

# Appendix A

Brent Iverson CV

Dean Review  
January 2019



***CURRICULUM VITAE*****Address:**

School of Undergraduate Studies  
The Department of Chemistry and Biochemistry  
The University of Texas at Austin  
Austin, TX 78712

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**Education:**

B.S. in Chemistry (with honors), Stanford University, Palo Alto, CA, 1982.  
Ph.D. in Chemistry, 1987, California Institute of Technology, Pasadena, CA, with Professor Peter Dervan.  
Postdoctoral Work at Scripps Research Institute, La Jolla, CA 1987-1990, with Dr. Richard Lerner.

**Academic and Research Awards:**

Elected to Phi Beta Kappa, 1982  
American Cancer Society, California Division Postdoctoral Junior Fellowship, 1987-1989  
Camille and Henry Dreyfus Foundation New Faculty Award in Chemistry, 1990  
The Chicago Community Trust Searle Scholars Award, 1991  
National Science Foundation Presidential Young Investigator Award, 1991  
Camille and Henry Dreyfus Foundation Teacher-Scholar Award, 1995  
Alfred P. Sloan Foundation Research Fellow, 1996  
Robert W. Hamilton University Co-op Best Research Paper Award, 2003  
American Chemical Society Arthur C. Cope Scholar Award, 2005  
Elected as a Fellow, the American Association for the Advancement of Science, 2011  
Elected to the Philosophical Society of Texas, 2016

**Named, Plenary and Keynote Lectures**

J. Clarence Karcher Lecture, April 13, 2006, the University of Oklahoma, Norman, Oklahoma  
Paul M. Horowitz Lecture, May 26, 2010, the University of Texas at San Antonio, San Antonio, Texas  
4<sup>th</sup> Annual Infection, Immunity and Vaccines conference, the University of San Antonio, November 13, 2015  
Foldamers 2016 Symposium, University of Bordeaux, Bordeaux, France, September 27, 2016

**Teaching and Service Awards:**

University of Texas Natural Sciences Advisory Council Teaching Excellence Award, 1993  
The Friar's Centennial Teaching Award, 1994  
Mexican American Health Professions Professor of the Year, 1994  
The Eyes of Texas University Service Award, 1994, 2009  
University of Texas Natural Sciences Advisory Council Teaching Excellence Award, 1997  
CIT (Center for Instructional Technology) Faculty Fellow, 1998  
Elected to the Academy of Distinguished Teachers, UT Austin, 1999  
Texas Ex's Teaching Excellence Award, 2000  
Jean Holloway Teaching Excellence Award, 2001  
UT Austin Division of Housing and Food Services, Outstanding Faculty Fellow Award, 2007  
Texas Blazers Faculty Excellence Award, 2009  
Voted the UTMost Interesting Professor Award, The Daily Texan, 2009  
The University of Texas Board of Regents Outstanding Teaching Award, 2011  
Named a "Texas 10" Best Teacher by the readers of the Alcalde Alumni Magazine, 2011  
The Margaret C. Berry Award for contributions to UT student life, 2012  
Alpha Lambda Delta and Phi Eta Sigma Outstanding Faculty Award, 2013  
Named as a Piper Professor, The Minnie Stevens Piper Foundation, 2013  
Inducted into the Inaugural University of Texas System Academy of Distinguished Teachers, 2013  
Named Honorary Counselor, Camp Texas, 2013  
College of Natural Sciences Council Faculty Service Award, 2016

**Research, Professional and Administrative Experience:**

- 2013-2018- **Dean**, School of Undergraduate Studies  
**Chairman**, Board of Directors, Research Corporation for Science Advancement, Tucson, Arizona.
- 2013-2015 **President**, UT System Academy of Distinguished Teachers
- 2013 **Distinguished Teaching Professor**, the University of Texas System
- 2010-2013 **Chairman**, Department of Chemistry and Biochemistry
- 2005-2010 **Director**, Texas Institute for Drug and Diagnostic Development (TI-3D)
- 2004- **Warren J and Viola Mae Raymer Professor**, the University of Texas at Austin
- 2001- **Professor**, Department of Chemistry and Biochemistry
- 2010-2013 **Member** of the Institute for Cellular and Molecular Biology, the University of Texas at Austin
- 1999- **Distinguished Teaching Professor**, the University of Texas at Austin
- 1996-2001 **Associate Professor**, Department of Chemistry and Biochemistry and member of the Institute for Cellular and Molecular Biology, the University of Texas at Austin
- 1990-1996 **Assistant Professor**, Department of Chemistry and Biochemistry, the University of Texas at Austin.
- 1989-1990 **Senior Research Associate** at the Scripps Clinic and Research Foundation.
- 1987-1989 **Postdoctoral Research Fellow** at the Scripps Clinic and Research Foundation in the laboratory of Dr. Richard Lerner.
- 1982-1987 **Graduate Research Assistant** in the laboratory of Professor Peter Dervan at the California Institute of Technology.
- 1979-1982 **Undergraduate Research Assistant** at Stanford University in the laboratory of Professor James Collman.

**Other Positions Held at the University of Texas:**

- Chair, University-wide Classroom Multimedia Enhancement Task Force, 1998-1999
- Undergraduate Advisor, Department of Chemistry and Biochemistry, 1998-2001
- Chair, Courses and Curriculum Committee, Department of Chemistry and Biochemistry, 2000-2001
- Director, NIH Biotechnology Training Grant (T32 GM 087474), 1998-2003.

**Current Service and Committee Activities at the University of Texas:**

- Ex officio* member, Education Policy Committee of the Faculty Council, 2014-present
- Faculty Advisor and Advisory Board Member, Camp Kesem Texas, 2012-present
- Department of Chemistry and Biochemistry Courses and Curriculum Committee, 2007-present

**Former Service and Committee Activities at the University of Texas:**

- Undergraduate Enrollment Management Council, 2013-2017
- Member, Board of Directors of the Texas Exes Alumni Organization, 2014-2017
- Dormitory Faculty Fellow, 2002-2017
- Graduate Student Recruiting for the Organic Division, 1991-1993
- Appointed to the Chairman's Strategic Planning Committee, 1993
- Elected to the Molecular Biology Institute Advisory Committee, 1993-1995
- Computer Committee, Department of Chemistry and Biochemistry, 1993-1995
- Organic Chemistry Seminar Coordinator, 1995-1997
- Multimedia and Instruction Committee, 1996-1998
- Departmental Courses and Curriculum Committee, 1997-2000
- Distance Learning Task Force, 1999
- UT System Telecampus Oversight Committee, 2000
- Departmental Strategic Planning Advisory Committee, 2000-2003
- "Undergraduate Experience" Commission of 125 Faculty Advisory Committee (University level committee appointed by the Provost), 2002-2004

University Intellectual Property Committee (University level committee appointed by the Vice President for Research), 1997-2005  
 Informational Technology Coordinating Council (University level committee appointed by the Vice President for Information Technology), 1998-2005  
 Classroom Technology Enhancement Committee (University level committee appointed by the Provost), 2000-2007  
 Core Curricular Reform Task Force (University level committee appointed by the President) 2004-2005  
 ICMB Steering Committee, 2004-2007  
 Domestic Student Admissions Committee, Molecular Biology Graduate Program, 2003-2007  
 Office of Technology Commercialization Director Search Committee, 2010  
 Four-Year Graduation Task Force (University level committee appointed by the President) 2011-2012.  
 Undergraduate Studies Advisory Committee (UGSAC), 2007-2011  
 DIIA Faculty Advisory Committee, 2008-2011  
 Texas Interdisciplinary Plan Faculty Panel, 2011-2013 Annual participation in Camp Texas, 1994-2013  
 Member, Search Committee for the UT Austin Provost, 2013  
 Member, New Chair of Medicine Search Committee, 2014  
 Co-Chair, Search Committee for the new Vice Provost for Enrollment Management, 2014-2015  
 Member, Campus Conversation Faculty Working Group Member, 2014-2015

