

03/2010 Travel Award, Division of Organic Chemistry, American Chemical Society
07/2004–06/2006 Merit Scholarship, IIT-Kharagpur
10/2001 Meritorious Award, University of Delhi

OTHER EXPERIENCE AND PROFESSIONAL MEMBERSHIPS

Served in the NSF, NIH and DOD Panels, Reviewer for the ACS-PRF grants

Other Internal and External Affiliations:

- 1) Member of OU Faculty Senate
- 2) Member of the Dodge Family College of Arts and Sciences Student Awards Committee
- 3) Chair of the Faculty Awards Committee Department of Chemistry and Biochemistry
- 4) Member, American Chemical Society, American Society of Pharmacognosy
- 5) Served in the Gold-water scholarship panel and Blavatnik Awards Committee at OU,
- 6) Panel Judge at the Undergraduate Research Day
- 7) Reviewer, Organic Letters, The Journal of Organic Chemistry, The European Journal of Organic Chemistry, Chemistry: A European Journal, BMCL, Carbohydrate Research, Synlett, OBC, Dalton Transactions and Chemical Communications

Peer-Reviewed Publications (Independent Career, Undergraduate Authors Underlined)

31. Bain, A. I.; Massaro, N. P.; Chinthapally, K.; **Sharma, I.** "Vinyl Metal Carbene Initiated Cascade Reactions for the Synthesis of Carbo- and Hetero-cycles" **2022** (submitted).
30. Bain, A. I.; Chinthapally, K.; Hunter, A. C.; (equal contributions AB, KC, AH) **Sharma, I.** "Dual Catalysis in Rhodium (II) Carbenoid Chemistry" *Eur. J. Org. Chem.* **2022**, DOI: 10.1002/ejoc.202101419, **Selected for the Front Cover Page**
29. Paymode, D.; Hunter, A. C.; **Sharma, I.** "Rh-Catalyzed [3+2]-Annulation of Diazoquinones and Enoethers: Total Synthesis of Aflatoxin B2" *Eur. J. Org. Chem.* **2021**, 2034–2040. DOI: 10.1002/ejoc.202100186
28. Schlitzer, S.; Arunprasath, D.; Stevens, K.; (UG) **Sharma, I.** "A Metal Free Aromatic Cascade for the Synthesis of Diverse Heterocycles" *Org. Chem. Front.* **2020**, 7, 913–918. DOI: 10.1039/c9qo01336a; **Selected for the Front Cover Page**
27. Hunter, A. C.; Chinthapally, K.; Bain, A.; Steven, J. C.; **Sharma, I.** "Rh/Au dual catalysis in Carbene sp²-CH Functionalization/Conia-ene Cascade to the Stereoselective Synthesis of Diverse Spirocarbocycles" *Adv. Synth. Catal.* **2019**, 361, 2951–2958. DOI: 10.1002/adsc.201900079
26. Massaro, N.; Chatterji, A.; **Sharma, I.** "A three Component Approach to *Pyridine Stabilized Keteneimines for the Synthesis of Diverse Heterocycles*" *J. Org. Chem.* **2019**, 84, 13676–13685. DOI: 10.1021/acs.joc.9b01906
25. Chinthapally, K.; Massaro, N.; Sabrina, T.; (UG), Gardner, E.; **Sharma, I.** "Trapping Rhodium Vinylcarbenoids with Aminochalcones for the Synthesis of Medium-Sized

Azacycles” *Tetrahedron Letters* **2019**, *60*, 151253. **DOI:**
<https://doi.org/10.1016/j.tetlet.2019.151253>

24. In collaboration with the NIH-NCATS Library Screening Program; “*Canvass: a Crowd-Sourced Natural Product Screening Library for Exploring Biological Space*” *ACS Cent. Sci.* **2018**, *4*, 1727–1741. **DOI:** 10.1021/acscentsci.8b00747

