#### Jeffrey Aubé

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#### Education

NIH Postdoctoral Fellow, Yale University, 1984-1986. Advisor: Samuel J. Danishefsky PhD, Chemistry, 1984; Duke University, Durham, North Carolina. Advisor: Steven W. Baldwin B.S., Chemistry, magna cum laude, 1980; University of Miami, Coral Gables, Florida

#### Positions

University of North Carolina, UNC Eshelman School of Pharmacy Eshelman Distinguished Professor, 2015-present Professor, Department of Chemistry (joint), 2015-present Program Director, UNC Chemical Biology Interface Training Program, 2021-present Member, Center for Integrated Chemical Biology and Drug Discovery, UNC, 2015-present Member, Lineberger Cancer Center, UNC, 2019-present University of Kansas, Department of Medicinal Chemistry, School of Pharmacy Adjunct Professor, 2015–2020 University Distinguished Professor, 2012–2015 Interim chair, 2003–2005 Professor, 1996–2012 Associate Professor, 1992–1996 Assistant Professor, 1986–1992 Leader, Drug Discovery, Development, and Experimental Therapeutics division, KU Cancer Center, 2012–2014. Member, KU Masonic Cancer Center, 2008–2015 Director, Synthesis Core, KU Center for Cancer Experimental Therapeutics, 2009–2015 Director, KU Specialized Chemistry Center, 2008–2015 Director and co-PI, Atlantis Dual Degree Program, 2006–2011 Director, KU Chemical Methodologies and Library Design Center, 2003–2015 Center for Teaching Excellence, University of Kansas, Interim Director, 2001–2002 Visiting Professor, University of Innsbruck, Innsbruck, Austria, 1997 Invited Professor, University of Rennes I, Rennes, France, 1993

#### **Scholarly and Professional Awards**

Edward Leete Award, Division of Organic Chemistry, American Chemical Society, 2017 Midwest Award, St. Louis Section of the American Chemical Society, 2012 ACS Fellow, American Chemical Society, selected 2012 Arthur C. Cope Scholar, American Chemical Society, 2012 Leading Light Award, University of Kansas, 2012 Sato International Award, Pharmaceutical Society of Japan, 2011 Nikolai N. Khaladjan International Award for Innovation in Higher Education, American Association of University Administrators, 2008 Fellow, American Association for the Advancement of Science, 2004

Olin Petefish Award for Research in the Basic Sciences, Higuchi/Endowment Research Achievement Award, University of Kansas, 2001
Fellow, Japanese Society for the Promotion of Science, 1996
Phi Beta Kappa, honorary member, 1996
American Cyanamid Faculty Award in Organic Chemistry, 1993
Alfred P. Sloan Research Fellow, 1993-1995
Eli Lilly Grantee, 1989-1991

# **Teaching Awards**

W. T. Kemper Fellowship for Teaching Excellence, University of Kansas, 1997 (university-wide teaching award; 20 awarded annually)

Outstanding Graduate Mentor Award, Graduate and Professional Organization, University of Kansas, 1996

Honors for Outstanding Progressive Educator award (HOPE Award), University of Kansas, 1994 (university-wide teaching award; 1 awarded annually)
•HOPE Award Finalist, 1993

•HOPE Award Finalist, 1990

Rho Chi Award for Teaching Excellence, School of Pharmacy, University of Kansas, 1990, 1999

### **Scholarships and Fellowships**

National Institutes of Health Postdoctoral Fellow, 1984–1986 American Cancer Society Postdoctoral Fellow (declined) C.R. Hauser Fellow, Duke University, 1983–1984 James B. Duke Fellow, Duke University, 1980–1983 University Scholar, University of Miami, 1976–1980

# **Professional Service and Affiliations**

American Chemical Society Member, Divisions of Organic and Medicinal Chemistry Medicinal Chemistry Division Award Committee, 1995-1997 (Chair, 1997) Medicinal Chemistry Division, Academic Councilor, 2001-2004, 2004-2008 Division of Organic Chemistry, Alternate Councilor, 2014–2016, 2017–2019 Division of Organic Chemistry, Chair-Elect/Chair/Past Chair, 2017-2020 National ACS Award Committees, 2021, 2022 International Society of Heterocyclic Chemistry President-elect, 2006; President, 2008-2009; Past President 2010-2012 American Association of Colleges of Pharmacy Member, 2013–present American Association for the Advancement of Science Secretary, Chemistry Section, 1995–2003 **Editorial** positions Guest Editor, Symposium-in-Print on Peptides and Peptidomimetics, *Tetrahedron*, 2000, 56(50), pp 9725-9841 Managing Editor, Chemtracts-Organic Chemistry, 1987-2001 Associate Editor, Beilstein Journal of Organic Chemistry, 2009–2020

Board of Editors, Organic Reactions, 2013-2019 Associate Editor, ACS Medicinal Chemistry Letters, 2021-present **Editorial Advisory Boards** Current Topics in Medicinal Chemistry, 2001–2005 Chemical Biology & Drug Design, 2006–2011 ACS Medicinal Chemistry Letters, 2010-present International Advisory Board, European Journal of Organic Chemistry, 2010-present ACS Combinatorial Science, 2011–2020 ACS Sustainable Chemistry & Engineering, 2013–2020 Cancer Research, 2013–2016 Scientific Consultant Oread Laboratories, 1988–1997 Emisphere Technologies, Organic/Medicinal Chemistry Advisory Board, 1999-2001 Newbiotics, 2001 Ensemble Discovery, 2004–2006 Amgen, 2005-2007 Various expert witness consultancies and depositions, 2003-present Gordon Research Conference on Heterocyclic Compounds, Chair, 1995; Vice-Chair, 1994

### University/School Service (selected)

University of North Carolina UNC Eshelman School of Pharmacy, Dean Search Committee, 2018 Center for Integrated Drug Discovery and Chemical Biology, Director Search committee (chair), 2019–2020 Assigned Junior Faculty/Trainee Mentoring Lindsay James (Campbell), 2019-present Abigail Knight (Chemistry), 2018-present Juliane Nguyen (Campbell), 2019–2021 Sidney Wilkerson-Hill (Chemistry), 2018-present Charles K. Vorkas (Memorial Sloan Kettering Cancer Center, K08 NIH trainee), 2018– present (CKV moved to SUNY Stony Brook as an assistant professor in 2021) School of Pharmacy Accreditation Self-Study, co-chair, 2001 Review of General Assessment at University of Kansas (Process Committee), chair, 2000-2001 Initiative 2001 Task Force, University of Kansas, 1998-2000 Pew Roundtable member, University of Kansas, 1997 Faculty co-advisor, Academy of Students of Pharmacy, 1996-2002 University of Kansas (selected promotion and search committees, out of >50) University Promotion and Tenure committee, 2002 Chair, School of Pharmacy Dean Search Committee, 2003–2004 Chair, Provost Search Committee, 2005–2006 Member, Chancellor Search Committee, 2009

# **Scientific Reviewing Activities**

National Institutes of Health, reviewer (ad hoc except where noted) NCI site-visit team, 1994 Study section, minority predoctoral fellowships, 1994

Study section, small business initiative grants, 1994, 1998–2005 Study section, minority bioscience research grants, 1995, 1998, 2001, 2004, 2006 Study section, bioorganic and natural products, 1998 Study section, medicinal chemistry A, 2002 Special study section B, 2000 Study section, SBCA, 2006 Regular member, SBCA study section, 2007-2010 Chair, SBCA study section, 2010–2012 Study section (special emphasis panel), Technology Centers for Networks and Pathways, 2009 Study section, pre- and postdoctoral fellowships, 2015 Study section (special emphasis panel), MIRA awards, 2016, 2018, 2020 (chair), 2021 (chair), 2022 (chair) Study section, High-throughput Discovery and Validation of Novel Signal Transducers or Small Molecules that Modulate Opioid or other Substance Use Disorder Relevant Pathways, 2022 (chair) National Science Foundation Research grants, review panels, 2014, 2015 Research grants, mail reviews, 2016 U.S. Army Breast Cancer Research Program Reviewer, 1998, 1999, 2000, 2001, 2006, 2007 U. S. Army Prostate Cancer Research Program Reviewer, 2000 American Heart Association Reviewer, 2001 American Cancer Society Ad hoc reviewer, 2003 Study section member, 2004-2007 U.S. Civilian Research and Development Foundation, reviewer, 2003 National Cancer Institute, NExT Program External program review, panel member, 2015 SMARTT program, Research Triangle Institute Reviewer, 2016 German Research Foundation Reviewer, 2016 Research Council of Norway Reviewer, 2016 **European Research Council** Consolidator, 2022

#### Publications

Peer-reviewed research publications (training period)

- "Deprotonations, Conjugate Additions, and Enolate Trapping of Oxime Ethers and Dimethylhydrazones Using KDA. The Effect of Diisopropylamine on Enolate Trapping." R.E. Gawley, E.J. Termine, and J. Aubé, *Tetrahedron Letters*, **1980**, 3115–3119.
- 2. "Regiochemistry in the Intramolecular Cycloadditions of Substituted 5–Alkenyl and 6– Alkenyl Nitrones." S.W. Baldwin, J.D. Wilson, and J. Aubé, *Journal of Organic Chemistry*, **1985**, *50*, 4432–4439.
- 3. "Stereospecific Synthesis and Ring Closure of a Racemic Actinospectose Equivalent: A Concise Route to the Spectinomycin Series." Samuel Danishefsky, Jeffrey Aubé, and Mark Bednarski, *Journal of the American Chemical Society*, **1986**, *108*, 4145–4149.
- 4. "Asymmetric Synthesis With Chiral Hydroxylamines. Synthesis of Optically Pure 4– Substituted Azetidinones." S.W. Baldwin and J. Aubé, *Tetrahedron Letters*, **1987**, *28*, 179–182.

Peer-reviewed research publications (University of Kansas)

- 5. "Selectivity in an Asymmetric Nitrogen Insertion Process." Jeffrey Aubé, Paul M. Burgett, and Yuguang Wang, *Tetrahedron Letters*, **1988**, *29*, 151–154.
- 6. "An Enantioselective Synthesis of (–)-Alloyohimbane." Jeffrey Aubé, *Tetrahedron Letters*, **1988**, *29*, 4509–4512.
- "Diastereotopic Group Selectivity in the Deprotonation of (η–Arene)Cr(CO)<sub>3</sub> Complexes." Joseph A. Heppert, M. Elizabeth Thomas–Miller, Michael L. Milligan, David Vander Velde, and Jeffrey Aubé, Organometallics, 1988, 7, 2581–2584.
- 8. "Unusual Spectroscopic and Conformational Properties of Some Spirocyclic Oxaziridines." Jeffrey Aubé and Yuguang Wang, *Tetrahedron Letters*, **1988**, *29*, 6407–6408.
- 9. "A Convenient Preparation of 2–[<sup>15</sup>N]–Amino–4,6–dimethoxypyrimidine." Thomas K. Spencer, Gunda I. Georg, and Jeffrey Aubé, *Journal of Radiolabelled Compounds and Radiopharmaceuticals*, **1990**, *28*, 433–436.
- "Diastereotopic Group Selective Reactions at π–Arene Chromium Derivatives: Deprotonation and Nucleophilic Addition Reactions of Substrates Bearing Benzylic Chiral Centers." Joseph A. Heppert, Jeffrey Aubé, M. Elizabeth Thomas–Miller, Michael L. Milligan, and Fusao Takusagawa, *Organometallics*, **1990**, *9*, 727–739.
- 11. "Synthetic Aspects of an Asymmetric Nitrogen Insertion Process: Preparation of Chiral, Non–Racemic Caprolactams and Valerolactams. Total Synthesis of (–)–Alloyohimbane." Jeffrey Aubé, Yuguang Wang, Marlys Hammond, Mehmet Tanol, Fusao Takusagawa, and David Vander Velde, *Journal of the American Chemical Society*, **1990**, *112*, 4879–4891.
- 12. "Directed Regiochemical Control in the Ring Expansion Reactions of a Substituted *trans*–Decalone." Jeffrey Aubé and Marlys Hammond, *Tetrahedron Letters*, **1990**, *31*, 2963–2966. Correction: *Ibid*. **1992**, *33*, 1246.

- 13. "Syntheses and Reactions of Spirocyclic Oxaziridines Derived from Unsymmetrical Ketones." Jeffrey Aubé, Marlys Hammond, Elyse Gherardini, and Fusao Takusagawa, *Journal of Organic Chemistry*, **1991**, *56*, 499–508. Correction: J. Org. Chem. **1991**, *56*, 4086.
- 14. "Oxaziridine–Mediated Ring Expansions of Substituted Cyclobutanones: Synthesis of (–)– $\gamma$ –Amino– $\beta$ –(*R*)–hydroxybutyric Acid (GABOB)." Jeffrey Aubé, Yuguang Wang, Shomir Ghosh and Kendra L. Langhans, *Synthetic Communications*, **1991**, *21*, 693–701.
- 15. "Diastereoselectivity in the Intramolecular Cycloaddition Reactions of Nitrones Derived from 5–Alkenals and Chiral Hydroxylamines." S.W. Baldwin, R.B. McFadyen, J. Aubé and J.D. Wilson, *Tetrahedron Letters*, **1991**, *32*, 4431–4434.
- 16. "Studies Directed at the Synthesis of Optically Active Pretazettine via Intramolecular Nitrone/Alkene Cycloaddition Reactions." S.W. Baldwin, J. Aubé, and A.T. McPhail, *Journal of Organic Chemistry*, **1991**, *56*, 6546–6550.
- 17. "Intramolecular Schmidt Reaction of Alkyl Azides." Jeffrey Aubé and Gregory L. Milligan, *Journal of the American Chemical Society*, **1991**, *113*, 8965–8966.
- 18. "TiCl<sub>4</sub>–Mediated Reactions of Alkyl Azides and Cyclic Ketones." Jeffrey Aubé, Gregory L. Milligan, and Craig J. Mossman, *Journal of Organic Chemistry*, **1992**, *57*, 1635–1637.
- "Asymmetric Deprotonation and Complexation Reactions Mediated by Chiral Ketals as a Route to Substituted (η<sup>6</sup>–Arene)Cr(CO)<sub>3</sub> Complexes." Jeffrey Aubé, Joseph A. Heppert, Michael L. Milligan, Mary Jane Smith, and Paul Zenk, *Journal of Organic Chemistry*, **1992**, *57*, 3563–3570.
- 20. "New Copper(I)–Catalyzed Reactions of Oxaziridines: Stereochemical Control of Product Distribution." Jeffrey Aubé, Xin Peng, Yuguang Wang, and Fusao Takusagawa, *Journal of the American Chemical Society*, **1992**, *114*, 5466–5467.
- 21. "A Divergent Route to Lactam–Based Dipeptidyl Building Blocks." Jeffrey Aubé and Michael S. Wolfe, *Bioorganic and Medicinal Chemistry Letters*, **1992**, *2*, 925–928.
- 22. "Synthesis of Enantiopure *N-tert*-Butoxycarbonyl-2-aminocycloalkanones." Jeffrey Aubé, Michael S. Wolfe, Rhonda K. Yantiss, Scott M. Cook, and Fusao Takusagawa, *Synthetic Communications*, **1992**, *22*, 3003–3012.
- 23. "(2*S*, 3*S*, 5*S*)– and (2*S*, 3*S*, 5*R*)–5–Carboxaldehyde–2,3–diphenyl–1,4–dioxane as Surrogates for Optically Pure 2,3–*O*–Isopropylideneglyceraldehyde in Asymmetric Synthesis." Jeffrey Aubé, Craig J. Mossman, and Susan Dickey, *Tetrahedron*, **1992**, 48, 9819–9826.
- "The Internal Quaternary Ammonium Receptor Site of *Shaker* Potassium Channels." Kathleen L. Choi, Craig Mossman, Jeffrey Aubé, and Gary Yellen, *Neuron*, 1993, 10, 533–541.
- 25. "Application of the Intramolecular Schmidt Reaction to the Asymmetric Synthesis of (–)– Indolizidine 209B from Pulegone." Jeffrey Aubé, Pat S. Rafferty, and Gregory L. Milligan, *Heterocycles*, **1993**, *35*, 1141–1147.
- 26. "The First Synthesis of a C–9 Carbonyl Modified Baccatin III Derivative and Its Conversion to Novel Taxol<sup>®</sup> and Taxotere<sup>®</sup> Analogues." Apurba Datta, Jeffrey Aubé, Gunda I. Georg, Lester A. Mitscher, and Lalith R. Jayasinghe, *Bioorganic and Medicinal Chemistry Letters*, **1994**, *4*, 1831–1834.

- 27. "Symmetry–Driven Synthesis of Indole Alkaloids: Asymmetric Total Syntheses of (+)– Yohimbine, (–)–Yohimbone, (–)–Yohimbane, and (+)–Alloyohimbane." Jeffrey Aubé, Shomir Ghosh, and Mehmet Tanol, *Journal of the American Chemical Society*, **1994**, *116*, 9009–9018.
- 28. "Synthesis of *cis*–δ–Phenylmethyl–D–Proline Using a Nitrogen–Centered Radical Derived From a Chiral Oxaziridine." Jeffrey Aubé, Belgin Gülgeze, and Xin Peng, *Bioorganic and Medicinal Letters*, **1994**, *4*, 2461–2464.
- 29. "Synthesis of 13–*epi*–Taxol via a Transannular Delivery of a Borohydride Reagent." Michael Z. Hoemann, David Vander Velde, Jeffrey Aubé, Gunda I. Georg, and Lalith R. Jayasinghe, *Journal of Organic Chemistry*, **1995**, *60*, 2918–2921.
- "Structural Analysis of β-Turn Mimics Containing a Substituted 6-Aminocaproic Acid Linker." Osamu Kitagawa, David Vander Velde, Dinah Dutta, Martha Morton, Fusao Takusagawa, and Jeffrey Aubé, *Journal of the American Chemical Society*, 1995, 117, 5169–5178.
- 31. "An Efficient Nitrogen Ring-Expansion Process Facilitated by in situ Tethering of an Alkyl Azide to Ketones. An Asymmetric Schmidt Reaction." Vijaya Gracias, Gregory L. Milligan, and Jeffrey Aubé, *Journal of the American Chemical Society*, **1995**, *117*, 8047– 8048.
- 32. "Novel Cytotoxic 3'–(*tert*–Butyl)–3'–dephenyl Analogs of Paclitaxel and Docetaxel." Syed M. Ali, Michael Z. Hoemann, Jeffrey Aubé, Lester A. Mitscher, Gunda I. Georg, Randy McCall, and Lalith R. Jayasinghe, *Journal of Medicinal Chemistry*, **1995**, *38*, 3821–3828.
- 33. "Intramolecular Schmidt Reactions of Alkyl Azides with Ketones: Scope and Stereochemical Studies." Gregory L. Milligan, Craig J. Mossman, and Jeffrey Aubé, *Journal of the American Chemical Society*, **1995**, *117*, 10449–10459.
- 34. "Conformational Analysis and Structural Elucidation of Spirocyclic Oxaziridines Using NMR, Crystallography, and Molecular Modeling." Yoshinosuke Usuki, Yuguang Wang, and Jeffrey Aubé, *Journal of Organic Chemistry*, **1995**, *60*, 8028–8035.
- 35. "Synthesis of Functionalized N–Alkyl Heterocycles from Ketones by a Sequential Ring Expansion/Nucleophilic Addition Sequence." Vijaya Gracias, Gregory L. Milligan, and Jeffrey Aubé, *Journal of Organic Chemistry*, **1996**, *61*, 10–11.
- 36. "Total Synthesis of Curacin A." Michael Z. Hoemann, Konstantinos A. Agrios, and Jeffrey Aubé, *Tetrahedron Letters*, **1996**, *37*, 953–956.
- 37. "Toward the Synthesis of Sparteine: Intramolecular Schmidt Reactions on a Norbornanone Platform." John A. Wendt and Jeffrey Aubé, *Tetrahedron Letters*, **1996**, *37*, 1531–1534.
- 38. "Intramolecular Schmidt Reactions of Alkyl Azides with Ketals and Enol Ethers." Craig J. Mossman and Jeffrey Aubé, *Tetrahedron*, **1996**, *52*, 3403–3408.
- 39. "One-Step Conversion of Aldehydes to Oxazolines and 5,6–Dihydro–4*H*–[1,3]–oxazines Using 1,2– and 1,3–Azido Alcohols." Jennifer G. Badiang and Jeffrey Aubé, *Journal of Organic Chemistry*, **1996**, *61*, 2484–2487.
- 40. "Butitaxel Analogues: Synthesis and Structure–Activity Relationships." Syed M. Ali, Michael Z. Hoemann, Jeffrey Aubé, Gunda I. Georg, Lester A. Mitscher, and Lalith R. Jayasinghe, *Journal of Medicinal Chemistry*, **1997**, *40*, 236–241.

- 42. "Total Synthesis of (+)–Curacin A, a Marine Cytotoxic Agent." Michael Z. Hoemann, Konstantinos A. Agrios, and Jeffrey Aubé, *Tetrahedron*, **1997**, *53*, 11087–11098. (Special Issue in Honor of Professor Samuel Danishefsky.)
- "Effect of Stereochemistry on the Transport of Aca–Linked β–Turn Peptidomimetics Across a Human Intestinal Cell Line." Kiyoshi Tamura, Konstantinos A. Agrios, David Vander Velde, Jeffrey Aubé, and Ronald T. Borchardt, *Bioorganic and Medicinal Chemistry*, **1997**, *5*, 1859–1866.
- 44. "Ring Expansion by in situ Tethering of Hydroxy Azides to Ketones: The Boyer Reaction." Vijaya Gracias, Kristine E. Frank, Gregory L. Milligan, and Jeffrey Aubé, *Tetrahedron*, **1997**, *53*, 16241–16252. (Symposium–in–Print on New Synthetic Methods V)
- 45. "Syntheses and Evaluation of Peptidyl Michael Acceptors That Inactivate Human Rhinovirus 3C Protease and Inhibit Virus Replication." Jian–she Kong, Shankar Venkatraman, Kelly Furness, Sanjay Nimkar, Timothy A. Shepard, Q. May Wang, Jeffrey Aubé, and Robert P. Hanzlik, *Journal of Medicinal Chemistry*, **1998**, *41*, 2579–2587.
- 46. "Lewis Acid–mediated Cyclizations of (2'-Amino-*N'-tert*-butoxycarbonylbenzylidene)-3alkenylamines." Kristine E. Frank and Jeffrey Aubé, *Tetrahedron Letters*, **1998**, *39*, 7239– 7242.
- 47. "Mannich Reactions Using Benzyl Azide as a Latent *N*-(Phenylamino)methylating Agent." Klaas Schildknegt, Konstantinos A. Agrios, and Jeffrey Aubé, *Tetrahedron Letters*, **1998**, *39*, 7687–7690.
- 48. "Reactions of Oxazolinium and Dihydrooxazinium Salts Prepared by an Azide Insertion Sequence: pH Control of Product Distribution." Jennifer E. Forsee, Brent T. Smith, Kristine E. Frank, and Jeffrey Aubé, *Synlett*, **1998**, 1258–1260.
- 49. "Design, Synthesis and Evaluation of Azapeptides as Substrates and Inhibitors for Human Rhinovirus 3C Protease." Shankar Venkatraman, Jian-she Kong, Sanjay Nimkar, Q. May Wang, Jeffrey Aubé, and Robert P. Hanzlik, *Bioorganic and Medicinal Chemistry Letters*, **1999**, 9, 577–580.
- 50. "Efficient Route To Azamacrolides From 1,2– or 1,3– Azido Alcohols and Macrocyclic Ketones." Jennifer E. Forsee and Jeffrey Aubé, *Journal of Organic Chemistry*, **1999**, 64, 4381–4385.
- 51. "1,7–Asymmetric Induction in a Nitrogen Ring Expansion Process Facilitated by in situ Tethering." Kelly Furness and Jeffrey Aubé, *Organic Letters*, **1999**, *1*, 495–497.
- 52. "Cyclizations of Substituted Benzylidene–3–alkenylamines: Synthesis of the Tricyclic Core of the Martinellines." Kristine E. Frank and Jeffrey Aubé, *Journal of Organic Chemistry*, **2000**, *65*, 655–666.
- "Regiocontrol in an Intramolecular Schmidt Reaction: Total Synthesis of (+)– Aspidospermidine." Rajesh Iyengar, Klaas Schildknegt, and Jeffrey Aubé, Organic Letters, 2000, 2, 1625–1627.

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- 54. "Synthesis and Conformation of Gly–Gly Dipeptides Constrained with Phenylalanine–Like Aminocaproic Acid Linkers." Mary MacDonald, David Vander Velde, and Jeffrey Aubé, *Organic Letters*, **2000**, *2*, 1653–1655.
- 55. "Regiochemistry of the Ring-Expansion Reactions of Hydroxy Azides with Cyclic Ketones." Brenton T. Smith, Vijaya Gracias, and Jeffrey Aubé, *Journal of Organic Chemistry*, **2000**, *65*, 3771–3774.
- 56. "Reactivity Toward Deamidation of Asparagine Residues in β–Turn Structures." Xie, M.; Aubé, J.; Borchardt, R. T.; Morton, M.; Topp, E. M.; Vander Velde, D.; Schowen, R. L., *Journal of Peptide Research*, **2000**, *56*, 165–171.
- 57. "Synthesis of α-Amino-α'-diazomethyl Ketones Via Ring Opening of Substituted Cyclopropanones with Alkyl Azides. A Facile Route to N-Substituted 3-Azetidinones." Pankaj Desai and Jeffrey Aubé, Organic Letters, 2000, 2, 1657–1659.
- 58. "Reactions of Alkyl Azides and Ketones as Mediated by Lewis Acids: Schmidt and Mannich Reactions Using Azide Precursors." Pankaj Desai, Klaas Schildknegt, Konstantinos A. Agrios, Craig Mossman, Gregory L. Milligan, and Jeffrey Aubé, *Journal of the American Chemical Society*, **2000**, *122*, 7226–7232.
- 59. "Stereochemistry of the Oxidation of Imines Derived from Substituted Cyclohexanones: Axial vs. Equatorial Attack and Evidence for Delivery by an Adjacent Hydroxyl Group." Yuguang Wang, Samuel Chackalamannil, and Jeffrey Aubé, *Journal of Organic Chemistry*, **2000**, *65*, 5120–5126.
- 60. "A Functional Assay for Quantitation of the Apparent Affinities of Ligands of P– Glycoprotein in Caco–2 Cells." Jinnian Gao, Osamu Murase, Richard L. Schowen, Jeffrey Aubé, and Ronald Borchardt, *Pharmaceutical Research*, **2001**, *18*, 171–177.
- 61. "Transport Characteristics of Peptides and Peptidomimetics: I. *N*–Methylated Peptides as Substrates for the Oligopeptide Transporter and P–Glycoprotein in the Intestinal Mucosa." Jinnian Gao, Masao Sudoh, Jeffrey Aubé, and Ronald T. Borchardt, *Journal of Peptide Research*, **2001**, *57*, 316–329.
- 62. "Transport Characteristics of Peptides and Peptidomimetics: II. Hydroxyethylamine Bioisostere–Containing Peptidomimetics as Substrates for the Oligopeptide Transporter and P–Glycoprotein in the Intestinal Mucosa." Jinnian Gao, Stephanie L. Winslow, David Vander Velde, Jeffrey Aubé, and Ronald T. Borchardt, *Journal of Peptide Research*, **2001**, 57, 361–373.
- 63. "Intramolecular Reactions of Benzylic Azides with Ketones: Competition Between Schmidt and Mannich Pathways." Aaron Wrobleski and Jeffrey Aubé, *Journal of Organic Chemistry*, **2001**, *66*, 886–889.
- 64. "Effect of Progressive Benzyl Substitution on the Conformations of Aminocaproic Acid-Cyclized Dipeptides." Mary MacDonald, David Vander Velde, and Jeffrey Aubé, *Journal of Organic Chemistry*, **2001**, *66*, 2636–2642.
- 65. "First Asymmetric Total Synthesis of (+)–Sparteine." Brenton T. Smith, John A. Wendt, and Jeffrey Aubé, *Organic Letters*, **2002**, *4*, 2577–2579.
- 66. "Asymmetric Total Synthesis of Dendrobatid Alkaloid 251F." Aaron Wrobleski, Kiran Sahasrabudhe, and Jeffrey Aubé, *Journal of the American Chemical Society*, **2002**, *124*, 9974–9975.

- 67. "A Combined Intramolecular Diels–Alder/Intramolecular Schmidt Reaction Process: A Formal Synthesis of (±)–Stenine." Jennifer E. Golden and Jeffrey Aubé, *Angewandte Chemie, International Edition*, **2002**, *41*, 4316–4318.
- 68. "Asymmetric Schmidt Reaction of Hydroxyalkyl Azides with Ketones." Kiran Sahasrabudhe, Vijaya Gracias, Kelly Furness, Brenton T. Smith, Christopher E. Katz, D. Srinivasa Reddy, and Jeffrey Aubé, *Journal of the American Chemical Society*, **2003**, *125*, 7914–7922.
- 69. "Rearrangements of Bicyclic Nitrones to Lactams: Comparison of Photochemical and Modified Barton Conditions." Yibin Zeng, Brenton T. Smith, John Hershberger, and Jeffrey Aubé, *Journal of Organic Chemistry*, **2003**, *68*, 8065–8067.
- "Lewis Acid–Mediated Reactions of Alkyl Azides with α,β–Unsaturated Ketones." D. Srinivasa Reddy, Weston R. Judd, and Jeffrey Aubé, Organic Letters, 2003, 5, 3899–3902.
- 71. "Unusual Tethering Effects in the Schmidt Reaction of Hydroxyalkyl Azides with Ketones: Cation $-\pi$  and Steric Stabilization of a Pseudoaxial Phenyl Group." Christopher E. Katz and Jeffrey Aubé, *Journal of the American Chemical Society*, **2003**, *125*, 13948–13949.
- 72. "Ring Expansive Routes to Quinolizidine Alkaloids: Formal Synthesis of (–)-Lasubine II." Vijaya Gracias, Yibin Zeng, Pankaj Desai, and Jeffrey Aubé, *Organic Letters*, **2003**, *5*, 4999-5001.
- 73. "Synthesis and Conformational Studies of Dipeptides Constrained by Disubstituted 3-(Aminoethoxy)Propionic Acid Linkers."D. Srinivasa Reddy, David Vander Velde, and Jeffrey Aubé, *Journal of Organic Chemistry*, **2004**, *69*, 1716-1719.
- 74. "Base-Promoted Reactions of Bridged Ketones and 1,3- and 1,4-Haloalkyl Azides: Competitive Alkylation vs. Azidation Reactions of Ketone Enolates." Lei Yao, Brenton T. Smith, and Jeffrey Aubé, *Journal of Organic Chemistry*, **2004**, *69*, 1720-1722.
- 75. "An *Ab Initio* Approach to Understanding the Stereoselectivity of Reactions between Hydroxyalkyl Azides and Ketones." N. Deborah Hewlett, Jeffrey Aubé, and Jennifer L. Radkiewicz-Poutsma, *Journal of Organic Chemistry*, **2004**, 69, 3439-3446.
- 76. "Asymmetric Total Synthesis of Dendrobatid Alkaloids: Preparation of Indolizidine 251F and Its 3-Desmethyl Analogue Using an Intramolecular Schmidt Reaction Strategy." Aaron Wrobleski, Kiran Sahasrabudhe, and Jeffrey Aubé, *Journal of the American Chemical Society*, **2004**, *126*, 5475-5481.
- 77. "Domino Reactions That Combine an Azido-Schmidt Ring Expansion with the Diels–Alder Reaction." Yibin Zeng, D. Srinivasa Reddy, Erin Hirt, and Jeffrey Aubé, *Organic Letters*, **2004**, *6*, 4993–4995.
- "Modular Synthesis of Cyclic Peptidomimetics Inspired by γ-Turns." Senthil Kumar Ramanathan, John Keeler, Huey-Lih Lee, D. Srinavasa Reddy, Gerald Lushington, and Jeffrey Aubé, Organic Letters, 2005, 7, 1059-1062.
- 79. "Facile C-N Cleavage in a Series of Bridged Lactams." Yao Lei, Aaron D. Wrobleski, Jennifer E. Golden, Douglas R. Powell, and Jeffrey Aubé, *Journal of the American Chemical Society*, **2005**, *127*, 4552-4553.

- 80. "Synthesis of a Small Library of Diketopiperazines as Potential Inhibitors of Calpain." Yibin Zeng, Qingshan Li, Robert P. Hanzlik, and Jeffrey Aubé, *Bioorganic and Medicinal Chemistry Letters*, **2005**, *15*, 3034–3038.
- 81. "Regioselective Single and Double Conjugate Additions to Substituted Cyclohexa-2,5-Dienone Monoacetals." Scott Grecian, Aaron D. Wrobleski, and Jeffrey Aubé, *Organic Letters*, **2005**, *7*, 3167–3170.
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- 20. "N-(pyridin-4-yl)benzo[d]thiazole-6-carboxamide inhibits E. coli UT189 bacterial capsule biogenesis. " James W. Noah; Subramaniam Ananthan; Carrie W. Evans; N. Miranda Nebane; Lynn Rasmussen; Melinda Sosa; Nichole A. Tower; E. Lucile White; Patrick Seed; Carlos Goller; Mehreen Arshad; Apurba Datta; Benjamin Neuenswander; Patrick Porubsky; Brooks E. Maki; Chunjing Liu; Steven A. Rogers; Frank Schoenen; Jeffrey Aubé, In *Probe Reports from the NIH Molecular Libraries Program*, National Center for Biotechnology Information (US): Bethesda (MD), **2012**. http://www.ncbi.nlm.nih.gov/pubmed/23833802
- 21. "3-(2,6-difluorobenzamido)-5-(4-ethoxyphenyl) thiophene-2-carboxylic acid inhibits E.coli UT189 bacterial capsule biogenesis. " James W. Noah; Subramaniam Ananthan; Carrie W.

Evans; N. Miranda Nebane; Lynn Rasmussen; Melinda Sosa; Nichole A. Tower; E. Lucile White; Patrick Seed; Carlos Goller; Apurba Datta; Benjamin Neuenswander; Patrick Porubsky; Brooks E. Maki; Steven A. Rogers; Frank Schoenen; Jeffrey Aubé, In *Probe Reports from the NIH Molecular Libraries Program*, National Center for Biotechnology Information (US): Bethesda (MD), **2012**. http://www.ncbi.nlm.nih.gov/pubmed/23762949

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- 23. "Discovery of ML370, an inhibitor of Vibrio cholerae Quorum Sensing Acting via the LuxO response regulator. " Patrick Faloon; Warren S. Weiner; Daljit S. Matharu; Benjamin Neuenswander; Patrick Porubsky; Willmen Youngsaye; Melissa Bennion; Wai-Leung Ng; Amanda Hurley; Carrie M. Mosher; Stephen Johnston; Sivaraman Dandapani; Frank J. Schoenen; Jeffrey Aubé; Benito Munoz; Michelle Palmer; Bonnie L. Bassler; Stuart L. Schreiber, In *Probe Reports from the NIH Molecular Libraries Program*, National Center for Biotechnology Information (US): Bethesda (MD), **2013**. http://www.ncbi.nlm.nih.gov/pubmed/24624467
- 24. "Inhibitors of the Plasmodium falciparum M18 Aspartyl Aminopeptidase." Frank J. Schoenen; Warren S. Weiner; Pierre Baillargeon; Christopher L. Brown; Peter Chase; Jill Ferguson; Virneliz Fernandez-Vega; Partha Ghosh; Peter Hodder; Jeffrey P. Krise; Daljit S. Matharu; Benjamin Neuenswander; Patrick Porubsky; Steven Rogers; Tina Skinner-Adams; Melinda Sosa; Timothy Spicer; Joyce To; Nichole A. Tower; Katharine R. Trenholme; Jenna Wang; David Whipple; Jeffrey Aubé; Hugh Rosen; E. Lucile White; John P. Dalton; Donald L. Gardiner, In *Probe Reports from the NIH Molecular Libraries Program*, National Center for Biotechnology Information (US): Bethesda (MD), 2013. http://www.ncbi.nlm.nih.gov/pubmed/24479194
- 25. "Inhibitors of the Plasmodium falciparum M17 Leucine Aminopeptidase. " Frank J. Schoenen; David Whipple; Pierre Baillargeon; Christopher L. Brown; Peter Chase; Jill Ferguson; Virneliz Fernandez-Vega; Peter Hodder; Rency Mathew; Benjamin Neuenswander; Patrick Porubsky; Steven Rogers; Tina Skinner-Adams; Melinda Sosa; Timothy Spicer; Joyce To; Nichole A. Tower; Katharine R. Trenholme; Jenna Wang; Warren S. Weiner; Jeffrey Aubé; Hugh Rosen; E. Lucile White; Donald L. Gardiner; John P. Dalton, In *Probe Reports from the NIH Molecular Libraries Program*, National Center for Biotechnology Information (US): Bethesda (MD), **2013**. http://www.ncbi.nlm.nih.gov/pubmed/25506973
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- 27. "Small Molecules Targeting the Mitochondrial Permeability Transition. " Justina Sileikyte; Sudeshna Roy; Patrick Porubsky; Benjamin Neuenswander; Jenna Wang; Michael Hedrick; Anthony B. Pinkerton; Sumeet Salaniwal; Paul Kung; Arianna Mangravita-Novo; Layton H. Smith; Dennis N. Bourdette; Michael R. Jackson; Jeffrey Aubé; Thomas D. Y. Chung; Frank J. Schoenen; Michael A. Forte; Paolo Bernardi, In *Probe Reports from the NIH Molecular Libraries Program*, National Center for Biotechnology Information (US): Bethesda (MD), **2014**. http://www.ncbi.nlm.nih.gov/pubmed/25834903

Miscellaneous Publications, including short reviews, book reviews, and other scholarly work

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- 2. "New C<sub>2</sub>-Symmetrical Chiral Secondary Amines." Jeffrey Aubé, *Chemtracts–Organic Chemistry*, **1989**, *2*, 46-49.
- 3. "Peptide Architecture: Design of Stabilized α-Helical Metalloproteins." Jeffrey Aubé, *Chemtracts–Organic Chemistry*, **1991**, *4*, 135-139.
- 4. "The Synthesis and Some Properties of the First Boron-Stabilized Alkenyl Carbanions." Jeffrey Aubé, *Chemtracts–Organic Chemistry*, **1992**, *5*, 374-375.
- 5. "Asymmetric Synthesis of Organometallic Complexes with Planar Chirality Using Diastereotopic Group-Selective Reactions." Jeffrey Aubé, *Chemtracts–Organic Chemistry*, **1994**, 7, 52-56.
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- 7. "Synthetic Applications of Dispiroketals." Michael Z. Hoemann and Jeffrey Aubé, *Chemtracts–Organic Chemistry*, **1995**, *8*, 26-35.
- 8. "Synthesis of Conformationally Restricted Amino Acids and Peptides Employing Olefin Metathesis." Vijaya Gracias and Jeffrey Aubé, *Chemtracts–Organic Chemistry*, **1995**, *8*, 363-367.
- 9. Book review of "Studies in Natural Products Chemistry: Vol. 16, Stereoselective Synthesis (Part J)" (A.-u. Raman, editor, Elsevier: The Netherlands (1995)). Jeffrey Aubé, *Journal of the American Chemical Society*, **1996**, *118*, 4918.
- 10. "Ionic Diels-Alder Chemistry: Contemporary Interpretations of the Gassman Reaction." Klaas Schildknegt and Jeffrey Aubé, *Chemtracts–Organic Chemistry*, **1996**, *9*, 237-241.
- 11. "The  $\pi$ -Arene Chromium Complex as a Facial Selectivity Control Element: the Enantioselective Synthesis of Cetirizine Hydrochloride." Klaas Schildknegt and Jeffrey Aubé, *Chemtracts–Organic Chemistry*, **1997**, *10*, 1-4.
- 12. "A Decade of Combining Teaching and Research." Jeffrey Aubé, In *Reflections from the Classroom*, Fred Rodriguez and Judy Eddy, Eds., Center for Teaching Excellence, University of Kansas: Lawrence, KS, **1998**, pp 14-17.
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- 18. *Reflections from the Classroom*, Judith Eddy and Jeffrey Aubé, Eds., Center for Teaching Excellence, University of Kansas: Lawrence, KS, **2002**. Co-edited volume and contributed Foreword.
- 19. "Five Years Into the Future: Reflections on the Center for Teaching Excellence", Jeffrey Aubé, Judith Eddy, and Sandra Gautt. In *Reflections from the Classroom*, Judith Eddy and Jeffrey Aubé, Eds., Center for Teaching Excellence, University of Kansas: Lawrence, KS, **2002**, *5*, 1-3.
- 20. Total Syntheses of *Martinella* Alkaloids, Weston Judd and Jeffrey Aubé, *Chemtracts–Organic Chemistry*, **2003**, *16*, 105-116.
- 21. "Arthur Suite V. 3.0 Symyx Technologies, Inc." Software review. Frank Schoenen and Jeffrey Aubé, *Journal of the American Chemical Society*, **2006**, *128*, 664–665.
- 22. "Paying the Pipeliner: Academic Investment in Early Stage Drug Discovery", Jeffrey Aubé. In *The Privatization of Public Universities: Implications for the Research Mission*, Mabel L. Rice and Sally Hayden, Eds., Merrill Advanced Studies Center, University of Kansas: Lawrence, KS, 2006, pp 23-33. Available online at merrill.ku.edu/sites/masc.drupal.ku.edu/files/docs/2006whitepaper.pdf
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- 27. Short commentary on "Synthesis and Structural Analysis of 2-Quinuclidonium Tetrafluoroborate" by K. Tani and B. M. Stoltz, *Nature*, **2006**, *441*, 731-734. Available online at http://www.f1000biology.com/article/id/1108300/evaluation.

- 28. Short commentary on "Allyl sulfides are privileged substrates in aqueous cross-metathesis: application to site-selective protein modification" by Y. A. Lin, J. M. Chalker, N. Floyd, G. J. Bernardes, and B. G. Davis, *J. Am. Chem. Soc.*, **2008**, *130*, 9642–9643. Available online at http://www.f1000biology.com/article/id/1146923/evaluation.
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- 31. Short commentary on "Distributed Drug Discovery, Part 1: Linking Academia and Combinatorial Chemistry to Find Drug Leads for Developing World Diseases." by Francisco-Javier Gamo et al., *J. Combi. Chem.*, **2009**, *11*, 3–13. Available online at http://f1000biology.com/article/id/1168475/evaluation.
- 32. Short commentary on "Thousands of Chemical Starting Points for Antimalarial Lead Identification." by Francisco-Javier Gamo et al., *Nature*, **2010**, *465*, 305–310. Available online at http://f1000biology.com/article/id/3351957/evaluation.
- 33. Short commentary on "Chemical genetics of Plasmodium falciparum" by W. Armand Guiguemde et al., *Nature*, **2010**, *465*, 311–315. Available online at http://f1000biology.com/article/id/3309957/evaluation.
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- "The NIH's Role in Accelerating Translational Sciences." John C. Reed, Lucille White, Jeffrey Aubé, Craig Lindsley, Min Li, Larry Sklar, and Stuart Schreiber, *Nature Biotechnology*, 2012, 16, 13-10. DOI:10.1038/nbt.2087
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- 39. Short commentary on "Crystal structure of the μ-opioid receptor bound to a morphinan antagonist" by A. Manglik et al., *Nature* **2012**, March 26. Available online at http://f1000.com/14253959.
- "Cytotoxic withanolide constituents of Physalis longifolia." H. Zhang, A. Samadi, R. Gallagher, J. J. Araya, H. F. Motiwala, K. Kindscher, R. Gollapudi, M. S. Cohen, J. Aubé, B. N. Timmermann, *Planta Medica* 2012, 78, P1195. Congress abstract.

41. "Synthetic probes for the study of biological function." Editorial, *Beilstein Journal of Organic Chemistry* **2013**, *9*, 79–80. DOI: 10.3762/bjoc.9.10.

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42. Short commentary on "Experimental and Chemoinformatics Study of Tautomerism in a Database of Commercially Available Screening Samples" by L. Guasch et al., *J. Chem. Inf. Model.* **2016**, Oct 2016. Available online at http://f1000.com/prime/726778215.

#### Patents Issued

- 1. Soumen Paul, Debasree Dutta, Soma Ray, Jeffrey Aubé, and Frank John Schoenen, "Compositions and Methods for Establishing and Maintaining Stem Cells in an Undifferentiated State." U.S. Patent 8,193,239, issued June 5, 2012.
- Roy A. Jensen, Lisa M. Harlan-Williams, Frank J. Schoenen, Jeffrey Aubé, Gerald H. Lushington, "BRCA1-Based Breast or Ovarian Cancer Prevention Agents and Methods of Use." U.S. Patent 8,362,072, issued January 29, 2013.
- 3. Timmermann, Barbara N., Jeffrey Aube, Huaping Zhang, Rao Gollapudi, Mark S. Cohen, Abbas Samadi, and Hashim Fakhsuddin-Motiwala. "Withanolide isolated from Physalis longifolia and analogs and methods of use thereof." U.S. Patent 8,598,339, issued December 3, 2013.
- 4. Aube, Jeffrey, Bryan L. Roth, Partha Ghosh, and Kevin J. Frankowski. "Synthesis of functionalized octahydro-isoquinolin-1-one-8-carboxamides, octahydro-isoquinolin-1-one-8-carboxylic esters and analogs, and therapeutic methods." U.S. Patent 8,735,391, issued May 27, 2014.
- 5. Wandinger-Ness, Angela, Larry Sklar, Jacob Agola, Zurab Surviladze, Jeffrey Aubé, Jennifer Golden, Chad E. Schroeder, and Denise S. Simpson. "Rab7 GTPase inhibitors and related methods of treatment." U.S. Patent 8,765,803, issued July 1, 2014.
- 6. Deshaies, Raymond J., Tsui-Fen Chou, Frank J. Schoenen, Kelin Li, Kevin J. Frankowski, Jeffrey Aube, Samuel W. Gerritz, and Han-Jie Zhou. "Methods and compositions for inhibition of the transitional endoplasmic reticulum ATPase." U.S. Patent 8,865,708, issued October 21, 2014.
- Larson, Richard Smith, Larry A. Sklar, Bruce S. Edwards, Juan Jacob Strouse, Irena Ivnitski-Steele, Hadya M. Khawaja, Jerec Warren Ricci, Jeffrey Aube, Jennifer Elizabeth Golden, and Tuanli Yao. "Selective efflux inhibitors and related pharmaceutical compositions and methods of treatment." U.S. Patent 9,056,111, issued June 16, 2015.
- Jeffrey Aubé, Laura Bohn, Thomas E. Prisinzano, Frank J. Schoenen, Kevin J. Frankowski, "Kappa Opioid Receptor Effectors and Uses Thereof." US Patent 9,345,703, issued May 24, 2016.
- 9. Angela Wandinger-Ness, Larry Sklar, Jacob Agola, Zurab Surviladze, Jeffrey Aubé, Jennifer Golden, Chad E. Schroeder, and Denise S. Simpson. "Rab7 GTPase inhibitors and related methods of treatment." U.S. Patent 9,376,452, issued June 28, 2016.
- Jennifer Golden, Jeffrey Aubé, Donghoon Chung, Chad Schroeder, Tuanli Yao, E. Lucile White, Nichole A Tower, "6-Substituted Quinazolinone Inhibitors." US Patent 9,580,393, issued February 28, 2017.
- 11. Jeffrey Aubé, Emily E. Scott, and Charlie Fehl, "Inhibitors of CYP17A1." US Patent 9,611,270, issued April 4, 2017.
- Angela Wandinger-Ness, Larry Sklar, Zurab Surviladze, Tudor Oprea, Laurie Hudson, Jeffrey Aubé, Jennifer E. Golden, Chad E. Schroeder, and Denise S. Simpson, and Julica J. Noth, "Modulators of GTPase and Use in Relevant Treatment." US Patent 9,642,835, issued May 9, 2017.

- Jennifer E. Golden, Jeffrey Aubé, Denise S. Simpson, Daniel P. Flaherty, Daljit S. Matharu, William E. Severson, and Rasmussen Lynn, "Inhibitors of Respiratory Syncitial Virus." European Patent 2,854,780, issued August 30, 2017.
- 14. Jeffrey Aube, Carl Nathan, Robert Smith, Ben S. Gold, Paul Hanson, Chunjing Liu, Lester Allen Mitscher, Maneesh Pingle, Frank John Shoenen, "Cephalosporin Derivatives and Methods of Use." US Patent 10,059,722 B2, issued August 28, 2018.
- Jennifer Golden, Jeffrey Aube, Donghoon Chung, Chad Schroeder, Tuanli Yao, E. Lucile White, Nichole A Tower, "6-Substituted Quinazolinone Inhibitors." US Patent 10,087,168 B2, issued October 2, 2018.
- 16. Jeffrey Aubé, Kevin J. Frankowski, Thomas E. Prisinzano, Laura Bohn, "Antagonists of the Kappa Opioid Receptor." US Patent 10,118,396, issued November 8, 2018.

#### **Invited Lectures**

Lectures without a listed title had generic titles like "New Ring Expansion Reactions in Organic Chemistry" or "New Alkyl Azide Chemistry". Named lectureships are in **bold**.

- 1. University of Kansas, Department of Chemistry, February 23, 1989
- 2. Eli Lilly and Company, May 18, 1989
- 3. Ortho Pharmaceuticals/R.W. Johnson Research Institute, June 16, 1989
- 4. University of Miami, Department of Chemistry, October 20, 1989
- 5. University of Nebraska (Lincoln), Department of Chemistry, February 5, 1990
- 6. SmithKline Beecham, July 26, 1990
- 7. Boehringer Ingelheim, October 9, 1990
- 8. Wesleyan University, Department of Chemistry, November 2, 1990
- 9. Pfizer Pharmaceuticals, November 5, 1990
- 10. Alcon Laboratories, December 6, 1990
- 11. University of Texas (Austin), Department of Chemistry, December 7, 1990
- 12. Fifth Biennial Lilly Grantee Symposium, Indianapolis, February 24-25, 1992
- 13. Upjohn Corporation, Kalamazoo, Michigan, March 11, 1992
- 14. BioCryst Pharmaceuticals, Inc., Birmingham, Alabama, April 1, 1992
- 15. Schering-Plough Research, Bloomfield, NJ, April 14, 1992
- 16. University of Missouri, Columbia, Missouri, May 4, 1992
- 17. Gordon Research Conference on Stereochemistry, Newport, RI, June 22-26, 1992
- 18. Gordon Research Conference on Heterocyclic Compounds, New Hampton, NH, July 6-10, 1992
- 19. Twenty-Third Annual Workshop on Organic Synthesis and Natural Products Chemistry, Flat Rock, North Carolina, July 15-19, 1992
- 20. Merck Research Laboratories, West Point, PA, September 10, 1992
- 21. Merck Research Laboratories, Rahway, NJ, September 11, 1992
- 22. Eastman Kodak, Rochester, NY, November 16, 1992
- 23. Lederle Laboratories (American Cyanamide), Pearl River, NY, January 28, 1993
- 24. ICI Pharmaceuticals (Zeneca Laboratories), Wilmington, DE, February 1, 1993
- 25. Monsanto Company, St. Louis, MO, February 9, 1993
- 26. Boston College, Department of Chemistry, Boston, MA, February 18, 1993
- 27. Boston University, Department of Chemistry, Boston, MA, February 22, 1993
- 28. Vertex Pharmaceuticals, Boston, MA, February 23, 1993
- 29. Glaxo Pharmaceuticals, Research Triangle Park, NC, March 9, 1993
- 30. E.S.P.C.I., Laboratoire de Chimie Organique, Paris, France, May 7, 1993
- 31. Ecole Polytechnique, Laboratoire de Synthèse Organique, Paliseau, France, May 10, 1993
- 32. Institute de Chimie des Substances Naturelles, Gif-sur-Yvette, France, May 11, 1993
- 33. Professeur invité, University of Rennes I, Rennes, France, May 17-June 3, 1993
- 34. Laboratoire de Synthèse Organique Associé au CNRS, Nantes, France, June 4, 1993
- 35. Laboratoire de IMCRP, Université Paul Sabatier, Toulouse, France, June 7, 1993
- 36. Laboratoire de Chimie Organique associé au CNRS, Faculté de Pharmacie, Châtenay-Malabry, France, June 9, 1993
- 37. Laboratoire de Stéréochimie et Interactions Moleculaires, Ecole Normal Superiore de Lyon, Lyon, France, June 10, 1993
- 38. Sterling–Winthrop, Inc., Collegeville, PA, July 30, 1993
- 39. Wichita State University, Department of Chemistry, Wichita, KS, October 6, 1993
- 40. SUNY-Buffalo, Department of Chemistry, Buffalo, NY, January 20, 1994
- 41. University of Delaware, Department of Chemistry, Newark, DE, February 28, 1995
- 42. University of Iowa, Department of Chemistry, Iowa City, IA, March 3, 1995
- 43. Duke University, Department of Chemistry, Durham, NC, March 10, 1995
- 44. Washington University, Department of Chemistry, St. Louis, MO, April 11, 1995
- 45. University of Michigan, Department of Chemistry, Ann Arbor, MI, July 26, 1995
- 46. Parke-Davis, Ann Arbor, MI, July 27, 1995

- 47. Versicor, Hillsborough, MA, October 6, 1995
- 48. DuPont-Merck, Wilmington, DE, October 25, 1995
- 49. Searle Pharmaceuticals, Skokie, IL, November 8, 1995
- 50. University of Miami, Department of Chemistry, Coral Gables, FL, November 10, 1995
- 51. New Mexico State University, Department of Chemistry, Las Cruces, NM, November 30, 1995
- 52. University of South Carolina, Department of Chemistry, Columbia, SC, January 26, 1996
- 53. Colorado State University, Department of Chemistry, Fort Collins, CO, February 12, 1996
- 54. International Business Communications (IBC) 3rd Annual Conference on New Advances in Peptidomimetics and Small Molecule Design, Washington, DC, March 6, 1996. "Linker Design for β-Turn Formation."
- 55. University of Georgia, Department of Chemistry, Athens, GA, April 2, 1996
- 56. Welch Foundation Lecturer, Sam Houston State University, Department of Chemistry, Huntsville, TX, April 12, 1996. "Asymmetry in Organic Chemistry and Drug Design"
- 57. Bayer Pharmaceuticals, North Haven, CT, April 25, 1996
- 58. Sandoz Pharmaceuticals, East Hanover, NJ, May 3, 1996
- 59. Phi Beta Kappa initiation, University of Kansas, Lawrence, KS, May 10, 1996. "Prospects and Perils of a Virtual Education"
- 60. DuPont-Merck, Deepwater, NJ, June 3, 1996
- 61. Duke University, Department of Chemistry, Durham, NC, July 22, 1996. "New Methods and Targets for Asymmetric Synthesis"
- 62. University of Tokyo, Department of Organic Chemistry, Tokyo, Japan, October 2, 1996. "New Reactions of Alkyl Azides in Natural Product Synthesis"
- 63. Tokyo Pharmaceutical College, Tokyo, Japan, October 3, 1996. "New Reactions of Alkyl Azides in Natural Product Synthesis"
- 64. University of Tokyo, Department of Organic Chemistry, Tokyo, Japan, October 4, 1996. "Generation and Utilization of Nitrogen-Centered Radicals from Oxaziridines"
- 65. Mie University, Tsu, Japan, October 7, 1996. "New Reactions of Alkyl Azides in Natural Product Synthesis"
- 66. Pfizer Corporation, Nagoya, Japan, October 8, 1996. "Synthesis and Evaluation of β-Turn Peptidomimetics"
- 67. Nagoya City University, Nagoya, Japan, October 9, 1996. "New Reactions of Alkyl Azides in Natural Product Synthesis"
- 68. Osaka City University, Osaka, Japan, October 11, 1996. "New Reactions of Alkyl Azides in Natural Product Synthesis"
- 69. Osaka University, Osaka, Japan, October 14, 1996. "New Reactions of Alkyl Azides in Natural Product Synthesis"
- 70. Kyoto University, Kyoto, Japan, October 15, 1996. "Synthesis and Evaluation of β-Turn Peptidomimetics"
- 71. Kyushu University, Fukuoka, Japan, October 17, 1996. "Generation and Utilization of Nitrogen-Centered Radicals from Oxaziridines"
- 72. Tokyo Institute of Technology, Tokyo, Japan, October 18, 1996. "New Reactions of Alkyl Azides in Natural Product Synthesis"
- 73. Tohoku University, Sendai, Japan, October 21, 1996. "New Reactions of Alkyl Azides in Natural Product Synthesis"
- 74. Waseda University, Tokyo, Japan, October 22 1996. "New Reactions of Alkyl Azides in Natural Product Synthesis"
- 74. Chiba University, Chiba, Japan, October 23 1996. "New Reactions of Alkyl Azides in Natural Product Synthesis"
- 75. **Merck Lecturer:** Bucknell University, Lewisburg, PA, November 12, 1996. "New Reactions of Alkyl Azides in Natural Product Synthesis"
- 76. University of Minnesota, Department of Chemistry, Minneapolis, MN, November 22, 1996
- 77. University of Texas–Southwestern Medical School, Dallas, TX, January 13, 1997. "Synthesis of Natural Products and Peptidomimetics."
- 78. Emory University, Department of Chemistry, February 26, 1997.

- 79. University of California at Los Angeles, Los Angeles, CA, March 7 and 10, 1997. Guest lecturer in Chem 241B ("Frontiers in Medicinal Chemistry"; presented lectures on drug metabolism and peptidomimetics.
- 80. University of Innsbruck, Innsbruck, Austria, May 21, 1997.
- 81. University of Halle, Halle, Germany, June 26, 1997.
- 82. Pfizer Pharmaceuticals, Groton, CT, March 26, 1998. "New Methods for the Synthesis of Alkaloids."
- 83. Montana State University, Bozeman, MT, Department of Chemistry, April 10, 1998. "New Methods for the Synthesis of Alkaloids."
- 84. Ohio State University, Columbus, OH, Department of Chemistry, May 14, 1998.
- 85. Wright State University, Dayton, OH, Department of Chemistry, May 15, 1998.
- 86. Schering-Plough Corporation, Kenilworth, NJ, May 21, 1998.
- 87. University of North Carolina, Chapel Hill, NC, Department of Chemistry, October 1, 1998.
- 88. GlaxoWellcome Research Institute, October 2, 1998.
- 89. North Carolina State University, Raleigh, NC, Department of Chemistry, October 4, 1998.
- 90. University of Oklahoma, Norman, OK, Department of Chemistry, January 28, 1999.
- 91. Biogen, Inc., Boston, MA, March 24, 1999.
- 92. Promega, Inc., Madison, WI, April 22, 1999.
- 93. University of Kentucky, Lexington, KY, Department of Chemistry, September 3, 1999.
- 94. "New Reactions of Alkyl Azides." Herbert C. Brown Award Symposium, 219th National Meeting of the American Chemical Society, San Francisco, California, March 26-30, 2000.
- 95. "Stereospecific Synthesis of Amines in Drug Research." Millennial World Congress of the Pharmaceutical Sciences, San Francisco, California, April 16-20, 2000.
- 96. "Stereoselectivity in Ring Expansion and Cyclization Reactions." Gordon Research Conference on Stereochemistry, Salve Regina University, Newport, Rhode Island, June 11-16, 2000.
- 97. "Synthesis of Heterocycles from Alkyl Azides." Gordon Research Conference on Heterocyclic Compounds, Salve Regina University, Newport, Rhode Island, July 9-13, 2000.
- 98. Texas A&M University, Department of Chemistry, October 5, 2000.
- 99. R.W. Johnson Pharmaceutical Research Institute, Spring House, PA, October 12, 2000.
- 100. Wyeth-Ayerst Pharmaceuticals, Spring House, PA, November 10, 2000.
- 101. Roche Biosciences, Palo Alto, CA, December 1, 2000.
- 102. "New Methods for the Conversion of Alkyl Azides to Heterocycles." *New Developments in Heterocyclic Chemistry* Symposium at the 2000 Pacifichem Meeting, December 16-17, 2000, Honolulu, HI, ORGN 0763.
- 103. Pharmacia, Kalamazoo, MI, March 9, 2001.
- 104. University of Minnesota, Department of Chemistry, April 9, 2001.
- 105. North Dakota State University, Department of Chemistry, April 10, 2001.
- 106. Abbott Laboratories, Abbott Park, IL, April 16, 2001.
- 107. Sphinx Laboratories, Durham, NC, April 20, 2001.
- 108. "New Reactions of Alkyl Azippdes: Methods and Applications." CU-Array Biopharma Synthetic and Medicinal Chemistry Symposium, June 6-8, 2001, Boulder, CO.
- 109. Wyeth-Ayerst Pharmaceuticals, Boston, MA, August 13, 2001.
- 110. "The Development of Structure Transport Relationships in Peptidomimetics." First Annual Kansas City Life Sciences Research Day, podium presentation, November 27, 2001.
- 111. **NeoKimia Lecturer (Inaugural lecturer)**, NéoKimia, Inc. and the University of Sherbrooke, Sherbrooke, QE, Canada. December 10, 2001.
- 112. Pfizer Pharmaceuticals, La Jolla, CA, March 21, 2002.
- 113. Johnson and Johnson, La Jolla, CA, March 22, 2002.
- 114. Scripps Research Institute, Department of Chemistry, La Jolla, CA, March 25, 2002.
- 115. "Total Synthesis of the Dendrobatid Alkaloid 251F." 2002 Gordon Research Conference on Stereochemistry, Newport, RI, June 9-14, 2002 (short invited talk).
- 116. Albany Molecular Biosciences, Albany, NY, September 6, 2002.
- 117. "General Strategies in Modern Drug Design." Summer School in Medicinal Chemistry, University of Regensburg, Germany, September 15-17, 2002.

- 118. University of Arkansas, Department of Chemistry, Fayetteville, AR, March 31, 2003.
- 119. **Innovatec lectureship**, "Combinatorial Approaches to Peptide Mimicry." University of Regensburg, Germany, May 26, 2003.
- 120. "New Alkyl Azide Chemistry in Organic Synthesis." University of Regensburg, Germany, May 28, 2003.
- 121. Purdue University, Department of Medicinal Chemistry and Molecular Pharmacology, West Lafayette, IN, October 2, 2003.
- 122. University of British Columbia, Department of Chemistry, Vancouver, BC, Canada, October 23, 2003.
- 123. University of Pittsburgh, Department of Chemistry, Pittsburgh, PA, November 20, 2003.
- 124. West Virginia University, Department of Chemistry, Morganville, WV, November 21, 2003.
- 125. University of Texas–Medical Branch, Department of Pharmacology and Toxicology, Galveston, TX, January 23, 2004.
- 126. "Medicinal Chemistry for Organic Chemists (short course)." Department of Chemistry, University of Pittsburgh, PA, February 24-28, 2004 (15 hours of lecture).
- 127. CV Therapeutics, Palo Alto, CA., April 13. 2004.
- 128. Stanford University, Department of Chemistry, Palo Alto, CA., April 14, 2004.
- 129. "The KU–CMLD: A Resource for Library Synthesis in Kansas." Kansas City Area Life Sciences Research Day, Overland Park, KS, June 4, 2004.
- 130. "Technology for the Synthesis of Heterocyclic Libraries." National Institutes of Health, Bethesda, MD, August 16, 2004.
- 131. "Multicomponent Synthesis Inspired by Peptidomimetics and Alkaloids." Gordon Research Conference on Combinatorial Chemistry, Queen's College, Oxford, UK, August 22-27, 2004.
- 132. Merck Research Laboratories, West Point, PA, September 22, 2004.
- 133. University of Illinois-Chicago, Department of Chemistry, Chicago, IL, October 5, 2004.
- 134. University of Missouri–Kansas City, Department of Chemistry, Kansas City, MO, November 4, 2004.
- 135. Georgia State University, Department of Chemistry, Atlanta, GA, November 12, 2004.
- 136. "Medicinal Chemistry for Organic Chemists (short course)." Kosan Pharmaceuticals, Richmond, CA, December 6–10, 2004.
- 137. Rutgers University, Department of Chemistry, New Brunswick, NJ, February 1, 2005.
- 138. University of North Carolina, Division of Medicinal Chemistry, Chapel Hill, NC, February 3, 2005.
- 139. "Bigger Haystacks Containing Better Needles: Combinatorial Chemistry in Modern Drug Discovery." University of Kansas, Department of Chemical & Petroleum Engineering, Lawrence, KS, February 8, 2005.
- 140. "Multicomponent Synthesis Inspired by Peptides and Alkaloids." Advancing Library Design and Organic Synthesis (CHI conference), San Diego, CA, February 14, 2005.
- 141. Aventis-Sanofi Research Institute, Tucson, Arizona, March 30, 2005.
- 142. Berlex Pharmaceuticals, Richmond, CA, July 15, 2005.
- 143. "Organometallic Combinatorial Chemistry." Annual Meeting of the NIH CMLD Centers of Excellence, Boston, MA, August 9, 2005.
- 144. "Snapshots from the KU–CMLD." Gordon Research Conference on Combinatorial Chemistry, Andover, NH, August 23, 2005.
- 145. Department of Chemistry, University of Texas–San Antonio, San Antonio, TX, September 13, 2005.
- 146. "Review of Synthetic Chemistry 2005 (short course)." GlaxoSmithKline Pharmaceuticals, Research Triangle Park, NC, November 8, 2005.
- 147. Department of Chemistry, Duquesne University, Pittsburgh, PA, November 11. 2005.
- 148. Department of Chemistry, Indiana University, Bloomington, IN, November 21, 2005.
- 149. School of Pharmaceutical Sciences, University of Wisconsin–Madison, Madison, WI, December 2, 2005.
- 150. Speaker at ÚCI–Pfizer Symposium in Organic Synthesis, University of California–Irvine, Irvine, CA, December 9, 2005.

- 151. Merck-Frosst Pharmaceuticals, Montréal, Quebec, Canada, February 16, 2006.
- 152. Merck–Frost Lecturer, University of Ottawa, Ottawa, Ontario, Canada, February 17, 2006.
- 153. Vertex Pharmaceuticals, Boston, MA, March 13, 2006.
- 154. University of California-Santa Cruz, Department of Chemistry, April 17, 2006.
- 155. University of California-Davis, Department of Chemistry, April 18, 2006.
- 156. Southwestern Medical Center, Dallas, Texas, May 2, 2006.
- 157. "Paying the Pipeliner: Drug Discovery in Academia." Invited presentation in a retreat sponsored by the Merrill Advanced Studies Center on the topic of "Privatization of Public Universities: Implications for the Research Mission." Valley Falls, Kansas, July 19–21, 2006.
- 158. "Advances in the Synthesis of Heterocycles." Annual Meeting of CMLD Centers, Pittsburgh, PA, August 14, 2006.
- 159. Department of Chemistry, Oklahoma State University, Stillwater, Oklahoma, September 7, 2006.
- 160. Department of Chemistry, Emory University, Atlanta, Georgia, September 20, 2006.
- 161. **GlaxoSmithKline Lectureship in Medicinal and High-Throughput Chemistry.** Inaugural lecturer in this endowed lecture series; three lectures at Jilin University, Changchung, China on October 12–13, 2006.
- 162. School of Pharmacy, East China University of Science and Technology, Shanghai, China. October 17, 2006.
- 163. WuXi PharmaTech, Shanghai, China, October 18, 2006.
- 164. "Review of Synthetic Chemistry 2006 (short course)." GlaxoSmithKline Pharmaceuticals, Research Triangle Park, NC, November 6, 2006.
- 165. Amgen Inc., Thousand Oaks, CA, November 13, 2006.
- 166. University of Miami, Department of Chemistry, February 23, 2007/
- 167. Scripps–Florida, Jupiter, FL, February 26, 2007.
- 168. Boston University, Boston MA, Department of Chemistry, March 5, 2007.
- 169. "Transatlantic Duel Bachelor of Science Degree in Chemistry." US-EU Atlantis Conference, Brussels, Belgium, March 16, 2007.
- 170. University of Regensburg, Germany, Department of Chemistry, May 2, 2007.
- 171. "Development of Domino Reactions for Library Synthesis." Sepracor, Marlborough, MA, June 1, 2007.
- 172. "Development of Domino Reactions for Library Synthesis." Gordon Research Conference in Combinatorial Chemistry, Colby-Sawyer College, New London, NH, June 3–8, 2007.
- 173. "My Postdoctoral Education." Symposium in Honor of Professor Samuel Danishefsky, Columbia University, New York, NY, June 10, 2007.
- 174. "Development of Domino Reactions for Library Synthesis." Schering–Plough Pharmaceuticals, Kenilworth, NJ, June 28, 2007.
- 175. University of Auckland, Auckland, New Zealand, Department of Chemistry, July 13, 2007.
- 176. "Diverse Heterocycles Inspired by Natural Products." Annual Meeting of CMLD Centers, Broad Institute, Cambridge, MA, July 23, 2007.
- 177. Cytokinetics, Inc., August 2, 2007.
- 178. Exelixis, October 23, 2007.
- 179. University of New Mexico, Department of Chemistry, Albuquerque, NM, January 25, 2008.
- 180. Eli Lilly & Co., March 11, 2008.
- 181. Indiana University–Purdue University at Indianapolis, Department of Chemistry, March 12, 2008.
- 182. San Diego State University, Department of Chemistry, April 18, 2008.
- 183. University of California-San Diego, Department of Chemistry, April 19, 2008.
- 184. "Medicinal Chemistry for Organic Chemists (short course)." Department of Chemistry, University of Arkansas, Fayetteville, AR, May 12–14, 2008 (12 hours of lecture).

- 185. "Combinatorial Peptidomimetic Chemistry." University of Regensburg, Regensburg, Germany, May 21, 2008.
- 186. "Natural Products from Azides." Gordon Research Conference in Natural Products, Tilton School, Tilton, NH, July 20–25, 2008.
- 187. "New Uses of Alkyl Azides in Synthesis." The 13<sup>th</sup> Symposium on the Latest Trends in Organic Synthesis (LTOS-13), Brock University, Saint Catharines, ON, Canada, August 13-16, 2008.
- 188. "Methods and Libraries Inspired by Natural Products." Chemistry Colloquium Series, Vanderbilt University, Nashville, TN, September 22, 2008.
- 189. "Libraries and Methods Inspired by Natural Products." DuPont Crop Protection, Stine-Haskell Research Center, Newark, DE, October 7, 2008.
- 190. "Peptidomimetic Libraries in CNS Drug Discovery." High Throughput Screening Neuroscience Satellite Meeting of the 2008 Society for Neuroscience Annual Meeting, NIH Molecular Libraries Program, Washington, DC, November 14, 2008.
- 191. University of Iowa, College of Pharmacy, Division of Medicinal and Naturals Products Chemistry, December 16, 2008.
- 192. Brigham Young University, Department of Chemistry, Provo, UT, February 17, 2009.
- 193. University of Minnesota, Institute of Therapeutics and Drug Discovery, Minneapolis, MN, February 27, 2009.
- 194. "Collaboration in a Center Environment." Symposium on Organic Chemistry Collaborations, 237<sup>th</sup> National Meeting of the American Chemical Society, Salt Lake City, UT, March 22, 2009.
- 195. Memorial Sloan–Kettering Cancer Center, Molecular Pharmacology & Chemistry Program, New York, NY, March 24, 2009.
- 196. New York University, Department of Chemistry, New York, NY, April 24, 2009.
- 197. Oregon State University, Department of Chemistry, Corvallis, OR, April 27, 2009.
- 198. "The Stemona Alkaloids: Methodology, Total Synthesis, and Chemical Biology." The Nineteenth Lakeland Symposium, Grasmere, England, May 7–11, 2009.
- 199. "The Role of Synthetic Organic Chemistry in Drug Discovery." The Liver Club, University of Kansas Medical Center, Kansas City, KS, May 21, 2009.
- 200. "Libraries Inspired by Natural Products and Peptides." Gordon Research Conference on Heterocyclic Compounds, Salve Regina University, Newport, NI, June 28–July 2, 2009.
- 201. "Research Activities in Undergraduate Degree Programs." With Oliver Reiser. International Consortia Projects Meetings, FIPSE, Boston, MA, October 11-13, 2009.
- 202. "Academic Probe Development in the Molecular Libraries Initiative." Abbott Research Summit, Abbott Laboratories, Abbott Park, IL, October 16, 2009.
- 203. University of Chicago, Department of Chemistry, Chicago, IL, October 30, 2009.
- 204. National Chemical Genomics Center, National Institutes of Health, Bethesda, MD, November 6, 2009.
- 205. "From Methods to Libraries to Hits: Chemical Synthesis in Biomedical Research." 2009 Cancer Center Research Symposium, University of Kansas Cancer Center, Kansas City, KS, November 20, 2009.
- 206. GlaxoSmithKline, Research Triangle Park, NC, March 16, 2010.
- 207. "Methods for the Synthesis of Alkaloids and Analogs." Ernest Guenther Award Symposium, 239th National Meeting of the American Chemical Society, San Francisco, California, March 23, 2010; ORGN 462.
- 208. "Alkyl Azides: Methods, Natural Products, and Libraries." Abbott Process Chemistry Lectures in Organic Synthesis, Massachusetts Institute of Technology, Cambridge, MA, April 1, 2010.
- 209. "The Azido–Schmidt Reactions: From Methods to Libraries to Hits." University of California–Los Angeles, Los Angeles, CA, April 22, 2010.
- 210. Merck Research Laboratories, Rahway, NJ, May 12, 2010.
- 211. "Dual Transatlantic Degree Program in Chemistry." NAFSA: Association of International Educator International Conference, Session GS190, Kansas City, MO, June 4, 2010.

- 212. "New Heterocyclic Chemistry: From Methods to Libraries to Hits." Gordon Research Conference on High-Throughput Chemistry and Chemical Biology, Les Diablerets, Switzerland, June 20–24, 2010.
- 213. "Synthesis and Chemistry of Medium-Bridged Lactams." Gordon Research Conference on Organic Reactions and Processes, Bryant University, Smithfield, RI, July 18–22, 2010.
- 214. Department of Chemistry, Kansas State University, Manhattan, KS, September 2, 2010.
- 215. Arizona Drug Discovery Center, University of Arizona, Tucson, AZ, September 9, 2010.
- 216. Sanofi-Aventis, Frankfurt, Germany, October 10, 2010.
- 217. Freie Universität/Max Planck Institute, Berlin, Germany, October 12, 2010.
- 218. Schering Bayer, Berlin, Germany, October 15, 2010.
- 219. University of Pittsburgh, Department of Pharmaceutical Sciences, Pittsburgh, PA, October 26, 2010.
- 220. Department of Chemistry, Northwestern University, Evanston, IL, November 18, 2010.
- 221. Department of Medicinal Chemistry, University of Michigan, Ann Arbor, MI, December 7, 2010.
- 222. "New Heterocyclic Chemistry: From Methods to Libraries to Hits." Pacifichem Conference, December 15, 2010.
- 223. University of California–Davis, Davis, CA, February 22, 2011.
- 224. "Drug Discovery at the University of Kansas." Symposium on Academic Drug Discovery Centers, 241st National Meeting of the American Chemical Society, Anaheim, California, March 29, 2011.
- 225. Stauffer Symposium (in honor of Paul Wender), University of Southern California, Los Angeles, CA, April 26, 2011.
- 226. "The Discovery, Development, and Use of the Intramolecular Schmidt Reaction." University of Regensburg, Regensburg, Germany, June 28, 2011
- 227. "Forging Chemistry/Biology Collaborations Across the MLPCN." MLPCN Symposium, National Institutes of Health, Bethesda, MD, July 13, 2011.
- 228. "Finding Leads for Probe and Drug Discovery." Cellular and Molecular Basis of Disease Symposium Series, University of New Mexico, Albuquerque, NM, September 9, 2011.
- 229. "Heterocyclic Chemistry: From Methods to Hits to Probes." International Society on Chemical Biology Conference, Kansas City, MO, October 11-12, 2011.
- 230. "Synthesis and Reactivity of Unconventional Lactams." Department of Chemistry, University of Toledo, Toledo, OH, October 19, 2011.
- 231. Department of Chemistry, University of Florida, Gainesville, FL, December 1, 2011.
- 232. Department of Medicinal Chemistry, Purdue University, West Lafayette, IN, February 7, 2012.
- 233. ACS National Medicinal Chemistry Symposium, Tucson, AZ, May 21, 2012.
- 234. "New Probes for the Kappa Opioid Receptor: Screening, Chemistry, and Pharmacology." Kevin Frankowski, John Streicher, Stephen Slauson, Michael Cameron, Thomas Prisinzano, Laura Bohn, and Jeffrey Aubé, International Narcotics Research Conference, Kansas City, MO, July 16, 2012.
- 235. "Nucleophilic Reactions of Alkyl Azides: Discovery and Applications." 244<sup>th</sup> National, Meeting of the American Chemical Society, Arthur C. Cope Award and Cope Scholars Symposium, Philadelphia, PA, August 21, 2012.
- 236. Bristol-Myers Squibb, Hopewell site, Princeton, NJ, September 18, 2012.
- 237. Bristol-Myers Squibb, New Brunswick, NJ, September 19, 2012.
- 238. Bristol–Myers Squibb, Wallingford, CT, September 20, 2012.
- 239. Department of Molecular Biosciences, University of Kansas, KS, September 27, 2012.
- 240. "Nucleophilic Reactions of Alkyl Azides: Discovery and Applications." Cope Scholar Award Symposium (Keynote), Rocky Mountain Regional Meeting of the American Chemical Society, Westminster, CO, October 18, 2012.
- 241. "Collaborative Medicinal Chemistry: From Libraries to Hits to Biology." New Synthetic Methods and Bioactive Molecules Symposium (Keynote), Midwest Regional Meeting of the American Chemical Society, Omaha, NE, October 25, 2012.

- 242. "Nucleophilic Reactions of Alkyl Azides: Discovery and Applications." Midwest Award Address, Midwest Regional Meeting of the American Chemical Society, Omaha, NE, October 26, 2012.
- 243. "The Schmidt Reaction of Alkyl Azides." Plenary lecture, 23rd Quebec-Ontario Mini-Symposium on Bioorganic and Organic Chemistry (QOMSBOC) Conference, Windsor, ON, November 11, 2012.
- 244. "Chemistry in Support of Life Sciences Research at the University of Kansas." Plenary lecture, K-INBRE Symposium, Manhattan, KS, January 19, 2013.
- 245. "New Reactions Leading to the Discovery of Biological Probes." Vertex Lecturer, Boston University, Boston, MA, February 25, 2013.
- 246. "New Probes for the Kappa Opioid Receptor: Screening, Chemistry, and Pharmacology." 245<sup>th</sup> National Meeting of the American Chemical Society, New Orleans, LA, April 9, 2013. Symposium title: "Neuropeptergic Targets for CNS Disorders: Chemistry and Biology."
- 247. "Methods and Probes from the KU CMLD Center." 245<sup>th</sup> National Meeting of the American Chemical Society, New Orleans, LA, April 10, 2013. Symposium title: "Recent Advances from Chemical Methodology and Library Development (CMLD) Centers." With Kevin J. Frankowski, John M. Streicher, Stephen R. Slauson, Michael D. Cameron, Philip D. Mosier, Eyal Vardy, Bryan L. Roth, Thomas E. Prisinzano, and Laura M. Bohn.
- 248. "The Chemistry of CNS Drug Development." GPCR Colloquium in conjunction with the ASPET Experimental Biology National Meeting, Boston, MA, April 25, 2013.
- 249. "Development of Biased Ligands at the KOR." Kappa Therapeutics 2013, Boston, MA, April 27, 2013.
- 250. "Chemical Probes." Chemical Biology Division, National Cancer Institute, Frederick, MD, May 23, 2013.
- 251. "Azide Chemistry: Two Singles." Gordon Research Conference on Heterocyclic Chemistry, Salve Regina, RI, June 16–20, 2013.
- 252. "Modern Heterocyclic Chemistry." Short course (4 hours). Theravance Pharmaceuticals, South San Francisco, CA, July 26, 2013.
- 253. University of Nebraska–Lincoln, Lincoln, NE, August 22, 2013.
- 254. "Azide Chemistry: From Methods to Libraries to Hits." Department of Chemistry and Chemical Biology, Northeastern University, Boston, MA, September 17, 2013.
- 255. "Heterocyclic Chemistry: Methods, Libraries, Biology." H3 Biomedicine, Cambridge, MA, September 18, 2013.
- 256. "Azide Chemistry: From Methods to Libraries to Hits." Constellation Pharmaceuticals, Cambridge, MA, September 19, 2013.
- 257. "New Heterocyclic Chemistry: From Methods to Libraries to Hits." Department of Chemistry, Duke University, Durham, NC, October 15, 2013.
- 258. "New Heterocyclic Tools for Chemical Biology." Department of Chemistry, University of Florida, Gainesville, FL, October 28, 2013.
- 259. "Chemical Probes for Cancer and Neuroscience." Department of Medicinal Chemistry, University of Minnesota, MN, December 17, 2013.
- 260. Department of Chemistry, University of Florida, Gainesville, FL, February 27, 2014.
- 261. **Plenary lecture**, "Libraries Based on Natural Products and Peptides: Methods to Libraries to Biology." 134<sup>th</sup> Annual Meeting of the Pharmaceutical Society of Japan, Kumamoto, Japan, March 28, 2014.
- 262. Bristol–Myers–Squibb Lecturer, "Heterocyclic Chemistry: Methods, Libraries, and Biology." University of Michigan, Ann Arbor, MI, May 2, 2014.
- 263. Lilly OMC/Greater Indianapolis Seminar Series, Indianapolis, IN, May 20, 2014.
- 264. Frontiers in Biomedical Research Symposium, North Dakota State University, Fargo, ND, May 31, 2014.
- 265. "B Sides." Telluride Meeting on Accelerating Reaction Discovery, Telluride, CO, July 30, 2014.
- 266. Department of Chemistry, University of North Carolina, Chapel Hill, NC, September 18, 2014.

- 267. Department of Chemistry, North Carolina State University, Raleigh, NC, September 19, 2014.
- 268. Department of Chemistry, Wichita State University, Wichita, KS, October 1, 2014.
- 269. Pharmaceutical Sciences, University of Missouri–Kansas City, Kansas City, MO, February 10, 2015.
- 270. Department of Chemistry, University of Houston, Houston, TX, March 3, 2015.
- 271. Department of Chemistry, Washington State University, Pullman, WA, April 6, 2015.
- 272. Department of Chemistry, University of Idaho, Moscow, ID, April 7, 2015.
- 273. UNC/Duke Developmental/Molecular Therapeutic Retreat, Chapel Hill, NC, September 25, 2015.
- 274. Department of Chemistry, Cornell University, Ithaca, NY, November 25, 2015.
- 275. Department of Chemistry, University of Texas San Antonio, January 29, 2016.
- 276. J. Doyle Smith/Larry Winter Seminar Series, Departments of Chemistry and Medicinal Chemistry, Virginia Commonwealth University, Richmond, VA, February 5, 2016.
- 277. Keynote Speaker, College of Pharmacy Annual Research Day, The Ohio State University, Columbus, OH, April 7, 2016.
- 278. Frontiers in Biomedical Research Symposium, North Dakota State University, Fargo, ND, May 31, 2016.
- 279. "Biased Kappa Opioid Receptor Ligands: Chemistry, Pharmacology, and Physiology." Annual Meeting of the College on the Problems of Drug Dependence, Palm Springs, CA, June 11–16, 2016.
- 280. Department of Chemistry, University of Rochester, Rochester, NY, November 4, 2016.
- 281. Department of Chemistry, College of Wooster, Wooster, OH, December 1, 2016.
- 282. Genentech, South San Francisco, CA, December 13, 2016
- 283. North Dakota State University, Department of Chemistry, Fargo, ND, May 4, 2017.
- 284. "Seeking TB-Active Cephalosporins." Gordon Research Conference on Tuberculosis Drug Discovery and Development, Lucca, Italy, July 27, 2017.
- 285. Scholar in Residence, School of Pharmacy. "New Generation Opioids: Medicinal Chemistry and Pharmacology." University of Houston, Houston, TX, August 10, 2017.
- 286. "New Opioid Biology Arising From Heterocyclic Chemistry." 26th Congress of the International Society for Heterocyclic Chemistry, Regensburg, Germany, September 8, 2017.
- 287. Departments of Chemistry and Pharmacology, Scripps Research Institute, Jupiter, Florida, October 19, 2017.
- 288. Department of Chemistry and Biochemistry, University of North Carolina Wilmington, Wilmington, NC, October 27, 2017.
- 289. Department of Chemistry and Biochemistry, University of Oklahoma, Norman, OK, November 2, 2017.
- 290. Department of Chemistry, University of Virginia, Charlottesville, VA, November 10, 2017.
- 291. School of Pharmacy, University of Pittsburgh, Pittsburgh, PA, March 1, 2018.
- 292. School of Pharmacy, High Point University, High Point, NC, June 8, 2018.
- 293. Department of Chemistry, Wake Forest University, Winston-Salem, NC, September 12, 2018.
- 294. Keynote Speaker, Chemical Biology Research Retreat, St. Jude Children's Research Hospital, Memphis, TN, September 19, 2018.
- 295. "Lessons Learned." Fourth Annual Chemistry Research Symposium, Duke University, Durham, NC, October 8, 2018.
- 296. Department of Chemistry, Wayne State University, Detroit, MI, October 17, 2018.
- 297. Sigma-Aldrich Lecture, Department of Chemistry, University of Illinois, Urbana-Champaign, Illinois, November 8, 2018.
- 298. Department of Chemistry, Indiana University Purdue University at Indianapolis, January 16, 2019.
- 299. Celebrating Two Decades of Biomedical Research Symposium, Center for Protease Research, North Dakota State University, March 5, 2019.

- 300. TBRU Network Annual Meeting, National Institute for Allergy and Infectious Disease, Rockville, Maryland, April 8, 2019.
- 301. "Synthesis and Applications of the MR1 Ligand Precursor 5-Amino-6-Dribitylaminouracil (5-A-RU)." ISHC Congress, Kyoto, Japan, September 3, 2019.
- 302. "The Effect of HFIP on Rearrangement and Substitution Chemistry." Second Annual Conference on Sustainability—Oriented Organic Synthesis, Kyoto University, September 9–10, 2019.
- 303. Department of Chemistry, Georgia State University, October 8, 2019.
- 304. School of Chemistry, Yangzhou University, Yangzhou, China, November 11, 2019.
- 305. China Pharmaceutical University, Nanjing, China, November 12, 2019.
- 306. "Seeking Biased Kappa Opioid Receptors." Department of Chemistry, East China University of Science and Technology, Shanghai, China, November 14, 2019.
- 307. "From Opioids and Steroids Back to Chemistry." Department of Chemistry, East China University of Science and Technology, Shanghai, China, November 14, 2019.
- 308. School of Pharmacy, University of Michigan, Ann Arbor, MI, March 12, 2020.
- 309. Department of Chemistry, University of Regensburg, Regensburg, Germany, April 27, 2020.
- 310. Department of Chemistry, Case Western Reserve University, Zoom Seminar, September 22, 2020.
- 311. Division of Drug Discovery and Development, Auburn University, Zoom Seminar, October 5, 2020.
- 312. Plenary speaker, Leo Paquette Workshop, Department of Chemistry, The Ohio State University, Columbus, OH, October 22–23, 2021.
- 313. Keynote lecture, 2021 Southwest Regional ACS Meeting, Austin, TX, October 30– November 3, 2021.
- 314. University of Illinois at Chicago, Chicago, IL, April 12, 2022.
- 315. National Organic Chemistry Symposium, San Diego, CA, July 26–30, 2022.

#### **Contributed Presentations and Posters**

Numerous posters and contributed conference talks have been presented by JA and colleagues over the years, but they are no longer listed on this CV.

# Graduate Student Collaborators

At the University of Kansas

Name	Degree(s)	Notes/Known Employment After Appointment
Wang, Yuguang	M.S . (non- thesis), 1989 PhD, 1993	Schering-Plough, ChemPartner, MaxiNovel (founder and CEO)
Gherardini, Elyse	None	Monsanto
Hammond, Marlys	MS, 1990 PhD, 1996 (Cal Tech)	Eli Lilly and Co. (assoc scientist), Pfizer Pharmaceuticals, GlaxoSmithKline
Ghosh, Shomir	PhD, 1993	Parke-Davis (postdoc), Abbott Laboratories, Millenium Pharmaceuticals, Epix Pharmaceuticals, GlaxoSmithKline, Tempero Pharmaceuticals (Senior Director, VP), IFM Therapeutics, Atlas Venture, Twentyeight-Seven Therapeutics (CSO)
Mossman, Craig	PhD, 1995	Axys Pharmaceuticals, Celera, Combinix, Fibrogen, Foothill College (Instructor)
Peng, Xin	MS, 1992	Sterling Pharmaceuticals, SmithKline Beecham, GlaxoSmithKline
Bhanot, Rajeev		Left program.
Foje, Kevin		Switched groups.
Gülgeze, Belgin	MS, 1995	Bristol-Myers Squibb, Novartis
Gracias, Vijaya	PhD, 1998	Parke-Davis, Abbott
Morton, Mendi L.	MS, 1996	Bristol-Myers Squibb
Badiang, Jennifer G.	MS, 1996	GlaxoSmithKline, Novartis
Fecik, Robert		Switched groups.
MacDonald, Mary	PhD, 2001	Recipient of a U.S. Army Predoctoral Research Fellowship, 2000-2001. Scripps Research Institute (postdoc w/ Kim Janda), La Jolla Pharmaceuticals, Human BioMolecular Research Institute, Janssen, Engility
Frank, Kristine	PhD, 1998	Co-advisor (with Professor L. Mitscher). Argersinger Awardee for best doctoral dissertation at the University of Kansas. Pharmacia–Upjohn, Abbott/Abbvie
Furness, Kelly	MS, 1998	Eli Lilly and Company
Golden, Jennifer (née Forsee)	PhD (honors), 2002	Self Fellow, 1996-2000. Stanford University (postdoc w/ Paul Wender), Amgen, University of Kansas Specialized Chemistry Center (Associate Director), University of Wisconsin (Assistant Professor of Pharmacy)

Name	Degree(s)	Notes/Known Employment After Appointment
Smith, Brent T.	PhD, 2002	UCLA (postdoc w/ Michael Jung), DuPont Central Research, DuPont Crop Protection, Virbac, KindredBio, Allergan
Judd, Weston	PhD, 2006	<i>Recipient of an ACPE Predoctoral Fellowship Award, 2000-2001.</i> Myriad
Lucas, Robie		Switched groups.
Wrobleski, Aaron	PhD (honors), 2003	University of California Irvine (postdoc w/ Larry Overman), Eli Lilly
Katz, Christopher	PhD, 2005	Postdoctoral fellow, Boston College (Scott Miller). Sepracor, ArQule, Tetraphase, University of Massachusetts Boston (lecturer), Nitto Denko Avecia, Spero, Boston Biomedical
Keeler, John	MS, 2006	Yankton Sioux Tribe (wildlife biologist), South Dakota State University (lecturer), POET Research, MilliporeSigma
Yao, Lei	PhD, 2005	Scripps Research Institute (postdoc w/ William Roush)
Arnold, Nathan		Left program.
Grecian, Scott	PhD, 2007	Self Fellow, 2007. Scripps Research Institute (postdoc with K. Barry Sharpless and Valery Fokin), Lacamas Laboratories, Life Technologies
Lyle, John B.		Switched groups after 1 year.
Hirt, Erin	PhD, 2009	Research Triangle Institute (postdoc), US Patent Examiner
Lee, Huey Lih	MS, 2006	
Chaudhry, Priyanka	MS, 2006	KU Center for Chemical Methodologies and Library Development, Aurigene
Somal,	MS, 2006	Associate Scientist, Abbott/Abbvie
Gagandeep Ribelin, Timothy	MS, 2006 JD, 2016 (Baylor)	GlaxoSmithKline, Husch Blackwell
Pei, Huaxing	MS, 2006	Eli Lilly
Schroeder, Chad	MS, 2008	KU Specialized Chemistry Center, MilliporeSigma
Szostak, Michal	PhD (honors), 2009.	Argersinger Awardee for best doctoral dissertation at the University of Kansas. Princeton University (postdoc w/ David MacMillan), University of Manchester (postdoc w/ David Procter), Rutgers–Newark (Associate Professor)
Meyer, Angelica	PhD, 2011	Weatherford, Halliburton, Aldevron
Poole, Jennifer (née Treece)	PhD (honors), 2011	Yale (postdoc w/ Andrew Phillips), FLIR Systems

Name	Degree(s)	Notes/Known Employment After Appointment
Liu, Ruzhang	PhD, 2012	Yangzhou University (Assistant Professor)
Motiwala, Hashim	PhD (honors), 2014	University of Michigan (postdoc w/ Brent Martin), University of North Carolina (research associate)
Singh, Gurpreet	MS, 2011 PhD. 2016	University of Minnesota (postdoc w/ Michael Walters)
Fehl, Charles	PhD, 2014	Oxford University (postdoc w/ Ben Davis), Wayne State University (assistant professor)
Ma, Huiyong	PhD, 2017	Herbalife Nutrition, Hitgen
Varikiya, Rakesh	PhD, 2016	Southern Research Institute (postdoc), Vanderbilt University (postdoc w/ Steven Fesik), ORIC Pharmaceuticals
Charaschanya, Manwika	PhD, 2018	University of Pittsburgh (postdoc w/ Peter Wipf), Neurocrine
Yin, Qin		Left program.

At the University of North Carolina at Chapel Hill

Vogt, Caleb	PhD, 2021	NIH Predoctoral Fellow
Fields, Allison		Left program
Horton, Matthew	MS, 2021	
Klus, Nick	PhD, 2021	
Greene, Brianne		Left program
Cesta, Drew	PhD, 2021	
Ottavi, Samantha		Joined in 2018
Cacioppo, Jackson		Joined in 2019
Hardee, Dylan		Joined in 2019
Shirley, David		Joined in 2020
Trojniak, Ashley		Joined in 2020
Sherrier, Ryan		Joined in 2021
Welton-Arndt, Anna		Joined in 2021
Zwerneman, Logan		Joined in 2021
Taylor, Kimberly		Joined in 2022
Wood, Abigail		Joined in 2022
Zhang, Xindi		Joined in 2022

Jeffrey Aubé

# Postdoctoral Associates and Visiting Scientist Collaborators

At the University of Kansas

Name Grad Training	Appointment	Known Employment After Appointment
Tanol, Mehmet <i>Ege University</i>	1988–1990	Ege University (Professor), University of Kansas Biotechnology Optimization and Commercialization Center (research associate), Istanbul Kemerburgaz University (Professor), Altinbas University (Director, Institute of Health Sciences)
Zenk, Paul	1988-1991	Oread Laboratories
Spencer, Thomas	1988-1991	Sigma Aldrich
Shih, Mei-jun	1988-1991	UCLA School of Medicine (research associate)
Wolfe, Michael S. <i>University of Kansas</i>	1990-1992	University of Tennessee (Professor), Harvard Medical School (Professor of Neurology), University of Kansas (Matthias Mertes Professor of Medicinal Chemistry)
Milligan, Gregory L. University of Washington	1990–1992	St. Martin's University (Associate Professor)
Kitagawa, Osamu Tokyo Pharmaceutical University	1994–1994	Tokyo Pharmaceutical University (Associate Professor), Shibaura Institute of Technology (Professor)
Kong, Jian-She <i>University of Oviedo</i>	1993–1995	The Ohio State University (postdoc w/ Robert Coleman), Merck, BioDuro (Senior Director of Process Chemistry), Wuxi AppTec (Head of Chemistry Service and Head of Process Chemistry), Chemspec-API (Managing Director)
Dutta, Dinah North Eastern Hill University (Shillong, India)	1993–1996	University of Kansas (research scientist), St. Mark's Lutheran Church (pastor), University of Kansas Medical Center (Chaplain Resident and Oncology Chaplain Fellow)
Wendt, John Wayne State University	1994–1996	Searle, Phamacia, Pfizer, Zoetis, Cardinal Health
Hoemann, Michael University of Michigan	1993–1996	Sepracor, Biogen, Abbott/Abbvie
Usuki, Yoshinosuke University of Tokyo	1994-1996	Osaka City University (Associate Professor)

Name Grad Training	Appointment	Known Employment After Appointment
Jayasinghe, Lalith	1992–1994	Huyser Pharmaceuticals, Procter and Gamble
Agrios, Konstantinos <i>University of Kansas</i>	1995-1996	Scripps Research Institute (postdoc w/ KC Nicolaou), Abbott, Incyte, Villanova University (Assistant Teaching Professor)
Venkatraman, Shankar University of Minnesota	1995–1996	Celera/Axys Pharmaceuticals, Merck, Vitae Pharmaceuticals, IFM Therapeutics
Schildknegt, Klaas Pennsylvania State	1995–1997	Pfizer
Iyengar, Rajesh University of Kansas	1997-1999	Abbott, Ironwood Pharmaceuticals
Sahasrabudhe, Kiran Pennsylvania State	2000-2004	Signal Pharmaceuticals
Ban, Soo Ho	1998-2002	
Reddy, D. Srinivasa University of Chicago	2001-2003	Dr. Reddy's Laboratory, Advinus Therapeutics, CSIR–National Chemical Laboratory
Zeng, Yibin Duquesne University	2002-2004	Chemocentryx
Ramanthan, Senthil Kumar <i>GNDU, India</i>	2003–2005	Merck, Triad Energy Resources, Merrill Lynch, MilliporeSigma
Li, Sze-Wan University of Toronto	2005-2007	Campbell Family Institute for Breast Cancer Research; Treadwell Therapeutics
Kevin Frankowski University of Delaware	2006-2012	University of Kansas Specialized Chemistry Center (Assistant Director), University of North Carolina (Research Assistant Professor)
Fenster, Erik University of British Columbia	2006-2010	Theravance Therapeutics
Ghosh, Partha <i>Rutgers</i>	2008-2010	AMRI, Central University of Jharkhand
Thornton, Paul Dalhousie	2008-2011	GreeneCentre

Name Grad Training	Appointment	Known Employment After Appointment
Huh, Chan Woo Scripps Research Institute	2008-2013	Pfizer
Rane, Digamber University of North Dakota	2008-2011	University of Kansas
Maki, Brooks Northwestern	2009–2011	Highlands University, Benedictine University (Assistant Professor)
Coombs, Thomas Emory University	2008-2012	University of North Carolina at Wilmington (Associate Professor)
Slauson, Stephen University of Mississippi	2009–2013	St. Joseph University (Associate Professor)
McLeod, Michael University of New Zealand	2008-2012	Bayer
Smith, Robert University of Mississippi	2019–2014	Universidade de São Paulo (postdoc), National Institute of Allergy and Infectious Disease (Technology Transfer and Patent Specialist), University of Louisville (Commercialization Manager)
Flaherty, Daniel University of Nebraska Medical Center	2010-2014	Purdue University (Assistant Professor)
Scarry, Sarah University of Mississippi	2013-2015	University of North Carolina (Research Associate Professor)
Li, Kelin Chinese Academy of Science	2013-2015	University of North Carolina (Research Associate)
Roy, Sudeshna University of Mississippi	2014-2017	University of Mississippi (Assistant Professor of Pharmacy)
Nguyen, Quyen University of Illinois – Chicago	2014-2106	Abbvie

Name Grad Training	Appointment	Known Employment After Appointment
Harland, Aubrey University of Michigan	2016-2019	Chemocentryx
Ramesh, Remya CSIR – National Chemical Laboratory	2016-2019	CSIR – Indian Institute of Chemical Technology
Bovino, Michael University of New York – Buffalo	2014–2017	Franklin and Marshall College, Davidson College
McDonald, Stacey Duke University	2016-2018	TCI
Perkowski, Andrew University of North Carolina	2017-2019	University of North Carolina (research associate)
Koehn, Kimberly Colorado State University	2019-2021	Integrated product development associate, Rho
Vernon "Chip" Norwood <i>University of Florida</i>	2019–2021	Integrated product development associate, Rho
Armaly, Ahlam University of Michigan	2019-	

# Jeffrey Aubé

# Selected Undergraduate Student Collaborators

Name	Notes, known education or employment after graduation
Burgett, Paul	Medical school
Lietzen, Sherry	KU Law School
Johnson, Jere	Pharmacist
Martin, Carrie	Eli Lilly
Mock, Scott	Unknown
Dickey, Susan	KU School of Medicine
Langhans, Kendra	MS, Medicinal Chemistry, University of Michigan; Eli Lilly and Company
Fournier, Stacy	Pharmacist
Yantiss, Rhonda	MD 2002 (Harvard), Weill-Cornell (Professor of Pathology)
Cook, Scott	KU School of Medicine
Holt, Jeremy	Pharmacist
Regan, Colleen	Bryn-Mawr College
Lam, Huang	Washington University Medical School
Ko, Ching	Pharmacist
Brooks, Carmen	Summers 1998, 1999 (School of Pharmacy Summer High School Research Minority Program
Reider, Christine	1997–2000. BS, Chemical Engineering, 2002.
Kollhoff, David	KU Undergraduate student
Morrell, Andrew	Summer 2000 (NSF REU student), Scripps Research Institute
Hershberger, John	Summer 2002 (NSF REU student), Arkansas State University (Associate Professor)
Albright, Ashley	Summer and autumn, 2002
Moran, Brian	University of Dublin
Gräf, Melanie	Study abroad student from Bonn University
Miltschitzky, Stefan	Study abroad student from the University of Regensburg)
Schroeder, Chad	5/05–8/05 (from the University of Kansas)
Maurer, Emily	University of Evansville
Berry, Danielle	St. Martin's University
Fritz, Sven-Peter	University of Regensburg
Taylor, William	Jackson State University
Blanks, William	West Virginia University (Medical School)
Glaudin, Ashley	University of Washington
Tracy, Will	Emory University

# **Funding Record**

Direct costs cited unless otherwise noted (in some cases, indirect costs are noted in parentheses). JA is the principal investigator except where noted. Participation as a non-lead investigator on training grants and similar funding mechanisms not included.

University of Kansas Biomedical Research Fund Regioselectivity Using Chiral Boranes, \$5,000, 8/86–8/87

University of Kansas, General Research Fund (New Faculty Award) Asymmetric Nitrogen Insertion Reaction, \$5,000, 7/87 -7/88

University of Kansas, General Research Fund Synthetic Studies Toward Xestoquinone and Related Antibiotics, \$9,504, 7/87 -7/88

Petroleum Research Fund Asymmetric Nitrogen Insertion Reaction, \$18,000, 9/87–9/89

University of Kansas, General Research Fund Deracemization Approach to the Synthesis of Chiral Lactams, \$7,766, 7/88–6/89

National Institutes of Health, General Medical Sciences, FIRST award Asymmetric Reactions of Prochiral Ketones, \$317,308 (\$127,898 ID), 7/88–6/93

American Heart Association, Kansas Affiliate Asymmetric Synthetic Approaches to the Yohimbine Alkaloids, \$62,000 (\$3,720 ID), 7/89–6/92

University of Kansas, General Research Fund Asymmetric Deprotonations of Alkylations Mediated by Chiral Ketals, \$6,251, 7/89–6/90

Eli Lilly and Company Eli Lilly Granteeship, \$20,000, 11/89–10/91

Oread Laboratories (co-PI, with L. Mitscher and G. Georg) Synthesis of Metabolites of Various Candidate Drugs, \$306,148 (\$31,359 ID), 5/89–6/94

University of Kansas Biomedical Research Fund Synthesis of Optically Active *trans*-Hydrindanes, \$4,500, 8/90–1/91

University of Kansas, General Research Fund Design and Synthesis of Potential Peptidomimetics, 5,090, 7/91–6/92

University of Kansas Biomedical Research Fund Potential ACE Inhibitors, \$5,000, 8/91–12/91

Marion Merrell Dow Foundation (Scientific Education Partnership) Peptidomimetic Design and Synthesis, \$50,000, 11/91-10/93

American Heart Association–Kansas Affiliate Peptidomimetic Inhibitors of Angiotensin-Converting Enzyme, \$44,000 (\$2,640 ID), 7/92–6/94

National Institutes of Health, General Medical Sciences New Reactions of Alkyl Azides with Ketones, \$444,043 (\$199,333 ID), 5/93-4/97

National Science Foundation (EPSCoR Program) (co-Investigator, D. Busch, PI)

Program for Molecular Design, Synthesis, and Applications of Macromolecular Materials and Supramolecular Systems, \$1,191,000, 9/92-2/96

Alfred P. Sloan Research Foundation Alfred P. Sloan Research Fellowship, \$30,000, 8/93-7/95

Petroleum Research Fund Single-Electron Transfer Reactions of Oxaziridines, \$50,000, 9/93-8/96

American Cyanamide American Cyanamide Faculty Award–Organic Chemistry, \$5,000, 12/93-11/94

National Institutes of Health, General Medical Sciences (co-investigator, R. Borchardt, PI) Transport Characteristics of Peptide Mimetics, \$484, 401 (\$220,771 ID), 9/94-8/98. Bridging funding of approximately \$42,000 awarded 2/99-7/99 Second award period: \$691,615 (\$313,236 ID), 8/99-7/03

Eli Lilly and Company (co-PI; Robert Hanzlik, PI) Design and Synthesis of Rhinovirus 3C Proteinase Inhibitors, \$83,204 (\$38,274 ID), 9/95–8/98

National Institutes of Health, General Medical Sciences New Methods for the Synthesis of Alkaloids, 508,150 (226,554 ID), 5/97-4/01. No cost extension 4/01-5/01Second award period: 632,000 (277,290 ID); 5/01-4/05Third award period: 780,000 (305,528 ID), 5/05-4/09

American Heart Association–Kansas Affiliate Synthesis and Evaluation of Fibrinogen Receptor Antagonists, \$52,000 (\$3,120 ID), 7/97–6/99

National Science Foundation

Synthesis and Evaluation of Conformationally Biased Peptide Models, \$215,876 (\$89,124 ID), 3/00–2/03

Petroleum Research Fund Synthesis and Conformational Analysis of Constrained Dipeptides, \$60,000, 9/00-8/02

University of Kansas Research Development Fund (co-investigator, R.P. Hanzlik, PI) "Structure-Based Design of Calpain Inhibitors", \$63,000, 10/00-9/02

American Heart Association–Heartland Affiliate Nonpeptide Inhibitors of Calpain, \$100,000 (\$10,000 IDC), 6/00–5/03

NIH Center for Biomedical Research Excellence (co-investigator, O. Narayan, PI) "Novel Approaches for Control of Microbial Pathogens" \$8,015,584 direct costs (3,112,668 IDC), 7/30/01-7/29/06

University of Kansas Research Development Fund "Development of Combinatorial Chemistry Infrastructure", \$10,000, 10/01-9/03

University of Kansas Research Development Fund "Development of Combinatorial Chemistry Infrastructure–Round 2", \$100,000, 10/02-9/04 National Institutes of Health, General Medical Sciences KU Chemical Methodologies and Library Development Center of Excellence, \$9,568,657 (total) 9/30/2003 - 8/31/2008 No cost extension: 9/1/2008–9/29/2008 Second award period: \$9,528,802; 9/30/2008-7/31/2013 US Department of Education (Atlantis program) Transatlantic Dual Bachelor of Science Degree in Chemistry, \$423,000 10/01/06-09/30/10 No cost extension: 10/1/2008–9/30/2011 National Institutes of Health, National Human Genome Research Institute University of Kansas Specialized Chemistry Center, \$20,226,057 (total), bonus funding of \$2,000,000 provided 9/1/08-5/31/14 National Institutes of Health, Shared Instrumentation Grant Program Centralized flow synthesis and analysis system, \$482,034 7/22/10-7/21/11 Institute for Advancing Medical Innovation Novel Kappa Opioid Receptor Agonists and Antagonists, \$100,000 8/21/09-3/01/11 National Institutes of Health COBRE (core leader; PI: B.N. Timmermann) Center for Cancer Experimental Therapeutics, \$7,275,000 (total) 9/1/10-5/31/15 Institute for Advancing Medical Innovation / KUMCRI flowthrough (co-PI: PI: Soumen Paul) Novel Methods to Maintain and Establish Pluripotent Stem Cells, \$100,000 8/21/09-10/31/10 National Institutes of Health Pilot Scale Libraries Inspired by Natural Products, \$1,442,849 (total) 8/01/10-5/31/13 National Institutes of Health (co-PI, with Laura Bohn (Scripps–Florida)) Novel Probes of the Kappa Opioid Receptor: Chemistry, Pharmacology, and Biology, \$3,698,130 (total costs, shared between KU and Scripps) 6/01/11-4/30/16 Renewed, 5/1/16–1/31/21 National Institutes of Health (co-PI, with Emily Scott) Structure and Function of Cytochrome P450 17A1, \$1,110,545 (total) 6/01/12-3/31/16 Gates Research Foundation (Weill–Cornell flowthrough, PI: Carl Nathan) Medicinal Chemistry Toward New Cures for Mtb Infection, \$397,630 (total) 11/01/13-10/31/15 National Institutes of Health (co-I, B. Sleckman, PI) Novel DNA Double Strand Break Repair Targeting Therapeutics for Cancer Treatment, \$6,086 (total, to JA only) 04/01/14-03/31/17

National Institutes of Health (Core C Director; Carl Nathan, PI) TB Research Unit, \$4,563,989 (total) 7/01/14-6/30/21 National Institutes of Health (PI until 7/16, co-I 7/16–7/17, T. Prisinzano, PI) Legacy Continuation of the KU CMLD Mission, \$1,538,108 total costs 8/1/14-7/31/17 National Institutes of Health (co-PI, with Kristi Neufeld and Liang Xu) Small Molecules Modulating RNA-Binding Protein Msi1, \$432,491 9/19/2014-8/31/2015 National Institutes of Health (co-I; PI, N. Muma) HTS to Identify Small Molecules to Disrupt Abnormal Huntingtin Interactions in HD, \$1,990,087 total costs 4/01/15-03/31/19 National Institutes of Health (co-PI, with Kristi Neufeld and Liang Xu) Molecular cancer therapy targeting HuR-ARE interaction, \$432,001 6/1/2015-5/31/2020 Eshelman Institute for Innovation Next Generation beta-Lactams, \$200,000 5/1/2017-4/30/2018, NCE to 5/31/2021 Eshelman Institute for Innovation Kappa Opioid Receptor Agonists Lacking Side Effects, \$500,000 5/1/2018–4/30/2020, NCE to 5/31/2021 Eshelman Institute for Innovation (PI, transferred from S. Scarry, co-I: S. Campbell) Small molecule inhibitors of RAS proteins, \$200,000 6/1/2019-5/31/2021 MeirzGTx (co-PI, with Kevin Weeks) Small Molecule RNA Binders, \$1,105,826 6/10/2020-6/09/2023 Pinnacle Hill (co-I; PI: Ben Philpot) Small Molecule Unsilencers, \$2,286,486 6/1/2020-5/31/2022 National Institute of General Medical Sciences (PD, co-PD: Marcey Waters) UNC Chemical Biology Interface Training Program (T32GM135122), \$1,140,185 7/1/2021-6/30/2026 National Institute of Allergy and Infectious Diseases (PI, co-Is: Carl Nathan, James Sacchettini) Discovery of Phospopantetheinyl Transferse Inhibitors Against Mycobacterium tuberculosis (R01AI155510), \$3,136,536 7/1/2021-6/30/2025 Eshelman Institute for Innovation (co-PI, with Gregory Scherrer) Developing Novel Amygdalar Analgesics Against Pain Unpleasantness to End the Dual Epidemic of Chronic Pain and Opioid Addiction, \$400,000

6/1/2022-5/31/2025