#### **Courses Taught at the University of Texas:**

Fall 1990	Chemistry 341 Advanced Organic Synthesis Laboratory	16 students
Spring 1991	Chemistry 610A/618A Sophomore Organic Chemistry	120 students
Spring 1992	Chemistry 610A/618A Sophomore Organic Chemistry	260 students
Fall 1992	Chemistry 610A/618A Sophomore Organic Chemistry	360 students
Spring 1993	Chemistry 610B Sophomore Organic Chemistry	349 students
Fall 1993	Chemistry 610A/618A Sophomore Organic Chemistry	260 students
Spring 1994	Chemistry 610B Sophomore Organic Chemistry	366 students
Fall 1994	Chemistry 610B Sophomore Organic Chemistry	260 students
Spring 1995	Chemistry 610B Sophomore Organic Chemistry	380 students
Fall 1995	Chemistry 386J Graduate Physical Organic Chemistry	24 students
Fall 1995	Dean's Scholars Seminar	23 students
Spring 1996	Chemistry 391 Graduate Mechanisms/Bioorganic	18 students
Spring 1996	Dean's Scholars Seminar	27 students
Fall 1996	Chemistry 386J Graduate Physical Organic Chemistry	32 students
Fall 1996	Dean's Scholars Seminar	27 students
Spring 1997	Chemistry 610B Sophomore Organic Chemistry	395 students
Spring 1997	Dean's Scholars Seminar	23 students
Fall 1997	Chemistry 610A Sophomore Organic Chemistry	195 students
Fall 1997	Dean's Scholars Seminar	18 students
Spring 1998	Chemistry 610B Sophomore Organic Chemistry	300 students
Spring 1998	Dean's Scholars Seminar	23 students
Fall 1998	Dean's Scholars Seminar	23 students
Spring 1999	Dean's Scholars Seminar	8 students
Fall 1999	Chemistry 610A Sophomore Organic Chemistry	420 students
Fall 1999	Dean's Scholars Seminar	18 students
Spring 2000	Chemistry 610B Sophomore Organic Chemistry	413 students
Spring 2000	Dean's Scholars Seminar	17 students
Fall 2000	Dean's Scholars Seminar	20 students
Spring 2001	Chemistry 610B Sophomore Organic Chemistry	237 students
Spring 2001	Dean's Scholars Seminar	9 students
Fall 2001	Chemistry 610A Sophomore Organic Chemistry	354 students
Fall 2001	Dean's Scholars Seminar	14 students
Spring 2002	Dean's Scholars Seminar	18 students
Fall 2002	Chemistry 610B Sophomore Organic Chemistry	387 students
Fall 2002	Dean's Scholars Seminar	14 students

Spring 2003	Dean's Scholars Seminar	18 students
Fall 2003	Chemistry 610A Sophomore Organic Chemistry	507 students
Fall 2003	Dean's Scholars Seminar	18 students
Spring 2004	Chemistry 610A Sophomore Organic Chemistry	446 students
Spring 2004	Dean's Scholars Seminar	15 students
Fall 2004	Chemistry 310N Sophomore Organic Chemistry	315 students
Fall 2004	Dean's Scholars Seminar	18 students
Spring 2005	Dean's Scholars Seminar	18 students
Fall 2005	Chemistry 310N Sophomore Organic Chemistry	481 students
Fall 2005	Dean's Scholars Seminar	15 students
Spring 2006	Chemistry 310N Sophomore Organic Chemistry	468 students
Spring 2006	Dean's Scholars Seminar	15 students
Fall 2006	Dean's Scholars Seminar	18 students
Spring 2007	Chemistry 310N Sophomore Organic Chemistry	471 students
Spring 2007	Dean's Scholars Seminar	9 students
Fall 2007	Chemistry 310M Sophomore Organic Chemistry	483 students
Fall 2007	Dean's Scholars Seminar	14 students
Spring 2008	Chemistry 310M Sophomore Organic Chemistry	472 students
Spring 2008	Dean's Scholars Seminar	11 students
Fall 2008	Dean's Scholars Seminar	22 students
Spring 2009	Chemistry 310N Sophomore Organic Chemistry	483 students
Spring 2009	Dean's Scholars Seminar	13 students
Fall 2009	Chemistry 310M Sophomore Organic Chemistry	490 students
Fall 2009	Dean's Scholars Seminar	20 students
Spring 2010	Chemistry 310N Sophomore Organic Chemistry	486 students
Spring 2010	Dean's Scholars Seminar	13 students
Fall 2010	Chemistry 310M Sophomore Organic Chemistry	494 students
Fall 2010	Dean's Scholars Seminar	18 students
Summer 2011	MCAT review	120 students
Fall 2011	Chemistry 310M Sophomore Organic Chemistry	517 students
Fall 2011	Dean's Scholars Seminar	18 students
Spring 2012	Chemistry 310N Sophomore Organic Chemistry	496 students
Spring 2012	Dean's Scholars Seminar	17 students
Fall 2012	Chemistry 320M Sophomore Organic Chemistry	503 students
Fall 2012	Dean's Scholars Seminar	17 students
Spring 2013	Chemistry 320N Sophomore Organic Chemistry	492 students
Spring 2013	Dean's Scholars Seminar	10 students
Fall 2013	Dean's Scholars Seminar	17 students
Spring 2014	Chemistry 320N Sophomore Organic Chemistry	474 students
Spring 2015	Chemistry 320N Sophomore Organic Chemistry	489 students
Spring 2016	Chemistry 320N Sophomore Organic Chemistry	507 students
Spring 2017	Chemistry 320N Sophomore Organic Chemistry	507 students
Fall 2017	Chemistry 320M Sophomore Organic Chemistry	497 students
Fall 2018	Chemistry 320M Sophomore Organic Chemistry	486 students

**Current Graduate Students:**

Christopher Wight	Chemistry	Masters Student	Expected 2020
Elizabeth Gratton	Chemistry	Ph.D. Candidate	Expected 2019
Joseph DeSautelle	Molecular Biology	Ph.D. Student	Expected 2019
Rasha Yaghi	Biochemistry	Ph.D. Student	Expected 2019

**Current Post-Doctorals**

Dr. Carl Denard  
Dr. Joseph Taft

**Former Post-Doctorals**

Dr. Peter Marek

Dr. Li Yi  
Dr. Qing Li  
Dr. Jack Borrock  
Dr. Ki-Jun Jeong  
Dr. Bum-yeol Hwang  
Dr. Christel Dolain  
Dr. Yasuaki Kawarasaki  
Dr. Andrew Hayhurst  
Dr. Edgardo Farinas  
Dr. Richard Loo  
Dr. Scott Happe  
Dr. Kathleen Brasky  
Dr. Jeffrey Thomas

