

CURRICULUM VITAE  
Hendrik Luesch

(updated July 13, 2021)

**Contact Information @ Work**

Professor of Medicinal Chemistry  
Chair, Department of Medicinal Chemistry  
Debbie and Sylvia DeSantis Chair in Natural Products Drug Discovery and Development  
Director, Center for Natural Products, Drug Discovery and Development (CNP3)  
Department of Medicinal Chemistry  
College of Pharmacy  
University of Florida  
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Research: <https://mc.pharmacy.ufl.edu/research/faculty-research-areas/marine-natural-products-drug-discovery-and-development/>  
Center: <https://cnpd3.pharmacy.ufl.edu/>

**Education**

2002–2005	The Scripps Research Institute	Postdoctoral Fellow (advisor: Prof. Peter G. Schultz)	Chemical Biology
1997–2002	University of Hawaii at Manoa	Ph.D. (advisor: Prof. Richard E. Moore)	Chemistry
1994–1997	University of Siegen, Germany	<i>Diplom</i> (advisor: Prof. Horst C. Uzar)	Chemistry
1993–1994	University of Seville, Spain	ERASMUS Scholar	Chemistry
1990–1993	University of Siegen, Germany	<i>Vordiplom</i>	Chemistry

**Academic Appointments**

2018–2020	Visiting Professor, Lee Kong Chian School of Medicine, Nanyang Technological University, Singapore
2015–	Affiliate Professor, Department of Pharmacology & Therapeutics, University of Florida
2015–	Chair, Department of Medicinal Chemistry, University of Florida
2015–	Professor, Department of Medicinal Chemistry, University of Florida
2014–2017	University of Florida Foundation (UFF) Preeminence Term Professorship
2014	Visiting Professor, Institute of Molecular and Cell Biology (IMCB), A*STAR, Singapore
2014–2016	Affiliate Associate Professor, Department of Chemistry, University of Florida
2013–	Debbie and Sylvia DeSantis Chair in Natural Products Drug Discovery and Development
2013–	Director, Center for Natural Products, Drug Discovery and Development (CNP3)
2012–2013	Frank A. Duckworth Eminent Scholar Chair in Drug Research and Development
2011–2014	University of Florida Research Foundation (UFRF) Professorship
2010–2015	Associate Professor, Department of Medicinal Chemistry, University of Florida
2005–2010	Assistant Professor, Department of Medicinal Chemistry, University of Florida

## Research Interests

*Key words:* Drug discovery and development; chemical biology; marine natural products; secondary metabolites of cyanobacteria; structure determination; biosynthesis of natural products; mechanisms of action; functional and chemical genomics; high-throughput screening, assay development

## Administrative and Leadership Responsibilities

- 2012–2015 Graduate Coordinator, Department of Medicinal Chemistry
- Recruitment of new graduate students and advisor to incoming graduate students (first semester)
  - Development of recruitment materials, updating the department graduate policies and service on graduate studies committee
- 2013– Founding Director of the Center for Natural Products, Drug Discovery and Development
- Establishing a concerted drug discovery operation at the University of Florida
  - Establishing Research Cores to facilitate collaborative drug discovery (Microbial Genomics, Molecular Diversity and Screening, AI-based and Structure-Based Drug Design & Optimization, Molecular Pharmacology, Synthetic Chemistry, Behavioral Pharmacology)
  - Establishing the *Genomes to Natural Products to Drugs* initiative
  - Creating and hosting of the biannual UF Drug Discovery Symposium
  - Establishing the CNPD3 Seminar series
- 2015– Department Chair
- Administrator for 60-90 employees, including 15-30 graduate students, ~20 faculty (10 tenured and tenure-track faculty, 4-6 research track faculty, 4 clinical faculty), postdoctoral associates, biological scientists and chemists, visiting scholars, undergraduates, technicians, and administrative assistant
  - Teaching assignments as well as mentoring and evaluating faculty and staff
  - Management and strategic investments of department budget
  - Liaison with the Dean and Associate Deans

## Professional Societies

- 1998– American Chemical Society (ACS)
- 2002– American Association for the Advancement of Science (AAAS)
- 2005– American Society of Pharmacognosy (ASP)
- 2019–2022: Committee member, American Society of Pharmacognosy Audrey S. Bingel Fellowship for Female Scientists
  - 2020: ASP Broadening the NIH Reviewer Pool Task Force
- 2007– The Society for Neuroscience (SfN)
- 2012– American Society for Pharmacology and Experimental Therapeutics (ASPET)
- 2015– American Association for Cancer Research (AACR)
- 2016– American Association of Pharmaceutical Scientists (AAPS)
- 2017– Florida Society of Clinical Oncology

## Institutional Affiliations

- 2005– UF Health Cancer Center (formerly University of Florida Shands Cancer Center)
- 2005– Member of the Evelyn F. and William L. McKnight Brain Institute (University of Florida)
- 2005– National High Magnetic Field Laboratory (NHMFL)
- 2011– Affiliate Member of the Center for Translational Research in Neurodegenerative Disease (CTRND) of the University of Florida
- 2013– Director, Center for Natural Products, Drug Discovery and Development (CNPD3)
- 2016– AMRIS Internal (UF) Advisory Committee

2017–2020 University of Florida ICBR Electron Microscopy Scientific Advisory Board  
 2018–2020 Affiliate Member of the Institute for Cell & Tissue Science and Engineering (ICTSE)

### Companies

2011– Oceanyx Pharmaceuticals, Inc. (co-founder and Chief Scientific Officer)  
 2021– Algevity Extracts, LLC (co-founder)

### Honors and Awards

2020 Elected Vice Chair for the Gordon Research Conference on Marine Natural Products 2022  
 2020 2019-2020 Doctoral Dissertation Mentoring Award, UF College of Pharmacy  
 2019 Outstanding Teaching Team Year 2 (Pharm.D. Program)  
 2017 2016 Technology Innovator Award (UF Office of Technology Licensing)  
 2017 Golden Medal Award (Oral Presentation) at The 2<sup>nd</sup> International Conference on Herbal and Traditional Medicine (HTM2017), Bangkok, Thailand  
 2016 Best Oral Presentation Award at the 4<sup>th</sup> Current Drug Development International Conference 2016 (CDD 2016)  
 2015 2014 Technology Innovator Award (UF Office of Technology Licensing)  
 2014–2017 University of Florida Foundation (UFF) Preeminence Term Professorship  
 2014 Top 5 Winner in the video competition of the NIH Common Fund 10-Year Commemoration (honored by Dr. Francis Collins, NIH Director)  
 2013– Debbie and Sylvia DeSantis Chair in Natural Products Drug Discovery and Development  
 2013 US delegate to the 3<sup>rd</sup> Transatlantic Frontiers of Chemistry Symposium  
 2013 *Marine Drugs* Best Paper Award (First Prize)  
 2012–2013 Frank A. Duckworth Eminent Scholar Chair in Drug Research and Development  
 2012 2011 Technology Innovator Award (UF Office of Technology Licensing)  
 2011–2014 University of Florida Research Foundation (UFRF) Professorship  
 2009 Jack Wessel Excellence Award for Assistant Professors  
 2005 University of Florida nominee for the Pew Scholars Program in the Biomedical Sciences  
 2002–2004 Irving S. Sigal Postdoctoral Fellowship  
 2002 W. W. Rechnitz Dissertation Award, Department of Chemistry, University of Hawaii at Manoa  
 2001 Paul J. Scheuer Travel Award for Marine Natural Products Chemistry, Department of Chemistry, University of Hawaii at Manoa  
 2001 Travel Award from the Graduate Student Organization, University of Hawaii at Manoa  
 2001 Travel Award from the American Chemical Society Hawaii section  
 1998 Award for Excellence in Chemistry from the Department of Chemistry and Biology, University of Siegen, Germany  
 1997–1998 Scholarship from the Hans & Eugenia Jütting-Stiftung toward graduate study in the USA  
 1995 Travel Award from the Department of Chemistry and Biology, University of Siegen, Germany  
 1993–1994 Scholarship from the ERASMUS Program to study Chemistry at the University of Seville, Spain

### Editorial Boards and Editor

2008– Editorial Board member of *Marine Drugs*  
 2013– Review Editor of *Frontiers in Chemical Biology*  
 2018– Editorial Board member (Commissioning Editor) of *Natural Product Reports (NPR)*  
 2019 Guest editor, *Natural Product Reports*, Special Collection on “*New Methods for Isolation and Structure Determination of Marine Natural Products*”

- 2020 Guest editor, *Natural Product Reports*, Special Collection on “*Targeting and Extending the Eukaryotic Druggable Genome with Natural Products*”
- 2021 Guest editor, *Molecules*, Special Issue on “*Methodological Developments in Marine Natural Product Sciences—A Themed Issue in Honor of Professor William Fenical*”

### Professional Service and Grant Review

- 2006 Research Review Committee (Children’s Medical Services, Florida Department of Health)
- 2006 Symposium judge, 19<sup>th</sup> Annual College of Pharmacy Research Showcase
- 2006 Symposium judge, South East Regional Interdisciplinary Symposium, SERIS
- 2006 Grant reviewer for Wellcome Trust
- 2007 Grant reviewer for ETH Zurich (Systems X initiative)
- 2007 NIH Study Section member: Pilot-Scale Libraries for High-Throughput Screening (P41)
- 2007 Grant peer reviewer for the California Sea Grant College Program
- 2008 Juror for the Irving S. Sigal Postdoctoral Fellowship Award (on behalf of the American Chemical Society)
- 2008–2009 Member of the Research Program Committee (RPC) for the User Collaboration Grants Program of the National High Magnetic Field Laboratory (NHMFL) (2-year term)
- 2009 Grant peer reviewer for the AAAS (Nebraska EPSCoR NSF RII)
- 2010 NIH Study Section member: Synthetic and Biological Chemistry B (SBCB)
- 2010 Grant reviewer for the Swiss National Science Foundation
- 2011 NIH Study Section member: Mechanistic Research on CAM Natural Products
- 2011 Grant peer reviewer for the Alzheimer’s Association
- 2012 External reviewer for the University of Guam/University of Hawaii Cancer Center Partnership (NCI funded)
- 2012 External reviewer for the Research Grants Council (RGC) of Hong Kong
- 2012 Juror for the Irving S. Sigal Postdoctoral Fellowship Award (on behalf of the American Chemical Society)
- 2012 Member of the Research Program Committee (RPC) for the User Collaboration Grants Program of the National High Magnetic Field Laboratory (NHMFL)
- 2013 Reviewer of Research Opportunity Seed Fund proposals for the Office of Research, University of Florida
- 2013 External reviewer for the Research Grants Council (RGC) of Hong Kong
- 2013 NIH Study Section member: Synthetic and Biological Chemistry B (SBCB)
- 2013 NIH Study Section member: NCI P01 Special Emphasis Panel I [ZCA1 RPRB-C (O1)]
- 2014 External reviewer for the Research Grants Council (RGC) of Hong Kong
- 2014 Juror for the Irving S. Sigal Postdoctoral Fellowship Award (on behalf of the American Chemical Society)
- 2014 Internal (UF) reviewer for the ORAU Powe Junior Faculty Enhancement Award
- 2014 NIH grant reviewer: Botanical Dietary Supplement Research Center (BDSRC) (P50)
- 2014–2015 University of Guam Sea Grant Fellowship Application reviewer
- 2014–2015 BrightFocus Foundation Alzheimer’s Disease Review (ADR) committee member
- 2015 Grant reviewer for the European Science Foundation (ESF)
- 2015 External reviewer for Tenure and Promotion, University of Connecticut, Department of Pharmaceutical Sciences
- 2015 NIH Study Section: ZAT1 HS-19 Center of Excellence for Research on CAM (CERC) (P01)
- 2015–2016 BrightFocus Foundation Alzheimer’s Disease Review (ADR) committee member
- 2015 Internal (UF) reviewer for the Camille Dreyfus Teacher-Scholar Awards Program
- 2016 Poster judge, 4<sup>th</sup> Kuwait Conference of Chemistry KCC2016: Chemistry & Life Sciences
- 2016–2021 Peer reviewer for Graduate Women in Science Fellowships
- 2016 Referee of Nomination for Wittgenstein Award (on behalf of the Executive Board of Austrian Science Fund)

- 2016 Juror for the Irving S. Sigal Postdoctoral Fellowship Award (on behalf of the American Chemical Society)
- 2016 NIH Study Section: ZRG1 BMBX-T (02)
- 2016 Grant peer reviewer for the Medical Research Council (MRC) of the United Kingdom
- 2016 Grant peer reviewer for the National Science Center, Poland
- 2017 Grant peer reviewer for His Majesty Research Trust Fund 2017 (Deanship of Research of Sultan Qaboos University in Sultanate of Oman)
- 2017 External reviewer for the Research Grants Council (RGC) of Hong Kong
- 2017 NCI Site Visit, Molecular Targets Laboratory (Review of Intramural Program)
- 2017 Reviewer of Pilot and Feasibility Grants, Southeast Center for Integrated Metabolomics
- 2017 External reviewer for Tenure and Promotion, University of South Florida, Department of Chemistry
- 2017 External reviewer for Promotion, School of Chemical Sciences, Faculty of Science at The University of Auckland, New Zealand
- 2017–2019 BrightFocus Foundation Alzheimer's Disease Review (ADR) committee member
- 2018 NIH Study Section member: Synthetic and Biological Chemistry B (SBCB)
- 2018 Juror for the Irving S. Sigal Postdoctoral Fellowship Award (on behalf of the American Chemical Society)
- 2018 External reviewer for Tenure and Promotion, Nanyang Technological University, Lee Kong Chian School of Medicine, Singapore
- 2018 External reviewer for Promotion, Oregon State University, College of Pharmacy, Corvallis
- 2018 External reviewer for Promotion, National University of Singapore (NUS), Department of Pharmacology, Singapore
- 2019 External reviewer for Tenure, University of Notre Dame, Department of Chemistry & Biochemistry
- 2019 NIH Study Section member: NCI P01 Special Emphasis Panel (ZCA1 TCRB-Q (O1) P)
- 2019 External reviewer for Tenure and Promotion, Kansas State University, Manhattan, KS
- 2020 Juror for the Irving S. Sigal Postdoctoral Fellowship Award (on behalf of the American Chemical Society)
- 2021 NIH Study Section member: NCI R13 Conference Grant Review, Special Emphasis Panel/Scientific Review Group 2021/05 ZCA1 PCRB-D (M1) S

### Reviewer for Scientific Journals

- 2003– *Journal of Natural Products*
- 2006– *Nature Chemical Biology*
- 2007– *Phytochemistry*
- 2007– *Trends in Biotechnology*
- 2008– *Journal of the American Chemical Society, Synlett, Journal of Biochemical and Molecular Toxicology, Journal of Applied Phycology, Tetrahedron Letters, Bioorganic & Medicinal Chemistry Letters, Journal of the American Water Resources Association and Cell Biology International*
- 2009– *Journal of Organic Chemistry, Molecular BioSystems, Chemistry & Biology, ChemBioChem, Bioconjugate Chemistry, Journal of Medicinal Chemistry, Planta Medica, Journal of Chemical Ecology, Organic Letters, Marine Drugs, and Journal of Neuroscience Research*
- 2010– *Proceedings of the National Academy of Sciences USA, Chemical Reviews, Tetrahedron, ACS Chemical Biology, and Expert Opinions on Drug Discovery*
- 2011– *FEMS Microbiology Letters, Mini Reviews in Organic Chemistry, Bioorganic & Medicinal Chemistry, Investigational New Drugs, PLoS One, Cancer Chemotherapy and Pharmacology, Toxicol, Chemical Science, and Environmental Health Perspectives*

- 2012– *Brazilian Journal of Medical and Biological Research, Neurochemistry International, OMICS: A Journal of Integrative Biology, European Journal of Medicinal Chemistry, ChemMedChem, Cancer Letters, Chemistry – A European Journal, and Molecular Cancer Therapeutics*
- 2013– *Pharmaceutical Biology, Chiang Mai Journal of Science, and Experimental Gerontology and Natural Product Reports*
- 2014– *European Journal of Pharmacology, and Molecules and Molecular Therapy*
- 2015– *Algal Research, Nature Protocols, Accounts of Chemical Research, Medicinal Research Reviews, Theranostics, Current Protein and Peptide Science, Antibiotics, ACS Synthetic Biology, and Toxicology and Applied Pharmacology*
- 2016– *Current Drug Targets, Journal of the Brazilian Chemical Society, Oncotarget, and Biochemistry*
- 2017– *Journal of Pharmaceutical and Biomedical Analysis, Mini Reviews in Medicinal Chemistry, Analytical Biochemistry, and BBA Biomembranes*
- 2018– Peer reviewer for *ACS Omega, Organic Chemistry Frontiers and Cancer Medicine*
- 2019– *Cell Chemical Biology, Journal of Natural Medicines, Acta Biomaterialia, and Expert Opinion on Therapeutic Patents*
- 2020– *Pharmacological Research*
- 2021– *Microbiome, and Cancers*

### Conference and Session Chairs

- 2009 Junior Science, Engineering and Humanities Symposium (JSEHS) Lab Host
- 2010 Session Chair, BIT's 3<sup>rd</sup> Annual World Cancer Congress, Singapore, June 22–25, 2010, Track 4-1: Functional Genomics in Cancer Drug Discovery and Development
- 2010 Session Chair, The 13<sup>th</sup> International Symposium on Marine Natural Products, Phuket, Thailand, October 17–October 22, 2010, Session 7: Discovery of Novel Marine Natural Products II
- 2011 Session Chair, BIT Life Sciences 2<sup>nd</sup> Annual International Conference of Medicchem 2011 (ICM-2011), Beijing, China, August 9–11, 2011, Session 5-2: Medicinal Chemistry for Marine Natural Products
- 2012 Session Chair, International Congress Natural Anticancer Drugs (NAD) 2012, Olomouc, Czech Republic, June 30–July 4, 2012, Session: Microbial Products
- 2013 Moderator, International Conference on Medicinal Chemistry and Timmerman Award 2013, University of Indonesia, Jakarta, Indonesia, October 28–29, 2013
- 2015 Organizer, University of Florida, College of Pharmacy 28<sup>th</sup> Annual Research Showcase and Awards Recognition Day, Gainesville, FL, February 19, 2015
- 2016 Florida-Bali Symposium on Marine Biological and Chemical Diversity; Center for Natural Products, Drug Discovery and Development (CNP3D), Gainesville, FL, February 3, 2016
- 2016 Session Chair, 4<sup>th</sup> Kuwait Conference of Chemistry KCC2016: Chemistry & Life Sciences, Kuwait, March 20–22, 2016, Session: The Chemistry of Food and Natural Products
- 2016 Conference Chair/Organizer, Inaugural UF Drug Discovery Symposium; Center for Natural Products, Drug Discovery and Development (CNP3D), Gainesville, FL, April 29, 2016
- 2017 Conference Chair/Organizer, 2<sup>nd</sup> UF Drug Discovery Symposium; Center for Natural Products, Drug Discovery and Development (CNP3D), Gainesville, FL, September 21–22, 2017
- 2018 Session Chair, The International Forum on Natural Products, Beijing, China, August 31–September 2, 2018
- 2019 Session Chair, 23<sup>rd</sup> International Symposium on Molecular Medicine, Session: Traditional Chinese Medicine/Microbiology, Bangkok, Thailand, March 28–30, 2019.
- 2019 Conference Chair/Organizer, 3<sup>rd</sup> UF Drug Discovery Symposium; Center for Natural Products, Drug Discovery and Development (CNP3D), Gainesville, FL, April 25–26, 2019