23. Massaro, N. P.; Stevens, J. C.; Chatterji, A.; **Sharma, I.** “*Stereoselective Synthesis of Diverse Lactones through a Cascade Reaction of Rhodium Carbenoids with Ketoacids*” *Org. Lett.* **2018**, *20*, 7585–7589. **DOI:** 10.1021/acs.orglett.8b03327

22. Hunter, A. C.; Almutwalli, B.; Bain, A.; **Sharma, I.** “*Trapping Rhodium Carbenoids with Aminoalkynes for the Synthesis of Diverse N-Heterocycles*” *Tetrahedron* **2018**, *74*, 5451–5457 (Invited article in honor of Derek Barton on his centennial birthday).

21. Hunter, A.C.; Schlitzer, S.C.; Stevens, J.C.; Almutwalli, B.; **(UG) Sharma, I.** “*A Convergent Approach to Diverse Spiroethers through Stereoselective Trapping of Rhodium Carbenoids with Gold Activated Alkynols*” *J. Org. Chem.* **2018**, *83*, 2744–2752. **DOI:** 10.1021/acs.joc.7b03196

20. Chinthapally, K.; Massaro, N.; Padgett, H.L.; **(UG) Sharma, I.** “*A Serendipitous Cascade of Rhodium Vinylcarbenoids with Aminochalcones for the Synthesis of Functionalized Quinolines*” *Chem. Comm.* **2017**, *53*, 12205–12208. **DOI:** 10.1039/C7CC07181G

19. Chinthapally, K; Massaro, N. P.; **Sharma, I.** “*Rhodium Carbenoid Initiated O–H Insertion/Aldol/Oxy-Cope Cascade for the Stereoselective Synthesis of Functionalized Oxacycles*” *Org. Lett.* **2016**, *18*, 6340–6343. **DOI:** 10.1021/acs.orglett.6b03229

18. Hunter, A. C.; Schlitzer, S. C.; **Sharma, I.** “*Synergistic Diazo–OH Insertion/Conia-Ene Cascade Catalysis for the Stereoselective Synthesis of γ -Butyrolactones and tetrahydrofurans*” *Chem. Eur. J.* **2016**, *22*, 16062–16065 **DOI:** 10.1002/chem.201603934.

17. In Collaboration with Professor Lakshmi Devi (Mount Sinai, New York) and Joseph Parello (Vanderbilt University); Gupta, A.; Gomes, I.; Bobeck, E. N.; Fakira, A. K.; **Massaro, N. P.**; **Sharma, I.**; Cave, A.; Hamm, H. E.; Parello, J.; Devi, L. A. “*Collybolide is a Novel Biased Agonist of κ -Opioid Receptors with Potent Antipruritic Activity*” *Proc. Natl. Acad. Sci.* **2016**, *113*, 6041–6046. **DOI:** 10.1073/pnas.1521825113

16. Hunter, A. C.; Chinthapally, K.; **Sharma, I.** “*Rh₂(esp)₂: An Efficient Catalyst for O–H Insertion Reactions of Carboxylic Acids into Acceptor/Acceptor Diazo Compounds*” *Eur. J. Org. Chem.* **2016**, 2260–2263, **selected for the front cover page**; **DOI:** 10.1002/ejoc.201600064

Publications (Prior to Independent Career)

15. **Sharma, I.**; Ji, C.; Hudson, L. L.; Guney, T.; Pesci, E. C.; Coleman, J. P.; Tan, D. S. “*Comparative Structure–Activity Relationships between the *P. aeruginosa* Anthranilyl-CoA Synthetase PqsA and the *M. tuberculosis* Salicylate Adenylation Enzyme MbtA*” **2022** (manuscript in preparation).

14. Ji, C.; **Sharma, I.**; Pratihari, D.; Hudson, L. L.; Maura, D.; Guney, T.; Rahme, L. G.; Pesci, E. C.; Coleman, J. P.; Tan, D. S. “*Designed small-molecule inhibitors of the anthranilyl-CoA*

synthetase PqsA block quinolone biosynthesis in *Pseudomonas aeruginosa*" *ACS Chem. Biol.* **2016**, *11*, 3061–3067.

13. Matarlo, J. S.; Evans, E. C.; **Sharma, I.**; Lavaud, L. J.; Ngo, S. C.; Shek, R.; Rajashankar, K. R.; French, J. B.; Tan, D. S.; Tonge, P. J. "Mechanism of MenE Inhibition by Acyl-Adenylate Analogues and Discovery of Novel Antibacterial Agents" *Biochemistry* **2015**, *54*, 6514–6524.

12. **Sharma, I.**; Wurst, J.; Tan, D. S. "Solvent-Dependent Divergent Functions of Sc(OTf)₃ in Stereoselective Epoxide-Opening Spiroketalizations" *Org. Lett.* **2014**, *16*, 2474–2477.

11. In collaboration with Dr. Susruta Majumdar (Pasternak Lab, MSKCC), Váradi, A.; Palmer, T. C.; Notis, P. R.; Redel-Traub, G. N.; Afonin, D.; Subrath, J. J.; Pasternak, G. W.; Hu, C.; **Sharma, I.**; Majumdar, S.; "Three-Component Coupling Approach for the Synthesis of Diverse Heterocycles Utilizing Reactive Nitrilium Trapping" *Org. Lett.* **2014**, *16*, 1668–1671.

10. **Sharma, I.**; Tan, D. S. News and Views "Drug Discovery Diversifying Complexity" *Nature Chemistry* **2013**, *5*, 157–158.

9. Lu, X.; Zhou, R.; **Sharma, I.**; Li, X.; Kumar, G.; Swaminathan, S.; Tonge, P. J.; Tan, D. S. "Stable Analogues of OSB-AMP: Potent Inhibitors of MenE, the *o*-Succinylbenzoate-CoA Synthetase from Bacterial Menaquinone Biosynthesis" *ChemBioChem.* **2012**, *13*, 129–136.

8. **Sharma, I.**; Bohe, L.; Crich D. "Influence of Protecting Groups on the Anomeric Equilibrium; Case of the 4,6-*O*-Benzylidene Acetal in the Mannopyranose Series" *Carbohydr. Res.* **2012**, *357*, 126–131.

7. **Sharma, I.**; Crich D. "Direct Fmoc-Chemistry-Based Solid Phase Synthesis of Peptidyl Thioesters" *J. Org. Chem.* **2011**, *76*, 6518–6524.

6. Aubry, S.; Sasaki, K.; **Sharma, I.**; Crich, D. "Influence of protecting groups on the reactivity and selectivity of glycosylation: Chemistry of the 4,6-*O*-benzylidene protected mannopyranosyl donors and related species" *Topics Curr. Chem.* **2011**, *301*, 141–188.

5. Crich, D.; **Sharma, I.** "Influence of the O3 Protecting Group on Stereoselectivity in the Preparation of *C*-Mannopyranosides with 4,6-*O*-Benzylidene Protected Donors" *J. Org. Chem.* **2010**, *75*, 8383–8391.

4. Crich, D.; **Sharma, I.** "Triblock Peptide and Peptide Thioester Synthesis with Reactivity-Differentiated Sulfonamides and Peptidyl Thioacids" *Angew. Chem. Int. Ed.* **2009**, *48*, 7591–7594.

3. Crich, D.; **Sharma, I.** "Epimerization-Free Block Synthesis of Peptides from Thioacids and Amines with Sanger's and Mukaiyama's Reagents" *Angew. Chem. Int. Ed.* **2009**, *48*, 2355–2358.

2. Crich, D.; **Sharma, I.** "Is Donor-Acceptor Hydrogen Bonding Necessary for 4,6-*O*-Benzylidene Directed β -Mannopyranosylation. Stereoselective Synthesis of β -*C*-Mannopyranosides and α -*C*-Glucopyranosides" *Org. Lett.* **2008**, *10*, 4731–4734.