### **Previous Graduate Students Supervised**

- Richard E. Thomas, "The Progression of a Catalytic Immune Response. Molecular Recognition of Anions by Silica Bound Sapphyrin", Masters Thesis, Awarded 1994.
- Britta H. Wilmore, "Phosphate versus Phosphorothioate Haptens in the Production of Catalytic Polyclonal Antibodies", Masters Thesis, Awarded 1994.
- Kevin R. Shreder, "Studies in Biomolecular Recognition", Ph.D. Dissertaion, Awarded 1995.
- Michael B. Wallace, "Antibody Catalyzed Hydrolysis Reactions with Hydrophobic Structures" Masters Thesis, Awarded 1995.
- David B. Stephens, "Catalytic Polyclonal Antibodies", Ph.D. Dissertation, Awarded 1996.
- Elizabeth A. Burks, "New Methods for Manipulating Single Chain Antibody Genes and Proteins for Efficient Structure Function Studies", Ph.D. Dissertation, Awarded 1996.
- Amy Odenbaugh, "Factors Influencing the Polyclonal Catalytic Immune Response", Ph.D. Dissertation, Awarded 1996.
- R. Scott Lokey, "Aedamers: A Synthetic Approach to Higher Order Structure", Ph.D. Dissertation, Awarded 1997.
- Gang Chen, "Antibody Engineering: Cloning, Screening and Assay", Ph.D. Dissertation, Awarded 1997.
- Eric Helms, "Investigations of Polyclonal Catalytic Antibodies", Ph.D. Dissertation, Awarded 1997.
- Chandra Miller, "The Design, Synthesis and Screening of Napthalene Diimides With Antibacterial Activity", Ph.D. Dissertation, Awarded 1999.
- Patrick Daugherty, "Screening Combinatorial Polypeptide Libraries Using Bacterial Surface Display and Fluorescence-Activated Cell Sorting", Ph.D. Dissertation, Awarded 1999.
- Meredith Murr, "Expanding Serpentercalators: Synthesis and Studies of an *octakis*-Intercalator", Masters Thesis, Awarded 1999.
- Mark Cubberley, "Understanding Solvent Effects In Aromatic Donor-Acceptor Interactions", Ph.D. Dissertation, Awarded 2000.
- Vladimir Guelev, "Peptide-Based Polyintercalators As Sequence Specific DNA-Binding Agents", Ph.D. Dissertation, Awarded 2001.

- Andrew Zych, "Conformational Characterization of Abiotic Secondary Structures Based Aromatic Stacking", Ph.D. Dissertation, Awarded 2000.
- Jennifer Maynard, "Engineering Antibody Therapeutic Approaches to Neutralizing toxins", Ph.D. Dissertation, Awarded 2002.
- Jeeyeon Lee, "Toward Threading Polyintercalators with Programmed Sequence Specificity", Ph.D. Dissertation Awarded 2003.
- Raphael Levy, "Enhancement of Antibody Expression in *Escherichia coli*: Innovative Cytoplasmic Screening Approaches", Ph.D. Dissertation Awarded 2004.
- Jongsik Gam, "Toward High Throughput Directed Evolution of Protease Specificity Using Fluorescence Activated Cell Sorting", Ph.D. Dissertation Awarded 2004.
- Mark Olsen, "High Throughput Directed Enzyme Evolution Using Fluorescence Activated Cell Sorting", Ph.D. Dissertation Awarded 2003.
- Barrett Harvey, "Anchored Periplasmic Expression (APEX): A Versatile Technology for the Flow Cytometric Selection of High Affinity Antibodies from *Escherichia coli* Expressed Libraries", Ph.D. Dissertation Awarded 2004.
- Greg Gabriel, "Exploiting Aromatic Donor-Acceptor Recognition in the Folding and Binding of Naphthyl Oligomers", Ph.D. Dissertation Awarded 2004.
- Karl Griswold, "Engineering Highly Active Ezymes with Altered Substrate Selectivities", Ph.D. Dissertation Awarded 2005.
- George Robert Mabry, "Engineered Antibodies for the Treatment of Anthrax," Ph.D. Dissertation Awarded 2005.
- Roz Sweeney, "Biological Approaches to Synthesis and Assembly of Semiconductor and Metallic Nanomaterials", Ph.D. Dissertation Awarded 2005.
- Joe Reczek, "Aromatic Electron Donor-Acceptor Interactions in Novel Supramolecular Assemblies," Ph.D. Dissertation Awarded 2006.
- Marissa Carpio "First Generation of Fluorescent DNA Bisintercalators," Master's Thesis Awarded 2006.
- Yongjun Chu "DNA Threading Intercalation: Building Sequence-Specific Linear Rigidified and Cyclic Bisintercalators," Ph.D. Dissertation Awarded 2007.
- Navin Varadarajan "Engineering Substrate Selectivity in the Protease OmpT," Ph.D. Dissertation Awarded 2007.
- Christian Cobaugh "Single Scaffold Antibody Libraries Created with High Rates of Mutagenesis or Diversity Focused Peptide Recognition," Ph.D. Dissertation Awarded 2007.
- Valerie Dzubeck-Bradford "Aromatic Donor-Acceptor Interactions: Bridging Abiotic and Peptide Folding," Ph.D. Dissertation Awarded 2008.
- Clinton E. Leysath "Structure and Engineering of Antibodies to the Protective Antigen of the *B. anthracis* Toxin," Ph.D. Dissertation Awarded 2008.
- Mridula Rani "Engineering Antibodies for Pathogen Neutralization and Detection," Ph.D. Dissertation Awarded 2009.

Marsha Lewis “Engineering Peptide Detection and Allosteric Activation,” Ph.D. Dissertation Awarded 2009.

Tom Van Blarcom “Antibody Discovery and Engineering using the Anchored Periplasmic Expression (APEX) in E. coli,” Ph.D. Dissertation Awarded 2009.

Mark Pogson “Next Generation Approaches to Engineering Therapeutic Proteases,” Ph.D. Dissertation Awarded 2011.

Garen Holman “Binding Studies of a Sequence Specific Threading NDI Tetraintercalator” Ph.D. Dissertation Awarded 2011.

Stevan Samuel “Approaches Toward the Synthesis of Artificial DNA Molecules,” Ph.D. Dissertation Awarded 2011.

Chelsea Martinez “How to Assemble In Water Without Really Bonding: Aromatic Donor-Acceptor Interactions in Dynamic Foldamer, DNA Intercalators and “Pi-Stacking,” Ph.D. Dissertation Awarded 2011.

Mark Gebhard “Novel High-Throughput Screening Methods for the Engineering Of Hydrolases” Ph.D. Dissertation Awarded 2012.

Sean Carroll “Strategies for Generating Therapeutic Antibodies”, Ph.D. Dissertation Awarded 2012.

Michael Alvey “Self-Assembly of Electron-rich and Electron-poor Naphthalene Rings”, Ph.D. Dissertation Awarded 2013.

Amy Smith “Advances in DNA-Binding by Threading Polyintercalation” Ph.D. Dissertation Awarded 2013.

Cameron Peebles “Conformational switching within aromatic, electron donor and acceptor supramolecular architectures,” Ph.D. Dissertation Awarded 2015.

Brian Ikkanda “Assembly of Complementary Naphthyl Units in Nucleotidomimetic Foldamers” Ph.D. Dissertation Awarded 2016.

Maria Lambousis “Pendant NDI Bisintercalator Derivatives” Masters Thesis Awarded 2017.

Joseph Taft “A Yeast-Based Assay for Protein Tyrosine Kinase Substrate Specificity and Inhibitor Resistance” Ph.D. Dissertation Awarded 2017.

