

Elizabeth Skellam

Department of Chemistry & BioDiscovery Institute, University of North Texas, TX, USA

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EDUCATION

- 2013 **MBA Business of Biotechnology**
University of North Carolina at Wilmington, USA
- 2010 **PhD in Chemistry (Natural Products Biosynthesis)**
University of Bristol, United Kingdom
- 2005 **MChem Chemistry (First Class Honours)**
Swansea University, United Kingdom

PROFESSIONAL APPOINTMENTS

- 2020- **Assistant Professor**
*Department of Chemistry and BioDiscovery Institute,
University of North Texas, TX, USA*
- 2024-25 **Director and Head of Genetically Encoded Molecule Discovery**
LifeMine Therapeutics, Cambridge, MA, USA
- 2015-20 **Akademischer Ratin (permanent faculty position)**
Leibniz Universität Hannover, Germany
- 2014-15 **Postdoctoral Research Assistant**
Leibniz Universität Hannover, Germany
(Advisor: Professor Russell J. Cox)
- 2011-14 **Visiting Research Assistant Professor**
University of North Carolina at Wilmington
(Advisor: Dr. Jeffery L. C. Wright)
- 2009-11 **Technical Writer**
*Education Services,
ID Business Solutions, Guildford, United Kingdom*

GRANTS AWARDED

- 2025 **Skellam E**, "Characterizing the function of a cryptic thioredoxin-like enzyme in cytochalasan biosynthesis", *BDI Core Services Award*, **\$1,800** (direct costs only).
- 2023-26 **Skellam E**, "Investigating the Scope and Mode of Dimerization Reactions Catalyzed by Fungal Flavin-dependent Monooxygenases", *Welch Foundation*, **\$300,000** (direct costs only; terminated after 1 year)
- 2034 - 24 **Skellam E** and Longo A, "Exploring drug-resistant transporters as a mechanism to identify potent bioactive molecules in potential biocontrol agents", *BDI Seed Grant*, **\$30,000** (direct costs only).
- 2022-25 **Skellam E**, Alonso A, Chapman K, Carroll M, "Developing plants as new production platforms for pharmaceuticals", *W. M. Keck Foundation*, **\$1,400,000** (direct costs only).
- 2022 **Skellam E**, "Elucidating Natural Pigment Biosynthetic Pathways in *Aspergillus heteromorphus*", *BDI BAF and Genomic Services Support* (**declined**)
- 2021-24 **Skellam E**, "Developing a Biomanufacturing Platform for the Site-Selective Functionalization and Structural Diversification of Cytochalasan-Based Carbon Skeletons", *National Science Foundation*, **\$309,779**.
- 2022-22 **Skellam E** and Wang X, "Molecular and structural studies of the first fungal polyketide synthase / non-ribosomal peptide synthetase adenylation domain toward biomolecular probes design", *BDI Seed Grant*, **\$10,000** (direct costs only).

- 2021-22 **Skellam E**, "The chemistry and biology of specialized metabolites produced by the endophytic fungi *Acremonium zeae* (*Sarocladium zeae*)", *Bayer AG Grants4Ag* (Reducing chemical input and enhancing soil health), **\$10,000** (direct costs only).
- 2017-21 Cox RJ and **Skellam E**, "Understanding and Exploiting Fungal Bisorbicillinoid Biosynthesis", *German Research Foundation* (DFG), **€198,500** (approx. \$235,000), <http://gepris.dfg.de/gepris/projekt/388965482>

HONORS AND AWARDS

- 2024 Early Career Award for Research and Creativity (UNT Foundation & Faculty Success)
- 2024 Highly Ranked Scholar – Prior Five Years (#23 for Biosynthesis; ScholarGPS)
- 2023 UNT Conference Support Program travel award
- 2021 Elected Full Member, Sigma Xi the Scientific Research Honor Society
- 2021 UNT Washington DC Fellow
- 2021 DFG Mercator Fellow as part of CytoLabs Research Consortium
- 2011-14 MARBIONC Business of Marine Biotechnology Fellowship
- 2013 FAPESP Scholarship (Sao Paulo State Research Foundation)
- 2008 Bristol University Alumni Foundation Bursary
- 2008 John Innes / Rudjer Bošković Summer School in Applied Molecular Microbiology
- 2004 Erasmus Bursary
- 2004 Nuffield Research Bursary
- 2003 Charles Shoppee Prize
- 2002 R. H. Davies Prize
- 2001 Swansea University Scholarship

PUBLICATIONS

'=postdoc co-author (UNT), " = graduate student co-author (UNT), "" = undergraduate co-author (UNT)

Google Scholar Profile: <https://scholar.google.com/citations?user=b-TIbK8AAAAJ&hl=en>

ScholarGPS Profile: <https://scholargps.com/scholars/52542017791420/elizabeth-skellam>

Citations: 1122

h-index: 18

i10-index: 26

Manuscripts in Preparation

1. Jayasundara S, " Rajendran S, ' Antoine GE, ' Lin YT, ' Whitehead P, ' Rawoof A, ' Cai Y, ' Dornberger H, "" Mall S, "" Goralczyk J, "" Carroll M, Alonso AP, Chapman K, * **Skellam E** *, "Plant-based production of penicillin G" (Aiming for *Science*; IF = 47.7)
2. Li L, " Chy MNU, ' Goralczyk J, "" Amorim MR, " Beemelmans C, **Skellam E** *, "Investigation into the regioselectivity of cytochrome P450 monooxygenases involved in cytochalasan macrocycle oxidative modifications reveals stereochemical restrictions" (Aiming for *Journal of Biological Chemistry*; IF = 4.0)
3. Maimone NM, Clark TN, Recchia MJJ, Delbaje E, Cavanagh HC, de Oliveira PP, **Skellam E**, Berlinck RGS, de Lira SP, Linington RG, "Metabolomics-driven discovery of new modified tripeptides from Amazon Rainforest derived *Streptantibioticus* sp. AM24" (Aiming for *Journal of Natural Products*; IF = 3.6)

Peer Reviewed Publications with UNT Affiliation

1. Eze F, " Schoellhorn S, " Grinffiel D, " Chapman K, Rajendran S, ' **Skellam E** * "Assessing the Biosynthetic Potential of the Bioherbicide *Colletotrichum spinosum* CBS 515.97: Discovery of 3"-Demethylthielavin M and Assorted Alkaloids", *Chemistry & Biodiversity* (provisionally accepted). IF = 2.3.
2. Tammam MA, Pereira F, **Skellam E**, Bidula S, Ganesan A, El-Demerdash A (2025), "The cytochalasans: potent fungal natural products with application from bench to bedside", *Nat. Prod. Rep.*, 42, 788-841.
Featured front cover article
IF = 10.2

3. Berlinck RGS* and **Skellam E*** (2024), "Discovery, Biosynthesis, Total Synthesis, and Biological Activities of Solanapyrones: [4+2] Cycloaddition-Derived Polyketides of Fungal Origin", *J. Nat. Prod.*, 87, 2892 – 2906.
IF = 3.3;
4. de Amorim MR, ' Schoellhorn SM, " de S Barbosa C, Mendes GR, de L Macedo K, Ferreira AG, Venancio T, Guido RVC, Batista ANL, Batista JM, **Skellam E***, Berlinck RGS (2024), "Structure and biosynthesis of perochalasin A-C open-chain merocytochalasins produced by the marine-derived fungus *Peroneutypa* sp. M16", *J. Nat. Prod.*, 87, 2204-2215.
<https://pubs.acs.org/doi/10.1021/acs.jnatprod.4c00516>
IF = 3.3; citations = 3
5. **Skellam E***, Rajendran S, ' Li L ' (2024) "Combinatorial biosynthesis for the engineering of novel fungal natural products", *Chem. Commun.*, 7 (1), 89.
<https://www.nature.com/articles/s42004-024-01172-9>
Invited review
Featured in a Communications Chemistry Editorial
<https://www.nature.com/articles/s42004-025-01451-z>
Top 25 downloaded articles of 2024
IF = 5.9; citations = 17
6. Neupane S, de Amorim MR, **Skellam E*** (2024), "Discovery of Unguisin J, a new cyclic peptide from *Aspergillus heteromorphus* CBS 117.55, and phylogeny-based bioinformatic analysis of UngA NRPS domains", *Beilstein Journal of Organic Chemistry*, 20 (1), 312-330.
<https://www.beilstein-journals.org/bjoc/articles/20/32>
Invited contribution; featured in the "Young investigators in natural products chemistry, biosynthesis, and enzymology" thematic issue
IF = 2.2; responsible for study design and student / postdoc training at UNT, wrote manuscript, analyzed data, prepared figures, exclusively at UNT; citations = 1
7. **Skellam E*** (2022), "Biosynthesis of fungal polyketides by collaborating and trans-acting enzymes", *Natural Product Reports*, 39, 754-783.
<https://doi.org/10.1039/D1NP00056J>
Invited review; featured in the themed collection "Engineering the biosynthesis of fungal natural products"
IF = 11.9; sole author with entire manuscript prepared at UNT; citations = 34.
8. **Skellam E*** (2022), "Subcellular localization of fungal specialized metabolites, *Fungal Biology and Biotechnology*, 9, 11.
<https://link.springer.com/article/10.1186/s40694-022-00140-z>
Invited review; IF = 5.49; sole author with entire manuscript prepared at UNT; citations = 11.
9. Shenouda ML, Ambilika M, **Skellam E**, Cox RJ (2022). "Heterologous Expression of Secondary Metabolite Genes in *Trichoderma reesei* for Waste Valorization". *Journal of Fungi*, 8, 4, 355.
<https://doi.org/10.3390/jof8040355>
IF = 4.7; participated in study design and student training at LUH, edited manuscript at UNT; citations = 14.
10. Feng J, Hauser M, Cox RJ*, **Skellam E*** (2021) "Engineering *Aspergillus oryzae* for the Heterologous Expression of a Bacterial Modular Polyketide Synthase", *J. Fungi*, 7, 1085.
<https://doi.org/10.3390/jof7121085>
Selected as Editor's Choice
IF = 4.7; participated in study design and student training at LUH, wrote manuscript, analyzed data, prepared figures, edited manuscript at UNT; citations = 17.

11. Kahlert L, Villanueva M, Cox RJ*, **Skellam EJ*** (2021), "Biosynthesis of 6-hydroxymellein requires a collaborating polyketide synthase-like enzyme", *Angew. Chem. Int. Ed.* 2021, 60,11423–11429. <https://doi.org/10.1002/anie.202100969>
IF = 16.6; participated in study design and student training at LUH, wrote manuscript, analyzed data, prepared figures, edited manuscript at UNT; citations = 19.
12. Kahlert L, Bernardi D, Hauser M, Ioca LP, Berlinck RGS, **Skellam EJ**, Cox RJ (2021), "Early Oxidative Transformations During the Biosynthesis of Terrein and Related Natural Products", *Chem. Eur. J.*, 27, 11895-11903. <https://doi.org/10.1002/chem.202101447>
IF = 4.3; participated in study design and student training at LUH, edited manuscript at UNT; citations = 15.
13. Zhang H, Hantke V, Bruhnke P, **Skellam E***, Cox RJ (2021), "Chemical and Genetic Studies on the Formation of Pyrrolones During the Biosynthesis of Cytochalasans", *Chem. Eur. J.*, 27, 3106-3133. <https://doi.org/10.1002/chem.202004444>
IF = 4.3; participated in study design and student training at LUH, wrote manuscript, analyzed data, prepared figures, edited manuscript at UNT; citations = 33.

Books Edited

1. Volume Editor for "Engineering Natural Products Biosynthesis", *Methods in Molecular Biology* (Springer Nature, 2022, vol. 2489). <https://link.springer.com/book/9781071622728>
Invited editor; invited contributors, edited and formatted chapters, prepared preface, TOC, and index; citations = 77.

Book Chapters

1. **Skellam E*** (2021), "Analysis of the secondary metabolism in *Magnaporthe oryzae*", In: Jacob S. (eds) *Magnaporthe oryzae*. *Methods in Molecular Biology*, vol 2356. Humana, New York, NY. https://doi.org/10.1007/978-1-0716-1613-0_3
Wrote chapter, prepared figures, edited manuscript; Citations = 1

Publications Prepared Prior to Joining UNT

1. Kahlert L, Cox RJ, **Skellam E*** (2020), "The Same but Different: Multiple Functions of the Fungal Flavin Dependent Monooxygenase SorD from *Penicillium chrysogenum*", *Chem. Commun.*, 56, 10934 – 10937. <https://doi.org/10.1039/D0CC03203D>, citations = 21.
2. Wang C, Lambert C, Hauser M, Deuschmann A, Zeilinger C, Stradal T, Rottner K, Stadler M, **Skellam EJ**, and Cox RJ (2020), "Diversely functionalised cytochalasins via mutasynthesis and semi-synthesis", *Chem. Eur. J.*, 26, 13578-13583. <https://doi.org/10.1002/chem.202002241>
Featured Front Page Article <https://doi.org/10.1002/chem.202003294>; citations = 26.
3. Kahlert L, Bassiony E, Cox RJ and **Skellam E*** (2020), "Diels-Alder reactions during the biosynthesis of sorbicillinoids", *Angew. Chem. Int. Ed.*, 59, 5816 – 5822. <https://onlinelibrary.wiley.com/doi/full/10.1002/ange.201915486>
***Highlighted in "Hot off the Press"**, *Nat. Prod. Rep.*, 2020, 37, 747-751*; citations = 101.
4. Hantke V, **Skellam E** and Cox RJ (2020), "Evidence for Enzyme Catalysed Intramolecular [4+2] Diels-Alder Cyclization During the Biosynthesis of Pyrichalasin H", *Chem. Commun.*, 2020, 56, 2925 – 2928. [10.1039/C9CC09590J](https://doi.org/10.1039/C9CC09590J)
***Highlighted in "Hot off the Press"**, *Nat. Prod. Rep.*, 2020, 37, 472-476*; citations = 33.

5. Hantke V, Wang C, **Skellam E** and Cox RJ (2019), "Function of pathway specific regulators in the ACE1 and pyrithalasin H biosynthetic gene clusters", *RSC Advances*, 9, 35797-35802. [10.1039/C9RA07028A](https://doi.org/10.1039/C9RA07028A); citations = 18.
6. Wang C, Becker K, Pfuetze S, Kuhnert E, Stadler M, Cox RJ and **Skellam E*** (2019) "Investigating the Function of Cryptic Cytochalasan Cytochrome P450 Monooxygenases Using Combinatorial Biosynthesis", *Org. Lett.*, 21, 8756-8760. <https://doi.org/10.1021/acs.orglett.9b03372>; citations = 35.
7. Wang C, Hantke V, Cox RJ and **Skellam E*** (2019), "Targeted gene inactivations expose silent cytochalasans in *Magnaporthe grisea* NI980", *Org. Lett.*, 21, 11, 4163-4167. <https://doi.org/10.1021/acs.orglett.9b01344>
*Highlighted in "Hot off the Press", *Nat. Prod. Rep.*, 2019, 36, 1039-1043*; citations = 48.
8. **Skellam E*** (2019), "Strategies for engineering natural product biosynthesis in fungi", *Trends in Biotechnology*, 37, 416-427. <https://doi.org/10.1016/j.tibtech.2018.09.003>
Invited review, featured front page article: [https://doi.org/10.1016/S0167-7799\(19\)30027-7](https://doi.org/10.1016/S0167-7799(19)30027-7); citations = 104.
9. **Skellam E*** (2017), "The biosynthesis of cytochalasans", *Nat. Prod. Rep.*, 34, 1252-1263. <https://doi.org/10.1039/C7NP00036G>
invited review; citations = 156.
10. Song Z, Bakeer WIMM, Marshall JW, Yakasai AA, Khalid RM, Collemare J, **Skellam E**, Tharreau D, Lebrun MH, Lazarus CM, Bailey AM, Simpson TJ & Cox RJ (2015), "Heterologous expression of the avirulence gene *ACE1* from the fungal rice pathogen *Magnaporthe oryzae*", *Chem. Sci.*, 6, 4837-4845. [10.1039/C4SC03707C](https://doi.org/10.1039/C4SC03707C); citations = 95.
11. **Skellam EJ**, Stewart AK, Strangman W, Wright JLC (2013), "Identification of micromonolactam, a new polyene lactam from two marine *Micromonospora* strains using chemical and molecular methods: Clarification of the biosynthetic pathway from a glutamate starter unit", *J. Antibiotics*, 66, 431-441. <https://www.nature.com/articles/ja201334> ; citations = 68.
12. Fisch KM, **Skellam E**, Ivison D, Cox RJ, Bailey AM, Lazarus CM, Simpson TJ (2010), "Catalytic role of the C-terminal domains of a fungal non-reducing polyketide synthase", *Chem. Commun.*, 46, 5331 – 5333. <https://doi.org/10.1039/C0CC01162B>; citations = 37.
13. **Skellam EJ**, Hurley D, Davison J, Lazarus CM, Simpson TJ, Cox RJ (2010), "Mutation of key residues in the C-methyltransferase domain of a fungal highly reducing polyketide synthase", *Mol. Biosys.*, 6, 680 – 682. <https://doi.org/10.1039/B923990A>, citations = 18.
14. Bailey AM, Cox RJ, Harley K, Lazarus CM, Simpson TJ, **Skellam E** (2007), "Characterisation of 3-methylorcinolaldehyde synthase (MOS) in *Acremonium strictum*: first observation of a reductive release mechanism during polyketide biosynthesis", *Chem. Commun.*, 4053 – 4055. <https://doi.org/10.1039/B708614H> , citations = 99.
15. Smith BM, **Skellam EJ**, Oxley SJ, Graham AE (2007), "Highly selective synthesis of oxabicycloalkanes by indium tribromide mediated cyclization reactions of epoxyalkanes", *Org. Biomol. Chem.*, 5, 1979 – 1982. <https://doi.org/10.1039/B707001B> , citations = 38.

Book Chapters Prepared Prior to Joining UNT

1. Cox RJ and **Skellam E** (2020), "Non-reducing polyketide synthases in fungi: mechanisms and pathways", *Comprehensive Natural Products III: Chemistry and Biology, Volume 1* (Elsevier), 266-312.
<https://doi.org/10.1016/B978-0-12-409547-2.14780-8>; citations = 12.
2. Cox RJ, **Skellam E**, Williams K, (2018), "Biosynthesis of Fungal Polyketides", *The Mycota Vol. XV: Physiology and Genetics* 2nd ed. (Springer), 385-412.
https://link.springer.com/chapter/10.1007/978-3-319-71740-1_13; citations = 31.

INVITED SEMINARS & CONFERENCES (* = online seminar)

University of North Texas

1. American Society of Pharmacognosy Student Chapter Webinar*, March 17th 2025.
2. Chemistry and Biochemistry Seminar, Worcester Polytechnic Institute, **Massachusetts**, February 15th 2025.
3. Pharmaceutical Science Seminar, University of Rhode Island, **Rhode Island**, January 31st 2025.
4. Biomolecular Sciences Seminar, University of Mississippi, **Mississippi**, January 16th 2025.
5. Chemistry Seminar, **UNT**, 7th September 2023.
6. Gordon Research Conference (Biosynthesis, Biocatalysis, and New Methods in Enzymology), Waterville Valley, **New Hampshire**, July 16 – 21 2023.
7. CytoLabs Spring Meeting,* Leibniz University Hannover, **Germany**, 21st March 2023
8. Department of Biological Sciences Seminar, **UNT**, 2nd December 2022
9. CHEM 3010: Opportunity and Responsibility in Chemistry, **UNT**, 11th November 2022
10. BDI Seminar, **UNT**, 31st July 2022
11. TAMS Research Organization, **UNT**, September 2022.
12. CHEM 5010, "Engineering Fungi to Synthesize Novel Molecules with Useful Applications", **UNT** September 2022
13. Canadian Chemistry Conference Exhibition, Calgary, **Canada**, June 14th 2022
14. Texas Woman's University, Denton, **Texas**, USA, 1st April 2022
15. Bayer Grants4Ag Close Out Event,* **Streamed on LinkedIn**, 26th January 2011.
16. CHEM 3010: Opportunity and Responsibility in Chemistry, **UNT**, 2021
17. Texas Branch ASM meeting,* Texas State University, **Texas**, USA, 5th November 2021.
18. CHEM 5010, "Engineering Fungi to Synthesize Novel Molecules with Useful Applications", **UNT**, 2021
19. Chemical, Structural & Synthetic Biology Seminar,* University of Warwick, **United Kingdom**, 13th October 2020.
20. MegaSyn Symposium,* Goethe University Frankfurt, **Germany**, 29th September 2020.

TEACHING EXPERIENCE (* = online course)

University of North Texas

- CHEM 4930 / 5640: Special Topics – Spectroscopy of Organic Compounds (Spring 2021, Spring 2023, Spring 2024)
SPOT score average = 4.8; average class size = 13.
- CHEM 2370: Organic Chemistry & Recitation (Spring 2022, Fall 2022, Fall 2023)
SPOT score average = 3.9; average class size = 77.
- CHEM 2900: Introduction to Chemical Research (Spring*/Summer/Fall 2021, Spring 2022, Fall 2022, Spring 2023)
SPOT scores average = N/A; average class size = 3.
- CHEM 4900: Special Problems (Fall 2021, Spring 2022, Fall 2022, Spring 2023, Fall 2023)
SPOT scores average = N/A; average class size = 3.
- CHEM 6940: Individual Research (Fall 2021, Spring 2022, Fall 2022, Spring 2023, Fall 2023)
SPOT scores average = N/A; average class size = 5.
- BIOL 3996: Honors Research (Summer 2023)

SPOT scores average = N/A; average class size = 1.

- BIOL 4900: Special Problems
SPOT scores average = N/A; average class size = 2.

Leibniz Universität Hannover, Germany

MSc Molecular Microbiology: Biomolecular Chromatography (2017, 2018, 2019, 2020*)
MSc Molecular Microbiology: Microbial Chemistry Praktikum (2016, 2017, 2018, 2019)
MSc Life Science: Engineering Natural Product Pathways Praktikum (2015, 2016, 2017, 2018, 2019)
MSc Life Science: Biology & Chemistry of Natural Products Praktikum (2015, 2016)
MSc Life Science: Biology & Chemistry of Natural Products Seminar (2016, 2017, 2018)
BSc Chemistry: Organic Chemistry I Praktikum (2014, 2015, 2016, 2017, 2018)
BSc Life Science: Special Chemistry - Coordination Chemistry (2016, 2017, 2018, 2019, 2020*)
BSc Life Science: Natural Products Chemistry II (2019, 2020*)

University of Bristol, United Kingdom

BSc Chemistry: Scientific Writing (2008)

TRAINING, MENTORING, SUPERVISION EXPERIENCE

University of North Texas

Postdoctoral Research Associates: Dr. Vijay Rayamajhi, Dr. Lei Li, Dr. Sanjeevan Rajendran, Dr. Marcelo Amorim, Dr. Nicolas Esnay

Graduate Students: Sydney Schoellhorn, Sharmila Neupane, Sameera Jayasundara, Jordan King, Francis Eze, Md Nazim Uddin Chy, Chelsi Wilson, Joshua Martinez, Daniel Grinffiel, Bisola Adeyemi.

McNair Scholars: Nancy Dankwah,

Undergraduate Students: Joshua Martinez, James Sheppard, Kory Punch, Alice Challiah, Paras Modha, Joci Robinson (NSF REU), Ian Sartor, Diego Guerra Alarcon, Timothy Lim, Tram Nguyen, Jacob Goralczyk, Aaron Reiser, Reymond Salazar, Brandon Marx, Bagyashri Krishnamoorthy.

TAMS Students: Bhavik Tadigotla, Kaylee Yu, Arianna Fa, Neha Singaravelan, Jane Zhou, Ruhi Patel, Andrew Cai, Jay Patel, Isabelle Ho.

Student Advisory Committees: Sreemoye Nath, Melissa Collini, Emmet Leddin, Anuradha Liyanage, Nicholas Mercado.

Leibniz Universität Hannover, Germany

PhD Students: Mary Shenouda, Lukas Kahlert, Jin Feng, Chongqing Wang, Eman Bassioney

MSc Thesis Students: Pia Bruhnke, Anna Elizarova, Lukas Kahlert, Lisa Seiler, Elsa Friehs

MSc Praktikum Students: Pia Bruhnke, Frank Kulow, Anna Elizarova, Dominik Werz, Nico Mitschke, Inken Hertrampf

Visiting Undergraduates: Daniel Saad, Anusha Din, Miranda Villanueva

University of North Carolina at Wilmington

Graduate Students: Sydney Brothers and Amy Barbera

STUDENT / POSTDOC AWARDS & PRESENTATIONS

University of North Texas

1. **Bhavik Tadigotla**, "Nature's Power: Predicting Substrate Specificity of the Adenylation and Condensation Domains in PKS-NRPS Enzymes for the Identification of Novel Secondary Metabolites", FWRSEF 2021, https://fwrsef.org/awards/FWRSEF_2021_category_awards_Senior.pdf, 1st place Microbiology division.
2. **Kaylee Yu** awarded 2021 TAMS summer scholarship to continue research in the group.
3. **Bhavik Tadigotla** awarded 2021 TAMS summer scholarship to continue research in the group.
4. **Neha Singaravelan** awarded 2021 TAMS early research scholarship to begin research in the group.
5. **Arianna Fa** awarded 2021 TAMS early research scholarship to begin research in the group.
6. **Jane Zhou** awarded 2021 TAMS early research scholarship to begin research in the group.
7. **Ruhi Patel** awarded 2021 TAMS early research scholarship to begin research in the group.
8. **Neha Singaravelan** awarded a Patel Foundation Scholarship 2021.

9. **Nancy Dankwah** presented at UNT McNairs Scholars Day 2021.
10. **Neha Singaravelan & Arianna Fa**, "Identifying Metabolites in *A. heteromorphus* and *Magnaporthe grisea* and Overproduction of Cytochalasins", FWRSEF 2022, 1st place Microbiology division and Best of Fair in Senior Division, <https://www.fwrsef.org/>
<https://www.fwrsef.org/awards/2022%20Category%20Awards%20Senior%20Division.pdf>.
11. **Neha Singaravelan & Arianna Fa** competed at the International Science and Engineering Fair, Finalist in Microbiology, 2022.
<https://abstracts.societyforscience.org/Home/FullAbstract?Category=Any%20Category&Finalist=fa&AllAbstracts=True&FairCountry=Any%20Country&FairState=Any%20State&ProjectId=22126>
12. **Sharmila Neupane**, "Using Chemical Probes to Understand the Consequences of Engineering Fungal Biosynthetic Enzymes", BDI Retreat, 26th February 2022.
13. **Sydney Schoellhorn**, "Biochemical Examination of the Viability of *Sarocladium zeae* to be used as a Biocontrol Agent in Agricultural Corn Production", BDI Retreat, 26th February 2022.
14. **Andrew Cai** awarded 2022 TAMS early research scholarship 2022 to begin research in the group.
15. **Sydney Schoellhorn** won 1st prize at 3rd year talks 2022 (Department of Chemistry).
16. **Sydney Schoellhorn** awarded COS scholarship 2022.
17. **Jordan King** awarded COS scholarship 2022.
18. **Neha Singaravelan** awarded NIH National Cancer Center internship 2022.
19. **Arianna Fa** awarded 2022 TAMS summer scholarship to continue research in the group.
20. **Ruhi Patel** awarded 2022 TAMS summer scholarship to continue research in the group.
21. **Jay Patel** awarded 2022 TAMS summer scholarship to begin research in the group.
22. **Kynnedi Sonnier** "Exploration of a Unique Flavin-Dependent Monooxygenase SorD and the Formation of Dimeric Natural Products", BDI Advisory Board meeting, 10th May 2022.
23. **Sydney Schoellhorn** "Investigating the Chemistry and Biology of *Acremonium zeae* as a Potential Biocontrol Agent" BDI Advisory Board meeting, 10th May 2022.
24. **Ian Sartor** awarded an Undergraduate Research Fellowship 2022 to begin research in the group.
25. **Tram Nguyen** awarded an Undergraduate Research Fellowship 2022 to begin research in the group.
26. **Timothy Lim** awarded an Undergraduate Research Fellowship 2022 to begin research in the group.
27. **Arianna Fa** accepted into the Penn IDEAL Summer Undergraduate Internship program (SUIP) 2022.
28. **Sydney Schoellhorn** awarded a BDI Summer Research Assistantship, June 2022.
29. **Ian Sartor** accepted as a UT Southwestern Summer Undergraduate Research Fellow 2023.
30. **Ian Sartor** presented at UNT Scholar's Day 2023.
31. **Timothy Lim** presented at UNT Scholar's Day 2023.
32. **Tram Nyugen** presented a poster at UNT Scholar's Day 2023.
33. **Arianna Fa** presented a poster at UNT's Scholar's Day 2023.
34. **Timothy Lim** received a UNT Honors College Summer Research Scholarship 2023.
35. **Isabelle Ho** awarded 2023 TAMS early research scholarship to begin research in the group.
36. **Sydney Schoellhorn** awarded a USDA Pre-doctoral Fellowship, June 2023.
37. **Sharmila Neupane** awarded a BDI Summer Research Assistantship, June 2023.
38. **Francis Eze** awarded a BDI Summer Research Assistantship, June 2023.
39. **Sydney Schoellhorn** presented at GRC on Mycotoxins and Phytotoxins June 2023.
40. **Joshua Martinez** awarded a UNT / NIH G-RISE scholarship.
41. **Tram Nguyen** awarded an Undergraduate Research Fellowship to continue research in the group Aug 2023.
42. **Jacob Goralczyk** awarded an Undergraduate Research Fellowship to continue research in the group Aug 2023.
43. **Timothy Lim** awarded an Undergraduate Research Fellowship to continue research in the group Aug 2023.
44. **Brandon Marx** awarded an Undergraduate Research Fellowship to continue research in the group Aug 2023.
45. **Ian Sartor** awarded an Undergraduate Research Fellowship to continue research in the group Aug 2023.
46. **Francis Eze** presented in the BDI weekly seminar Sept 2023.
47. **Sharmila Neupane** presented in the BDI weekly seminar Sept 2023.

48. **Md Nazim Uddin Chy** presented a poster at UNT's Research Day 2023.
49. **Sameera Jayasundara** presented a poster at UNT's Research Day 2023.
50. **Sydney Schoellhorn** presented a poster at UNT's Research Day 2023.
51. **Chelsi Wilson** presented a poster at UNT's Research Day 2023.
52. **Joshua Martinez** presented a poster at UNT's Research Day 2023.
53. **Timothy Lim** received the 2023 David R. Redden Memorial Scholarship 2023.
54. **Sameera Jayasundara** was selected as a finalist in the Nucleate Activator program 2023.
55. **Sydney Schoellhorn** was selected for an ACS Pride-Merck Graduate Research Award 2023.
56. **Dr. Sanjeevan Rajendran** was selected to give a talk at Discover BMB 2024.
57. **Dr. Nicolas Esnay** was selected to present a poster at 4th Synthetic Biology of Natural Products 2024
58. **Francis Eze** was selected to attend the EMSL Summer School 2024.
59. **Sydney Schoellhorn** was selected to give a talk at ACS National Meeting 2024.
60. **Sameera Jayasundara** was selected for a talk at ACS National Meeting 2024.
61. **Francis Eze** was selected to attend the John Innes Center Molecular Microbiology Summer School 2024.
62. **Neha Singaravelan** (group alumni) presented a poster at ABRCMS 2024.
63. **Dr. Sanjeevan Rajendran** was selected to give a talk at the 4th Synthetic Biology of Natural Products conference 2024.

PROFESSIONAL SERVICE

- | | |
|--------|--|
| 2021 - | Ad hoc reviewer of grant proposals: <i>German Research Foundation (DFG; 3)</i> |
| 2023 | NIH SBIR/STTR Drug Discovery and Development Review (Macromolecular Biophysics & Biological Chemistry Review Branch (MBBC)) |
| 2023 | NIH Early Career Reviewer (Pathogenic Eukaryotes (PTHE) Study Section) |
| 2022 | Review Editor for <i>Frontiers in Microbiology</i> (Microbial Physiology and Metabolism Editorial Board) |
| 2021 | NSF Panel Review member (Molecular and Cellular Biology Division) |
| 2019 - | <i>Marine Drugs</i> reviewer board member |
| 2015 - | Reviewer for international journals (https://orcid.org/0000-0003-4087-0708): |
| | <i>Nature Catalysis</i> (1), |
| | <i>Nature Chemistry</i> (1), |
| | <i>Nature Chemical Biology</i> (1), |
| | <i>Angewandte Chemie International Edition</i> (9), |
| | <i>Journal of American Chemical Society</i> (3), |
| | <i>PNAS</i> (2), |
| | <i>Science Advances</i> (1), |
| | <i>Trends in Biotechnology</i> (2), |
| | <i>Chemical Science</i> (1), |
| | <i>Communications Chemistry</i> (2), |
| | <i>Communications Biology</i> (1), |
| | <i>Scientific Reports</i> (3), |
| | <i>Biotechnology Advances</i> (1), |
| | <i>Organic Letters</i> (4), |
| | <i>ACS Synthetic Biology</i> (1), |
| | <i>ACS Chemical Biology</i> (2), |
| | <i>Organic and Biomolecular Chemistry</i> (1), |
| | <i>Journal of Organic Chemistry</i> (1), |
| | <i>ChemBioChem</i> (2), |
| | <i>Fungal Biology & Biotechnology</i> (3), |
| | <i>J. Natural Products</i> (1), |
| | <i>RSC Advances</i> (1), |
| | <i>Journal of Fungi</i> (1), |
| | <i>Applied Microbiology & Biotechnology</i> (1), |
| | <i>Marine Drugs</i> (8), |
| | <i>Molecules</i> (4), |
| | <i>Biomolecules</i> (1), |
| | <i>Metabolites</i> (1), |
| | <i>Bioresources & Bioprocessing</i> (1), |

*Journal of Biotechnology (1),
Microorganisms (1),
International Journal of Molecular Sciences (2),
Materials (1),
Archives of Microbiology (1),
Fermentation (1).*

UNIVERSITY SERVICE

University of North Texas

2025 Ad hoc committee member for Welch Foundation Strategy Meeting
2023 - 2024 BDI Director Search Committee
2023 - Ad hoc reviewer for BDI small grants
2023 Genomics Center Manager Search Committee
2023 COS Proposal Manager interview committee
2022 - 2024 BDI Executive Committee
2022 - 2024 BDI Industry Relations Committee
2022 - 2023 Genomics Center Advisory Board
2022 BDI Ad Hoc Graduate Education Committee
2021 Chemistry Roadmap Committee

Leibniz Universität Hannover

2019 W2 Professor Cellular Microbiology Appointment Committee
2018 High School Information Days (Tour Guide)
2016 - 2020 MSc Molecular Microbiology Student Admissions Committee
2016 Die Nacht die Wissenschaft

DEPARTMENT SERVICE

University of North Texas

2023 - 24 Chemical Biology Assistant Professor Search Committee
2023 - 24 Organic Chemistry Assistant Professor Search Committee
2023 - 24 Established the Chemical Biology division
2022 - 24 Chemistry Ad Hoc Committee on Faculty Annual Review Reform
2020 - 23 Equipment Committee
2022 - 23 Computational / Theoretical Assistant Professor Search Committee
2022 - 23 Digital Public Relations Committee
2020 - 22 Diversity, Equity, Inclusion, Justice (DEIJ) committee

Leibniz Universität Hannover

2014 - 2020 Organic Chemistry Institute PhD Seminar Organizer and Chairperson
2014 - 2020 BMWZ Chemical Safety Officer
2015 - 2020 Organic Chemistry Institute Faculty Meetings
2016 - 2020 Technical Staff Hiring Committee
2015 - 17 Hannover School for Biomolecular Drug Research PhD Seminar Organiser and Chairperson

SAFETY TRAINING AND CERTIFICATES

University of North Texas

2020 - 12+ hours of Diversity & Inclusion Trainings annually

Leibniz Universität Hannover

2016 Basic Safety Training for Safety Officers
2015 Hazardous Waste Training
2014 Gene Technology, Biosafety and Biosecurity §15 GenTSV for Project Leaders and Biosafety Officers

OUTREACH AND MEDIA COVERAGE

1. <https://research.unt.edu/news/chemistry-student-earns-usda-fellowship>
2. <https://issuu.com/universityofnorthtexas/docs/unt-2022-annual-report> (featured on page 16)

3. <https://hr.untsystem.edu/about-us/hr-news/spotlights-2022/2022-10-27-spotlight-dr-elizabeth-skellam.php>
4. https://dentonrc.com/education/higher_education/university_of_north_texas/mean-green-botany-unt-snags-1-4-million-grant-to-research-making-medicine-out-of/article_b31a9266-49b4-5ace-bb6e-bc7a601c5493.html
5. <https://dallasinnovates.com/medicine-delivered-in-plant-seeds-unt-researchers-get-1-4m-grant-for-a-first-of-its-kind-study/>
6. UNT's Research on Tap at Armadillo Ale Works, Denton, TX. 17th February 2022.
7. <https://research.unt.edu/magazine/roadmap-research-success>
8. https://research.unt.edu/news/looking-magic-mushrooms?fbclid=IwAR1bWUYwdyzj8wIrJae24Eo-WuLhQM4_cEpUoSgoNiK2QdgmZCLkdhUdGSA
9. <https://blog.halo.science/using-fungi-as-biocontrol-agents-against-specific-plant-pathogens/>