- 2019 Session I Chair: Innovative Medicines, International Conference on Pharmacology: Advances in Translational Sciences & Drug Discovery, National University of Singapore, Department of Pharmacology, Singapore, July 4–5, 2019.
- 2021 Conference Chair/Organizer, 4<sup>th</sup> UF Drug Discovery Symposium Virtual; Center for Natural Products, Drug Discovery and Development (CNP3), Gainesville, FL, April 22–23, 2021

### University and College Committees

- 2008–2011 Financial Aid and Awards Committee (College of Pharmacy)
- 2008–2013 Academic and Professional Standards Committee (College of Pharmacy)
- 2010–2014 Tenure and Promotion Committee (College of Pharmacy)
- 2011 Member, Faculty Search Committee for Chair of the Department of Pharmacotherapy and Translational Research
- 2011–2012 Chair of three Faculty Search Committees for the Department of Medicinal Chemistry
- 2012 Chair, Self-Study Committee on Facilities & Resources (College of Pharmacy)
- 2012– Research Committee (College of Pharmacy)
- 2012–2015 Department Graduate Coordinator
- 2012 Member, Search Committee for Dean of the College of Pharmacy
- 2013–2016 Member, Drug Discovery and Development Preeminence Initiative Search Committee
- 2014–2016 Member, UF Preeminence Cancer Therapeutics Sub-Committee
- 2014–2015 Curriculum Committee (College of Pharmacy)
- 2015–2017 Chair of Faculty Search Committees for the Department of Medicinal Chemistry
- 2015– Research Strategic Planning Task Force, College of Pharmacy
- 2016 Graduate Education Task Force, College of Pharmacy
- 2016– International Committee
- 2019 Member, Search Committee for Faculty Positions in Drug Delivery (Department of Pharmaceutics)
- 2020 Internal Committee for Distinguished Professor Nomination

### Teaching

- Spring 2021 PHA 6356: Structure Determination of Complex Natural Products
- Spring 2021 PHA 6935: Drug Design II (The role of natural products in drug discovery, assay design and screening, target identification & mechanism of action studies, new screening technologies)
- Fall 2020 PHA 5439: Principles of Medicinal Chemistry and Pharmacology I (Module 1: How new drugs are developed: Natural products and drug discovery)
- Fall 2020 PHA 5782C: Patient Care 2: Introduction to Infectious Disease and Hematology/Oncology (Medicinal Chemistry of Oncology Drugs)
- Spring 2020 PHA 6935: Drug Design II (The role of natural products in drug discovery, assay design and screening, target identification & mechanism of action studies, new screening technologies)
- Fall 2019 PHA 5439: Principles of Medicinal Chemistry and Pharmacology I (Module 1: How new drugs are developed: Natural products and drug discovery)
- Fall 2019 PHA 5782C: Patient Care 2: Introduction to Infectious Disease and Hematology/Oncology (Medicinal Chemistry of Oncology Drugs)
- Spring 2019 PHA 6356: Structure Determination of Complex Natural Products
- Spring 2019 PHA 6935: Drug Design II (The role of natural products in drug discovery, assay design and screening, target identification & mechanism of action studies, new screening technologies)
- Fall 2018 PHA 5439: Principles of Medicinal Chemistry and Pharmacology I (Module 1: How new drugs are developed: Natural products and drug discovery)
- Fall 2018 PHA 5782C: Patient Care 2: Introduction to Infectious Disease and Hematology/Oncology (Medicinal Chemistry of Oncology Drugs)

Spring 2018	PHA 6935: Drug Design II (The role of natural products in drug discovery, assay design and screening, target identification & mechanism of action studies, new screening technologies)
Fall 2017	PHA 5439: Principles of Medicinal Chemistry and Pharmacology I (Module 1: How new drugs are developed: Natural products and drug discovery)
Fall 2017	PHA 5782C: Patient Care 2: Introduction to Infectious Disease and Hematology/Oncology (Medicinal Chemistry of Oncology Drugs)
Spring 2017	PHA 6356: Structure Determination of Complex Natural Products
Fall 2016	PHA 5439: Principles of Medicinal Chemistry and Pharmacology I (Module 1: How new drugs are developed: Natural products and drug discovery)
Fall 2016	PHA 5782C: Patient Care 2: Introduction to Infectious Disease and Hematology/Oncology (Medicinal Chemistry of Oncology Drugs)
Spring 2016	PHA 5438: Medicinal Chemistry II (Natural Products)
Spring 2016	GMS 6009: Principles of Drug Action (Natural product target identification)
Fall 2015	PHA 5439: Principles of Medicinal Chemistry and Pharmacology I (Module 1: How new drugs are developed: Natural products and drug discovery)
Fall 2015	PHA 6447: Drug Design (Part 2: The role of natural products in drug discovery, modern approaches in natural products research, assay design, chemical genomics)
Spring 2015	PHA 5438: Medicinal Chemistry II (Natural Products)
Spring 2015	PHA 5436: Structure and Function of Nucleotides (Replication, transcription, translation, regulation of gene expression)
Spring 2015	GMS 6009: Principles of Drug Action (Natural product target identification)
Spring 2015	PHA 6356: Structure Determination of Complex Natural Products
Fall 2014	PHA 5437: Medicinal Chemistry I (Anticonvulsants)
Spring 2014	PHA 5438: Medicinal Chemistry II (Natural Products) [ <i>pre-recorded</i> ]
Spring 2014	PHA 5436: Structure and Function of Nucleotides (Replication, transcription, translation, regulation of gene expression) [ <i>pre-recorded</i> ]
Fall 2013	PHA 5437: Medicinal Chemistry I (Anticonvulsants)
Spring 2013	PHA 5438: Medicinal Chemistry II (Natural Products)
Spring 2013	PHA 5436: Structure and Function of Nucleotides (Replication, transcription, translation, regulation of gene expression)
Spring 2013	GMS 6009: Principles of Drug Action (Natural product target identification)
Spring 2013	PHA 6356: Structure Determination of Complex Natural Products
Fall 2012	PHA 5437: Medicinal Chemistry I (Anticonvulsants)
Spring 2012	PHA 6447: Drug Design (Part 7: The role of natural products in drug discovery, modern approaches in natural products research, assay design, chemical genomics)
Spring 2012	PHA 5438: Medicinal Chemistry II (Natural Products)
Spring 2012	PHA 5436: Structure and Function of Nucleotides (Replication, transcription, translation, regulation of gene expression)
Spring 2012	GMS 6009: Principles of Drug Action (Natural product target identification)
Fall 2011	PHA 5437: Medicinal Chemistry I (Anticonvulsants)
Spring 2011	PHA 5436: Structure and Function of Nucleotides (Replication, transcription, translation, regulation of gene expression)
Spring 2011	PHA 5438: Medicinal Chemistry II (Natural Products)
Spring 2011	PHA 6356: Structure Determination of Complex Natural Products
Fall 2010	PHA 5437: Medicinal Chemistry I (Anticonvulsants)
Spring 2010	PHA 5436: Structure and Function of Nucleotides (Replication, transcription, translation, regulation of gene expression)
Spring 2010	PHA 5438: Medicinal Chemistry II (Natural Products)
Spring 2010	PHA 6447: Drug Design (Part 5: The role of natural products in drug discovery, modern approaches in natural products research, assay design, chemical genomics)
Fall 2009	PHA 5437: Medicinal Chemistry I (Anticonvulsants)
Fall 2009	GMS 6563: Molecular Pharmacology (Natural products, NMR; target identification)



- Spring 2009 PHA 5436: Structure and Function of Nucleotides (Replication, transcription, translation, regulation of gene expression)
- Spring 2009 PHA 5438: Medicinal Chemistry II (Natural Products)
- Spring 2009 PHA 6356: Structure Determination of Complex Natural Products
- Fall 2008 PHA 5437: Medicinal Chemistry I (Anticonvulsants)
- Spring 2008 PHA 6447: Drug Design (Part 6: The role of natural products in drug discovery, modern approaches in natural products research, assay design, chemical genomics)
- Spring 2008 PHA 5436: Structure and Function of Nucleotides (Replication, transcription, translation, regulation of gene expression)
- Spring 2008 PHA 5438: Medicinal Chemistry II (Part 6: Anticonvulsants)
- Fall 2007 GMS 6563: Molecular Pharmacology (Natural products, NMR; target identification)
- Spring 2007 PHA 5436: Structure and Function of Nucleotides (Replication, transcription, translation, regulation of gene expression)
- Fall 2006 PHA 6356: Structure Determination of Complex Natural Products
- Spring 2006 PHA 6447: Drug Design (Part 6: The role of natural products in drug discovery, modern approaches in natural products research, assay design, chemical genomics)
- 2000 Invited lectureship (Organic Chemistry II for undergraduates), University of Guam
- 1997–1998 Teaching Assistantship, Department of Chemistry, University of Hawaii at Manoa  
Courses: Laboratories for Organic Chemistry I and II for undergraduates
- 1996–1997 Teaching Assistantship, Department of Chemistry and Biology, University of Siegen  
Courses: Laboratories for Advanced Organic Chemistry III and IV
- 1995–1996 Teaching Assistantship, Department of Chemistry and Biology, University of Siegen  
Courses: Laboratories for Organic Chemistry I and II

## Publications

<https://scholar.google.com/citations?hl=en&user=AD8ONXIAAAAJ>

(Citations: 8607; h-index: 55, July 13, 2021)

### Peer Reviewed Publications of Original Research

1. Yang, H.; Kundra, S.; Chojnacki, M.; Liu, K.; Fuse, M. A.; Abouelhassan, Y.; Kallifidas, D.; Zhang, P.; Huang, G.; Jin, S.; Ding, Y.; **Luesch, H.**; Rohde, K. H.; Dunman, P. M.; Lemos, J. A.; Huigens III., R. W.\* “A Modular Synthetic Route Involving *N*-Aryl-2-nitrosoaniline Intermediates Leads to a New Series of 3-Substituted Halogenated Phenazine Antibacterial Agents” *J. Med. Chem.* **2021**, *64*, 7275–7295. (**Cover Feature/Featured Article**)
2. Matthew, S.;<sup>+</sup> Chen, Q.-Y.;<sup>+</sup> Ratnayake, R.;<sup>+</sup> Fermainitt, C. S.; Lucena-Agell, D.; Bonato, F.; Prota, A. E.; Lim, S. T.; Wang, X.; Díaz, J. F.; Risinger, A. L.; Paul, V. J.; Oliva, M. Á.;\* **Luesch, H.**\* “Gatorbulin-1, a Distinct Cyclodepsipeptide Chemotype, Targets a Seventh Tubulin Pharmacological Site” *Proc. Natl. Acad. Sci. USA* **2021**, *118*, e2021847118. (<sup>+</sup> equal contribution)
3. Elsadek, L.; Matthews, J. H.; Nishimura, S.; Nakatani, T.; Ito, A.; Gu, T.; Luo, D.; Salvador-Reyes, L. A.; Paul, V. J.; Kakeya, H.; **Luesch, H.**\* “Genomic and Targeted Approaches Unveil the Cell Membrane as a Major Target of the Antifungal Cytotoxin Amantelide A” *ChemBioChem* **2021**, *22*, 1790–1799.
4. Emmetiere, F.; Ratnayake, R.; Schares, H. A. M.; Jones, K. F. M.; Bevan-Smith, E.; **Luesch, H.**\*, Harki, D. A.;\* Grenning, A. J. “Function-Oriented and Modular (+/-)-*cis*-Pseudoguaianolide Synthesis: Discovery of New Nrf2 Activators and NF-κB Inhibitors” *Chem. Eur. J.* **2021**, *27*, 5564–5571.
5. Liang, X.; Chen, Q.-Y.; Seabra, G. M.; Matthew, S.; Kwan, J. C.; Li, C.; Paul, V. J.; **Luesch, H.**\* “Bifunctional Doscadenamides Activate Quorum Sensing in Gram-Negative Bacteria and Synergize with TRAIL to Induce Apoptosis in Cancer Cells.” *J. Nat. Prod.* **2021**, *84*, 779–789.
6. Lizarme-Salas, Y.; Ariawan, A. D.; Ratnayake, R.; **Luesch, H.**; Finch, A.; Hunter, L.\* “Vicinal Difluorination as a C=C Surrogate: an Analog of Piperidine with Enhanced Solubility, Photostability, and Acetylcholinesterase Activity” *Beilstein J. Org. Chem.* **2020**, *16*, 2663–2670.

7. Nasser, A. A.; Eissa, I. H.; Oun, M. R.; El-Zahabi, M. A.; Taghour, M. S.; Belal, A.; Saleh, A. M.; Mehany, A. B. M.; **Luesch, H.**; Mostafa, A. E.; Afifi, W. M.; Rocca, J. R.; Mahdy, H. A. "Discovery of New Pyrimidine-5-carbonitrile Derivatives as Anticancer Agents targeting EGFR<sup>WT</sup> and EGFR<sup>T790M</sup>" *Org. Biomol. Chem.* **2020**, *18*, 7608–7634.
8. Chen, Q.-Y.;<sup>+</sup> Luo, D.;<sup>+</sup> Seabra, G. M.; **Luesch, H.**\* "Ahp-Cyclodepsipeptides as Tunable Inhibitors of Human Neutrophil Elastase and Kallikrein 7: Total Synthesis of Tutuilamide A, Serine Protease Selectivity Profile and Comparison with Lyngbyastatin 7" *Bioorg. Med. Chem.* **2020**, *28*, 115756. (+ equal contribution)
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### **Book Chapters**

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### **Patent Filings**

#### **Issued Patents:**

1. Luesch, H.; Chen, Q.-Y. “Macrocyclic Therapeutic Agents, Methods of Manufacture, and Methods of Treatment” Ireland patent number 3107919 (issued 01/27/2021), Appl. No. 15751780.6 (filing date 02/20/2015).
2. Luesch, H.; Chen, Q.-Y. “Macrocyclic Therapeutic Agents, Methods of Manufacture, and Methods of Treatment” Switzerland patent number 3107919 (issued 01/27/2021), Appl. No. 15751780.6 (filing date 02/20/2015).
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  7. Luesch, H.; Paul, V. J.; Wang, R. “Unsaturated Fatty Acid Containing Sea Lettuce as Activator of the Antioxidant Response” United States Patent No. 10,010,569 (issued 7/3/2018), Appl. No. 14/441,744 (filing date 5/8/2015).
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  16. Luesch, H.; Paul, V. J.; Ratnayake, R. “Seaweed Extracts, Unsaturated Aldehydes, and Methods of Treatment” United States Patent No. 9,730,970 (issued 8/15/2017), Appl. No. 14/846,544 (filing date 9/4/2015).
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27. Luesch, H.; Paul, V. J.; Kwan, J. "Structure and Protease Activity of Grassystatins" EPO Patent No. 2445873 (issued 12/17/2014), Appl. No. 10792775.8 (filing date 6/26/2010).
  28. Luesch, H.; Paul, V. J.; Kwan, J. "Structure and Protease Activity of Grassystatins" France Patent No. 2445873 (issued 12/17/2014), Appl. No. 10792775.8 (filing date 6/26/2010).
  29. Luesch, H.; Paul, V. J.; Kwan, J. "Structure and Protease Activity of Grassystatins" Germany Patent No. 2445873 (issued 12/17/2014), Appl. No. 10792775.8 (filing date 6/26/2010).
  30. Luesch, H.; Paul, V. J.; Kwan, J. "Structure and Protease Activity of Grassystatins" Great Britain Patent No. 2445873 (issued 12/17/2014), Appl. No. 10792775.8 (filing date 6/26/2010).
  31. Luesch, H.; Paul, V. J.; Kwan, J. "Structure and Protease Activity of Grassystatins" Ireland Patent No. 2445873 (issued 12/17/2014), Appl. No. 10792775.8 (filing date 6/26/2010).
  32. Luesch, H.; Paul, V. J.; Kwan, J. "Structure and Protease Activity of Grassystatins" Switzerland Patent No. 2445873 (issued 12/17/2014), Appl. No. 10792775.8 (filing date 6/26/2010).
  33. Luesch, H.; Hong, J. "Methods of Preparation of Macrocyclic Compounds" United States Patent No. 8,759,512 (issued 6/24/2014), WO 81316(49163), Appl. No. 12/918,958 (filing date 8/23/2010).
  34. Luesch, H.; Kwan, J.; Paul, V. "Protease Inhibitors, Compositions and Methods of Use" United States Patent No. 8,569,245 (issued 10/29/2013), WO 84357(49163), Appl. No. 13/380,775 (filing date 4/2/2012).
  35. Luesch, H.; Paul, V.; Taori, K. "Macrocyclic Compounds and Methods of Treatment" EPO Patent No. 2190449 (issued 8/22/2012), WO 68814EP(49163), Appl. No. 8829476.4 (filing date 3/11/2010).
  36. Luesch, H.; Paul, V.; Taori, K. "Macrocyclic Compounds and Methods of Treatment" France Patent No. 2190449 (issued 8/22/2012), WO 49163(68814), Appl. No. 8829476.4 (filing date 9/9/2008).
  37. Luesch, H.; Paul, V.; Taori, K. "Macrocyclic Compounds and Methods of Treatment" Germany Patent No. 2190449 (issued 8/22/2012), WO 68814DE(49163), Appl. No. 8829476.4 (filing date 9/9/2008).
  38. Luesch, H.; Paul, V.; Taori, K. "Macrocyclic Compounds and Methods of Treatment" Spain Patent No. 2190449 (issued 8/22/2012), WO 68814ES(49163), Appl. No. 8829476.4 (filing date 9/9/2008).
  39. Luesch, H.; Paul, V.; Taori, K. "Macrocyclic Compounds and Methods of Treatment" Switzerland Patent No. 2190449 (issued 8/22/2012), WO 68814CH(49163), Appl. No. 8829476.4 (filing date 9/9/2008).
  40. Luesch, H.; Paul, V.; Taori, K. "Macrocyclic Compounds and Methods of Treatment" United Kingdom Patent No. 2190449 (issued 8/22/2012), WO 68814UK(49163), Appl. No. 8829476.4 (filing date 9/9/2008).
  41. Luesch, H.; Paul, V.; Taori, K. "Macrocyclic Compounds and Methods of Treatment" United States Patent No. 8,129,418 (issued 3/16/2012), WO 68814(49163), Appl. No. 12/677,078 (filing date 3/8/2010).

**Published and Pending Patent Applications: 65**

**Featured Articles**

1. Chen, Q.-Y.; Liu, Y.; Cai, W.; **Luesch, H.\*** "Total Synthesis and Biological Evaluation of Potent Apratoxin S4 Based Anticancer Agents" *MagLab Reports* (Highlights, Special Edition) **2015**, 22(2), 53.
2. Montaser, R.; Paul, V. J.; **Luesch, H.\*** "Modular Strategies for Structure and Function Employed by Marine Cyanobacteria: Characterization and Synthesis of Pitinoic Acids" *MagLab Reports* **2014**, 21(1).
3. Salvador, L. A.; **Luesch, H.\***; Biggs, J. S.; Paul, V. J. "Veraguamides A–G, Novel Cyclic Hexadepsipeptides with Antiproliferative Activity from the Marine Cyanobacterium *Symploca cf. hydnoides* from Guam" *MagLab Reports* (Highlights, Special Edition) **2012**, 19.
4. Salvador, L. A.; Matthew, S.; **Luesch, H.\***; Schupp, P. J.; Paul, V. J. "New Cytotoxic Macrolides and Modified Peptides from Marine Cyanobacteria" *MagLab Reports* (Highlights, Special Edition) **2011**, 18(2), 36.
5. Kwan, J. C.; Taori, K.; Matthew, S.; Paul, V. J.; **Luesch, H.\*** "Exploiting Marine Cyanobacteria for Drug Discovery" *MagLab Reports* (Highlights, Special Edition) **2009**, 55–56.

6. Matthew, S.; Taori, K.; Kwan, J. C.; Paul, V. J.; **Luesch, H.\*** “Exploiting Floridian Marine Cyanobacteria for Drug Discovery” *MagLab Reports* (Highlights, Special Edition) **2008**, *15*(2), 3–4.
7. Matthew, S.; Ross, C.; Rocca, J. R.; Paul, V. J.; **Luesch, H.\*** “Lyngbyastatin 4, a New Protease Inhibitor from the Floridian Marine Cyanobacterium *Lyngbya confervoides*” *MagLab Reports* **2007**, *14*(3), 14–15.

### Invited Presentations

1. Luesch, H.\* “A New Wave of Medicine from the Sea” Invited Speaker at the meeting of the Rotary Club of Perrine-Cutler Ridge/Palmetto Bay, Florida, May 11, 2021 (Virtual).
2. Luesch, H.\* “Marine Drug Discovery: Connecting Platforms” NTU Drug Discovery Workshop, Nanyang Technological University, Singapore, November 18, 2020 (Virtual).
3. Luesch, H.\* “Marine Natural Products as Starting Points for Drug Discovery and Development” Keynote Speaker at the Marine and Microbial Natural Products DownUnder Zoomposium, The University of Queensland, Australia, Brisbane, September 9–10, 2020 (Virtual).
4. Luesch, H.\* “Med Chem Research During COVID-19 Season: Drug Discovery Targeting Viral and Host Factors” PharmTalks Live, University of Florida, College of Pharmacy, April 21, 2020.
5. Luesch, H.\* “A Multidimensional Profiling Platform to Unlock the Mechanisms and Therapeutic Potential of MNPs” Speaker at the Gordon Research Conference on Marine Natural Products, Ventura, CA, February 23–28, 2020.
6. Luesch, H.\* “Cancer Drugs from the Sea” Cancer Research Symposium for High School Students, West Port High School, Ocala, FL, February 13, 2020.
7. Luesch, H.\* “Understanding Function Never Gets Old: New Opportunities through Multilevel Natural Product Characterization” 3<sup>rd</sup> International Conference on Natural Products Discovery & Development in the Genomic Era (a Joint Meeting of the Society for industrial Microbiology and Biotechnology, The Society for Actinomycetes Japan, and The Korean Society for Microbiology and Biotechnology), San Diego, CA, January 12–16, 2020.
8. Luesch, H.\* “Drug Development of Natural Products from Marine Cyanobacteria” 2019 Fudan Summit on Drug Innovation, Zhangjiang, Shanghai, China, October 18–19, 2019.
9. Luesch, H.\* “Drugs from the Ocean: Marine Natural Products as Starting Points for Drug Discovery and Development” Lee Kong Chian School of Medicine, Nanyang Technological University, Singapore, September 26, 2019.
10. Luesch, H.\* “Discovery and Development of Novel Marine-Derived Anticancer and Antiangiogenic Agents” Signature Seminar Series, Duke-NUS Medical School, Singapore, September 24, 2019.
11. Luesch, H.\* “Cancer Drugs from the Sea” 2<sup>nd</sup> Annual Cancer Research Conference for Science Teachers, UF Health Cancer Center, University of Florida, Gainesville, FL, July 15–16, 2019.
12. Luesch, H.\* “Bioactive Marine Natural Products and Their Development into Drugs for Human Health: Current Status and Potential” International Seminar Theme: Potential Marine Natural Products as a Source of Human Safety Expectations, Widya Mandira Catholic University, Kupang, Indonesia, July 11, 2019. (Keynote Speaker)
13. Luesch, H.\* “Drug Discovery Inspired by Marine Cyanobacteria” Session II: Drug Screening Technologies, International Conference on Pharmacology: Advances in Translational Sciences & Drug Discovery, National University of Singapore, Department of Pharmacology, Singapore, July 4–5, 2019.
14. Luesch, H.\* “Natural Products from Marine Cyanobacteria as Starting Points for Drug Discovery and Development” Molecular Discovery Seminar, National Cancer Institute, Frederick, MD, USA, May 30, 2019.
15. Luesch, H.\* “Marine Natural Products as Starting Points for Drug Discovery and Development” 1<sup>st</sup> International Conference in Science and Mathematics, Mindanao State University – Iligan Institute of Technology, Iligan City, Philippines, April 11–13, 2019.
16. Luesch, H.\* “The Molecular Pharmacology and Biomedical Applications of New Marine Natural Products” 23<sup>rd</sup> International Symposium on Molecular Medicine, Bangkok, Thailand, March 28–30, 2019.

17. Luesch, H.\* “Natural Products from Marine Cyanobacteria as Starting Points for Drug Discovery and Development” 7<sup>th</sup> Kuwait International Pharmacy Conference (KIPC 2019), Kuwait, March 5–7, 2019.
18. Luesch, H.\* “Natural Products from Marine Cyanobacteria as Starting Points for Drug Discovery and Development” Chemistry Department, Kuwait University, March 4, 2019.
19. Luesch, H.\* “Marine Natural Products as Starting Points for Drug Discovery and Development” Annual Meeting of NIH D43 TW010530 Project Enhancing Basic and Translational Research in Northern Vietnam Meeting, Hanoi, Vietnam, November 21, 2018.
20. Luesch, H.\* “Targeting Cancer with Marine Natural Products” Cancer Therapeutics & Host Response (CTHR) Program Retreat, UF Health Cancer Center, Gainesville, FL, October 23, 2018.
21. Luesch, H.\* “Natural Products from Marine Cyanobacteria as Starting Points for Drug Discovery and Development” The International Forum on Natural Products, Beijing, China, August 31–September 2, 2018.
22. Luesch, H.\* “Antimetastatic Agents from Marine Cyanobacteria” 2<sup>nd</sup> US-China Summit on Marine Natural Products Sciences, La Jolla, CA, USA, August 13–15, 2018.
23. Luesch, H.\* “Bioactive Modified Peptides from Marine Cyanobacteria” The 15<sup>th</sup> Chinese International Peptide Symposium, Shenzhen, Guangdong, China, July 3–6, 2018.
24. Luesch, H.\* “Marine Natural Products as Starting Points for Drug Discovery and Development” Seminar, Institute for Organic Chemistry, Technical University of Braunschweig, Germany, June 7, 2018.
25. Luesch, H.\* “Marine Natural Products as Starting Points for Drug Discovery and Development” Hong Kong University of Science of Technology (HKUST), Joint Departmental Seminar: Ocean Science, Chemistry and Life Science, Hong Kong, April 27, 2018.
26. Luesch, H.\* “Marine Natural Products as Starting Points for Drug Discovery and Development” LKC School of Medicine, Nanyang Technological University, Singapore, April 12, 2018.
27. Luesch, H.\* “Marine Natural Products as Starting Points for Drug Discovery and Development” Drug Development and Optimization Program Signature Seminar, Department of Pharmacology & Department of Pharmacy, National University of Singapore, Singapore, April 5, 2018.
28. Luesch, H.\* “Natural Products from Marine Cyanobacteria as Starting Points for Drug Discovery and Development” H.G. Hewitt Drug Discovery Seminar Series, Department of Pharmaceutical Sciences, School of Pharmacy, University of Connecticut, March 19, 2018.
29. Luesch, H.\* “Multilevel Characterization of Marine Natural Products as Anticancer Agents” 15<sup>th</sup> Asian Symposium on Medicinal Plants, Spices, and other natural Products (ASOMPS XV) and 22<sup>nd</sup> Annual Convention Natural Products Society of the Philippines (NPSP), University of the Philippines, Diliman, Quezon City, The Philippines, December 6–8, 2017.
30. Luesch, H.\* “Natural Products from Marine Cyanobacteria as Starting Points for Drug Discovery and Development” 2<sup>nd</sup> Workshop on the Recent Advances in the Chemistry of Natural Products, Biota-FAPESP Program – Virtual Institute of Biodiversity, São Paulo, Brazil, November 9, 2017.
31. Luesch, H.\* “Targeting Cancer Pathways with Marine Natural Products” 6<sup>th</sup> Brazilian Conference on Natural Products and XXII RESEM, Vitória, Espírito Santo, Brazil, November 5–8, 2017.
32. Luesch, H.\* “Marine Natural Products as Starting Points for Drug Discovery and Development” Department of Chemistry, University of Aberdeen, Scotland, UK, September 29, 2017. (published in *Biochem. Pharmacol.* **2017**, *139*, 106–107.)
33. Luesch, H.\* “Marine Natural Products as Starting Points for Drug Discovery and Development” Joint Meeting of the International Conference on the Mechanism of Action of Nutraceuticals (ICMAN) and the International Union of Pharmacology (IUPHAR) Natural Products Section, Aberdeen, Scotland, UK, September 27–29, 2017.
34. Luesch, H.\* “Marine Biodiversity as Starting Point for Drug Discovery and Development” Experimental Therapeutics Centre (ETC), A\*STAR, Singapore, August 1, 2017.
35. Luesch, H.\* “Marine Biodiversity as Starting Point for Drug Discovery and Development” Sarawak Biodiversity Centre, Kuching, Malaysia, May 26, 2017.
36. Luesch, H.\* “Drug Discovery Inspired by Marine Cyanobacteria” Department of Medicinal Chemistry and Biological Chemistry, University of Toledo, Ohio, April 13, 2017.

37. Luesch, H.\* “Marine Biodiversity as Starting Point for Drug Discovery and Development” Oregon State University College of Pharmacy, Annual Rising Lecture Series & Retreat, Gleneden Beach, OR, March 24–25, 2017. (*Keynote Speaker*)
38. Luesch, H.\* “Drug Discovery Inspired by Marine Cyanobacteria” 29. Irseer Naturstofftage: Aktuelle Entwicklungen in der Naturstoff-Forschung, Kloster Irsee, Germany, February 22–24, 2017.
39. Luesch, H.\* “Marine Biodiversity as Starting Point for Drug Discovery and Development” Centre Scientifique De Monaco, Monaco, Monte Carlo, February 22, 2017.
40. Luesch, H.\* “Drug Discovery Inspired by Marine Cyanobacteria” Southeast Asian Fisheries Development Center/Aquaculture Department (SEAFDEC/AQD), Tigbauan, Iloilo, Philippines, December 7, 2016.
41. Luesch, H.\* “Multidimensional Screening Platform for the Simultaneous Targeting of RAS and the Hypoxia-Inducible Factors Pathways” Genitourinary (GU) Cancer Research Retreat, Gainesville, FL, November 22, 2016.
42. Luesch, H.\* “Discovery, Synthesis and Biological Evaluation of Modified Peptides from Marine Cyanobacteria” 8<sup>th</sup> US-Japan Symposium on Marine Natural Products: 21<sup>st</sup> Century Innovations in Natural Products, University of Hawaii Cancer Center, Honolulu, HI, November 14–17, 2016.
43. Luesch, H.\* “Marine Biodiversity as Starting Point for Drug Discovery and Development” International Conference on Marine Biodiversity, Denpasar, Bali, Indonesia, October 31–November 1, 2016.
44. Luesch, H.\* “Multidimensional Screening Platform to Identify Marine Natural Products for the Treatment of Cancer and Associated Angiogenesis” Biodiversity & Chemical Biology of Marine and Terrestrial Life in the Philippine Region, Pangalo Island, Bohol, Philippines, October 16–20, 2016.
45. Luesch, H.\* “Exploiting Marine Cytotoxins for Drug Discovery” 2016 XII Congress of the Pan American Section of the International Society on Toxinology, Miami Beach, FL, September 18–23, 2016.
46. Luesch, H.\* “Drug Discovery Inspired by Marine Cyanobacteria” Plenary Lecture at the XV International Symposium on Marine Natural Products (MaNaPro 2016), Cumbuco Beach, Ceará, Brazil, August 29–September 2, 2016.
47. Luesch, H.\* “Multilevel Characterization of Natural Products from Marine Cyanobacteria” Gordon Research Conference on Natural Products & Bioactive Compounds, Proctor Academy, Andover, NH, July 31–August 5, 2016.
48. Luesch, H.\* “Targeting Cancer Pathways with Marine Natural Products” Inaugural UF Drug Discovery Symposium; Center for Natural Products, Drug Discovery and Development (CNP3), Gainesville, FL, April 29, 2016.
49. Luesch, H.\* “Natural Products from Marine Cyanobacteria as Starting Points for Drug Discovery and Development” South China Sea Institute of Oceanology, Guangzhou, China, April 12, 2016.
50. Luesch, H.\* “Natural Products from Marine Cyanobacteria as Starting Points for Drug Discovery and Development” School of Chemical Biology & Biotechnology, Peking University Shenzhen Graduate School, Shenzhen, China, April 8, 2016.
51. Luesch, H.\* “Specific Targeting of Cancer Pathways with Marine Natural Products” Department of Microbiology and Cell Science, University of Florida, Gainesville, FL, April 4, 2016.
52. Luesch, H.\* “Specific Targeting of Cancer Relevant Pathways with Marine Natural Products” Faculty of Pharmacy, Kuwait University, Kuwait, March 23, 2016.
53. Luesch, H.\* “Marine Natural Products as Starting Points for Drug Discovery and Development” 4<sup>th</sup> Kuwait Conference of Chemistry KCC2016: Chemistry & Life Sciences, Kuwait, March 20–22, 2016.
54. Luesch, H.\* “From Marine Toxins to Promising Anticancer Agents through Mechanistic Insight and Medicinal Chemistry” Symposium: New Platforms for NP Discovery, PACIFICHEM 2015, Honolulu, HI, December 15–20, 2015.
55. Luesch, H.\* “Isolation, Structure Determination, Synthesis and Biological Characterization of Novel Bioactive Natural Products from Marine Cyanobacteria” Symposium: Natural Product-based Drug Discovery, PACIFICHEM 2015, Honolulu, HI, December 15–20, 2015.

56. Luesch, H.\* “Functional Genomic and Chemical-Genetic Screening Platforms for Drug and Target Discovery” Florida Genetics Symposium 2015, University of Florida Genetics Institute, Gainesville, FL, November 18–19, 2015.
57. Luesch, H.\* “Marine Natural Products as Starting Points for Drug Discovery” Department of Pharmacology and Therapeutics, College of Medicine, University of Florida, Gainesville, FL, September 9, 2015.
58. Luesch, H.\* “Marine Natural Products as Starting Points for Drug Discovery” Department of Medicinal Chemistry and Pharmacognosy, College of Pharmacy, University of Illinois at Chicago, Chicago, IL, August 28, 2015.
59. Luesch, H.\* “Specific Targeting of Cancer Relevant Pathways with Marine Natural Products” School of Pharmaceutical Sciences, Peking University, Beijing, China, July 6, 2015.
60. Luesch, H.\* “Marine Natural Products as Starting Points for Drug Discovery and Development” School of Pharmaceutical Sciences, Peking University, Beijing, China, July 6, 2015.
61. Luesch, H.\* “The Oceans as a Pharmacy: A New Wave of Drugs” Research Center for Oceanography, The Indonesian Institute of Sciences (LIPI), Jakarta, Indonesia, June 24, 2015.
62. Luesch, H.\* “Drugs from the Ocean: From Seaside to Bedside” 10<sup>th</sup> Symposium on New Developments in Clinical Pharmacy and Clinical Pharmacology, Global Gator Meeting, Utrecht, The Netherlands, June 6, 2015.
63. Luesch, H.\* “The Oceans as a Pharmacy: A New Wave of Drugs” Department of Pharmacotherapy and Translational Research Seminar, University of Florida, College of Pharmacy, Gainesville, FL, May 21, 2015.
64. Luesch, H.\* “Drug Discovery Inspired by Marine Natural Products” Joint Department of Pharmacology & Toxicology/Drug Discovery and Developmental Therapeutics Seminar, University of Arizona, College of Pharmacy, Tucson, AZ, February 10, 2015.
65. Luesch, H.\* “Drugs from the Ocean: From Seaside to Bedside” UF Health Cancer Center Grand Rounds and The Ocala Royal Dames for Cancer Research, Inc., Gainesville, FL, October 8, 2014.
66. Luesch, H.\* “Discovery and Development of Marine-Derived Anticancer Agents” China–US Symposium for Marine Biopharmaceutical Research and Industry, Ningbo University, Ningbo, China, August 23–27, 2014.
67. Luesch, H.\* “Drug Discovery Inspired by Marine Cyanobacteria” US–China Summit on Marine Natural Product Science, Yantai, China, August 17–22, 2014.
68. Luesch, H.\* “Specific Targeting of Cancer Relevant Pathways with Marine Natural Products” Marine Science Institute, University of the Philippines, Diliman, Quezon City, Philippines, May 20, 2014.
69. Luesch, H.\* “Guam as Starting Point for Drug Discovery and Development in Florida” Presidential Lecture Series, University of Guam, Mangilao, Guam, April 10, 2014. Featured on *Pacific News Center*:  
[http://www.pacificnewscenter.com/index.php?option=com\\_content&view=article&id=44129:video-uog-presidential-lecture-dr-luesch-sea-algae-around-guam-may-lead-to-drug-treatments-for-cancer-alzheimer&catid=45:guam-news&Itemid=156](http://www.pacificnewscenter.com/index.php?option=com_content&view=article&id=44129:video-uog-presidential-lecture-dr-luesch-sea-algae-around-guam-may-lead-to-drug-treatments-for-cancer-alzheimer&catid=45:guam-news&Itemid=156)
70. Luesch, H.\* “Specific Targeting of Cancer Relevant Pathways for MNP Discovery” Speaker at the Gordon Research Conference on Marine Natural Products; Ventura, CA, March 2–March 7, 2014.
71. Luesch, H.\* “Marine Cyanobacterial Natural Products as Starting Points for Drug Discovery” 4<sup>th</sup> A\*STAR Chemistry Symposium, Matrix @ Biopolis, Singapore, February 19, 2014.
72. Luesch, H.\* “Diving into Epigenetics: From Phenotypic Screening to the Discovery and Development of a Marine-Derived HDAC Inhibitor” 9<sup>th</sup> International Congress of Pharmaceutical Sciences CIFARP 2013, Ribeirão Preto, SP, Brazil, November 20–23, 2013.
73. Luesch, H.\* “Drugs from the Ocean: From Discovery to Clinical Development” Chemical Engineering Department, University of Indonesia, Jakarta, Indonesia, October 31, 2013.
74. Luesch, H.\* “Discovery, Mechanistic Characterization & Development of Anticancer Agents from Marine Cyanobacteria” International Conference on Medicinal Chemistry and Timmerman Award 2013, University of Indonesia, Jakarta, Indonesia, October 28–29, 2013.



75. Luesch, H.\* “Marine Cyanobacterial Natural Products as Starting Points for Drug Discovery” Department of Chemistry & Biochemistry, University of North Carolina Greensboro, Greensboro, NC, October 18, 2013.
76. Luesch, H.\* “Marine Natural Products for Cancer Treatment and Prevention” Eppley Institute/Fred & Pamela Buffett Cancer Center, University of Nebraska Medical Center, Omaha, NE, October 3, 2013.
77. Luesch, H.\* “Marine Cyanobacterial Natural Products as Starting Points for Drug Discovery” Department of Chemistry, University of South Florida, Tampa, FL, September 26, 2013.
78. Luesch, H.\* “Marine Cyanobacterial Natural Products as Starting Points for Drug Discovery” International Conference on Natural Products and Health 2013; Nanyang Technological University, Singapore, September 5–7, 2013.
79. Luesch, H.\* “Cyanobacterial Natural Products as Starting Points for Drug Discovery” 2013 Society for Industrial Microbiology & Biotechnology (SIMB) Annual Meeting & Exhibition; San Diego, CA, August 11–15, 2013.
80. Luesch, H.\* “Drug Discovery Inspired by Marine Cyanobacteria: Novel Chemistry and Biology” 3<sup>rd</sup> Transatlantic Frontiers of Chemistry Symposium; Kloster Seeon, Germany, August 8–11, 2013.
81. Luesch, H.\* “Marine Cyanobacterial Natural Products as Starting Points for Drug Discovery” 62<sup>nd</sup> Natural Products Gordon Research Conference; Andover, NH, July 28–August 2, 2013.
82. Luesch, H.\* “Drug Discovery from Marine Cyanobacteria” 33<sup>rd</sup> Annual Meeting of the American College of Toxicology, ChampionsGate, FL, November 4–7, 2012.
83. Luesch, H.\* “Discovery, Mechanistic Characterization & Development of Anticancer Agents from Marine Cyanobacteria” Impromptu Seminar, Research Center for Molecular Medicine of the Austrian Academy of Sciences (CeMM), Vienna, October 24, 2012.
84. Luesch, H.\* “Discovery and Development of Bioactive Natural Products from Marine Cyanobacteria” Forschergruppenseminar, University of Bonn, Germany, October 23, 2012.
85. Luesch, H.\* “Epigenetic Modulation by the Marine Natural Product Largazole: From Discovery to Broad-Spectrum Therapy” International Congress Natural Anticancer Drugs (NAD) 2012, Olomouc, Czech Republic, June 30–July 4, 2012.
86. Luesch, H.\* “Drug Discovery from Marine Cyanobacteria: Novel Chemistry and Biology” Distinguished Lecturer Series, Scripps Florida Biotech Club, The Scripps Research Institute – Scripps Florida, Jupiter, FL, May 17, 2012.
87. Luesch, H.\* “Drugs from the Ocean: From Discovery to Clinical Development” A\*STAR, Institute of Molecular and Cell Biology, Singapore, April 30, 2012.
88. Luesch, H.\* “Anticancer Drug Discovery from Marine Cyanobacteria: Novel Chemistry and Biology” Department of Biochemistry, University of Texas Southwestern Medical Center, Dallas, TX, February 6, 2012.
89. Luesch, H.\* “Drug Discovery from Marine Cyanobacteria: Novel Chemistry and Biology” Whitney Laboratory for Marine Bioscience, St. Augustine, FL, January 13, 2012.
90. Luesch, H.\* “Medicines from the Sea” Evenings at Whitney Public Lecture Series, Whitney Laboratory for Marine Bioscience, St. Augustine, FL, January 12, 2012.
91. Luesch, H.\* “Medicinal Chemistry and Mechanistic Characterization of Cyanobacterial Anticancer Agents” VII<sup>th</sup> US–Japan Marine Bioorganic Chemistry Symposium, Okinawa, Japan, December 11–16, 2011.
92. Luesch, H.\* “Drug Discovery from Marine Cyanobacteria: Novel Chemistry and Biology” 16<sup>th</sup> Annual Convention of the Natural Products Society of the Philippines, University of Santo Tomas, Manila, Philippines, December 10, 2011.
93. Luesch, H.\* “Exploring the Molecules of Marine Life for Drug Discovery” 38<sup>th</sup> Annual Philippine Society of Biochemistry & Molecular Biology (PSBMB) Convention, University of Santo Tomas, Manila, Philippines, December 8–9, 2011.
94. Luesch, H.\* “Drugs from the Ocean: From Discovery to Clinical Development” 2011 Chemical Biology Symposium, School of Chemical Biology & Biotechnology, Peking University Shenzhen Graduate School, November 4, 2011.

95. Luesch, H.\* “New Marine Anticancer Agents and Their Mechanisms of Action” BIT’s 9<sup>th</sup> Annual Congress of International Drug Discovery Science and Technology (IDDST), Shenzhen, China, November 3–6, 2011.
96. Luesch, H.\* “Drugs from the Ocean: From Discovery to Clinical Development” Department of Chemistry, The Hong Kong University of Science and Technology, Hong Kong, November 1, 2011.
97. Luesch, H.\* “Drug Discovery from Marine Cyanobacteria: Novel Chemistry and Biology” Department of Medicinal Chemistry, University of Michigan, Ann Arbor, MI, October 18, 2011.
98. Luesch, H.\* “Drugs from the Ocean: From Discovery to Clinical Development” Topics in Cancer Seminar Series, University of Florida Shands Cancer Center, Gainesville, FL, September 23, 2011.
99. Luesch, H.\* “Current Developments in Marine Natural Products: A New Wave of Drugs?” College of Pharmacy National Advisory Board Meeting, Gainesville, FL, September 15–16, 2011.
100. Luesch, H.\* “Potent New Anticancer Agents from Marine Cyanobacteria” BIT Life Sciences 2<sup>nd</sup> Annual International Conference of Medicchem 2011 (ICM-2011), Beijing, China, August 9–11, 2011.
101. Luesch, H.\* “Chemistry and Biology of Natural Products from Marine Cyanobacteria” 27<sup>th</sup> International Symposium on the Chemistry of Natural Products (ISCNP27) & 7<sup>th</sup> International Conference on Biodiversity (ICOB7), Brisbane, Australia, July 10–15, 2011.
102. Luesch, H.\* “Bioactive Modified Peptides from Marine Cyanobacteria” 22<sup>nd</sup> American Peptide Symposium, San Diego, CA, June 25–30, 2011.
103. Luesch, H.\* “Anticancer Leads from Marine Cyanobacteria: Novel Chemistry and Biology” Symposium on *New Frontiers in Marine Drug Discovery: Developing New Therapies from Marine Natural Products*, The New York Academy of Sciences, New York, NY, May 20, 2011.
104. Luesch, H.\* “Chemistry and Biology of Natural Products from Marine Cyanobacteria” Institute of Chemistry, University of the Philippines, Diliman, Quezon City, Philippines, May 11, 2011.
105. Luesch, H.\* “Chemistry and Biology of Natural Products from Marine Cyanobacteria” Marine Science Institute, University of the Philippines, Diliman, Quezon City, Philippines, May 9, 2011.
106. Luesch, H.\* “Marine Natural Products Initiated Chemical Biology” *Frontiers in Natural Products*, University of Utah, Salt Lake City, UT, April 27, 2011.
107. Luesch, H.\* “Marine Natural Products Initiated Chemical Biology” Department of Chemistry, Yale University, New Haven, CT, April 21, 2011.
108. Luesch, H.\* “Marine Natural Products Initiated Chemical Biology” Department of Biochemistry, University of Texas Southwestern Medical Center, Dallas, TX, March 8, 2011.
109. Luesch, H.\* “Marine Natural Products Initiated Chemical Biology” Department of Chemistry, University of Florida, Gainesville, FL, February 4, 2011.
110. Luesch, H.\* “The Oceans as a Pharmacy: A New Wave of Drugs” University of Florida College of Pharmacy, 2011 Student Organization Annual Retreat (SOAR), Gainesville, FL, January 8, 2011.
111. Luesch, H.\* “Marine Natural Products Initiated Chemical Biology” College of Pharmacy, Division of Medicinal Chemistry and Pharmacognosy, The Ohio State University, Columbus, OH, December 1, 2010.
112. Luesch, H.\* “Marine Natural Products Initiated Chemical Biology” Department of Microbiology and Cell Science, University of Florida, Gainesville, FL, November 22, 2010.
113. Luesch, H.\* “Marine Drug Discovery: Novel Leads from Cyanobacteria and Their Modes of Action” 2010 FIP Pharmaceutical Sciences World Congress / American Association of Pharmaceutical Scientists (AAPS) Annual Meeting and Exposition, New Orleans, LA, November 14–18, 2010.
114. Luesch, H.\* “Marine Natural Products Initiated Chemical Biology” Department of Chemistry, National University of Singapore, October 14, 2010.
115. Luesch, H.\* “Marine Natural Products Initiated Chemical Biology” Department of Chemistry, University of North Florida, Jacksonville, FL, October 8, 2010.
116. Luesch, H.\* “Marine Natural Products Initiated Chemical Biology” Department of Chemistry and Biochemistry, Florida International University, Miami, FL, September 17, 2010.
117. Luesch, H.\* “Marine Natural Products Initiated Chemical Biology” Rosenstiel School of Marine and Atmospheric Sciences, University of Miami, Miami, FL, September 16, 2010.

118. Luesch, H.\* “Anticancer Drug Leads from Marine Cyanobacteria” 5<sup>th</sup> CMDD Symposium on Marine Natural Products and Drug Discovery (CMDDS 2010), Pohang, South Korea, September 8–10, 2010.
119. Luesch, H.\* Kwan, J. C.; Liu, Y.; Paul, V. J. “Global and Targeted Approaches to Determine Bioactivities and Mechanisms of Action” 2010 Joint Annual Meeting of the American Society of Pharmacognosy & the Phytochemical Society of North America, St. Petersburg, FL, July 10–14, 2010.
120. Luesch, H.\* “Functional Genomics and Proteomics with Anticancer Natural Products” BIT’s 3<sup>rd</sup> Annual World Cancer Congress, Singapore, June 22–25, 2010.
121. Luesch, H.\* “Probing Modes of Action of Cyanobacterial Metabolites” Gordon Research Conference on Marine Natural Products; Ventura, CA, February 28–March 5, 2010.
122. Luesch, H.\* “Marine Drug Discovery: Novel Structures and Mechanisms of Action” Nanyang Technological University, School of Physical & Mathematical Sciences, Singapore, December 3, 2009.
123. Luesch, H.\* “Marine Drug Discovery: Novel Structures and Mechanisms of Action” A\*STAR, Institute of Molecular and Cell Biology, Singapore, December 1, 2009.
124. Luesch, H.\* “Marine Natural Products Drug Discovery” Johnson & Johnson UF Campus Visit, Gainesville, FL, February 17, 2009.
125. Luesch, H.\* “Marine Drug Discovery: A Pharmacy under the Sea” HHMI Science for Life seminar series, Gainesville, FL, December 2, 2008.
126. Luesch, H.\* “From Marine Natural Products to Gene Discovery: Integrative Approaches in Chemical Biology and Functional Genomics” Department of Chemistry & Biochemistry, Florida Atlantic University, Boca Raton, FL, November 14, 2008.
127. Luesch, H.\* “Marine Drug Discovery: A Pharmacy under the Sea” College of Pharmacy National Advisory Board Meeting, Gainesville, FL, September 26–27, 2008.
128. Luesch, H.\* “From Marine Natural Products to Target Proteins: Integrative Approaches in Chemical Biology” The 22<sup>nd</sup> Naito Conference on Chemical Biology (I), Sapporo, Japan, September 9–12, 2008.
129. Luesch, H.\* “From Marine Natural Products to Gene Discovery: Integrative Approaches in Chemical Biology and Functional Genomics” University of North Florida, Jacksonville, FL, March 28, 2008.
130. Luesch, H.\* “From Marine Natural Products to Gene Discovery: Integrative Approaches in Chemical Biology and Functional Genomics” Invited Speaker to the Eisai Research Institute, Andover, MA, September 10, 2007.
131. Luesch, H.\*; Liu, Y. “Genome-Scale Approaches to the Discovery of Novel Targets for Neuroprotection” Invited Speaker at the 5<sup>th</sup> Annual McKnight Brain Research Foundation Board of Trustees Meeting, Gainesville, FL, February 21, 2007.
132. Luesch, H.\*; Matthew, S.; Liu, Y. “Top-Down Approaches in Chemical Biology and Functional Genomics” Invited Speaker at the 12<sup>th</sup> International Symposium on Marine Natural Products (MaNaPro12), Queenstown, NZ, February 4–9, 2007.
133. Luesch, H.\*; Matthew, S.; Liu, Y. “Top-Down Approaches in Chemical Biology and Functional Genomics” Invited Speaker at the Pharmaceuticals Seminar Series, University of Florida, Gainesville, FL, November 30, 2006.
134. Luesch, H. “Exploiting Marine Cyanobacteria for Drug Discovery” Invited Speaker at the Florida Marine Biotechnology Summit V, Gainesville, FL, November 14–15, 2006.
135. Luesch, H.\* “Genomic Approaches to the Modes of Action of Bioactive Small Molecules” Invited Speaker at the Society for Industrial Microbiology Annual Meeting, Baltimore, MD, July 30–August 3, 2006.
136. Luesch, H.\* “Drugs from the Sea” Invited Speaker at the Schultz Lab Symposium, San Diego, CA, June 2, 2006.
137. Luesch, H.\* “Exploiting Marine Cyanobacteria for Drug Discovery and Chemical Biology” Invited Speaker at the 2006 Florida Annual Meeting and Exposition (FAME) of the American Chemical Society, Orlando, FL, May 13, 2006.
138. Luesch, H.\* “Exploiting Marine Cyanobacteria for Drug Discovery” Invited Speaker at the Whitney Laboratory for Marine Bioscience, St. Augustine, FL, April 28, 2006.
139. Luesch, H.\* “Proteomics Strategies to Identify the Target of Apratoxin A” Invited Speaker at the Cancer Center Grand Rounds, University of Florida, Gainesville, FL, March 8, 2006.

140. Luesch, H.\* “Genome-Scale Approaches to the Discovery of Novel Targets for Neuroprotection” Invited Speaker the 4<sup>th</sup> Annual McKnight Brain Research Foundation Board of Trustees Meeting, Gainesville, FL, February 7, 2006.
141. Luesch, H.\* “The Mechanism of Action of Apratoxin A” Invited Speaker at the Topics in Cancer Cell Biology Seminar Series, University of Florida Shands Cancer Center, Gainesville, FL, January 20, 2006.
142. Luesch, H.\* “A Functional Genomics Approach to the Mode of Action of the Antiproliferative Natural Product Apratoxin A” Invited speaker at the Department of Physiology and Functional Genomics, University of Florida, Gainesville, FL, October 31, 2005.

### Contributed Presentations

1. Elsadek, L. A.;\* Matthews, J. H.; Nishimura, S.; Nakatani, T.; Ito, A.; Gu, T.; Luo, D.; Salvador-Reyes, L. A.; Paul, V. J.; Kakeya, H.; Luesch, H. “Genomic and Targeted Approaches Unveil the Cell Membrane as a Major Target of the Antifungal Cytotoxin Amantelide A” Poster Talk and Presentation at the 4<sup>th</sup> UF Drug Discovery Symposium; Center for Natural Products, Drug Discovery and Development (CNP3), Gainesville, FL, April 22–23, 2021. (**Winner Graduate Student Category, Chemical Biology and Mechanisms of Action**)
2. Brumley, D. A.;\* Gunasekera, S. P.; Chen, Q.-Y.; Paul, V. J.; Luesch, H. “Discovery, Total Synthesis, and SAR of the Anaenamides: Anticancer Cyanobacterial Depsipeptides with a Chlorinated Pharmacophore” Poster Presentation at the 4<sup>th</sup> UF Drug Discovery Symposium; Center for Natural Products, Drug Discovery and Development (CNP3), Gainesville, FL, April 22–23, 2021.
3. Abraham, E.;\* Piloto, J. H.; Wu, C.-W.; Ratnayake, R.; Luesch, H.; Choe, K. “Histone Methyltransferase Inhibitor Chaetocin Strongly and Specifically Affects Metal Responsive Genes” Poster Talk and Presentation at the 4<sup>th</sup> UF Drug Discovery Symposium; Center for Natural Products, Drug Discovery and Development (CNP3), Gainesville, FL, April 22–23, 2021. (**Winner Undergraduate Student Category**)
4. Perkins, C.;\* Jiang, J.; Bray, J.; Gosling, A.; da Silva, L.; Atanasova, K. R.; Ratnayake, R.; Hakimjavadi, H.; Chamala, S.; Campbell-Thompson, M.; Li, C.; Luesch, H.; Schmittgen, T. “Human Pancreatic Organoids to Study the Early Events of Pancreatic Cancer” Oral presentation at the University of Florida, College of Pharmacy, 34<sup>th</sup> Annual Research Showcase, Gainesville, FL, April 12–13, 2021. (**Winner Junior Competition**)
5. Elsadek, L. A.;\* Matthews, J. H.; Nishimura, S.; Nakatani, T.; Ito, A.; Gu, T.; Luo, D.; Salvador-Reyes, L. A.; Paul, V. J.; Kakeya, H.; Luesch, H. “Genomic and Targeted Approaches Unveil Targets of an Antifungal Natural Product” Poster presentation at the University of Florida, College of Pharmacy, 34<sup>th</sup> Annual Research Showcase, Gainesville, FL, April 12–13, 2021.
6. Ratnayake, R.;\* Gunasekera, S. P.; Ma, J. J.; Dang, L. H.; Carney, T. J.; Paul, V. J.; Luesch, H. “Marine Cyanobacterial Compound Preferentially Suppresses HIF-1 $\alpha$  Medicated Cancer Cell Viability and Vascularization” Poster presentation at the Gordon Research Conference on Marine Natural Products, Ventura, CA, February 23–28, 2020.
7. Brumley, D. A.;\* Gunasekera, S. P.; Chen, Q.-Y.; Paul, V. J.; Luesch, H. “Discovery, Total Synthesis and Bioactivity of Halogenated Depsipeptides” Poster presentation at the Gordon Research Conference on Marine Natural Products, Ventura, CA, February 23–28, 2020.
8. Elsadek, L. A.;\* Matthews, J. H.; Nishimura, S.; Nakatani, T.; Ito, A.; Gu, T.; Luo, D.; Salvador-Reyes, L. A.; Paul, V. J.; Kakeya, H.; Luesch, H. “Genomic and Targeted Approaches Unveil Cell Membrane and Actin as Targets of an Antifungal Cytotoxin” Poster presentation at the Gordon Research Conference on Marine Natural Products, Ventura, CA, February 23–28, 2020.
9. Batucan, J. D.; Reyes, J. M.; Luesch, H.; Ye, T.; Cao, E. P.; Salvador-Reyes, L. A.\* “New Cyanobactins from an Extremophilic Cyanobacterium” Poster presentation at the Gordon Research Conference on Marine Natural Products, Ventura, CA, February 23–28, 2020.
10. Brumley, D. A.;\* Gunasekera, S. P.; Chen, Q.-Y.; Paul, V. J.; Luesch, H. “Discovery, Total Synthesis and Bioactivity of Halogenated Depsipeptides” Oral presentation at the Gordon Research Seminar on

- Marine Natural Products, Ventura, CA, February 22–23, 2020. (**Poster abstract selected for oral presentation**)
11. Elsadek, L. A.;\* Matthews, J. H.; Nishimura, S.; Nakatani, T.; Ito, A.; Gu, T.; Luo, D.; Salvador-Reyes, L. A.; Paul, V. J.; Kakeya, H.; Luesch, H. “Genomic and Targeted Approaches Unveil Cell Membrane and Actin as Targets of an Antifungal Cytotoxin” Poster presentation at the Gordon Research Seminar on Marine Natural Products, Ventura, CA, February 22–23, 2020.
  12. Brumley, D. A.;\* Gunasekera, S. P.; Chen, Q.-Y.; Paul, V. J.; Luesch, H. “Discovery, Total Synthesis and Bioactivity of Halogenated Depsipeptides” Poster presentation at the University of Florida, College of Pharmacy, 33<sup>rd</sup> Annual Research Showcase, Gainesville, FL, February 10, 2020.
  13. Elsadek, L. A.;\* Matthews, J. H.; Nishimura, S.; Nakatani, T.; Ito, A.; Gu, T.; Luo, D.; Salvador-Reyes, L. A.; Paul, V. J.; Kakeya, H.; Luesch, H. “Genomic and Targeted Approaches Unveil Cell Membrane and Actin as Targets of the Antifungal Cytotoxin Amantelide A” Poster presentation at the University of Florida, College of Pharmacy, 33<sup>rd</sup> Annual Research Showcase, Gainesville, FL, February 10, 2020. (**Winner Poster Division**)
  14. Luyao, H. N.;\* Ratnayake, R.; Uy, M. M.; Luesch, H. “Discovery of Cytotoxic Natural Products from the Philippine Sponge *Paratetilla* sp.” Poster presentation at the University of Florida, College of Pharmacy, 33<sup>rd</sup> Annual Research Showcase, Gainesville, FL, February 10, 2020.
  15. Manalundong II, Y. C.;\* Uy, M. M.; Luesch, H. “Discovery of New Bioactive Ceramide Derivatives from the Philippine Sponge *Stelodoryx procera* Topsent 1904” Poster presentation at the University of Florida, College of Pharmacy, 33<sup>rd</sup> Annual Research Showcase, Gainesville, FL, February 10, 2020.
  16. Tamashunas, A.;\* Tocco, V.; Matthews, J.; Luesch, H.; Licht, J.; Lele, T. “High-Throughput Gene Screen Reveals That TP53 Controls Nuclear Shape by Modulating Lamin A Levels” 2019 Annual Meeting of the Biomedical Engineering Society (BMES), Philadelphia, PA, October 16–19, 2019.
  17. Keller, L.; Suzuki, B. M.; Canuto, K.; Almaliti, J.; Sikandar, A.; Naman, C. B.; Glukhov, E.; Luo, D.; Duggan, B. M.; Luesch, H.; Koehnke, J.; O’Donoghue, A. J.; Gerwick, W. H.\* “Tutuillamides A–C: Vinyl-Chloride Containing Cyclodepsipeptides from the Marine Cyanobacterium *Schizothrix* sp.” Oral Presentation at the XVI International Symposium on Marine Natural Products (MaNaPro) and XI European Conference on Marine Natural Products (ECMNP), Peniche, Portugal, September 1–5, 2019.
  18. Liang, X.;\* Matthew, S.; Chen, Q.-Y.; Kwan, J. C.; Paul, V. J.; Luesch, H. “Discovery, Total Synthesis and SAR of a Novel Quorum Sensing Signaling Molecule from a Marine Cyanobacterium” Oral Presentation at the American Society of Pharmacognosy 2019 Annual Meeting, Madison, WI, July 13–17, 2019.
  19. Ratnayake, R.;\* Gunasekera, S. P.; Ma, J. J.; Dang, L. H.; Carney, T. J.; Paul, V. J.; Luesch, H. “Dolastatin 15 from a Marine Cyanobacterium Suppresses In Vitro and In Vivo Vascularization via HIF-1 $\alpha$  Pathway” International Conference on Pharmacology: Advances in Translational Sciences & Drug Discovery, National University of Singapore, Department of Pharmacology, Singapore, July 4–5, 2019. (**Best Poster Scientific Presentation Award**)
  20. Liang, X.;\* Matthew, S.; Chen, Q.-Y.; Kwan, J. C.; Paul, V. J.; Luesch, H. “Discovery, Total Synthesis and SAR of a Novel Quorum Sensing Signaling Molecule from a Marine Cyanobacterium” Oral Presentation at the 3<sup>rd</sup> UF Drug Discovery Symposium; Center for Natural Products, Drug Discovery and Development (CNP3), Gainesville, FL, April 25–26, 2019. (**Poster abstract selected for oral presentation; Finalist Graduate Student Division**)
  21. Elsadek, L.;\* Matthews, J. H.; Gu, T.; Luo, D.; Salvador-Reyes, L. A.; Paul, V. J.; Nishimura, S.; Luesch, H. “Genomic and Targeted Approaches Towards the Mechanism of Action of the Antifungal Cytotoxin Amantelide A Isolated from a Marine Cyanobacterium” Poster Presentation at the 3<sup>rd</sup> UF Drug Discovery Symposium; Center for Natural Products, Drug Discovery and Development (CNP3), Gainesville, FL, April 25–26, 2019.
  22. Wright, L. S.;\* Matthews, J.; Li, C.; Luesch, H.; Bray, J.; Schmittgen, T. D. “Murine Organoid-Based Drug Screen Identifies Novel Inhibitors of Pancreatic Acinar Ductal Metaplasia” Poster Presentation at the 3<sup>rd</sup> UF Drug Discovery Symposium; Center for Natural Products, Drug Discovery and Development (CNP3), Gainesville, FL, April 25–26, 2019.

23. Brumley, D.;\* Spencer, K. S.; Gunasekera, S.; Sauvage, T.; Biggs, J.; Paul, V.; Luesch, H. "Chemistry and Biology of Anaephenes A–C and the Anaenoic Acids, New Natural Products Derived from Marine Filamentous Cyanobacteria" Poster Presentation at the 3<sup>rd</sup> UF Drug Discovery Symposium; Center for Natural Products, Drug Discovery and Development (CNP3), Gainesville, FL, April 25–26, 2019.
24. Kitagawa, R. R.;\* Bernadino, A. F.; Ratnayake, R.; Luesch, H. "Prospective Study for Antitumoral Agents from the Sea Hare *Aplysia dactylomela*" Poster Presentation at the 3<sup>rd</sup> UF Drug Discovery Symposium; Center for Natural Products, Drug Discovery and Development (CNP3), Gainesville, FL, April 25–26, 2019.
25. Goncalves, R.;\* Bernadino, A. F.; Ratnayake, R.; Luesch, H. "Screening for Inducers of the Nrf2/ARE Pathway from the Brown Alga *Padina gymnospora*" Poster Presentation at the 3<sup>rd</sup> UF Drug Discovery Symposium; Center for Natural Products, Drug Discovery and Development (CNP3), Gainesville, FL, April 25–26, 2019.
26. da Silva, L.;\* Song, J.; Matthews, J.; Jiang, J.; Luesch, H.; Li, C.; Schmittgen, T. "Inhibition of Pancreatic Acinar Ductal Metaplasia by a Novel STAT3 Inhibitor LLL12B" American Chemical Society Annual Meeting, Orlando, FL, March 31–April 4, 2019.
27. Wright, L. S.;\* Matthews, J.; Li, C.; Luesch, H.; Bray, J.; Schmittgen, T. D. "Murine Organoid-Based Drug Screen Identifies Novel Inhibitors of Pancreatic Acinar Ductal Metaplasia" Oral Presentation at the University of Florida, College of Pharmacy, 32<sup>nd</sup> Annual Research Showcase, Gainesville, FL, February 11, 2019. (**Finalist Millard Basic Science Competition**)
28. Liang, X.;\* Luo, D.; Yan, J.; Rezaei, M.; Salvador-Reyes, L.; Gunasekera, S.; Li, C.; Ye, T.; Paul, V.; Luesch, H. "Discovery of Amantamide: A New Selective CXCR7 Agonist from Marine Cyanobacteria" Oral Presentation at the University of Florida, College of Pharmacy, 32<sup>nd</sup> Annual Research Showcase, Gainesville, FL, February 11, 2019. (**Finalist Millard Basic Science Competition**)
29. Brumley, D.;\* Spencer, K. S.; Gunasekera, S.; Sauvage, T.; Biggs, J.; Paul, V.; Luesch, H. "Chemistry and Biology of Anaephenes A–C and the Anaenoic Acids, New Natural Products Derived from Marine Filamentous Cyanobacteria" Poster Presentation at the University of Florida, College of Pharmacy, 32<sup>nd</sup> Annual Research Showcase, Gainesville, FL, February 11, 2019.
30. Tamashunas, A.;\* Tocco Jr, V. J.; Matthews, J.; Luesch, H.; Licht, J.; Dickinson, R.; Lele, T. "Abnormal Nuclear Morphologies in Cancer: Role of Chromatin Regulators" 2018 American Institute of Chemical Engineers (AIChE) Annual Meeting (Food, Pharmaceutical & Bioengineering Division), Pittsburg, PA, October 28–November 2, 2018.
31. Paschall, L.; Tamashunas, A.; Tocco Jr., V. J.; Matthews, J.; Luesch, H.; Licht, J.; Dickinson, R.; Lele, T. "Abnormal Nuclear Morphologies in Cancer: Role of Epigenetic Pharmacological Agents" 2018 American Institute of Chemical Engineers (AIChE) Annual Meeting (Annual Student Conference), Pittsburg, PA, October 28–November 2, 2018.
32. da Silva, L.;\* Matthews, J.; Li, C.; Luesch, H.; Schmittgen, T. D. "Threedimensional Cellular Drug Screen Identifies Novel Inhibitors of Pancreatic Acinar Ductal Metaplasia" Pancreatic Cancer: Advances in Science and Clinical Care (AACR Special Conference), Boston, MA, September 21–24, 2018.
33. Jiang, G.;\* Zhang, Y.; Powell, M.; Zhang, P.; Zuo, R.; Zhang, Y.; Kallifidas, D.; Tieu, A.; Luesch, H.; Loria, R.; Ding, Y. "Production of Herbicidal Diketopiperazine Thaxtomins in Nonpathogenic *Streptomyces* Strains" 2018 SIMB Annual Meeting and Exhibition; Chicago, IL, USA, August 12–16, 2018.
34. Putra, M. Y.;\* Luesch, H. "Marine Natural Products from Indonesian Marine Invertebrates" Research Center for Oceanography, Indonesian Institute of Sciences, Jakarta, Indonesia, June 29, 2018.
35. Chen, Q.-Y.;\* Cai, W.; Luesch, H. "The Evolution of Apratoxins: Total Synthesis of Natural Products and Analogues with Improved Anticancer Activity" Cambridge Healthtech Institute's 13<sup>th</sup> Annual Drug Discovery Chemistry, San Diego, CA, April 2–6, 2018.
36. Luo, D.;\* Paul, V. J.; Luesch, H. Isolation, Structure Elucidation and Biological Evaluation of Novel Cytotoxic Macrocyclic Depsipeptides from a Marine Cyanobacterium" Poster and Oral Presentations at the Gordon Research Conference on Marine Natural Products, Ventura, CA, March 4–9, 2018.

37. Liang, X.;\* Matthews, J. H.; Paul, V. J.; Luesch, H. "Inhibition of the Deregulated Nrf2-Mediated Defense Mechanism in Cancer by Natural Products from Marine Cyanobacteria" Poster and Oral Presentations at the Gordon Research Conference on Marine Natural Products, Ventura, CA, March 4–9, 2018.
38. Al-Awadhi, F. H.;\* Paul, V. J.; Luesch, H. "Structural Diversity and Anticancer Activity of Marine-Derived Elastase Inhibitors: Key Features and Mechanisms Mediating the Antimetastatic Effects in Invasive Breast Cancer" Poster and Oral Presentations at the Gordon Research Conference on Marine Natural Products, Ventura, CA, March 4–9, 2018.
39. Jiang, G.;\* Zhang, Y.; Powell, M.; Zhang, P.; Zuo, R.; Kallifidas, D.; Zhang, Y.; Tieu, A.; Luesch, H.; Loria, R.; Ding, Y. "High-yield production of herbicidal thaxtomins and analogs in a nonpathogenic *Streptomyces*" Poster Presentation at the University of Florida, College of Pharmacy, 31<sup>st</sup> Annual Research Showcase, Gainesville, FL, February 12, 2018.
40. Luo, D.;\* Paul, V. J.; Luesch, H. "Isolation, Structure Elucidation and Biological Evaluation of Novel Cytotoxic Macrocyclic Depsipeptides from a Marine Cyanobacterium" Poster Presentation at the University of Florida, College of Pharmacy, 31<sup>st</sup> Annual Research Showcase, Gainesville, FL, February 12, 2018.
41. Matthews, J. H.;\* Luesch, H. "Chemical-Genetic Identification of ARE Regulators" Poster Presentation at the University of Florida, College of Pharmacy, 31<sup>st</sup> Annual Research Showcase, Gainesville, FL, February 12, 2018.
42. Liang, X.;\* Matthews, J. H.; Paul, V. J.; Luesch, H. "Inhibition of the Deregulated Nrf2-mediated Defense Mechanism in Cancer by Natural Products from Marine Cyanobacteria" Poster Presentation at the University of Florida, College of Pharmacy, 31<sup>st</sup> Annual Research Showcase, Gainesville, FL, February 12, 2018.
43. Jiang, G.;\* Zhang, Y.; Powell, M.; Zhang, P.; Zuo, R.; Kallifidas, D.; Zhang, Y.; Tieu, A.; Luesch, H.; Loria, R.; Ding, Y. "High-yield production of herbicidal thaxtomins and analogs in a nonpathogenic *Streptomyces*" Society for Industrial Microbiology and Biotechnology meeting, Natural Products Discovery and Development in the Genomic Era, Clearwater, FL, January 21–24, 2018.
44. Tamashunas, A.;\* Tocco, V.; Matthews, J.; Luesch, H.; Licht, J.; Lele, T. "Abnormal Nuclear Morphologies in Cancer: Role of Chromatin Regulators" 2018 Cell and Molecular Bioengineering (CMBE) Conference [Biomedical Engineering Society (BMES)], Key Largo, FL, January 2–6, 2018.
45. Tocco, V.;\* Li, Y.; Aggarwal, V.; Neelam, S.; Christopher, K.; Matthews, J.; Paschall, L.; Luesch, H.; Licht, J.; Dickinson, R.; Lele, T. "Dynamic Deformation of the Cell Plastically Shapes the Nucleus and Amplifies Cancer Nuclear Irregularities" Biomedical Engineering Society (BMES) Annual Meeting, Phoenix, AZ, October 11–14, 2017.
46. Matthews, J.;\* Luesch, H. "Discovering Inhibitors and Potential Inhibitor Targets of the Nrf2-Mediated Antioxidant Response" Poster and Oral Presentation at the 2<sup>nd</sup> UF Drug Discovery Symposium; Center for Natural Products, Drug Discovery and Development (CNP3), Gainesville, FL, September 21–22, 2017. (**Poster abstract selected for oral presentation; Finalist Postdoc Division**)
47. Spencer, K.;\* Gunasekera, S.; Paul, V. J.; Luesch, H. "Discovery of Novel and Selective Anticancer Agents from Marine Cyanobacteria" Poster Presentation at the 2<sup>nd</sup> UF Drug Discovery Symposium; Center for Natural Products, Drug Discovery and Development (CNP3), Gainesville, FL, September 21–22, 2017.
48. Liang, X.; Matthews, J. H.; Paul, V. J.; Luesch, H. "Inhibition of Deregulated Nrf2-Mediated Defense Mechanism in Cancer by Natural Products from Marine Cyanobacteria" Poster Presentation at the 2<sup>nd</sup> UF Drug Discovery Symposium; Center for Natural Products, Drug Discovery and Development (CNP3), Gainesville, FL, September 21–22, 2017.
49. Luo, D.;\* Paul, V. J.; Luesch, H. "Isolation, Structure Elucidation and Biological Evaluation of Novel Cytotoxic Macrocyclic Depsipeptides from a Marine Cyanobacterium" Poster Presentation at the 2<sup>nd</sup> UF Drug Discovery Symposium; Center for Natural Products, Drug Discovery and Development (CNP3), Gainesville, FL, September 21–22, 2017.
50. Kallifidas, D.;\* Jiang, G.; Ding, Y.; Luesch, H.\* "Synthetic Biology-Based Strain Improvement of *Streptomyces albus* J1074 for the Heterologous Expression of Diverse Secondary Metabolite Gene

- Clusters” Poster Presentation at the 2<sup>nd</sup> UF Drug Discovery Symposium; Center for Natural Products, Drug Discovery and Development (CNPd3), Gainesville, FL, September 21–22, 2017.
51. Paul, V. J.;\* Gunasekera, S. P.; Sneed, J.; Meyer, J. L.; Teplitski, M.; Luesch, H. “Biomedical Potential of Benthic Marine Cyanobacteria: A Chemical Ecologist’s Perspective” Invited Talk at the 2<sup>nd</sup> UF Drug Discovery Symposium; Center for Natural Products, Drug Discovery and Development (CNPd3), Gainesville, FL, September 21–22, 2017.
  52. Kallifidas, D.;\* Jiang, G.; Ding, Y.; Luesch, H. “Synthetic Biology-Based Strain Improvement of *Streptomyces albus* J1074 for the Heterologous Expression of Diverse Secondary Metabolite Gene Clusters” 2017 Society for Industrial Microbiology & Biotechnology (SIMB) Annual Meeting & Exhibition; Denver, CO, July 30–August 3, 2017.
  53. Al-Awadhi, F. H.;\* Law, B. K.; Paul, V. J.; Luesch, H. “Discovery of Potent Aspartic Protease Inhibitors from Marine Cyanobacteria as Potential Antimetastatic Agents Targeting Invasive Breast Cancer” The American Society of Pharmacognosy Annual Meeting, Portland, OR, July 29–August 2, 2017. (**Kilmer Prize Winner**)
  54. Luo, D.;\* Paul, V. J.; Luesch, H. “Isolation, Structure Determination and Biological Evaluation of Novel Cytotoxic Macrocyclic Depsipeptides from a Marine Cyanobacterium” The American Society of Pharmacognosy Annual Meeting, Portland, OR, July 29–August 2, 2017.
  55. Spencer, K.; Gunasekera, S.; Paul, V.; Luesch, H. “Discovery of Novel Anticancer Agents from Marine Cyanobacteria Using Bioassay-Guided and NMR-Guided Fractionation” The American Society of Pharmacognosy Annual Meeting, Portland, OR, July 29–August 2, 2017.
  56. Liang, X.;\* Matthews, J. H.; Paul, V. J.; Luesch, H. “Inhibition of Nrf2-Mediated Defense Mechanism to Overcome Drug Resistance and Increase Efficacy in Chemotherapy” The American Society of Pharmacognosy Annual Meeting, Portland, OR, July 29–August 2, 2017.
  57. Wang, X.;\* Qiu, B.; Hunziker, W.; Luesch, H.; Wong, T. Y.; Hong, W. “Efficacy of a Marine Natural Product on Experimental Ocular Angiogenesis” Association for Research in Vision and Ophthalmology (ARVO) Annual Meeting 2017, Baltimore, MD, May 7–11, 2017.
  58. Cheng, W.;\* Woon, Q. T. S.; Patil, R.; Hunziker, W.; Luesch, H.; Wong, T. Y.; Hong, W. “Characterization of Anti-Angiogenic Properties of Histone Deacetylase (HDAC) Inhibitor from Marine Bacteria in Human retinal Vascular Endothelial Cells” Association for Research in Vision and Ophthalmology (ARVO) Annual Meeting 2017, Baltimore, MD, May 7–11, 2017.
  59. Cai, W.;\* Chen, Q.-Y.; Trevino, J. G.; Gerber, M. H.; Luesch, H. “Development of Apratoxins, Marine-Derived Anticancer Agents with Novel Effects on Growth Factor Signaling” Oral Presentation at the University of Florida, College of Pharmacy, 30<sup>th</sup> Annual Research Showcase, Gainesville, FL, February 17, 2017. (**Winner Senior “Millard” Division**)
  60. Al-Awadhi, F.;\* Law, B.; Paul, V.; Luesch, H. “Discovery of Potent Aspartic Protease Inhibitors from Marine Cyanobacteria as Potential Antimetastatic Agents Targeting Invasive Breast Cancer” Oral Presentation at the University of Florida, College of Pharmacy, 30<sup>th</sup> Annual Research Showcase, Gainesville, FL, February 17, 2017. (**Finalist Senior “Millard” Division**)
  61. Luo, D.;\* Chen, Q.-Y.; Luesch, H. “Discovery and Development of the Potent Marine-Derived Elastase Inhibitor Lyngbyastatin 7: SAR Studies, Total Synthesis, and Biological Evaluation” Oral Presentation at the University of Florida, College of Pharmacy, 30<sup>th</sup> Annual Research Showcase, Gainesville, FL, February 17, 2017. (**Finalist Junior Division**)
  62. Waite, L.;\* Imperial, L.; Kallifidas, D.; Luesch, H. “Chemical and Metagenomic Approaches to the Discovery of Bioactive Marine Natural Products from Sponges” Poster Presentation at the University of Florida, College of Pharmacy, 30<sup>th</sup> Annual Research Showcase, Gainesville, FL, February 17, 2017.
  63. Spencer, K.;\* Paul, V.; Luesch, H. “Discovery of Anticancer Agents from Guamanian Cyanobacteria using Bioassay-Guided Fractionation” Poster Presentation at the University of Florida, College of Pharmacy, 30<sup>th</sup> Annual Research Showcase, Gainesville, FL, February 17, 2017.
  64. Liang, X.;\* Ma, J.; Carney, T.; Paul, V.; Luesch, H. “Screening for Bioactive Marine Natural Products Using Complementary Cellular and Zebrafish Models” Poster Presentation at the University of Florida, College of Pharmacy, 30<sup>th</sup> Annual Research Showcase, Gainesville, FL, February 17, 2017.



65. Jiang, G.;\* Zhang, P.; Zhang, Y.; Zuo, R.; Yang, G.; Luesch, H.; Teplitski, M.; Paul, V.; Ding, Y. “Interconversion of Epithiodiketopiperazines with Polysulfide  $\alpha,\beta$ -bridges from Marine-derived Fungus *Penicillium steckii* YE” Poster Presentation at the University of Florida, College of Pharmacy, 30<sup>th</sup> Annual Research Showcase, Gainesville, FL, February 17, 2017.
66. Garrison, A.;\* Abouelhassan, Y.; Kallifidas, D.; Luesch, H.; Huigens III, R. W. “Discovery and Development of Halogenated Phenazines as Biofilm-Eradicating and Anti-Tuberculosis Agents” Poster Presentation at the University of Florida, College of Pharmacy, 30<sup>th</sup> Annual Research Showcase, Gainesville, FL, February 17, 2017.
67. Luesch, H.\* “Marine Biodiversity as Starting Point for Drug Discovery and Development” The 2<sup>nd</sup> International Conference on Herbal and Traditional Medicine (HTM2017), Bangkok, Thailand, January 25–27, 2017. (**Golden Medal Award, Oral Presentation**)
68. Al-Awadhi, F. A.;\* Law, B. K.; Paul, V. J.; Luesch, H. “Discovery of Marine Derived Cathepsin D Inhibitors as Potential Antimetastatic Agents targeting Invasive Breast Cancer” UF Health Cancer Center Research Day 2016, Gainesville, Florida, November 3, 2016.
69. Cai, W.;\* Chen, Q.-Y.; Luesch, H. “Apratoxins, a Series of Marine-Derived Anticancer Agents with Novel Effects on Growth Factor Signaling” UF Health Cancer Center Research Day 2016, Gainesville, Florida, November 3, 2016.
70. Lim, A. L.;\* Picart, M. R. D.; Laude, J. M. M.; Tun, J. O.; Matthews, J.; Ratnayake, R.; Luesch, H.; Concepcion, G. P. “*Moringa*-Derived Antitumor Agents: Isolation and Bioactivity” Biodiversity & Chemical Biology of Marine and Terrestrial Life in the Philippine Region, Pangalo Island, Bohol, Philippines, October 16–20, 2016.
71. Paul, V. J.;\* Gunasekera, S. P.; Engene, N.; Meyer, J. L.; Teplitski, M.; Luesch, H. “Chemical Ecology of Benthic Marine Cyanobacteria in Coral Reef Habitats” Oral presentation at the XV International Symposium on Marine Natural Products (MaNaPro 2016), Cumbuco Beach, Ceará, Brazil, August 29–September 2, 2016.
72. Gunasekera, S. P.; Li, Y.; Ratnayake, R.;\* Luo, D.; Lo, J.; Reibenspies, J. H.; Xu, Z.; Clare-Salzler, M. J.; Ye, T.; Paul, V. J.; Luesch, H. “Discovery, Total Synthesis and Key Structural Elements for the Immunosuppressive Activity of Cocosolide, a Symmetrical Glycosylated Dimer from Marine Cyanobacteria” Poster presentation at the XV International Symposium on Marine Natural Products (MaNaPro 2016), Cumbuco Beach, Ceará, Brazil, August 29–September 2, 2016.
73. Ratnayake, R.;\* Paul, V. J.; Luesch, H. “Isolation, Structure Determination and Biological Evaluation of New Tasilhalide Analogues from Marine Cyanobacteria” Gordon Research Conference on Natural Products & Bioactive Compounds, Proctor Academy, Andover, NH, July 31–August 5, 2016.
74. Wu, Q.;\* Luo, D.; Jo, S.; Kellish, P.; Nelson, D.; Luesch, H.; Liu, C. “Discovering a Novel Marine Natural Product with Anti-hepatitis C Viral Replication Activity” American Society for Virology 35<sup>th</sup> Annual Meeting, Virginia Tech, Blacksburg, Virginia, June 18–22, 2016.
75. Luesch, H.\* “Multidimensional Screening Platform for the Simultaneous Targeting of Cancer Pathways” The 4<sup>th</sup> Current Drug Development International Conference 2016 (CDD 2016), Phuket, Thailand, June 1–3, 2016. (**Best Oral Presentation Award**)
76. Luo, D.;\* Chen, Q.-Y.; Luesch, H. “Total Synthesis of the Potent Marine-Derived Elastase Inhibitor Lyngbyastatin 7 and In Vitro Biological Evaluation in Model Systems for Pulmonary Diseases” 2016 Florida Annual Meeting and Exposition (FAME), Tampa, FL, USA, May 5–7, 2016.
77. Al-Awadhi, F. H.;\* Paul, V. J.; Luesch, H. “Isolation, Structure Elucidation and Biological Evaluation of Novel Cathepsin D and E Inhibitors from Marine Cyanobacteria” Poster Presentation at the Inaugural UF Drug Discovery Symposium; Center for Natural Products, Drug Discovery and Development (CNP3), Gainesville, FL, April 29, 2016.
78. Liang, X.;\* Ma, J. J.; Carney, T. J.; Luesch, H. “In Vitro and in Vivo Screening Approaches for the Discovery of Bioactive Marine Natural Products” Inaugural UF Drug Discovery Symposium; Center for Natural Products, Drug Discovery and Development (CNP3), Gainesville, FL, April 29, 2016.
79. Luo, D.;\* Chen, Q.-Y.; Luesch, H. “Total Synthesis of the Potent Marine-Derived Elastase Inhibitor Lyngbyastatin 7 and in Vitro Biological Evaluation in Model Systems for Pulmonary Diseases” Inaugural UF Drug Discovery Symposium; Center for Natural Products, Drug Discovery and

- Development (CNP3), Gainesville, FL, April 29, 2016. (**Best Poster Award, Graduate Student Category**)
80. Imperial, L.;\* Luesch, H. “Discovery of Marine Natural Products that Block CUB-Domain Containing Protein-1 (CDCP1) Cleavage as Potential Antimetastatic Agents Against Breast Cancer” Inaugural UF Drug Discovery Symposium; Center for Natural Products, Drug Discovery and Development (CNP3), Gainesville, FL, April 29, 2016.
  81. Cai, W.;\* Salvador-Reyes, L. A.; Zhang, W.; Matthew, S.; Ratnayake, R.; Paul, V. J.; Luesch, H. “Discovery, Synthesis and Biological Evaluation of Apratyramide, a Marine-Derived Transcriptional Stimulator of Vascular Endothelial Growth Factor A (VEGF-A)” Inaugural UF Drug Discovery Symposium; Center for Natural Products, Drug Discovery and Development (CNP3), Gainesville, FL, April 29, 2016.
  82. Kuznia, S.;\* Chen, Q.-Y.; Link, A.; Luesch, H. “Design and Synthesis of Analogues of Pitinoic Acids Derived from Marine Cyanobacteria” Inaugural UF Drug Discovery Symposium; Center for Natural Products, Drug Discovery and Development (CNP3), Gainesville, FL, April 29, 2016.
  83. Quek, N. C.;\* Ito, A.; Nakatani, T.; Luo, D.; Matthews, J. H.; Nishimura, S.; Kakeya, H.; Luesch, H. “Yeast as a Model Organism to Characterize the Mode of Action of Amantelide A” Inaugural UF Drug Discovery Symposium; Center for Natural Products, Drug Discovery and Development (CNP3), Gainesville, FL, April 29, 2016.
  84. Matthews, J. H.;\* Luesch, H. “A Forward Chemical-Genetic Approach to Defining the Antioxidant Responsive Element Regulatory Network in Breast Cancer Cells” Inaugural UF Drug Discovery Symposium; Center for Natural Products, Drug Discovery and Development (CNP3), Gainesville, FL, April 29, 2016.
  85. Kallifidas, D.;\* Jiang, G.; Ding, Y.; Luesch, H. “Direct Phenotypic-Based Screening of Cloned Soil Metagenome in Prolific Antibiotic Producing *Streptomyces* Bacteria for the Detection of Novel Antimicrobials” Inaugural UF Drug Discovery Symposium; Center for Natural Products, Drug Discovery and Development (CNP3), Gainesville, FL, April 29, 2016.
  86. Picart, M. R.;\* Laude, J. M.; Lim, A.; Tun, J.; Matthews, J.; Ratnayake, R.; Luesch, H.; Concepcion, G. “Antitumor Potential of *Moringa oleifera* Extracts” 31<sup>st</sup> Philippines Chemistry Congress, Iloilo City, Philippines, April 13–15, 2016.
  87. Luo, D.;\* Chen, Q.-Y.; Luesch, H. “Total Synthesis of the Potent Marine-Derived Elastase Inhibitor Lyngbyastatin 7 and in Vitro Biological Evaluation in Model Systems for Pulmonary Diseases” Poster and Oral Presentations at the Gordon Research Conference on Marine Natural Products, Ventura, CA, March 6–11, 2016. (**Poster abstract selected for oral presentation**)
  88. Al-Awadhi, F.;\* Paul, V. J.; Luesch, H. “Isolation, Structure Elucidation and Biological Evaluation of Novel Cathepsin D and E Inhibitors from Marine Cyanobacteria” Poster Presentation at the Gordon Research Conference on Marine Natural Products, Ventura, CA, March 6–11, 2016.
  89. Bousquet, M.; Ma, J. J.; Ratnayake, R.; Dang, L. H.; Carney, T. J.; Gunasekera, S. P.; Imperial, L.;\* Paul, V. J.; Luesch, H. “Multidimensional Screening Platform for Simultaneously Targeting Oncogenic KRAS and Hypoxia Inducible Factors Pathways in Colorectal Cancer and Characterization of Inhibitors from Marine Cyanobacteria” Poster Presentation at the Gordon Research Conference on Marine Natural Products, Ventura, CA, March 6–11, 2016.
  90. Cai, W.;\* Salvador-Reyes, L. A.; Zhang, W.; Matthew, S.; Ratnayake, R.; Paul, V. J.; Luesch, H. “Discovery, Synthesis and Biological Evaluation of Apratyramide, a Marine-Derived Transcriptional Stimulator of Vascular Endothelial Growth Factor A (VEGF-A)” Poster Presentation at the Gordon Research Conference on Marine Natural Products, Ventura, CA, March 6–11, 2016.
  91. Chen, Q.-Y.;\* Luesch, H. “Total Synthesis of Analogues of Apratoxin A” Florida-Bali Symposium on Marine Biological and Chemical Diversity; Center for Natural Products, Drug Discovery and Development (CNP3), Gainesville, FL, February 3, 2016.
  92. Luo, D.;\* Luesch, H. “Treasures from the Ocean: Discovery and Synthesis” Florida-Bali Symposium on Marine Biological and Chemical Diversity; Center for Natural Products, Drug Discovery and Development (CNP3), Gainesville, FL, February 3, 2016.

93. Kuznia, S.;\* Luesch, H. "Design and Synthesis of Analogues of Pitinoic Acids Derived from Marine Cyanobacteria" Florida-Bali Symposium on Marine Biological and Chemical Diversity; Center for Natural Products, Drug Discovery and Development (CNP3), Gainesville, FL, February 3, 2016.
94. Al-Awadhi, F.;\* Luesch, H. "Underwater Treasures: Chemical and Biological Characterization of Cathepsin Inhibitors from Marine Cyanobacteria" Florida-Bali Symposium on Marine Biological and Chemical Diversity; Center for Natural Products, Drug Discovery and Development (CNP3), Gainesville, FL, February 3, 2016.
95. Ha, K.;\* Luesch, H. "Thin-Layer Chromatography in Organic Synthesis" Florida-Bali Symposium on Marine Biological and Chemical Diversity; Center for Natural Products, Drug Discovery and Development (CNP3), Gainesville, FL, February 3, 2016.
96. Imperial, L.;\* Luesch, H. "Marine Natural Products" Florida-Bali Symposium on Marine Biological and Chemical Diversity; Center for Natural Products, Drug Discovery and Development (CNP3), Gainesville, FL, February 3, 2016.
97. Quek, N.;\* Luesch, H. "Drug Mode-of-Action Studies in Yeast" Florida-Bali Symposium on Marine Biological and Chemical Diversity; Center for Natural Products, Drug Discovery and Development (CNP3), Gainesville, FL, February 3, 2016.
98. Cai, W.;\* Luesch, H. "Biological Evaluation and Mechanism of Action Investigations of Natural Products from Marine Cyanobacteria" Florida-Bali Symposium on Marine Biological and Chemical Diversity; Center for Natural Products, Drug Discovery and Development (CNP3), Gainesville, FL, February 3, 2016.
99. Liang, X.;\* Luesch, H. "Marine Natural Products Research: Isolation and Synthesis" Florida-Bali Symposium on Marine Biological and Chemical Diversity; Center for Natural Products, Drug Discovery and Development (CNP3), Gainesville, FL, February 3, 2016.
100. Cai, W.;\* Salvador-Reyes, L. A.; Zhang, W.; Matthew, S.; Ratnayake, R.; Paul, V. J.; Dang, L. H.; Luesch, H. "Discovery, Synthesis and Biological Evaluation of Apratyramide, A Marine-Derived Transcriptional Stimulator of VEGF-A" Oral Presentation at the University of Florida, College of Pharmacy, 29<sup>th</sup> Annual Research Showcase, Gainesville, FL, January 22, 2016. (**Winner Junior Division**)
101. Luo, D.;\* Chen, Q.-Y.; Luesch, H. "Discovery and Development of the Potent Marine-Derived Elastase Inhibitor Lyngbyastatin 7: Structure-Activity Relationship Studies, Total Synthesis and In Vitro Biological Evaluation in Model Systems for Pulmonary Diseases" Poster presentation at the University of Florida, College of Pharmacy, 29<sup>th</sup> Annual Research Showcase, Gainesville, FL, January 22, 2016. (**Winner Poster Division**)
102. Al-Awadhi, F. H.;\* Paul, V. J.; Luesch, H. "Underwater Treasures: Chemical and Biological Characterization of Cathepsin Inhibitors from Marine Cyanobacteria" Oral Presentation at the University of Florida, College of Pharmacy, 29<sup>th</sup> Annual Research Showcase, Gainesville, FL, January 22, 2016. (**Finalist Junior Division**)
103. Cai, W.;\* Salvador-Reyes, L. A.; Zhang, W.; Matthew, S.; Ratnayake, R.; Paul, V. J.; Dang, L. H.; Luesch, H. "Discovery, Synthesis, and Biological Evaluation of Apratyramide, a Marine-Derived Transcriptional Stimulator of VEGF-A." 2015 Annual Meeting of the American Society of Pharmacognosy, Copper Mountain, CO, July 25–29, 2015. (**Poster abstract selected for oral presentation**)
104. Luo, D.;\* Chen, Q.-Y.; Luesch, H. "Total Synthesis and Biological Evaluation of Lyngbyastatin 7 for the Treatment of Pulmonary Diseases" Poster Presentation at the American Society of Pharmacognosy 2015 Annual Meeting, Copper Mountain, CO, July 25–29, 2015.
105. Al-Awadhi, F.;\* Paul, V., Luesch, H. "Isolation, Structure Elucidation and Biological Evaluation of Novel Cathepsin Inhibitors from Marine Cyanobacteria" Poster presentation at the 2015 Annual Meeting of the American Society of Pharmacognosy, Copper Mountain, CO, July 25–29, 2015.
106. Bousquet, M. S.;\* Ma, J. J.; Carney, T. J., Dang, L. H.; Luesch, H. "Multiplex High-Throughput Screening for Identification of Targets and Drugs Affecting Angiogenic Pathways in Colorectal Cancer" Merck-Singapore Drug Discovery and Translational Medicine Symposium, Singapore, March 3–4, 2015.

107. Bousquet, M. S.;\* Liu, Y.; Leung, C. K.; Choe, K. P.; Dang, L. H.; Carney, T. J.; Luesch, H. “Multidimensional Screening Platform Identifies Novel Modulators of Oxidative Stress for Chemoprevention and Chemotherapy” Oral Presentation at the University of Florida, College of Pharmacy, 28<sup>th</sup> Annual Research Showcase, Gainesville, FL, February 19, 2015. (**Finalist Senior Division**)
108. Al-Awadhi, F. H.;\* Kwan, J. C.; Paul, V. J.; Luesch, H. “Searching for Underwater Treasures: Isolation, Structure Elucidation and Biological Evaluation of Novel Natural Products from Marine Cyanobacteria” Oral Presentation at the University of Florida, College of Pharmacy, 28<sup>th</sup> Annual Research Showcase, Gainesville, FL, February 19, 2015. (**Winner Junior Division**)
109. Luo, D.;\* Chen, Q.-Y.; Luesch, H. “Total Synthesis of Lyngbyastatin 7 for the Treatment of Pulmonary Diseases” Poster presentation at the University of Florida, College of Pharmacy, 28<sup>th</sup> Annual Research Showcase, Gainesville, FL, February 19, 2015.
110. Cai, W.;\* Salvador, L. A.; Zhang, W.; Matthew, S.; Ratnayake, R.; Paul, V. J.; Dang, L.; Luesch, H. “Discovery, Synthesis, and Biological Evaluation of Apratyramide, a Marine-Derived Transcriptional Stimulator of Vascular Endothelial Growth Factor A” Poster presentation at the University of Florida, College of Pharmacy, 28<sup>th</sup> Annual Research Showcase, Gainesville, FL, February 19, 2015.
111. Bousquet, M. S.;\* Liu, Y.; Leung, C. K.; Choe, K. P.; Dang, L. H.; Carney, T. J.; Luesch, H. “Parallel Natural Product & Genomic Screens to Identify Regulators of Oxidative Stress” Presented at: 2015 Budget and Appraisal Exercise, Institute of Molecular and Cellular Biology, Agency for Science, Technology, and Research, Singapore, January 28, 2015.
112. Bousquet, M. S.;\* Liu, Y.; Leung, C. K.; Choe, K. P.; Dang, L. H.; Carney, T. J.; Luesch, H. “A look into cancer-relevant pathways: characterization of natural products and genes in antioxidant, inflammatory, and hypoxia-induced responses” Presented at: 6<sup>th</sup> Annual DUNES Symposium, Duke-NUS Amphitheatre and Atrium, Singapore, October 31, 2014.
113. Chen, Q.-Y.;\* Liu, Y.; Cai, W.; Luesch, H. “Improved Total Synthesis and Biological Evaluation of Potent Apratoxin S4 Based Anticancer Agents with Enhanced Activity” Poster presentation at the American Society of Pharmacognosy (ASP) 2014 Annual Meeting, Oxford, MS, August 2–6, 2014.
114. Luesch, H.\* “Cytotoxins from Marine Cyanobacteria as Starting Point for Anticancer Drug Discovery” 43<sup>rd</sup> PSM (Philippine Society for Microbiology) Annual Convention and Scientific Meeting, Cebu City, Philippines, May 15–16, 2014. (**Lead Speaker**)
115. Luesch, H.\* “Discovery and Development of a Potent Histone Deacetylase Inhibitor Derived from Marine Cyanobacteria” The 5<sup>th</sup> International Conference on Natural Products for Health and Beauty, Phuket, Thailand, May 6–8, 2014 2008 (*Meeting Report* published in *Nutrients* **2014**, *6*, 4115–4164).
116. Salvador-Reyes, L. A.;\* Engene, N.; Paul, V. J.; Luesch, H. “Targeted Natural Products Discoveries from Marine Cyanobacteria Using Combined Phylogenetic and Mass Spectrometric Evaluation” Poster presentation at the Gordon Research Conference on Marine Natural Products; Ventura, CA, March 2–March 7, 2014.
117. Bousquet, M. S.;\* Liu, Y.; Luesch, H. “Probing the Cytoprotective Nrf2-ARE Pathway Using Both Natural Product and Genomic Based Approaches” Oral presentation at the University of Florida, College of Pharmacy, 27<sup>th</sup> Annual Research Showcase, Gainesville, FL, February 20, 2014.
118. Luo, D.;\* Chen, Q.-Y.; Luesch, H. “Towards the Total Synthesis of Lyngbyastatin 7 for the Treatment of Pulmonary Diseases” Poster presentation at the University of Florida, College of Pharmacy, 27<sup>th</sup> Annual Research Showcase, Gainesville, FL, February 20, 2014.
119. Cai, W.;\* Salvador, L. A.; Zhang, W.; Matthew, S.; Ratnayake, R.; Paul, V. J.; Dang, L.; Luesch, H. “Discovery, Synthesis, and Biological Evaluation of Apratyramide, a Transcriptional Modulator of Dipeptidyl Peptidase 4 with Selective Anticancer Activity Isolated from a Marine Cyanobacterium” Poster presentation at the University of Florida, College of Pharmacy, 27<sup>th</sup> Annual Research Showcase, Gainesville, FL, February 20, 2014.
120. Al-Awadhi, F.;\* Ratnayake, R.; Matthew, S.; Paul, V. J.; Luesch, H. “Aprazole, a Linear Analogue of the Potent Anticancer Apratoxins from the Marine Cyanobacterium *Moorea bouillonii*: Isolation, Structure Determination, Bioactivity and Biosynthetic Implications” Poster presentation at the

- University of Florida, College of Pharmacy, 27<sup>th</sup> Annual Research Showcase, Gainesville, FL, February 20, 2014.
121. Leung, C. K.; Peddibhotlal, S.; Maloney, P.; Hershberger, P. M.; Malany, S.; Bousquet, M.; Luesch, H.; Howell, S.; Kaplan, R. M.; Choe, K. P.\* “Understanding and targeting SKN-1, a master regulator of detoxification genes” Poster presentation at Anthelmintics: From Discovery to Resistance, San Francisco, CA, February 5–7, 2014.
  122. Bousquet, M. S.;\* Liu, Y.; Leung, C. K.; Choe, K. P.; Luesch, H. “Probing the Cytoprotective Nrf2-ARE Pathway Using Genomic and Natural Products Based Approaches” Poster presentation at the University of Florida Genetics Institute 9<sup>th</sup> Annual Symposium – Florida Genetics 2013, Gainesville, FL, October 9–10, 2013.
  123. Salvador, L. A.; Taori, K.; Biggs, J. S.; Jakoncic, J.; Ostrov, D. A.; Paul, V. J.; Luesch, H.\* “Potent Elastase Inhibitors from Cyanobacteria: Structural Basis and Mechanisms Mediating Cytoprotective and Anti-Inflammatory Effects in Bronchial Epithelial Cells” 3<sup>rd</sup> Transatlantic Frontiers of Chemistry Symposium; Kloster Seeon, Germany, August 8–11, 2013.
  124. Montaser, R.;\* Paul, V. J.; Luesch, H. “Modular Strategies for Structure and Function Employed by Marine Cyanobacteria: Characterization and Synthesis of Pitinoic Acids” 2013 Annual Meeting of the American Society of Pharmacognosy, St. Louis, Missouri, July 13–17, 2013. (**Winner ASP Student Research Award**)
  125. Leung, C. K.;\* Peddibhotlal, S.; Maloney, P.; Hershberger, P. M.; Bousquet, M.; Luesch, H.; Malany, S.; Choe, K. P. “Small Molecule Inhibitors of SKN-1 Dependent Detoxification Genes Identified in a Screen of ~364,000 Compounds” 19<sup>th</sup> International *C. elegans* Meeting, Los Angeles, CA, June 26–30, 2013.
  126. Wang, R.;\* Mason, D. E.; Choe, K. P.; Lewin, A. S.; Peters, E. C.; Luesch, H. “Mechanistic Characterization of a Small Molecule Targeting the Cytoprotective Nrf2-ARE Pathway” Poster presented at the 9<sup>th</sup> Retrometabolism Based Drug Design and Targeting Conference; Orlando, FL May 12–15, 2013.
  127. Bousquet, M. S.;\* Liu, Y.; Leung, C. K.; Choe, K. P.; Luesch, H. “Elucidating Activation Pathways of the Antioxidant Response Element Using Chemical and Genomic Approaches” Poster presented at the 9<sup>th</sup> Retrometabolism Based Drug Design and Targeting Conference; Orlando, FL May 12–15, 2013.
  128. Salvador, L. A.;\* Taori, K.; Biggs, J. S.; Ostrov, D. A.; Paul, V. J.; Luesch, H. “Potent Elastase Inhibitors from Cyanobacteria: Structural Basis and Mechanisms Mediating Cytoprotective and Anti-Inflammatory Effects in Bronchial Epithelial Cells” Oral Presentation at the University of Florida, College of Pharmacy, 26<sup>th</sup> Annual Research Showcase, Gainesville, FL, February 28, 2013. (**Winner Senior Division**)
  129. Montaser, R.;\* Paul, V. J.; Luesch, H. “Structural Characterization, Biological Evaluation and Synthesis of Novel Natural Products from Guamanian Marine Cyanobacteria” Oral Presentation at the University of Florida, College of Pharmacy, 26<sup>th</sup> Annual Research Showcase, Gainesville, FL, February 28, 2013. (**Finalist Senior Division**)
  130. Bousquet, M. S.;\* Liu, Y.; Luesch, H. “Elucidating Activation Pathways of the Antioxidant Response Element Using Chemical and Genomic Approaches” Oral Presentation at the University of Florida, College of Pharmacy, 26<sup>th</sup> Annual Research Showcase, Gainesville, FL, February 28, 2013. (**Finalist Junior Division**)
  131. Salvador, L. A.;\* Taori, K.; Ostrov, D.; Biggs, J. S.; Paul, V. J.; Luesch, H. “Novel Elastase Inhibitors from Marine Cyanobacteria: Structural Diversity, Target-Bound Crystal Structures and Cellular Effects” Oral presentation at the International Congress on Natural Products Research; New York City, NY, July 28–August 1, 2012 (published in *Planta Med.* **2012**, *78*, 1058). (**Kilmer Prize Winner**)
  132. Montaser, R.;\* Paul, V. J.; Luesch, H. “Chemistry and Biology of Novel Cyanobacterial Secondary Metabolites from Guam” Poster presented at the International Congress on Natural Products Research; New York City, NY, July 28–August 1, 2012 (published in *Planta Med.* **2012**, *78*, 1148). (**Winner Waqar H. Batti Student Travel Award**)

133. Luesch, H.\* “Discovery and Development of Novel Anticancer Agents from Marine Cyanobacteria” The 2<sup>nd</sup> Current Drug Development International Conference 2012 (CDD 2012), Phuket, Thailand, May 2–4, 2012.
134. Salvador, L. A.\*; Biggs, J. S.; Paul, V. J.; Luesch, H. “New Serine Protease Inhibitors from a Guamanian Marine Cyanobacterium” Poster presented at the Gordon Research Conference on Marine Natural Products; Ventura, CA, February 26–March 2, 2012.
135. Montaser, R.; Paul, V. J.; Luesch, H. “Chemistry and Biology of Novel Cyanobacterial Secondary Metabolites from Guam and Design of Synthetic Probes to Investigate their Mechanisms of Action” Poster presented at the Gordon Research Conference on Marine Natural Products; Ventura, CA, February 26–March 2, 2012.
136. Wang, R.\*; Choe, K.; Luesch, H. “Biological Mechanism of Action Study of a Small Molecule Inducer of the Antioxidant Response Element” Oral Presentation at the University of Florida, College of Pharmacy, 25<sup>th</sup> Annual Research Showcase, Gainesville, FL, February 16, 2012. (**Finalist Senior Division**)
137. Salvador, L. A.\*; Biggs, J. S.; Paul, V. J.; Luesch, H. “Novel Bioactive Natural Products from the Marine Cyanobacterium *Symploca* sp. as Leads for Drug Discovery” Oral Presentation at the University of Florida, College of Pharmacy, 25<sup>th</sup> Annual Research Showcase, Gainesville, FL, February 16, 2012. (**Finalist Junior Division**)
138. Montaser, R.\*; Paul, V. J.; Luesch, H. “Drugs from the Sea: Chemical and Biological Characterization of Novel Fatty Acid Derivatives from the Guamanian Marine Cyanobacteria *Lyngbya* spp.” Oral Presentation at the University of Florida, College of Pharmacy, 25<sup>th</sup> Annual Research Showcase, Gainesville, FL, February 16, 2012. (**Winner Junior Division**)
139. Wang, R.\*; Choe, K. P.; Luesch, H. “Biological Mechanism of Action Study of a Small Molecule Inducer of the Antioxidant Response Element” 2011 AAPS Annual Meeting and Exposition, Washington, DC, October 23–27, 2011.
140. Luesch, H.\*; Liu, Y.; Salvador, L. A. “Exploiting Marine Cyanobacteria for Drug Discovery” 6<sup>th</sup> Asia-Pacific Biotechnology Congress / 40<sup>th</sup> Philippine Society for Microbiology (PSM) Annual Convention and Scientific Meeting, Manila, Philippines, May 10–14, 2011. (**Lead Speaker**)
141. Salvador, L. A.\*; Biggs, J. S.; Paul, V. J.; Luesch, H. “Veraguamides A–G, Novel Hexadepsipeptides with *In Vitro* Anticancer Activity from a Cyanobacterium *Symploca* sp. from Guam” Poster Presentation at the University of Florida, College of Pharmacy, 24<sup>th</sup> Annual Research Showcase, Gainesville, FL, February 17, 2011.
142. Montaser, R.\*; Abboud, K. A.; Paul, V. J.; Luesch, H. “Exploring the Marine Chemical Treasures: Structural and Biological Characterization of Novel Natural Products from the Marine Cyanobacterium *Lyngbya majuscula* from Guam” Oral Presentation at the University of Florida, College of Pharmacy, 24<sup>th</sup> Annual Research Showcase, Gainesville, FL, February 17, 2011. (**Winner Junior Division**)
143. Liu, Y.\*; Salvador, L. A.; Byeon, S. R.; Ying, Y.; Kwan, J. C.; Hong, J.; Luesch, H. “Anticancer Activity and SAR Studies of Largazole” Poster presented at the PACIFICHEM 2010 (Symposium: Recent Advances in Natural Products as Anticancer Agents), Honolulu, HI, December 15–20, 2010.
144. Luesch, H.\*; Kwan, J. C.; Liu, Y.; Paul, V. J. “Small Molecule Probes from Marine Cyanobacteria” The 13<sup>th</sup> International Symposium on Marine Natural Products, Phuket, Thailand, October 17–October 22, 2010.
145. Montaser, R.\*; Abboud, K. A.; Paul, V. J.; Luesch, H. “A New Cyclic Depsipeptide from the Marine Cyanobacterium *Lyngbya majuscula* from Guam” Poster presented at the 2010 Joint Annual Meeting of the American Society of Pharmacognosy & the Phytochemical Society of North America, St. Petersburg, FL, July 10–14, 2010.
146. Salvador, L. A.\*; Paul, V. J.; Luesch, H. “Isolation and Structure Elucidation of Caylobolide B, a New Macrolactone from Floridian Marine Cyanobacteria *Phormidium* spp.” Poster presented at the 2010 Joint Annual Meeting of the American Society of Pharmacognosy & the Phytochemical Society of North America, St. Petersburg, FL, July 10–14, 2010.
147. Paul, V. J.\*; Ritson-Williams, R.; Ross, C.; Gunasekera, S. P.; Kwan, J., Salvador, L.; Luesch, H. “Effects of Natural Products from Benthic Cyanobacteria on Coral Larvae” Poster presented at the 2010

- Joint Annual Meeting of the American Society of Pharmacognosy & the Phytochemical Society of North America, St. Petersburg, FL, July 10–14, 2010.
148. Meickle, T. J.;\* Gunasekera, S.; Luesch, H.; Paul, V. J. “Biologically active compounds from marine cyanobacteria of Florida” The 74th Annual Meeting of the Florida Academy of Sciences, Fort Pierce, FL, March 19–20, 2010.
  149. Kwan, J. C.;\* Abboud, K. A.; Paul, V. J.; Luesch, H. “New Grassypeptolides from a Marine Cyanobacterium” Poster presented at the Gordon Research Conference on Marine Natural Products; Ventura, CA, February 28–March 5, 2010.
  150. Liu, Y.;\* Law, B. K.; Luesch, H. “The Mode of Action of Apratoxin A” Poster presented at the Gordon Research Conference on Marine Natural Products; Ventura, CA, February 28–March 5, 2010.
  151. Kwan, J. C.;\* Paul, V. J.; Luesch, H. “Grassystatins A–C from Marine Cyanobacteria, Potent Cathepsin E Inhibitors that Reduce Antigen Presentation” Oral Presentation at the University of Florida, College of Pharmacy, 23<sup>rd</sup> Annual Research Showcase, Gainesville, FL, February 18, 2010. (**Finalist Senior Division**)
  152. Schlegel, G.;\* Salvador, L. A.; Angermeier, L.; Luesch, H. “Marine Drug Discovery in the Dry Tortugas” Poster Presentation at the University of Florida, College of Pharmacy, 23<sup>rd</sup> Annual Research Showcase, Gainesville, FL, February 18, 2010.
  153. Wang, R.;\* Kern, J. T.; Goodfriend, T. L.; Ball, D. L.; Luesch, H. “Activation of the Antioxidant Response Element Specific Oxidized Metabolites of Linoleic Acid” Poster Presentation at the University of Florida, College of Pharmacy, 23<sup>rd</sup> Annual Research Showcase, Gainesville, FL, February 18, 2010.
  154. Salvador, L. A.;\* Paul, V. J.; Luesch, H. “Dereplication and Discovery of Secondary Metabolites from Marine Cyanobacteria *Symploca* sp.” Poster Presentation at the University of Florida, College of Pharmacy, 23<sup>rd</sup> Annual Research Showcase, Gainesville, FL, February 18, 2010.
  155. Montaser, R.;\* Abboud, K. A.; Paul, V. J.; Luesch, H. “Novel Bioactive Cyclodepsipeptides from a Marine Cyanobacterium from Guam” Poster Presentation at the University of Florida, College of Pharmacy, 23<sup>rd</sup> Annual Research Showcase, Gainesville, FL, February 18, 2010.
  156. Liu, Y.;\* Law, B. K.; Luesch, H. “The Mode of Action of Apratoxin A” Poster Presentation at the University of Florida, College of Pharmacy, 23<sup>rd</sup> Annual Research Showcase, Gainesville, FL, February 18, 2010.
  157. Liu, Y.; Wang, R.; Paul, V. J.; Luesch, H.\* “Novel Natural Activators of the Antioxidant Response Element” 19<sup>th</sup> World Congress of Neurology, Bangkok, Thailand, October 24–October 31, 2009.
  158. Kwan, J. C.;\* Eksioglu, E. A.; Liu, C.; Paul, V. J.; Luesch, H. “Grassystatins A–C, Natural Products from Marine Cyanobacteria That Potently Inhibit Cathepsin E and Reduce Antigen Presentation” NSF Research Day, Gainesville, FL, October 13, 2009.
  159. Kwan, J. C.;\* Paul, V. J.; Luesch, H. “Grassystatins A–C, Statine-Containing Depsipeptides from the Marine Cyanobacterium *Lyngbya confervoides*” The 50<sup>th</sup> Anniversary Meeting of the American Society of Pharmacognosy (ASP), Honolulu, HI, June 27–July 1, 2009. (**Winner Student Research Award**)
  160. Meickle, T.;\* Matthew, S.; Luesch, H.; Paul, V. J. “Secondary Metabolites from Marine Cyanobacteria from Florida” The 50<sup>th</sup> Anniversary Meeting of the American Society of Pharmacognosy (ASP), Honolulu, HI, June 27–July 1, 2009.
  161. Matthew, S.;\* Paul, V. J.; Luesch, H. “Isolation and Structure Determination of New Cyclodepsipeptides from the Floridian Marine Cyanobacterium *Lyngbya confervoides*” The 50<sup>th</sup> Anniversary Meeting of the American Society of Pharmacognosy (ASP), Honolulu, HI, June 27–July 1, 2009.
  162. Paul, V.;\* Ritson-Williams, R.; Gunasekera, S.; Ross, C.; Luesch, H. “Chemical Ecology of Coral Reef Cyanobacteria” The 50<sup>th</sup> Anniversary Meeting of the American Society of Pharmacognosy (ASP), Honolulu, HI, June 27–July 1, 2009.
  163. Kwan, J. C.;\* Meickle, T.; Ladwa, D. H.; Teplitski, M.; Paul, V. J.; Luesch, H. “Discovery of Secondary Metabolites from Marine Cyanobacteria with Diverse Bioactivities” Poster Presentation at the University of Florida, College of Pharmacy, 22<sup>nd</sup> Annual Research Showcase, Gainesville, FL, February 19, 2009.

164. Taori, K.; Matthew, S.; Kwan, J.; Schupp, P. J.; Paul, V. J.; Luesch, H.\* “Novel toxic and nontoxic metabolites from marine cyanobacteria” The 13<sup>th</sup> International Conference on Harmful Algae, Hong Kong, November 3–7, 2008.
165. Ying, Y.;;\* Kim, H.; Taori, K.; Luesch, H.; Hong, J. “Total Synthesis of Largazole” 236<sup>th</sup> ACS National Meeting, Philadelphia, PA, August 17–21, 2008.
166. Luesch, H.;;\* Liu, Y.; Taori, K.; Kwan, J.; Matthew, S.; Paul, V. J. “Bioactive natural products from marine cyanobacteria: new structures and modes of action” Oral presentation at the 7<sup>th</sup> Joint Meeting of AFERP, ASP, GA, PSE & SIF on Natural Products, Athens (Greece), August 3–8, 2008 (published in *Planta Med.* **2008**, *74*, 931).
167. Matthew, S.;;\* Ross, C.; Paul, V. J.; Luesch, H. “Serine protease inhibitors from the marine cyanobacterium *Lyngbya confervoides*” Poster presented at the 7<sup>th</sup> Joint Meeting of AFERP, ASP, GA, PSE & SIF, Athens (Greece), August 3–8, 2008 (published in *Planta Med.* **2008**, *74*, 1037–1038).
168. Kwan, J.C.;;\* Rocca, J. R.; Abboud, K. A.; Paul, V. J.; Luesch, H. “Grassypeptolide, a new cyanobacterial cytotoxin” Poster presented at the Gordon Research Conference in Marine Natural Products (Ventura, CA), February 24–29, 2008.
169. Liu, Y.;;\* Kern, J. T.; Walker, J. R.; Johnson, J. A.; Schultz, P. G.; Luesch, H. “Genome-wide overexpression screen for activators of the antioxidant response element” Poster presented at the University of Florida, College of Pharmacy, 21<sup>th</sup> Annual Research Showcase, Gainesville, FL, February 21, 2008. (**Winner Poster Postdoc Division**)
170. Taori, K.;;\* Paul, V. J.; Luesch, H. “Discovery of Structurally Diverse Natural Products from Marine Cyanobacteria through Phenotypic and Target-based Screening” Poster presented at the University of Florida, College of Pharmacy, 21<sup>th</sup> Annual Research Showcase, Gainesville, FL, February 21, 2008. (**Winner Poster Junior Division**)
171. Kwan, J.;;\* Paul, V. J.; Luesch, H. “Marine Natural Products For Drug Discovery” Oral Presentation at the University of Florida, College of Pharmacy, 21<sup>th</sup> Annual Research Showcase, Gainesville, FL, February 21, 2008. (**Winner Junior Division**)
172. Liu, Y.;;\* Kern, J. T.; Walker, J. R.; Johnson, J. A.; Schultz, P. G.; Luesch, H. “Genome-wide overexpression screen for activators of the antioxidant response element” Poster presented at Neuroscience 2007, the 37<sup>th</sup> annual meeting of the Society for Neuroscience, San Diego, CA, November 3–7, 2007. (**Top 5% selected for press release**)
173. Wilson, K. R.;;\* Proneth, B.; Luesch, H.; Litherland, S. A.; Haskell-Luevano, C. “Construction and characterization of melanocortin-2 and -4 receptor chimeras” 20<sup>th</sup> American Peptide Symposium, Montreal, Quebec, Canada, June 2007 (published in *Biopolymers* **2007**, *88*, 564–565 Sp. iss. SI; *Adv. Exp. Med. Biol.* **2009**, *611*, 301–302).
174. Kwan, J.;;\* Paul, V. J.; Luesch, H. “Marine Natural Products for Drug Discovery” Oral presentation at the 20<sup>th</sup> Annual College of Pharmacy Research Showcase, Gainesville, FL, February 22, 2007. (**Finalist Junior Division**)
175. Meickle, T.;;\* Matthew, S.; Paul, V. J.; Luesch, H. “Isolation of bioactive compounds from marine cyanobacteria from Florida” Poster presented at the Florida Marine Biotechnology Summit V / BioFlorida 2006 9<sup>th</sup> Annual Conference, Gainesville, FL, November 14–15, 2006.
176. Luesch, H.\* “Studies toward the mode of action of apratoxin A” Poster presented at the Gordon Research Conference on Marine Natural Products; Ventura, CA, February 26–March 3, 2006.
177. Luesch, H.;;\* Chanda, S.; Schultz, P. G.; Raya, M. R.; Izpisua Belmonte, J. C. “Characterization of the Mode of Action of Apratoxin A through Functional and Cellular Genomics Approaches” Oral presentation at the Symposium on Marine Microbial Products: An Emerging Source for Drug Discovery, PACIFICHEM 2005, Honolulu, HI, December 15–20, 2005.
178. Luesch, H.;;\* Kern, J. T.; Johnson, J. A.; Schultz, P. G. “Genome-Scale Functional Analysis of Regulators of the Antioxidant Response Element” Poster presented at the 228<sup>th</sup> ACS National Meeting, Philadelphia, PA, August 22–26, 2004.
179. Luesch, H.;;\* Supek, F.; Chanda, S. K.; Schultz, P. G. “Genome-Wide Overexpression Screens in Yeast and Mammalian Cells for Small Molecule Target Identification and Biological Mechanism Studies”



Poster presented at the 2004 International Congress on Natural Products Research, Phoenix, AZ, July 31–August 4, 2004.

180. Luesch, H.;\* Yoshida, W. Y.; Hoffmann, D.; Moore, R. E.; Paul, V. J. “Potent Cyanobacterial Cytotoxins – New Structures and Progress Towards Their Biosynthesis” Poster presented at the 10<sup>th</sup> International Symposium on Marine Natural Products, Nago, Okinawa, Japan, June 24–29, 2001.
181. Luesch, H.\* “The Search for New Antitumor Drugs from Marine Cyanobacteria” Oral presentation at the 26<sup>th</sup> Annual Albert L. Tester Memorial Symposium, University of Hawaii at Manoa, Honolulu, April 11–12, 2001 (published in *Pacific Science* **2002**, *56*, 83–100).
182. Mooberry, S. L.;\* Leal, R. M.; Tinley, T. L.; Luesch, H.; Moore, R. E.; Corbett, T. H. “The Molecular Pharmacology of Symplostatin 1: A Cyanobacterial-Derived Dolastatin 10 Analog” 93<sup>rd</sup> Annual Meeting of the American Association for Cancer Research, April 6–10, 2002 (published in *Proc. Am. Assoc. Cancer Res.* **2002**, *43*, 266).
183. Luesch, H.;\* Moore, R. E.; Paul, V. J. “Peptides and Depsipeptides from a Reef-Inhabiting Cyanobacterium from Guam” Oral presentation at the Symposium on Marine Natural Products, PACIFICHEM 2000, Honolulu, HI, December 14–19, 2000.
184. Luesch, H.;\* Yoshida, W. Y.; Hoffmann, D.; Moore, R. E.; Paul, V. J.; Mooberry, S. L. “Secondary Metabolites from Marine Cyanobacteria: Novel Structures, Activities and Biosynthetic Studies” Poster presented at the Gordon Research Conference on Marine Natural Products, Ventura, CA, February 27–March 3, 2000.

### Noteworthy News Features

*Newsweek* feature about our research: “Could this kill cancer? Why scientists are heading underwater to search for a new generation of cures” by Michael Behar; Nov 29, 2010, pp. 40–41.

<http://www.newsweek.com/2010/11/21/why-scientists-are-searching-for-cures-underwater.html>

*Fox News* feature about our discovery and development of anticancer agents from marine cyanobacteria: “Billion-year-old Bacteria Could be Medical Goldmine” by Dr. Joette Giovinco, Dec 7, 2011.

<http://www.myfoxtampabay.com/story/18016369/billion-year-old-bacteria-could-be-medical-goldmine>

<http://latino.foxnews.com/latino/health/2011/12/07/billion-year-old-bacteria-could-be-medical-goldmine>

*Huffington Post* on our seaweed study: “Florida seaweed may fight cancer, says University of Florida study”

[http://www.huffingtonpost.com/2013/09/06/seaweed-cancer\\_n\\_3879874.html](http://www.huffingtonpost.com/2013/09/06/seaweed-cancer_n_3879874.html)

NIH Common Fund 10-Year Commemoration Video Contest: “In Search of Treasures from the Sea” was one of the 5 videos that received the most “Likes” on YouTube (out of 57 entries) and presented at the Common Fund 10<sup>th</sup> Anniversary Symposium on June 19, 2014. For more information, please see:

<http://commonfund.nih.gov/contests/videos>

UF press release on our multidimensional screening systems using isogenic knockout cells to identify KRAS and hypoxia inducible factor-selective pathway inhibitors at the early drug discovery stage: “Researchers identify new strategy for discovering colorectal cancer drugs” by Matthew Splett, March 29, 2016.

<https://ufhealth.org/news/2016/researchers-identify-new-strategy-discovering-colorectal-cancer-drugs>

Feature in UF’s “Go Greater” campaign video (2017)”

[https://www.youtube.com/watch?v=U5yNQk3\\_mpY](https://www.youtube.com/watch?v=U5yNQk3_mpY)

COP feature on our development of Apra S10 for pancreatic cancer: “Novel drug inspired by marine natural product offers new approach to treat pancreatic cancer” (Sept 10, 2018):

<https://pharmacy.ufl.edu/2018/09/10/novel-drug-inspired-by-a-marine-natural-product-offers-new-approach-to-treat-pancreatic-cancer/>

UF and Singapore joint press release on our development of a new apratoxin-based drug candidate to combat vision loss. “Scientists eye novel drug candidate with marine origins to treat vision loss”:

*UF (August 6, 2019):* <https://pharmacy.ufl.edu/2019/08/06/uf-scientists-eye-novel-drug-candidate-with-marine-origins-to-treat-vision-loss/>

*Singapore (August 8, 2019):* [https://www.gov.sg/resources/sgpc/media\\_releases/astar/press\\_release/P-20190808-1](https://www.gov.sg/resources/sgpc/media_releases/astar/press_release/P-20190808-1)

UF press release about the characterization of seaweed and potential to treat and prevent inflammatory diseases of the digestive tract: “UF researchers dive into the science of how seaweed might prevent colon cancer and inflammation of the digestive tract” (December 2, 2019)

<https://pharmacy.ufl.edu/2019/12/02/uf-researchers-dive-into-the-science-of-how-seaweed-might-prevent-colon-cancer-and-inflammation-of-the-digestive-tract/>

*Fox News* feature about our anti-inflammatory seaweed study: Eating seaweed could prevent colon cancer, inflammation of the digestive tract, study suggests.” Released in Phoenix, