

DEPARTMENT OF CHEMISTRY AND BIOCHEMISTRY 601 SOUTH COLLEGE ROAD DOBO 2068
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# Jeremy B. Morgan

#### **PERSONAL**

■ Birth date: April 10, 1978 (Princeton, WV).

## **EDUCATION AND TITLES**

- 7/2022 present, Chair of Chemistry and Biochemistry, The University of North Carolina at Wilmington
- 8/2016 present, Professor, The University of North Carolina at Wilmington.
- 8/2012 8/2016, Associate Professor, The University of North Carolina at Wilmington.
- 8/2007 8/2012, Assistant Professor, The University of North Carolina at Wilmington.
- 2/2005 7/2007, "Stereocontrolled Synthesis of Functionalized *cis*-Cyclopentapyrazolidines by 1,3-Dipolar Cycloaddition Reactions of Azomethine Imines: Application to the Synthesis of Massadine," NIH Post-Doctoral Fellow and Overman Group Coordinator, The University of California at Irvine (Advisor: Larry E. Overman).
- 8/2000 12/2004, "Catalytic Methods for the Generation of Chiral Bis(boronates): The Utility of Saturated Carbon–Boron Bonds," Ph. D., The University of North Carolina at Chapel Hill (Advisor: James P. Morken).
- 3/1999 8/2000, Student research investigating the effect of stress on murine immunology. National Institute for Occupational Safety and Health (NIOSH), Morgantown, West Virginia. (Advisor: Sally S. Tinkle).
- 9/1996 5/2000, B. S. Chemistry (*including work on the synthesis of Titanocene polymerization catalysts*), West Virginia University (Advisor: Jeffrey Petersen).

## HONORS AND AWARDS

- OIC New Invention Grant (UNCW) with R. Thomas Williamson, \$11,683, 2022.
- Spring Undergraduate Research and Creativity Award (UNCW), \$5,000, 2022.
- James F. Merritt Million Dollar Club, **2021**.
- Summer Undergraduate Research and Creativity Award (UNCW), \$5,000, 2020.
- CAS Chancellor's Teaching Excellence Award (UNCW), 2019.
- Research Reassignment, Caltech, Pasadena, CA, 2018.
- Summer Undergraduate Research and Creativity Award (UNCW), \$5,000, 2018.
- Cahill Research Award (UNCW), \$5,000, 2018.
- UNCW CAS Pilot Grant, \$3,500, 2017.
- Spring Undergraduate Research and Creativity Award (UNCW), \$5,000, 2016.
- Outstanding Continuous Contribution to Compound Screening (Lilly OIDD), 2015.
- Summer Curriculum Development Initiative (UNCW), \$3,000, 2015.

- Summer Undergraduate Research and Creativity Award (UNCW), \$3,500, **2015**.
- Cahill Research Award (UNCW), \$3,000, **2015**.
- Discere Aude Award (UNCW), 2014.
- UNCW Grant Writing Initiative Award, \$5400, 2013.
- Cahill Research Award (UNCW), \$3,000, **2011**.
- Cahill Research Award (UNCW), \$3,000, **2009**.
- UNCW Summer Research Initiative, \$3,500, 2008.
- Cahill Research Award (UNCW), \$3,000, **2008**.
- Ruth L. Kirschstein National Research Service Award (NIH #GM073312-01), \$88,044, 2005-2007.
- Eli Lilly Graduate Fellow in Organic Chemistry, 2004.
- Burroughs-Wellcome Fellow in Synthetic Chemistry, 2001.
- Phi Beta Kappa, member since **2000**.
- Hypercube Scholar, **2000**.