1. Mal, D.; Ray, S.; **Sharma, I.** "Direct Access to 1,4-Dihydroxyanthraquinones: The Hauser Annulation Reexamined with *p*-Quinones" *J. Org. Chem.* **2007**, *72*, 4981–4984.

Book Chapters

Contributed **6 chapters** to the Electronic Encyclopedia of Reagents for Organic Synthesis Book

- i) 3-Hydroxy-2-[(2,4,6-trimethoxyphenyl)methyl]thio]benzaldehyde, CAS: 901126-79-2.
- ii) 3-Nitro-2-pyridinesulfenyl chloride, CAS: 68206-45-1.
- iii) 5-Ethyl-2-methylpyridine borane, CAS: 1014979-56-6.
- iv) Lithium trimethylsilanethiolate, CAS: 2006-10-4.
- v) Tetrabutylammonium Difluorotriphenylstannate, CAS: 139353-88-1.
- vi) 1-[3-(Diphenylphosphino)-propanoyl]-2,5-pyrrolidindione, CAS: 170278-50-9.

Selected Presentations at Scholarly Meetings (Undergraduates Authors are underlined)

02/2020: Sharma, I. "Harnessing Carbene Chemistry to Drive Drug Discovery "Poster Presentation, 3rd International Symposium on Carbene and Nitrene Chemistry, San Antonio, TX

08/2019: Sharma, I. " Stereoselective Carbene Annulations for Assembling Complexity " Poster Presentation, Natural Products-Gordon Research Conference, Andover, NH

07/2019: Sharma, I. "Structure–Activity Relationships on Collybolide: Discovery of a Potent Kappa-Opioid Agonist with Enhanced Metabolic Stability" Poster Session, International Narcotics Research Conference, New York. **Travel Award** to Indrajeet Sharma

03/2019: Legg-Jack, I. (UG), Hunter, A. C.; Sharma, I. *Enantioselective Synthesis of Diverse Heterocycles through Cu(I) Catalyzed Conia-ene Cyclizations*. Research Day at the Capitol. Oklahoma City.

07/2018: Sharma, I. Poster Presentation, "Leveraging Metal Carbenes for Assembling Complexity" Poster Presentation, Organic Reactions and Processes-Gordon Research Conference, Stonehill College, MA

03/2018: Sharma, I. "Leveraging Metal Carbenes for Assembling Complexity" Oral Presentation, ACS National Conference, New Orleans.

07/2017: Massaro, N. M.; Sharma, I. "Design and Synthesis of Collybolide Probes for Kappa-Opioid Receptor" Poster Session, **International Narcotics Research Conference**, Chicago. **Travel Award** for Nicholas P. Massaro (Graduate Student)

09/2015: Hunter, A. C.; Sharma, I. "A Biomimetic Diversity-Oriented Approach to Azaspirene via Metal Carbenoid Chemistry" Poster Session, National Organization for the Professional Advancement of Black Chemists and Chemical Engineers, Orlando, Florida

Best Poster Award for Arianne C. Hunter (Graduate Student)

07/2015: Hunter, A. C.; Abbott, S. P. (UG); Boucher, M. J. (UG); Sharma, I. "A Biomimetic Diversity-Oriented Approach to the Pseurotins" Poster Session, **American Society of Pharmacognosy**, Copper Mountain, Colorado

Selected Invited Talks:

11/2021 Cellular and Behavioral Neurobiology, University of Oklahoma

10/2021 Department of Chemistry, Georgia State University

08/2021 ACS Fall 2021 National Meeting in Atlanta, Division of Carbohydrate Chemistry, Symposium on Catalytic Approaches to Selective Glycoside Synthesis

- 04/2021** KappaCon 2021, The 6th conference on the therapeutic potential of kappa opioid in pain and addiction
- 08/2020** International Webinar: Chemistry, A Motivation in Research, India
- 02/2020** 3rd International Symposium on Carbene and Nitrene Chemistry, San Antonio, TX
- 08/2019** ACS Division of Organic Chemistry, Academic Young Investigator Symposium
Fall 2019 National Meeting in San Diego
- 05/2019:** Speaker at 2019 Tex-Syn Conference, Baylor University
- 03/2019** Department of Chemistry and Biochemistry, University of Texas at Arlington
- 03/2019** Department of Chemistry, Texas Christian University
- 03/2019:** Department of Chemistry, UT Southwestern Medical Center
- 03/2019** Department of Chemistry, Mississippi State University
- 03/2019** Department of Chemistry, New York University
- 03/2019:** Department of Chemical Biology, Memorial Sloan–Kettering Cancer Center
- 03/2019:** Department of Chemistry, Hunter College,
- 02/2019** Department of Chemistry, Stony Brook University
- 06/2018:** Heterocyclic Compounds Gordon Conference, Newport, RI
- 03/2018:** Opioid Crisis, Southwest Oklahoma City Public Library
- 07/2017:** International Narcotics Research Conference, Chicago, Illinois
- 11/2016:** ACS-Southwest Regional Meeting, Galveston, TX
- 08/2016:** Natural Products & Bioactive Compounds Gordon Conference, Proctor Academy,
New Hampshire
- 02/2016:** One-day course “Natural Products-Inspired Drug Discovery” to older adults (50+)
at the Osher Lifelong Learning Institute at the University of Oklahoma
- 10/2015:** “Natural Products Based Pharmaceuticals: The Gold Standard in Drug Discovery”
at the G.E.T.F.I.T. Conference (Gaining Excellence in Teaching through Focused
Instructional Tools), Norman North High School, Norman, Oklahoma

Research Projects:

- 1) Stereoselective Carbene Annulations for Assembling Molecular Complexity (Long term Project, **Role PI**), Collaborators: Dr. Peng Liu (University of Pittsburgh), Dr. Yihan Shao (OU), Dr. Kenneth Nicholas (OU) and Prof. Lakshmi Devi (Mount Sinai). **Funding:** i) NSF-CAREER Award (**Role PI**, 05/01/2018–04/30/2023), Total Award Amount **\$650,000**; ii) OCAST-Health Award (**Role PI**, 10/01/2020–09/30/2023), Total Award Amount **\$135,000**; iii) ACS-PRF Doctoral Young Investigator Award (**Role PI**, 01/01/2018–08/31/2020), Total Award Amount **\$110,000**.
- 2) Design and Synthesis of Collybolide Probes for Kappa Opioid Receptor (Long term Project, **Role PI**) Collaborators: Prof. Lakshmi Devi (Mount Sinai), Dr. Vsevolod Katritch (University of Southern California), Dr. Joseph Parello (Vanderbilt University), and Dr. Adrien Cave (ICSN, France). **Funding:** i) NIH-NIDA R21/R33 Chemical Discovery Award (**Role PI**, 04/01/2019–03/31/2025), Total Award Amount **\$1,047,395**; ii) OCAST-Health Award (**Role PI**, 08/01/2016–07/31/2019), Total Award Amount **\$135,000**.

- 3) Developing Potent and Selective Inhibitors for Bax/Bak
Collaborators: Dr. Yihan Shao (OU) and Dr. Jialing Lin (OUHSC) **Funding:** i) OCAST-Health Award (PI: Yihan Shao, 07/01/2018–06/30/2021), Total Award **\$135,000**. NIGMS-COBRE Pilot Award (**Role PI**, 06/15/2018–05/31/2019), Total Award Amount **\$77,500**.
- 4) Catalytic Functionalization of Hydrocarbons with Nitrous Oxide
Collaborators: Dr. Kenneth Nicholas (OU), Dr. Steven Crossley (Chemical Engineering), Dr. Wei Qin (Microbiology) and Dr. Tim Filley (Geoscience);
- Funding:** i) OU Faculty Investment Program; Total Award Amount **\$12,800**, ii) Collaborative Research Faculty Fellowship, DFCAS OU (**Role PI**, 06/01/2022–05/31/2024), Total Award Amount **\$50,000**.