#### **Undergraduates Supervised in the Laboratory:**

Joanne Tsai (6 semesters), Jessica Hernandez (6 semesters), Sharon Mauldin (4 semesters), Sarah White (4 semesters), Timothy Letsko (4 semesters), Silwan Chedid (4 semesters), Matthew Harting (4 semesters), Patina Mendez (4 semesters), Pippa Cosper (3 semesters), Mingsheng Tang (3 semesters), John Gray (3 semesters), Jeff Waltersheid (3 semesters), Linda Marenus, (3 semesters), Payam Yazdanshenas (3 semesters), Matt Harting (3 semesters), Devin Griffiths (3 semesters), Jason Lozada (3 semesters), Ramal Weragoda (3 semesters), Jeffrey Cloud (3 semesters), Joseph Fresch (2 semesters), Robert Ray (2 semesters), Andrew Shea (2 semesters), Karen Anderson (2 semesters) Shanti Nulu (2 semesters), Todd Russell (2 semesters), Ben Egner (2 semesters), Raymond Joseph (2 semesters), Kevin King (2 semesters), Martin Kracklauer (2 semesters), Fahmida Molla (2 semesters), Charu Jain (2 semesters), Monita Poudyal (2 semesters), Jonathan Ward (2 semesters), Steven Allen (2 semesters), Heather Henninger (1 semester), Elvira Aleman (1 semester), Diuthu Nguyen (1 semester), Elizabeth Vaught (1 semester), Brian Thompson (1 semester), Marc Ibanez (1 semester), Dave Francis (1 semester), Robert Byerly (1 semester), Rich Almond (1 semester), Stephanie Butler (1 semester), Russell Vinik (1 semester), Hector Serrano (1 semester), Stephanie Logterman (2 semesters), Rebecca Piland (2 semesters)



Among these students: Marc Ibanez was awarded a Howard Hughes Fellowship and an NSF Graduate Fellowship, and attended graduate school in Biochemistry at the University of California, Berkeley. Sarah White was also awarded an NSF Graduate Fellowship, and she attended graduate school in Chemistry at the California Institute of Technology. Karen Anderson attended graduate school in Chemistry at the University of California, Los Angeles. Linda Marenus attended graduate school in Chemistry at the University of California, Berkeley. Most of the others are now in medical schools throughout the state of Texas.

**Invited Research Presentations (2005-present):**

93. February 18, 2005 “Large Molecules. From Abiotic Systems to Proteins”, Department of Chemistry, Southwestern University, Georgetown, Texas.
94. February 24, 2005 “Large Molecules. From Abiotic Systems to Proteins”, Division of Medicinal Chemistry, School of Pharmacy, University of North Carolina, Chapel Hill, North Carolina.
95. March 14, 2005 “Large Molecules. From Abiotic Systems to Proteins”, American Chemical Society National Meeting, “Recent Advances in Bioorganic Chemistry”, San Diego, California.
96. April 18, 2005 “Chemophobia. The Science Behind the Widely Held Belief that Synthetic Chemicals are Dangerous and Natural Means Safe.” Props for Profs, College of Natural Sciences, University of Texas, Austin, Texas.
97. May 24, 2005 “Protein Engineering Technologies: From Antibodies to Enzymes”, Division of Pharmacology, School of Medicine, University of North Carolina, Chapel Hill, North Carolina.
98. August 30, 2005 “The Chemistry of Large Molecules: From Foldamers to Proteins”, American Chemical Society National Meeting, “Arthur C. Cope Scholar Awards Symposium”, Washington, DC.
99. January 12, 2006 “Protein Engineering Technologies: From Antibodies to Enzymes” Department of Biochemistry, School of Medicine, Emory University, Atlanta, Georgia.
100. January 18, 2006 “Novel E. coli Display Technologies” CBI Conference on Protein Therapeutics, Philadelphia, Pennsylvania.
101. March 29, 2006 “Engineered Antibodies for the Treatment of Anthrax”, Monoclonal Antibody Therapeutics for Biodefense and Emerging Infectious Diseases (BEID) Workshop, Bethesda, Maryland.
102. April 13, 2006 The J. Clarence Karcher Lecture, “The Chemistry of Large Molecules: From Foldamers to Proteins”, Department of Chemistry, the University of Oklahoma, Norman, Oklahoma.
103. April 19, 2006 “The Chemistry of Large Molecules: From Foldamers to Proteins”, Department of Chemistry, Wake Forest University, Winston-Salem, North Carolina.
104. May 9, 2006 “The Chemistry of Large Molecules: From Foldamers to Proteins”, Department of Chemistry, Rutgers University, Piscataway, New Jersey.
105. September 29, 2006 “The Chemistry of Large Molecules: From Foldamers to Proteins”, Department of Chemistry, The University of Chicago, Chicago, Illinois.
106. October 6, 2006 “The Chemistry of Large Molecules: From Foldamers to Proteins”, Department of Chemistry and Biochemistry, The University of South Carolina, Columbia, South Carolina.

107. October 13, 2006 “The Chemistry of Large Molecules: From Foldamers to Proteins”, Department of Chemistry, Iowa State University, Ames, Iowa.
108. December 12, 2006 “Engineered Antibodies for the Treatment of Anthrax”, IBC Antibody Engineering Conference, San Diego, California.
109. February 20, 2007 “Integrity in Research”, Integrity UT Conference, Austin, Texas.
110. March 19, 2007 “Within Our Grasp—Or Slipping Away? Assuring a New Era of Scientific and Medical Progress”, Testimony in front of the US Senate Appropriates Subcommittee chaired by Tom Harken (Iowa), Washington DC.
111. May 23, 2007 “Engineered Antibodies for the Treatment of Anthrax”, Lakeway Men’s Club, Lakeway, Texas.
112. June 12, 2007 “Engineered Antibodies for the Treatment of Anthrax”, J. V. Irons Plenary Lecture, Texas Department of Health Annual Meeting, Austin, Texas.
113. August 21, 2007 “TI-3D, the Texas Institute for Drug and Diagnostics Development”, the University of Texas Medical Branch, Galveston, Texas.
114. October 10, 2007 “New Protein Engineering Platform Technologies: From Antibodies To Enzymes” Department of Molecular Biology, the University of Illinois, Champagne-Urbana, Illinois.
115. October 12, 2008 “Large Molecules From Foldamers to Proteins” National Institutes of Health, Bethesda, Maryland.
116. October 18, 2007 “A Scientist’s Perspective of the American Cancer Society in Texas”, The American Cancer Society, Austin, Texas.
117. October 19, 2007 “Anthrax The Danger, The Science, And What We Are Doing About It”, Department of Chemistry, Santa Clara University, Santa Clara, California.
118. March 1, 2008 “Countering Bioterrorism: A Cure for Anthrax Developed at UT Austin” Deans Scholars Alumni Reunion, UT Austin, Austin, Texas.
119. “Chemistry, A Workshop”, Scientific Literacy Workshop Austin for Radio Science Reporters, UT Austin, Austin, Texas.
120. April 17, 2008 “Back to the Future: Engineered Antibodies to Treat Anthrax”, Texas Branch American Association of Laboratory Animal Medicine, Galveston, Texas.
121. May 20, 2008 “Multivalency in Protein Engineering and Chemical Research”, NIH Workshop on Future Directions of Multivalent Agents in Therapeutic Development, Bethesda, Maryland.
122. July 14, 2008 “Aromatic Donor-Acceptor Interactions in Aqueous Solution” The 3<sup>rd</sup> International Symposium on Macrocyclic and Supramolecular Chemistry, Las Vegas, Nevada.
123. July 23, 2008 “TI-3D, the Texas Institute for Drug and Diagnostics Development”, Testimony given to the Texas Senate Higher Education Subcommittee, Senator Judith Zaffirini, Chair, Austin, Texas.
124. July 25, 2008 “Chemicals are Evil” Junior Honors Colloquium, UT Austin, Austin, Texas.
125. August 22, 2008 “TI-3D, the Texas Institute for Drug and Diagnostics Development”, College of Pharmacy Faculty Retreat, UT Austin, Driftwood, TX.

126. September 4, 2008 "Large Molecules From Foldamers to Proteins", Department of Chemistry, Texas Christian University, Fort Worth, TX.
127. September 16, 2008 "Aromatic Donor-Acceptor Interactions in Aqueous Solution", NSF Physical Organic Chemistry Workshop, Tahoe City, CA.
128. September 23, 2008 "The Importance of the American Cancer Society to Cancer Research in this Country", American Cancer Society National Gift Planning Conference, Austin, TX.
129. October 2, 2008 "TI-3D, the Texas Institute for Drug and Diagnostics Development", College of Pharmacy Advisory Council Meeting, UT Austin, Austin, TX.
130. October 15, 2008 "Commercialization of a Cure for Anthrax" BioMonterrey 08, Monterrey, Nuevo Leon, Mexico.
132. October 22, 2008 "Chemicals are Evil" Lakeway Men's Club, Lakeway, TX.
133. November 14, 2008 "Large Molecules From Foldamers to Proteins", Department of Chemistry, Baylor University, Waco, TX.
134. December 5, 2008 "Large Molecules From Foldamers to Proteins", Department of Chemistry, University of Puerto Rico, San Juan, Puerto Rico.
135. March 23, 2009, "The Chemistry of Stacking: From Foldamers to DNA Ligands", ACS national meeting, Salt Lake City, Utah.
136. April 2, 2009, "So What Are You Going To Do With What We Give You?", Tejas House, the University of Texas at Austin, Austin, Texas.
137. April 12, 2009, "Chemistry 101: Pubic Perception vs. Chemical Reality", Science Literacy Project, the University of California of Berkeley, Berkeley, California.
138. September 4, 2009, "The Chemistry of Large Molecular at the Interface of Chemistry and Biology", Department of Chemistry, St. Edwards University, Austin, Texas.
139. September 12, 2009, "An Engineered Therapeutic Antibody as a Cure for Anthrax and the Engineered Enzymes as Next Generation Biotherapeutics" the University of Texas Health Science Center at Houston, Houston, Texas.
140. November 5, 2009 "Aromatic Donar-Acceptor Interactions: From Foldamers, DNA Ligands and Materials", ACS Regional Meeting, El Paso, Texas.
141. January 7, 2010 "Large Molecules From Foldamers to Proteins", NSF Physical Organic Chemistry Workshop, the University of Texas at Austin, Austin, Texas
142. February 4, 2010 "Chaos vs. Control: The Chemistry of Large Molecular Systems", Department of Chemistry, the University of Massachusetts, Amherst, Massachusetts.
143. March 18, 2010 "Chaos vs. Control: The Engineering of Therapeutic Proteins", Department of Chemistry, the University of Massachusetts, Amherst, Massachusetts.
144. April 16, 2010 "Chemistry 101: Pubic Perception vs. Chemical Reality", Science Literacy Project, the University of California, at Berkeley, Berkeley, California.
145. June 1, 2010 "Chaos vs. Control: The Chemistry of Large Molecular Systems", Department of Chemistry, the University of California at Davis, Davis, California.

146. August 25, 2010 “Chaos vs. Control: The Chemistry of Large Molecular Systems”, ACS National Meeting, Boston, Massachusetts.
146. November 29, 2010 “Chaos vs. Control: Engineering Therapeutic Antibodies and Enzymes”, Department of Biomedical Engineering, Rice University, Houston, Texas.
147. February 2011, Department of Chemistry, Florida State University, Tallahassee, Florida “Chaos vs. Control: The study of Large Molecular Systems at the Chemistry-Biology Interface” and “Protein Engineering”
148. October 2011, Seoul, Korea Yonsei International Symposium on Nano-Bio Molecular Assembly (Yonsei University) “Chaos vs. Control: The study of Large Molecular Systems at the Chemistry-Biology Interface”
149. February 2012, New York City, NY NYU Chemistry Department Colloquium Series “The Study of Large Molecular Systems at the Interface of Chemistry and Biology”
150. June 2012, San Marcos, TX Texas State University, Honors Summer Math Camp Chemophobia: An exploration of the science behind the commonly held belief that “synthetic” means dangerous and “natural” means safe.
151. July 2012, UT Austin Honors Colloquium (Plenary) “Chemophobia: An exploration of the science behind the commonly held belief that “synthetic” means dangerous and “natural” means safe.”
152. August 2012, San Diego, CA 26<sup>th</sup> Annual Symposium of the Protein Society (Plenary) “Protease Engineering”
153. October 2013, Denison College, Granville, Ohio, Open Lecture “A Cure for Late Stage Anthrax Infection or What do Snakebites and Sled Dogs have in Common with a Cure for Late Stage Anthrax?”
154. October 2013, Denison College, Granville, Ohio, Department of Chemistry and Biochemistry, “Controlling Chaos: The Chemistry of Intermolecular Interactions Between Aromatics”
155. January 2014, Scripps Florida, Jupiter, Florida. “Large Molecules of Biological Interest: From DNA-binding Molecules That Don't Let Go to Engineered Proteases”
156. June 2014, UC Davis, Reaction Mechanisms Conference, Symposium honoring Dr. Robert Bergman, Davis, California. “1,4,5,8-Naphthalenetetracarboxylic Diimide (NDI): Two Different Modes of Stacking Enable an Array of Complex Molecular Systems with Interesting Behaviors”
157. September 2014, Duke University, Durham, North Carolina. “The Three Faces of NDI: A Supramolecular Building Block with Multiple Personalities”
158. January 16, 2015, LBJ School, the University of Texas at Austin, Austin Forum on Diplomacy and Statecraft, “A Cure for Late-Stage Anthrax Infections”.
159. July 4, 2015, Division of Protein Technology, KTH Royal Institute of Technology, Stockholm, Sweden “Engineering Proteins in Bacteria and Yeast”

160. November 13, 2015, The University of Texas at San Antonio, Infectious Diseases and Immunity Symposium, Keynote address, “An effective Treatment for Late Stage Anthrax Developed through Protein Engineering”
161. January 15, 2016, LBJ School, the University of Texas at Austin, Austin Forum on Diplomacy and Statecraft, “A Cure for Late Stage Anthrax Infections”.
162. March 11, 2016, Dept. of Chemistry and Chemical Engineering, California Institute of Technology, Pasadena, California “Life in the FACS Lane: Protein Engineering Technologies and a Cure for Late-Stage Anthrax”
163. June 10, 2016, Texas Exes, Alumni College, The University of Texas at Austin, “A Cure for Late-Stage Anthrax Developed at UT Austin. A Talk About How Drugs Work and What it Takes to Create a Cure”
164. June 20, 2016, Workshop on Aromatic Foldamers, 2016, University of Pennsylvania, Philadelphia, Pennsylvania, “NDI: Versatile Stacking Molecule with a Split Personality”
165. September 27, 2016, Bordeaux Foldamers 2016 Symposium, University of Bordeaux, Bordeaux, France, Keynote Address “NDI: Versatile Stacking Molecule with a Split Personality”
166. January 4, 2018, LBJ School, the University of Texas at Austin, Austin Forum on Diplomacy and Statecraft, “A Cure for Late Stage Anthrax Infections”.
167. April 5, 2018, Dept. of Chemistry, Clemson University, Clemson South Carolina “NDI: Versatile Stacking Molecule with a Split Personality”
168. July 11, 2018, ISMSC 2018 Symposium, Quebec City, Quebec, Canada “NDI: Versatile Stacking Molecule with a Split Personality”

**Invited Presentations On Teaching and Learning (2000-present):**

1. August 17, 2000 “What is Good Teaching?”, New Faculty Symposium, Center for Teaching Effectiveness, UT Austin, Austin, Texas.
2. June 6, 2001 “Where are the Electrons: Technology and Chemistry Instruction”, The Texas Energy Science Symposium, UT Austin, Austin, Texas.
3. July 27, 2001 “Where are the Electrons: Technology and Chemistry Instruction”, The Junior Honor’s Colloquium, UT Austin, Austin, Texas.
4. August 22, 2001 “Balancing the Different Roles of a Professor”, New Faculty Symposium, Center for Teaching Effectiveness, The University of Texas at Austin, Austin, Texas.
5. July 26, 2002 “Where are the Electrons: Technology and Chemistry Instruction”, The Junior Honor’s Colloquium, UT Austin, Austin, Texas.
6. August 18, 2003 “Teaching Large Classes”, New Faculty Symposium, Center for Teaching Effectiveness, The University of Texas at Austin, Austin, Texas.
7. July 23, 2004 “Where are the Electrons: Technology and Chemistry Instruction”, The Junior Honor’s Colloquium, UT Austin, Austin, Texas.

8. October 1, 2008 “How to Study”, Faculty Fellow Seminar, Jester Dormitory, UT Austin, Austin, TX.
9. February 24, 2010 “How to Engage Students in Large Classes”, the Academy of Distinguished Teachers, the University of Texas at Austin, Austin, Texas.
10. November 17, 2010 “How to Engage Students in Large Classes”, the Department of Computer Science, the University of Texas at Austin, Austin, Texas.
11. November 3, 2014 “Reimagining the Undergraduate Core Curriculum at UT Austin”, Ohio State University, Given to campus leaders, Columbus, Ohio.
12. January 8, 2016 “Reimagining the Undergraduate Core Curriculum at UT Austin”, Lilly Conference, Austin, Texas
13. January 19, 2016 “Signature Courses at UT Austin”, Texas A&M International University, Given to the entire faculty, Laredo, Texas.
14. March 16, 2016 “Signature Courses at UT Austin”, the University of Notre Dame, Given to administrators, South Bend, Indiana.
15. March 26, 2016 “How to Get the Most from Your College Education”, TedX Talk, The University of Texas at Austin
16. April 21, 2016 “A Reimagined Core Curriculum at UT Austin” Legislative Campus Visit, The University of Texas at Austin

**Publications (2005-present):**

92. “Altering the Folding Patterns of Naphthyl Trimers”, Gabriel, G. J., Sorey, S., Iverson, B. L. *J. Am. Chem. Soc.*, 2005, 127; 2637-2640.\*
93. “Engineering of Protease Variants Exhibiting High Catalytic Activity and Exquisite Substrate Selectivity” Varadarajan, N., Gam, J., Olsen M.J., Georgiou, G., and Iverson, B.L., *Proc. Natl. Acad. Of Sci, USA*, 2005, 102, 6855-6860.\*
94. “Why High-error-rate Random Mutagenesis Libraries are Enriched in Functional and Improved Proteins” Drummond, D.A., Iverson, B.L., Georgiou, G., Arnold, F. J. *Mol. Bio.*, 2005, 350, 806-816.\*
95. “Evolution of highly active enzymes by homology-independent recombination” Griswold KE, Kawarasaki Y, Ghoneim N, Benkovic SJ, Iverson BL, Georgiou G. *Proc Natl Acad Sci U S A.*, 2005, 102(29) 10082-10087.\*
96. “Passive Protection Against Anthrax Using a High Affinity Anti-Toxin Antibody, Fragment Lacking An Fc Region” Mabry, R., Rani, M., Geiger, R., Hubbard, G.B., Carrion R., Jr., Brasky, K., Patterson, J.L., Georgiou, G., Iverson, B.L., *Infection and Immunity*, 2005, 73, 8362-8368.\*
97. “Tunable Columnar Mesophases Utilizing C2 Symmetric Aromatic Donor-Acceptor Complexes”, Reczek, Joseph J., Villazor, Karen R., Lynch, Vincent, Swager, Timothy M., Iverson, Brent L. *J. Am. Chem. Soc.*, 2006, 128; 2637-2640.\*
98. “Detection of Anthrax Toxin in the Serum of Animals Infected with *Bacillus anthracis* by Using Engineered Immunoassays” Mabry, Robert Brasky, Kathleen, Robert Geiger, Robert, Ricardo Carrion, Ricardo Jr., Hubbard, Gene B., Stephen, Leppla, Patterson, Jean L., Georgiou, George, and Iverson, B. L. *Clinical and Vaccine Immunology*, 2006, 13, 671–677.\*
99. “Synthesis and DNA binding studies of bis-intercalators with a novel spiro-cyclic linker.” Chu,

- Yongjun; Lynch, Vincent; Iverson, Brent L.. *Tetrahedron* 2006, 62, 5536-5548.\*
100. "Using Aromatic Donor Acceptor Interactions to Affect Macromolecular Assembly", Reczek, Joseph J.; Iverson, Brent L. *Macromolecules*, 2006, 39, 5601-5603. \*
  101. "Engineering of recombinant antibody fragments to methamphetamine by anchored periplasmic expression." Harvey B.R.; Shanafelt A.B.; Baburina I.; Hui R; Vitone S.; Iverson B.L.; Georgiou G., *J Immunol Methods* 2006, 308, 43-52.\*
  102. "The Evolution of Catalytic Efficiency and Substrate Promiscuity in Human Theta Class 1-1 Glutathione Transferase," Griswold, K.E., Aiyappan, N.S., Iverson, B.L., Georgiou, G. *J. Mol Biol.*, 2006, 364, 400-410.\*
  103. "Assembly of Multimeric Phage Nanostructures Through Leucine Zipper Interactions," Sweeney, R.Y., Park, E.Y., Iverson, B.L., and Georgiou, G. *Biotechnology and Bioengineering* 2006, 95, 539-545.\*
  104. "Substrate specificity of the Escherichia coli outer membrane protease OmpP," Hwang BY, Varadarajan N, Li H, Rodriguez S, Iverson BL, Georgiou G. *J Bacteriol.* 2007, 189(2):522-30.\*
  105. "Screening of threading bis-intercalators binding to duplex DNA by electrospray ionization tandem mass spectrometry," Mazzitelli CL, Chu Y, Reczek JJ, Iverson BL, Brodbelt JS. *J Am Soc Mass Spectrom.* 2007, 18(2):311-21.\*
  106. "Structural characterization of a rigidified threading bisintercalator," Chu Y, Sorey S, Hoffman D.W., Iverson BL. *J Am Chem Soc.* 2007,129(5):1304-11.\*
  107. "Isolation of trans-acting genes that enhance soluble expression of scFv antibodies in the E. coli cytoplasm by lambda phage display," Levy R, Molineux IJ, Iverson BL, Georgiou G. *J Immunol Methods.* 2007, 321(1-2):164-73.\*
  108. "Isolation of engineered, full-length antibodies from libraries expressed in Escherichia coli," Mazor Y, Van Blarcom T., Mabry R., Iverson B.L., Georgiou G. *Nat Biotechnol.* 2007, 25(5), 563-565.
  109. "APEX 2-hybrid, a quantitative protein-protein interaction assay for antibody discovery and engineering," Jeong KJ, Seo MJ, Iverson BL, Georgiou G. *Proc Natl Acad Sci U S A.* 2007, 104(20):8247-52.
  110. "Binding and Enrichment of *E. coli* Spheroplasts Expressing Inner Membrane Tethered ScFv Antibodies on Surface Immobilized Antigens, Jung, S. T., Jeong, K.J., Iverson, B.L., Georgiou, G., *Biotechnology and Bioengineering*, 2007, 98, 39-47.\*
  111. "Amyloid-like Behavior in Abiotic, Amphiphilic Foldamers" Bradford, V.J. and Iverson, B.L., *J. Am. Chem. Soc.*, 2008, 130(1), 1517-1524.\*
  112. "Substrate Specificity of Human Kallikreins 1 and 6 Determined by Phage Display", Li, H.X., Hwang, B.Y., Laxmikanthan G., Blaber S.I., Blaber M., Golubkov P.A., Ren P., Iverson B.L., Georgiou, G., *Protein Science*, 2008, 17, 664-672.
  113. "Highly Active and Selective Endopeptidases with Programmed Substrate Specificities", Varadarajan, N., Rodriguez, S., Hwang, B.W., Georgiou, G., Iverson B.L., *Nature Chem. Biology*, 2008, 4, 290-294.
  114. "Synthetic Antibody Libraries Focused Towards Peptide Ligands", Cobaugh, C.W., Almagro, J.C., Pogson, M., Iverson, B.L., Georgiou, G., *Journal of Molecular Biology*, 2008, 378, 622-633.

115. “Engineering antibody fragments to fold in the absence of disulfide bonds”, Seo, M, Jeong, K.J., Leysath, C.E., Ellington, A.D., Iverson, B.L., Georgiou, G., *Protein Science*, 2008, 18, 259-267.\*
116. “E-clonal antibodies: selection of full-length IgG antibodies using bacterial periplasmic display”, Yariv Mazor, Y., Van Blarcom, T., Iverson, B.L., Georgiou, G., *Nature Protocols*, 2008, 3, 1766-1777.\*
117. “An Engineered Protease that Cleaves Specifically After Sulfated Tyrosine”, Varadarajan, N., Georgiou, G., Iverson B.L., *Angewandte Chemie-Int. Ed.*, 2008, 47, 7861-7863.
118. “A Pseudocatenane Structure Formed between DNA and a Cyclic Bisintercalator”, Chu, Y., Hoffman, D.W., and Iverson, B.L. *J. Am. Chem. Soc.*, 2009, 131, 3499-3508.\*
119. “Engineering next generation proteases”, Pogson, M., Georgiou, G., Iverson B.L., *Current Op. in Biotech.*, 2009, 20, 390-397.
120. “Proteases That Can Distinguish among Different Post-translational Forms of Tyrosine Engineered Using Multicolor Flow Cytometry” Varadarajan, N., Pogson, M., Georgiou, G., and Iverson, B.L. *J. Am. Chem. Soc.*, 2009, 131, 18186-18190.
121. “Crystal Structure of the Engineered Neutralizing Antibody M18 Complexed to Domain 4 of the Anthrax Protective Antigen”, Leysath, C.E., Monzingo, A.F., Maynard, J.A., Barnett, J., Georgiou, G., Iverson, B.L., and Robertus, J. *J. Mol. Bio.*, 2009, 387, 680-693.
122. “Construction and flow cytometric screening of targeted enzyme libraries” Navin Varadarajan, N., Cantor, J.R., Georgiou, G., Iverson, B.L., *Nature Protocols*, 2009, 4, 893-901.\*
123. “Replacing Mn<sup>2+</sup> with Co<sup>2+</sup> in Human Arginase I Enhances Cytotoxicity toward L-Arginine Auxotrophic Cancer Cell Lines”, Stone, E.M., Glazer, E.S., Chantranupong, L., Cherukuri, P., Breece, R.M., Tierney, D.L., Curley, S.A., Iverson, B.L., Georgiou, G., *ACS Chem. Biol.*, 2010, 5, 333-342.\*
124. “Monoclonal antibodies isolated without screening by analyzing the variable-gene repertoire of plasma cells”, Reddy, S. T., Ge, X., Miklos, A.E., Hughes, R.A., Kan, S.H., Hoi, K.H., Chrysostomou, C., Hunicke-Smith, S.P., Iverson, B.L., Tucker, P.W., Ellington, A.D., and Georgiou, G. *Nature Biotechnology*, 2010, 28, 965-968.\*
125. “A Systematic Study of Thermochromic Aromatic Donor-Acceptor Materials”, Alvey, P.M., Reczek, J.J., Lynch, V. and Iverson, B.L., *Journal of Org. Chem.*, 2010, 75, 7682-7690.\*
126. “Therapeutic Enzyme Deimmunization by Combinatorial T-cell Epitope Removal Using Neutral Drift”, Cantor, JR; Yoo, TH ; Dixit, A ; Iverson, BL; Forsthuber, TG ; Georgiou, G, *Proc Natl Acad Sci U S A*. 2011, 108(4), 1272-1277.\*
127. “Laboratory Evolution of Glutathione Biosynthesis Reveals Natural Compensatory Pathways”, Veeravalli, K.; Boyd, D.; Iverson, B. L.; Beckwith. J.; Georgiou. G., *Nature Chemical Biology*, 2011, 7, 101–105. \*
128. “A sequence-specific threading tetra-intercalator with an extremely slow dissociation rate constant”, Holman, G.; Zewail-Foote, M.; Rhoden Smith. A.; Johnson, K.A.; Iverson, B.L.; 2011, *Nature Chemistry* 3, 875–881.\*
129. “Development of reagents and assays for the detection of pathogenic Burkholderia species”, Qazi, O.; Gnanam, AJ, Cullen, TW, Stead, C.M.; Kensing, H, McCaul, K Ngugi, S. ; Prior, JL ; Lipka, A Nagy, JM ; Whitlock, GC ; Judy, B.M.; Harding, SV.; Titball, RW.; Sidhu, SS.; 10; Trent, MS.; Kitto, GB. ; Torres, A .; Estes, DM .; Iverson, B .; Georgiou, G and Brown, KA; 2011, *Faraday Discussions*, 149, 23-36.



130. “Rethinking the term ‘pi-stacking’”, Martinez, C. and Iverson, B. 2012, *Chem. Sci.*, **3**, 2191-2201.\*
131. “Directed Evolution of Highly Selective Proteases by Using a Novel FACS-based Screen that Capitalizes on the p53 Regulator MDM2”, Yoo, Y.-H.; Pogson, M.; Iverson, B.; and Georgiou, G., 2012, *ChemBioChem*, **13**, 649-653.\*
132. “Subtle Recognition of 14-Base Pair DNA Sequences via Threading Polyintercalation”, Rhoden Smith, A.; Ikkanda, B.A.; Holman, G. and Iverson, B.L.; 2012, *Biochemistry*, **51**, 4445–4452.\*
133. “Reactions of Brominated Naphthalene Diimide with Bis(tributylstannyl)acetylene: A Simple Approach for Conjugated Polymers and Versatile Coupling Intermediates”, Alvey, Paul M. and Iverson, B.L. 2012, *Org. Letters*, **14**, 2706-2709.\*
134. “Conjugated NDI-Donor Polymers: Exploration of Donor Size and Electrostatic Complementarity”, 2013, *Macromolecules*, **46**, 718-726.\*
135. “Commercial Proteases: Present and future”, Li, Q.; Yi, L.; Marek, P.; Iverson, B. 2013, *FEBS Letters*, **587**, 1155-1163.\* Doi: 10.1016/j.febslet.2012.12.019.
136. “Engineering of TEV protease variants by yeast ER sequestration screening (YESS) of combinatorial libraries”, Yi, L., Gebhard, M.C., Li, Q., Taft, J., Georgiou, G. and Iverson, B.L., 2013, *Proc. Nat. Acad. Of Sci. USA*, **110**, 7229-7234. \* PMID 23589865 PMCID: [PMC3645551](https://pubmed.ncbi.nlm.nih.gov/23589865/) DOI:[10.1073/pnas.1215994110](https://doi.org/10.1073/pnas.1215994110)
137. “More than Meets the Eye: Conformational Switching of a Stacked Dialkoxynaphthalene Naphthalenetetracarboxylic diimide (DAN–NDI) Foldamer to an NDI–NDI Fibril Aggregate”, Peebles, C., Piland, R., and Iverson, B.L. 2013, *Chemistry, a European Journal*, **19**, 11598–11602\* DOI: 10.1002/chem.201302009.
138. “Threading Polyintercalators with Extremely Slow Dissociation Rates and Extended DNA Binding Sites”, Rhoden Smith, A. and Iverson, B.L. 2013, *J. Am. Chem. Soc.*, **135**, 12783-12789. DOI: 10.1021/ja4057344.
139. “Time-Dependent Solid-State Polymorphism of a Series of Donor–Acceptor Dyads” Peebles, C., Alvey, P.M., Lynch, V. and Iverson, B.L., 2014 *Cryst. Growth and Design*, **14** 290–299. DOI: 10.1021/cg401522v.
140. “NDI and DAN DNA: Nucleic Acid Directed Assembly of NDI and DAN”, Ikkanda, B. and Iverson B.L., 2014, *J. Org. Chem.*, **79**, 2029–2037.\* DOI: 10.1021/jo402704z.
141. “Yeast Endoplasmic Reticulum Sequestration Screening for the Engineering of Proteases from Libraries Expressed in Yeast,” Yi, L., Taft, J.M., Li, Q., Gebhard, M.C., Georgiou, G., Iverson, B.L. *Methods Mol Biol.* 2015, 1319:81-93. DOI: 10.1007/978-1-4939-5748-7\_5.
142. “NDI Foldamers, Assemblies and Conformational Switching”, Peebles, C. and Iverson B.L., a book chapter submitted to “Naphthalenediimide and its Congeners: From Molecules to Materials”, Santos, D. editor.
143. “NDI as a DNA Intercalator”, Rhoden Smith, A. and Iverson B.L., a book chapter submitted to “Naphthalenediimide and its Congeners: From Molecules to Materials”, Santos, D. editor.
144. “Exploiting the Interactions of Aromatic Units for Folding and Assembly in Aqueous Environments”, Ikkanda, B.A and Iverson, B.L. *Chem Commun.*, 2016, **52**, 7752-7759. PMID: 27080050; DOI: 10.1039/c6cc01861k

145. "Profiling Protease Specificity: Combining Yeast ER Sequestration Screening (YESS) with Next Generation Sequencing," Li, Q., Yi, L., Hoi, KH., Marek, P., Georgiou, G., Iverson, B.L. ACS Chem Biol. 2017, 12(2):510-518. DOI:10.1021/acscchembio.6b00547.
146. "Characterization of aromatic residue-controlled protein retention in the endoplasmic reticulum of *Saccharomyces cerevisiae*," Mai, M., Zhai, C., Li, X., Zhou, T., Peng, W., Ma, L., Wang, Q., Iverson, B.L., Zhang, G., Yi, L. J. Biol. Chem., 2017 292(50):20707-20719. DOI: 10.1074/jbc.M117.812107. PMID: 29038295.

**Professionally Related Activities:**

I am the lead author of the Organic Chemistry textbook by Cengage along with Bill Brown, Chris Foote, and Eric Anslyn. The 6<sup>th</sup> Edition was released in 2011, the 7<sup>th</sup> edition was released in the spring of 2013 and the current 8<sup>th</sup> edition was released in 2017.

**Patents Issued:**

1. "Polyvalent Metal Ion-Containing Antibody Combining Sites" (Patent #5236825)
2. "Sapphyrin Derivatives And Conjugates" (Patent #5457195) Licensed to Pharmacyclics, Inc.
3. "Sapphyrin Chelator Derivatives" (Patent #5530123) Licensed to Pharmacyclics, Inc.
4. "Texaphyrin Metal Complex Mediated Ester Hydrolysis" (Patent # 5559207) Licensed to Pharmacyclics, Inc.
5. "Methods of Expanded Porphyrin-Oligonucleotide Conjugate Synthesis" (Patent #5565552) Licensed to Pharmacyclics, Inc.
6. "Texaphyrin and Uses Thereof" (Patent # 5567687) Licensed to Pharmacyclics, Inc.
7. "Texaphyrin Solid Supports and Devices" (Patent # 5594136) Licensed to Pharmacyclics, Inc.
8. "Chromophore Probe for Detection of Nucleic Acids" (Patent #5595726) Licensed to Pharmacyclics, Inc.
9. "DNA Photocleavage Using Texaphyrins" (Patent # 5607924) Licensed to Pharmacyclics, Inc.
10. "Phosphoramidite Derivatives of Texaphyrins" (Patent # 5633354) Licensed to Pharmacyclics, Inc.
11. "Method of Cleaving DNA" (Patent # 5672490) Licensed to Pharmacyclics, Inc.
12. "Method for Separating Molecules" (Patent # 5744302) Licensed to Pharmacyclics, Inc.
13. "Matrix Supported Sapphyrins" (Patent # 5808059) Licensed to Pharmacyclics, Inc.
14. "In vitro Scanning Saturation Mutagenesis of Proteins" (Patent # 6180341) Licensed to Virosys, Inc.
15. "Antibodies with Increased Affinities for Anthrax Antigens" (Patent # 6916474) Licensed to Elusys, Inc.
16. "Isolation of Binding Proteins with High Affinity to Ligands" (Patent # 7083945).
17. "Combinatorial Protein Library Screening by Periplasmic Expression" (Patent # 7094571) Licensed to Eli Lilly, Inc., Pfizer, Merck, and Virosys, Inc.
18. "Recombinant Antibodies for the Detection and Neutralization of Anthrax Toxin", (Patent # 7,446,182) Licensed to Elusys, Inc.
19. "Selection of Bacterial Inner-Membrane Anchor Polypeptides", (Patent #7611866)
20. "Isolation of Binding Proteins with High Affinity to Ligands" (Patent # 7871796 division of patent #7083945).
21. "Antibodies with Increased Affinities for Anthrax Antigens" (Patent # 7902344 division of patent #6916474) Licensed to Elusys, Inc.
22. "Method for Engineering Proteases and Protein Kinases" (Patent # 8,945,855)
23. "Method for Engineering Proteases and Protein Kinases" (Patent # 9,546,359 division of patent # 8945855)

**Patents Currently Pending:**

1. "Directed Evolution of Enzymes and Antibodies" Iverson, B.L., Georgiou, G., Chen, G., Olsen, M.J., Daugherty, P.S.
2. "Immunoassay and Antibody Selection Methods Using Cell Surface Expressed Antibodies" Iverson, B.L., Georgiou, G., and Chen, G.
3. "Antibody Fragments for Anthrax Protective Antigen Compositions and Methods of Use Thereof", Iverson, B.L. and Georgiou, G.

**National Service:**

1. Member Award Programs Advisory Committee, Research Corporation for Science Advancement, Tucson, Arizona; 1998-2005.
2. Member Bioorganic and Natural Products NIH Study Section; 1998-2003
3. Member, Board of Directors, Research Corporation for Science Advancement, Tucson, Arizona; 2005-present (<http://www.rescorp.org>).
4. Member, National Advisory Committee, Camp Kesem, 2016-present (<http://campkesem.org>)
5. Member, National Board of Directors, Camp Kesem, 2018-present

**Consulting:**

1. Pharmacyclics, Inc., Santa Clara, California; 1992-1998
2. Maxygen, Inc; 2001-2003
3. Member Scientific Advisory Board, Ambion Inc., Austin, Texas; 1995-2003.