## PUBLICATIONS (Undergraduate Student; Master's Student)

- 1. **J. S. Wood**, **W. H. Gordon**, J. B. Morgan, and R. T. Williamson *Magn. Reson. Chem.* **2022**, *60*, 196–202. "Calculated and Experimental <sup>1</sup>H and <sup>13</sup>C NMR Assignments for Cannabicitran."
- 2. **K. Van Hecke**, **T. R. Benton**, <u>M. Casper</u>, **D. Mauldin**, <u>B. Drake</u>, and J. B. Morgan *Org. Lett.* **2021**, *23*, 7916–7920. "Palladium-Catalyzed, Enantioselective Desymmetrization of *N*-Acylaziridines with Indoles."
- 3. <u>A. Z. Monroe</u>, **W. H. Gordon**, **J. S. Wood**, G. E. Martin, J. B. Morgan, and R. T. Williamson *Chem. Commun.* **2021**, *57*, 5658–5661. "Structural Revision of a Wnt/β-catenin Modulator and Confirmation of Cannabielsoin Constitution and Configuration."
- 4. C. I. Jette, I. Geibel, S. Bachman, M. Hayashi, S. Sakurai, H. Shimizu, J. B. Morgan, and B. M. Stoltz *Angew. Chem. Int. Ed.* **2019**, *58*, 4297–4301. "Palladium-Catalyzed Construction of Quaternary Stereocenters by Enantioselective Arylation of γ-Lactams with Aryl Chlorides and Bromides."
- 5. **K. Scholl**, **J. Dillashaw**, **E. Timpy**, Y.-h. Lam, <u>L. DeRatt</u>, <u>T. R. Benton</u>, <u>J. P. Powell</u>, K. N. Houk, and J. B. Morgan *J. Org. Chem.* **2018**, *83*, 5756–5765. "Quinine-Promoted, Enantioselective Boron-Tethered Diels-Alder Reaction by Anomeric Control of Transition-State Conformation."
- 6. **H. N. Rubin**, **K. Van Hecke**, J. J. Mills, **J. Cockrell**, and J. B. Morgan *Org. Lett.* **2017**, *19*, 4976–4979. "Enantiospecific Synthesis of β-Substituted Tryptamines."
- 7. M. Punk, C. Merkley, K. Kennedy, and J. B. Morgan ACS Catal. 2016, 6, 4694–4698. "Palladium-Catalyzed, Enantioselective Heine Reaction."
- 8. <u>J. Kidd, K. Maiden</u>, and J. B. Morgan *Tetrahedron* **2016**, 72, 3802–3807. "Synthesis of β-Substituted Tryptamines by Regioselective Ring Opening of Aziridines."
- 9. R. N. Mead, **S. Barefoot**, J. R. Helms, J. B. Morgan, and R. J. Kieber *Environ. Toxicol. Chem.* **2014**, *33*, 2240–2245. "Photodegradation of the Antihistamine Cetirizine in Natural Waters."
- 10. **H. Rubin**, **J. Cockrell**, and J. B. Morgan *J. Org. Chem.* **2013**, 78, 8865–8871. "Scalable Synthesis of *N*-Acylaziridines from *N*-Tosylaziridines."
- 11. **J. Cockrell**, <u>C. Wilhelmsen</u>, <u>H. Rubin</u>, **A. Martin**, and J. B. Morgan *Angew. Chem. Int. Ed.* **2012**, *51*, 9842–9845. "Enantioselective Synthesis and Stereoselective Ring Opening of *N*-Acylaziridines."
- 12. **T. Dinio**, A. P. Gorka, **A. McGinniss**, P. D. Roepe, and J. B. Morgan *Bioorg. Med. Chem.* **2012**, *20*, 3292–3297. "Investigating the Activity of Quinine Analogues versus Chloroquine Resistant *Plasmodium falciparum*."
- 13. A. Martin, K. Casto, W. Morris, and J. B. Morgan Org. Lett. 2011, 13, 5444-5447. "Phosphine-Catalyzed Heine Reaction."
- 14. <u>T. A. Doroski</u>, <u>M. R. Cox</u>, and J. B. Morgan *Tetrahedron Lett.* **2009**, *50*, 5162–5164. "Iodoetherification of Unactivated Alkenes Catalyzed by Diphosphine Palladium(II) Complexes."

- 15. R. N. Mead, J. B. Morgan, G. B. Avery Jr., R. J. Kieber, A. M. Kirk, S. A. Skrabal, and J. D. Willey *Marine Chem.* 2009, 166, 13–17. "Occurrence of the Artificial Sweetener Sucralose in Coastal and Marine Waters of the United States."
- 16. J. Gergely, J. B. Morgan, and L. E. Overman *J. Org. Chem.* **2006**, *71*, 9144–9152. "Stereocontrolled Synthesis of Functionalized *cis*-Cyclopentapyrazolidines by 1,3-Dipolar Cycloaddition Reactions of Azomethine Imines."
- 17. S. Trudeau, J. B. Morgan, M. Shrestha, and J. P. Morken J. Org. Chem. 2005, 70, 9538–9544. "Rh-Catalyzed Enantioselective Diboration of Simple Alkenes: Reaction Development and Substrate Scope."
- 18. J. B. Morgan, J. P. Morken *J. Am. Chem. Soc.* **2004**, *126*, 15338–15339. "Catalytic Enantioselective Hydrogenation of Vinyl Bis(boronates)."
- 19. S. P. Miller, J. B. Morgan, F. J. Nepveux, V, and J. P. Morken *Org. Lett.* **2004**, *6*, 131–133. "Catalytic Asymmetric Carbohydroxylation of Alkenes by a Tandem Diboration/Suzuki Cross-Coupling/Oxidation Reaction."
- 20. J. B. Morgan, S. P. Miller, and J. P. Morken *J. Am. Chem. Soc.* **2003**, *125*, 8702–8703. "Rhodium-Catalyzed Enantioselective Diboration of Simple Alkenes."
- 21. J. B. Morgan and J. P. Morken *Org. Lett.* **2003**, *5*, 2573–2575. "Platinum-Catalyzed Tandem Diboration/Asymmetric Allylboration: Access to Nonracemic Functionalized 1,3-Diols."
- 22. M. S. Flint, <u>J. B. Morgan</u>, <u>S. N. Shreve</u>, and S. S. Tinkle *Stress* **2003**, *6*, 59–62. "Restraint Stress and Corticotropin Releasing Hormone Modulation of Murine Cutaneous POMC mRNA."

#### **PATENTS**

- Williamson, R. T.; Morgan, J. B.; Wood, J. S.; Gordon, W. H. "Preparation and Activity Characterization of Cannabicitran Enantiomers" U.S. Provisional Patent 63,426,973, Nov. 21, 2022.
- B. M. Stoltz, A. W. Sun, S. N. Hess, C. I. Jette, I. Geibel, S. Bachman, M. Hayashi, H. Shimizu, J. B. Morgan, S. Sakurai, and Z. P. Sercel "Gem-Disubstituted Pyrrolidines, Piperazines, and Diazepanes, and Compositions and Methods of Making the Same" U.S. Patent 11,214,568, Jan. 4, 2022.
- Morken, J. P.; Morgan, J. B.; Miller, S. P.; Pelz, N. F. "Preparation of Optically Active Alcohols by Catalyzed Enantioselective Transformations of Alkenes." (WO2005012209), 2005.

## **GRANT ACTIVITY**

- Academic Research Enhancement Award (AREA), NIH Morgan (PI) 05/01/19–04/30/23 "Enantioselective Synthesis of Nitrogen-Containing Small Molecules"
   \$360,250, Funded
- Academic Research Enhancement Award (AREA), NIH Morgan (PI) 04/01/15–03/31/19 "Enantioselective Synthesis of Nitrogen-Containing Small Molecules"
   \$322,591, Funded
- Organic Syntheses Undergraduate Summer Research Award "Synthesis and Rearrangement of *N*-Acylazetidines"
   \$8,000, Funded
- UNCW Dept. of Chemistry Bridge Funds Morgan (PI) 12/01/12–3/31/15 \$10.000, *Funded*
- ACS Petroleum Research Fund, 50667-UNI1 Morgan (PI) 01/01/11–08/31/13 "Synthesis and Borate-Catalyzed Kinetic Resolution of Terminal Aziridines" \$50,000, Funded
- UNCW Center for Marine Science Pilot Project Morgan (co-PI) 08/01/08–07/31/09 "The Occurrence and Fate of Synthetic Estrogens in Marine Waters" \$34,364, *Funded*
- Cottrell College Science Award, Research Corporation Morgan (PI) 01/01/08–12/31/09 "Catalytic Enantioselective Cohalogenation of Unactivated Alkenes" \$45,000, Funded

Departmental Start-up Funds \$50,000

## **PRESENTATIONS**

- Gordon Research Conference on Stereochemistry Poster Presentation, 7/25/2022.
- Virginia Commonwealth University Invited Seminar, 3/10/2022.
- Southeast Regional Meeting of ACS Seminar, Organic Division, 10/21/2019.
- East Carolina University Invited Seminar, 3/15/2019.
- Southeast Regional Meeting of ACS Seminar, Organic Division, 11/2/2018.
- Gordon Research Conference on Stereochemistry Poster Presentation, 7/23/2018.
- Southeast Regional Meeting of ACS Seminar, Organic Division, 11/10/2017.
- Coastal Carolina University Invited Seminar, 10/26/2018.
- Gordon Research Conference on Natural Products Poster Presentation, 8/2/2017.
- University of North Carolina, Greensboro Invited Seminar, 10/14/2016.
- University of Tampa, Tampa, FL Invited Seminar, 4/1/2016.
- 251<sup>th</sup> ACS National Meeting Seminar, Asymmetric Reactions and Syntheses, 3/13/2016.
- Gordon Research Conference on Organic Reactions and Processes Poster Presentation, 7/21/2015.
- Concord University, Athens, WV Invited Seminar, 3/12/2015.
- 246<sup>th</sup> ACS National Meeting Seminar, Heterocycles and Aromatics, 9/10/2013.
- University of North Carolina, Wilmington Departmental Seminar, 1/18/2013.
- NC Southeast Regional Meeting Invited Seminar, 10/25/2012.
- 243<sup>rd</sup> ACS National Meeting Seminar, New Reactions and Methodology, 3/25/2012.
- Gordon Research Conference on Heterocyclic Compounds Poster Presentation, 6/29/2011.
- Gordon Research Conference on Organic Reactions and Processes Poster Presentation, 7/22/2010.
- Gordon Research Conference on Heterocyclic Compounds Poster Presentation, 7/1/2009.
- Gordon Research Conference on Stereochemistry Poster Presentation, 7/29/2008.
- 40<sup>th</sup> National Organic Chemistry Symposium Poster Presentation, 6/5/2007.
- 232<sup>nd</sup> ACS National Meeting Student Seminar, New Reactions and Methodology, 9/12/2006.
- 228<sup>th</sup> ACS National Meeting Student Seminar, Asymmetric Reactions and Syntheses, 8/23/2004.
- Gordon Research Conference on Stereochemistry Poster Presentation, 6/22/2004.
- 38<sup>th</sup> National Organic Chemistry Symposium Poster Presentation, 6/11/2003.
- 117<sup>th</sup> NC-ACS Sectional Conference Student Seminar, BMO Session, 4/26/2003.
- 224<sup>th</sup> ACS National Meeting Student Seminar, Asymmetric Reactions and Syntheses, 8/22/2002.

# TEACHING EXPERIENCE

- 1/2019 5/2019, Senior Seminar (CHM 495), UNCW.
- 8/2016 present, Advanced Organic Chemistry (CHM 516 + online), UNCW.
- 8/2015 12/2018, Organometallics in the Pharmaceutical Industry (CHM 490), UNCW.
- 5/2014 8/2016, Graduate Comprehensive Literature Review (CHM 597-online), UNCW.
- 8/2012 5/2019 (various semesters), Graduate and External Seminar Program (CHM 595), UNCW.
- 1/2009 5/2015, Advanced Techniques in Organic Chemistry Lab (CHML 312), UNCW.
- 8/2007 8/2016; 8/2020 5/2022, Organic Chemistry I (CHM 211), UNCW.
- 1/2008 5/2022, Organic Chemistry II (CHM 212), UNCW.
- 8/2007 1/2009, Organic Chemistry I Lab (CHML 211), UNCW.
- 1/2008 present, Directed Individual Study (CHM 491), UNCW.

- 2/2005 7/2007, Overman Group Coordinator, UCI.
- 8/1998 12/2004, Personal Tutor, Organic and General Chemistry.
- 3/2003, Guest Lecturer, Special Topics in Chemistry: Asymmetric Catalysis, UNC-CH.
- 8/2000 5/2001, Teaching Assistant, General Chemistry Laboratory Instructor, UNC-CH.
- 8/1997 5/1998, Undergraduate Teaching Assistant, Honors Chemistry Laboratory, WVU.

#### UNIVERSITY SERVICE

- 1/2022 present, Watermark Faculty Success Advisory Board.
- 10/2021 5/2022, SACSCOC Subcommittee for Standards.
- 9/2021 5/2022, CAS Curriculum Committee.
- 1/2021 5/2021, Racial Justice Learning Community STEM Committee.
- 9/2020 11/2020, Hiring Committee-Office of Innovation and Commercialization Director.
- 8/2015 5/2019, Faculty Senate Research Committee.
- 9/2016 5/2017, F&A Review Committee.

## **DEPARTMENTAL SERVICE**

- 8/2021 6/2022, Department Assistant Chair
- 1/2021 6/2022, Diversity and Inclusion Committee.
- 11/2021 4/2022, Hiring Committee Chair-Organic Assistant Professor.
- 8/2018 8/2021, Website Committee (chair).
- 8/2017 8/2021, Graduate Committee.
- 8/2007 8/2021, Undergraduate Curriculum Committee.
- 3/2019 1/2020, Workload Committee.
- 2020, Pharmaceutical Chemistry RTE Committee.
- 8/2018 5/2019, Evaluation Committee.
- 11/2017 2/2018, Hiring Committee-Pharmaceutical Chemistry Faculty.
- 4/2017 8/2018, Vision and Planning Committee.
- 1/2017 4/2017, Hiring Committee-NMR/MS Director.
- 8/2014 12/2016, Faculty Senate Representative.
- 8/2013 8/2017, Publicity and Recruiting Committee.
- 4/2014 8/2014, Hiring Committee-NMR/MS Director.
- 1/2013 5/2013, Hiring Committee-NMR/MS Director.
- 10/2011 2/2012, Hiring Committee-Organic Assistant Professor.
- 8/2010 8/2016, Organic Chemistry Lecture Coordinator.
- 10/2010 2/2011, Hiring Committee-Biochemistry Faculty.
- 8/2007 8/2013, Faculty Teaching Load Committee Member.

# PROFESSIONAL SERVICE

- 1/2015 12/2016, Chair, ACS Eastern NC Section
- 4/2013 12/2014, Chair-elect, ACS Eastern NC Section
- Reviewer ACS Petroleum Research Fund
- Reviewer Research Corporation
- Reviewer National Science Foundation
- Reviewer Journal of the American Chemical Society
- Reviewer *Angewandte Chemie*
- Reviewer Chemical Science
- Reviewer *Organic Letters*
- Reviewer *ACS Catalysis*

- Reviewer *Journal of Organic Chemistry*
- Reviewer Advanced Synthesis and Catalysis
- Reviewer Bioorganic Medicinal Chemistry Letters
- Reviewer *Tetrahedron Letters*
- Reviewer *Tetrahedron*
- Reviewer *Synthesis*
- Reviewer European Journal of Medicinal Chemistry
- Reviewer Journal of Chemical Education