Mentoring Activities: Number of graduate students mentored including rotation students **32**; Number of Ph.D. graduates = **4**, MS Graduates = **2**; Undergraduates = **24**

The Sharma group has generated total funding of **~\$156,000 (graduate students) and \$51,000 (undergraduates) in fellowships and awards**. Some notable mentions include the SMART scholarship from the DOD, the ACS-DOC-SURF award, the American Society of Pharmacognosy Summer Fellowship, and the 3-minute thesis prize.

Former students have gone to federal agencies, postdoctoral appointments, medical/dental schools, and industrial positions. Few are listed with their current jobs and notable awards:

Selected Graduate Students: Arianne Hunter, Ph.D. (*SMART fellow DOD, Best Ph.D. thesis, 3-minute thesis runner up, 2019 CAS future leader, NSF-Ascend postdoctoral fellow* with Prof. Sarah Reisman at CalTech after 3-year service commitment at DOD); Nicholas Massaro, Ph.D. (Sr. Scientist at Cambrex); Steven Schlitzer, Ph.D. (Scientist at Eurofins); Anae Bain, Ph.D. (Scientist at LILLY, *first prize 3-minute thesis across OU three campuses*); Joseph Stevens M.S. (Scientist at Cytovance);

Selected Undergraduate Students: Ibikari Legg-Jack (U Penn Medical School with full tuition waiver); Haylee Padgett (U Cincinnati Medical School); Sean Abbott (OU Med); Tekenari Tienabeso (OU Med); Mallory Boucher (Engineer at ExxonMobil); Katelyn Stevens (Ph.D. at U Minnesota); Monica Ness (Ph.D. at OU); Ginny Kim (Ph.D. at Notre Dame). In addition, the PI has trained several underrepresented students, including *4 NSF-LSAMP scholars, 3 McNair Scholars, 1 NSF-EPSCoR-REU scholar, and 2 NIH-INBRE awardees*.

Postdocs: Kiran Chinthapally (Staff Scientist at Notre Dame); Dinesh Paymode (Sr. Scientist at Mirati); Suneel Chepuri (Scientist at Syngene International).

FELLOWSHIPS/AWARDS TO STUDENTS

1) Arianne C. Hunter (PhD Student)

- i) SMART (Science, Mathematics, and Research for Transformation) Fellowship, Sponsored by Department of Defense,
Total Award amount: \$120,000 (July 1, 2016 – June 30, 2019)
- ii) Nancy L Mergler Dissertation Fellowship Sponsored by the University of Oklahoma, only given to top 7 students at OU
Total Award Amount: \$15,000 (April 2018 – May 2019)

iii) Three Minute Thesis Competition Sponsored by the University of Oklahoma
Total Award Amount: \$2,500 (Runner-Up and People's choice in Feb. 2019)

iv) CAS Future Leaders Program by American Chemical Society

Selected among top 30 PhD and postdoctoral researchers around the world

Award Amount: \$1,000 <https://www.cas.org/about/futureleaders/2019-gallery>

v) Carl Storm Underrepresented Minority Fellowship to attend Gordon Research Conference,
Award Amount \$600 (May 2018).

vi) NOBCCHE Travel Award to attend Gordon Research Conference, Amount \$600 (May 2018)

vii) Oklahoma 30 Under 30: Honoring innovative, creative and inspiring Oklahomans under the
age of 30 Award Amount \$1,000 (Oct. 2018)

viii) Robberson Research and Creative Endeavors Grant sponsored by the Graduate College,
University of Oklahoma, Award Amount: \$1,500 (April 2018)

ix) Chemistry and Biochemistry Belle W. Goodman Scholarship (top research award)

Award Amount: \$1,500 (April 2019).

x) Chemistry and Biochemistry Sheryl D. Christian Scholarship Award

Award Amount: \$1,000 (April 2018).

xi) Chemistry and Biochemistry Jerry J. Zuckerman Scholarship

Award Amount: **\$ 500** (April 2017).

xii) Chemistry and Biochemistry Ronal E. Lehr Scholarship

Award Amount: **\$400** (April 2016).

2) Nicholas P. Massaro (PhD Student)

i) Chemistry and Biochemistry Roland Lehr Scholarship, Amount = \$500.00 (April 2019)

ii) ACS, Division of Organic Chemistry sponsored Graduate Research Symposium among **top 50** chemistry 4th year graduate students, Amount: \$425 (Travel Award)

iii) Robberson Research and Creative Endeavors Grant, Amount = \$1,500 (May 2018)

iv) Robberson Research Travel Award, Amount = \$850.00 (October 2017)

v) International Narcotics Research Conference Travel Award, Amount = \$750.00(May 2017)

vi) Michael R. Abraham Graduate Teaching Assistant Award, Amount = \$750.00 (May 2015)

3) Bilal Almutwalli (MS student)

Michael R. Abraham Graduate Teaching Assistant Award, Amount = \$750.00 (April 2017)

4) Steven Schlitzer (PhD Student)

i) Graduate Teaching Assistant Award, Amount = \$500.00;

ii) Chemistry and Biochemistry Ronal E. Lehr Scholarship Award: \$400 (April 2020).

5) Eric Gardner (MS student); Graduate Teaching Assistant Award, Amount = \$500.00

6) Anae Bain (PhD Student)

i) Jerry J. Zuckerman Scholarship Award Amount: \$1,000 (April 2020 and 2021)

ii) Three Minute Thesis Competition Sponsored by the University of Oklahoma
Total Award Amount: \$2,000 (First Prize 2022)

7) Adam Alber (PhD Student)

Graduate Teaching Assistant Award, Amount = \$500.00 (April 2020)

8) Tekenari Tienabeso (Undergraduate)

i) ACS, Division of Organic Chemistry Summer Undergraduate Research Fellowship Grant;
Selected **among 9 students** all over the country)

Total Award Amount: **\$5,000**; Total Award Period: 05/16/2016–08/15/2016

9) Henry Unterschuetz (Undergraduate)

OK-NSF-EPSCoR, Research Experience for Undergraduate grant

Total Award Amount: **\$5,000**; Total Award Period: 05/16/2016–08/15/2016

10) Sean P. Abbott (Undergraduate)

Summer Undergraduate Research Program 2016," Sponsored by Memorial Sloan-Kettering
Cancer Center; Total Award Amount: **\$4,000**

11) Sabrina Ton (Undergraduate)

Summer Research Fellowship," Sponsored by American Society of Pharmacognosy, Award
Amount: \$2,500

12) Haylee Padgett (Undergraduate)

Summer Research Fellowship," Sponsored by American Society of Pharmacognosy, Award
Amount: \$2,500

13) NSF-Oklahoma-LSAMP Scholars Program

Recipients: 1) Ibikari Legg-Jack (2019); 2) Taylor Calvert (2017) Tekenari Tienabeso (2016)

Total Award Amount: **\$7,500**

14) OU-McNair Scholars Program

Recipients: 1) Sean P. Abbott (2016); 2) Julia Cenicerros (2019)

Total Award Amount: **\$5,600**

15) Undergraduate Research Opportunities Program (UROP) Grant Honors College,
University of Oklahoma, Amount: \$1,000

Recipients: 1) Monica Ness (2019), Sabrina Ton (2018); 2) 3) Ibikari Legg-Jack (2018); 4) Haylee
Padgett (2017); 5) Henry Unterschuetz (2016), 6) Tekenari Tienabeso (2016); Sean Abbott (2015)

Total Award Amount: **\$7,000**

16) Honors Research Assistant Program (HRAP), Sponsored by Honors College, The University of Oklahoma; Amount \$900/semester

Recipients: Haylee Padgett (2016/2017) and Sean Abbott (2015/2016)

Total Award Amount: **\$3,600**

17) Dick Van der Helm Scholarship Fund for Summer Research, Sponsored by the Department of Chemistry and Biochemistry, The University of Oklahoma.

Recipient: Bilal Almutwalli (2016); Total Award Amount: **\$5,000**

18) Chemistry and Biochemistry Freshman Chemistry Award; Amount: **\$400**

Receipts: Emily Thomas (2018); 2) Juliana Scwabb (2019)

19) Chemistry and Biochemistry Nicholas Fellowship to Monica Ness; Amount: **\$3,000**

COURSES TAUGHT, CREDIT HOURS AND ENROLLMENTS:

Appointment: 60% Research, 30% Teaching and 10% Service.

Number of New Courses = **7**; Total Number of Classes = **27**; Number of Students Taught in 8 years at OU = **1104**

Graduate Classes: CHEM-5400-001, CHEM-5430-001, CHEM-5460-001, CHEM-5491-001

Undergraduate Classes: CHEM-444-001, CHEM-3053-001, CHEM-3153-002

Development of New Courses: Course-Based Undergraduate Research Experience (CURE) program through CHEM-4444, and a new Graduate Course CHEM-5400.

Semester	Course Number (Credit hour)	Final Size
Fall 2014	CHEM-3053: Organic Chem I: Biological (3 credit hour)	207
Spring 2015	No Formal Teaching: Teaching Relief for New Faculty	–
Fall 2015	CHEM-5400: Organic Chem I: Mechanism and Reactivity (2)	22
Spring 2016	CHEM-3053: Organic Chem I: Biological (3)	225
Spring 2016	CHEM-5460: Special Topic in Chemical Reactivity (1)	12
Fall 2016	CHEM-5400: Organic Chem I: Mechanism and Reactivity (2)	13
Spring 2017	CHEM-3053: Organic Chem I: Biological (3)	236
Spring 2017	CHEM-5460: Special Topic in Chemical Reactivity (1)	8
Spring 2017	CHEM-5491: Seminar in Organic Chemistry	22
Fall 2017	CHEM-5400: Organic Chem I: Mechanism and Reactivity (2)	11
Spring 2018	CHEM-5430: Organic Chem II: Reactions and Synthesis (3)	6

Spring 2018	CHEM-5460: Special Topic in Chemical Reactivity (1)	4
Spring 2018	CHEM-5491: Seminar in Organic Chemistry	23
Fall 2018	CHEM-4444: Adv. Synthesis/Spectral Characterization (4)	26
Fall 2018	CHEM-5491: Seminar in Organic Chemistry	20
Spring 2019	CHEM-5430: Organic Chem II: Reactions and Synthesis (3)	5
Fall 2019	CHEM-4444: Adv. Synthesis/Spectral Characterization (4)	17
Fall 2019	CHEM-5491: Seminar in Organic Chemistry	19
Spring 2020	CHEM-5430: Organic Chem II: Reactions and Synthesis (3)	4
Spring 2020	CHEM-5491: Seminar in Organic Chemistry	19
Fall 2020	CHEM-4444: Adv. Synthesis/Spectral Characterization (4)	19
Spring 2021	Sabbatical, No Formal Teaching	
Fall 2021	CHEM-4444: Adv. Synthesis/Spectral Characterization (4)	20
Fall 2021	CHEM-5491: Seminar in Organic Chemistry	9
Spring 2022	CHEM-3153: Organic Chem II: Biological (3)	119
Spring 2022	CHEM-5460: Special Topic in Chemical Reactivity (1)	4
Spring 2022	CHEM-5491: Seminar in Organic Chemistry	10
Fall 2022	CHEM-4444: Adv. Synthesis/Spectral Characterization (4)	16
Fall 2022	CHEM-5491: Seminar in Organic Chemistry	8