 6589779, Issued July 8, 2003

03. John McDevitt, Eric Anslyn, Jason Shear and Dean Neikirk, "Detection system based on an analyte reactive particle", U.S. Patent No. 6602702, Issued August 5, 2003

04. John McDevitt, Eric Anslyn, Jason Shear and Dean Neikirk, "Method of preparing a sensor array", U.S. Patent No. 6649403, Issued November 18, 2003

05. John McDevitt, Eric Anslyn, Jason Shear and Dean Neikirk, "Sensor Arrays for The Measurement and Identification of Multiple Analytes in Solutions", U.S. Patent No. 6680206, Issued January 20, 2004.
06. John McDevitt, Eric Anslyn, Jason Shear and Dean Neikirk, "Method and Apparatus for The Delivery of Samples to A Chemical Sensor Array", U.S. Patent No. 6713298, Issued March 30, 2004
07. John McDevitt, Eric Anslyn, Jason Shear and Dean Neikirk, "Fluid Based Analysis of Multiple Analytes by A Sensor Array", U.S. Patent No. 6908770, Issued June 21, 2005
08. John McDevitt, Eric Anslyn, Jason Shear, Dean Neikirk and Damon Borich, "Method and Apparatus for The Delivery of Samples to A Chemical Sensor Array", U.S. Patent No. 7022517, Issued April 4, 2006
09. John McDevitt, Eric Anslyn, Jason Shear and Dean Neikirk, "Portable Sensor Array System", U.S. Patent No. 7316899, Issued January 8, 2008
10. Eric Anslyn, J. Frantz Folmer-Andersen and Lei Zhu, "Determining Enantiomeric Excess Using Indicator-Displacement Assays", U.S. Patent No. 7332343, Issued February 19, 2008
11. John McDevitt, Eric Anslyn, Jason Shear and Dean Neikirk, "Fluid Based Analysis of Multiple Analytes by A Sensor Array", U.S. Patent No. 7491552, Issued February 17, 2009
12. Michael Descour, Russell Dupuis, Eric Anslyn and Rebecca Richards-Kortum, "Multimodal Miniature Microscope", U.S. Patent No. 7492535, Issued February 17, 2009
13. Eric Anslyn, Aaron Wright and Zhenlin Zhong, "Synthetic Receptors for The Detection of Analytes", U.S. Patent No. 7514266, Issued April 7, 2009
14. John McDevitt, Eric Anslyn, Jason Shear, Dean Neikirk and Nick Christodoulides, "Method and System for The Analysis of Saliva Using a Sensor Array", U.S. Patent No. 7651868, Issue January 26, 2010
15. Eric V. Anslyn, Jan Frantz Folmer-Andersen and Lei Zhu, "Determining Enantiomeric Excess Using Indicator-Displacement Assays", U.S. Patent No. 7670847, Issued March 2, 2010
16. John McDevitt, Karri Ballard, Pierre Floriano, Nick Christodoulides, Dean Neikirk, Eric Anslyn and Jason Shear, "Integration of Fluids and Reagents Into Self-Contained Cartridges Containing Sensor Elements and Reagent Delivery Systems", U.S. Patent No. 8101431, Issued January 24, 2012
17. John McDevitt, Karri Ballard, Pierre Floriano, Nick Christodoulides, Dean Neikirk, Eric Anslyn and Jason Shear, "Integration of Fluids and Reagents Into Self-Contained Cartridges Containing Sensor Elements", U.S. Patent No. 8105849, Issued January 31, 2012
18. John McDevitt, Eric Anslyn, Jason Shear, Dean Neikirk and Nick Christodoulides, "Method and System for The Detection of Cardiac Risk Factors", U.S. Patent No. 8257967, Issued September 4, 2012
19. Eric V. Anslyn, Karl J. Wallace, "Compositions and Methods for The Detection of Chemical Warfare Agents", U.S. Patent No. 8377712, Issued February 19, 2013
20. Eric V. Anslyn, Youjun Yang, Michelle M. Adams, "Fluorescent Nitric Oxide Probes and Associated Methods", U.S. Patent No. 8637323, Issued January 28, 2014

#### **Research Publications**

280) "An efficient methodology to introduce o-(aminomethyl) phenyl-boronic acids into peptides: alkylation of secondary amines" Hernandez, E.; Anslyn, E.V. *New J. Chem.* **2017**, *41*, 126-133.

279) "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.

- 278) "Click and chemically triggered declick 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.
- 277) "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.
- 276) "Physical Organic Chemistry by Any Other Name Would Smell as Sweet" Chapin, B.M.; Anslyn, E.V., *Isr. J. Chem.*, **2016**, 56, 38-45.
- 275) "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.
- 274) "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.
- 273) "Supramolecular Chemistry at the interface of biology, materials and medicine" Anslyn, E.V.; Zimmerman, S.C., *Beilstein J. Org. Chem.*, **2016**, 31, 12, 1101-1102. PMID: 27340497
- 272) "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**, (Epub). PMID: 27304670
- 271) "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
- 270) "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
- 269) "Introduction: Supramolecular Chemistry" Huang, F.; Anslyn, E.V., *Chem. Rev.*, **2015**, 115, 6999-7000. PMID: 26263840
- 268) "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
- 267) "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
- 266) "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
- 265) "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
- 264) "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.

- 263) "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.
- 262) "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, 7769-77743. PMID:25965790.
- 261) "Dynamic Amino-Aldehyde-Based TPA Ligands" Zhou, Yuntao; Yuan, Yaofeng; You, Lei; Anslyn, E.V., *Chem. Eur. J.*, **2015**, 21, 8207-8213. PMID: 25919126.
- 260) "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.
- 259) "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**, 127, 6437-6440. PMID: 25826754.
- 258) "Recent Advances in Supramolecular Analytical Chemistry Using Optical Sensing" You, Lei; Zha, Daijun; Anslyn, E.V., *Chemical Reviews*, **2015**, 115, 7840-7892. PMID: 25719867.
- 257) "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.
- 256) "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
- 255) "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**, RSC.
- 254) "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**, 0000.
- 253) "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 pp.158-164. PMID: 25530834.
- 252) "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.
- 251) "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.

- 250) "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, p15330-15332. PMID: 25347688.
- 249) "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.
- 248) "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.
- 247) "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.
- 246) "Rapid Determination of Enantiomeric Excess of  $\alpha$ -Chiral Aldehydes Using Circular Dichroism Spectroscopy" Barman, S.; Anslyn, E.V. *Tetrahedron*, **2014**, 70, 1357-1362.
- 245) "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.
- 244) "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.
- 243) "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.
- 242) "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.
- 241) "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.
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- 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.
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- 3) "Solution Structures and Dynamics of [H<sub>2</sub>Os<sub>3</sub>(CO)<sub>10</sub>(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 Cp<sub>2</sub>Ti=CH<sub>2</sub> 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**

- 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 Society, 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>a</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 Anslryn 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. 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 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 Phosphodiesteres", U.T. Arlington, Nov. 1992.
- 9) "Molecular Recognition of Carbohydrates, Enolates, and Phosphodiesteres", 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 Metallo-nucleases", 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.

#### CURRENT SUPPORT

Funding Agency	Project Title	Project Period	Total Project Amount	Annual Project Amount	PI or Co-PI
NIH	Refining & Implementing Supramolecular Methods for HTS of EE and Concentration	09/01/10 – 08/31/14	\$977,988	\$244,497	PI
WELCH	Fingerprinting Glucuronides	06/01/12 – 05/31/13	\$120,000	\$82,710	PI
NIH	Advanced Studies of Molecular Recognition Processes	08/01/08 – 07/31/13	\$1,012,325	\$255,600	PI
NAVY	Chemical and Protein Receptors for Explosives Detection	08/01/09 – 09/30/13	\$77,902	\$77,902	Co-PI
NSF	Mechanistic and Catalytic Studies of Reversible Covalent Bonding	07/01/12 – 06/30/15	\$405,000	\$135,000	PI
NIH	Synthesis of chemical libraries to optimize inhibitory compounds	08/01/07 – 07/31/13	\$212,850	\$70,950	Co-PI

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

Christine Hannon (MS)	Marietta Corporation (Cortland, NY)
Colin Kubarych	Private Mountain Climbing Instructor, Austin TX
Dr. Aaron Wright	PNNL
Dr. Adrian Bisson	BFF Technical Fabrics (Taunton, UK)
Dr. Akin Davulcu	Bristol Meyers Squibb (New Brunswick, NJ)
Dr. Alexandra Gade	Focus Forward (Cleveland, OH)
Dr. Alona Umali	ATMI, Inc. (Burnet, TX)
Dr. Amanda Hargrove	Assistant Professor, Duke University
Dr. Andrew Hughes	Dow Chemical (Springhouse, PA)
Dr. Anna Piatek	Professor, University of Warsaw (Poland)
Dr. Anne Kelly-Rowley	Dow Chemical Company. Midland, MI
Dr. Aravindan Ponnu	Postdoctoral Fellow, University of Texas at Austin
Dr. Axel Metzger	Advanced Proteome Therapeutics Inc. (Boston, MA)
Dr. Binh Nguyen	BASF Corp, Pasadena, Texas
Dr. Brenda Postnikova	Grenoble, France
Dr. Byron Collins	Dallas Fire Department
Dr. Carol Dallaire	National Research Council Canada

Dr. Chance Rainwater	Rice University, Tech Transfer Office
Dr. Chia-yu Huang	Venenum Biodesign (Trenton, NJ)
Dr. Denise Perreault	DOW AgroSciences (Indianapolis, IN)
Dr. Diana Leung	Lecturer, University Alabama
Dr. Diane Kneeland	University of Texas, Austin, TX
Dr. Dwayne Bell	Assistant Professor, Framingham State University
Dr. Feiya-Chu	Database Marketing Group
Dr. Frantz Folmer-Andersen	SUNY (New Paltz, NY)
Dr. Gunther Hennrich	Professor, University of Madrid (Spain)
Dr. Gururaj Joshi	Inselspital Bern (Switzerland)
Dr. Hassan Ait-Haddou	Senior Director R&D, Pall Corporation (Port Washington, NY)
Dr. Himali Hewage	Professor, Austin Community College
Dr. Jaebum Lim	Samsung SDI Material (Korea)
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Dr. Kenichi Niikura	Associate Professor, Hokkaido University (Japan)
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Dr. Leo Joyce	Merck Pharmaceuticals (Rahway, NJ)
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Dr. Marc Maynor	Deceased
Dr. Marco Bonizzoni	Professor, University of Alabama
Dr. Mark Gray	Senior Lecturer, University of Sunderland (Sunderland UK)
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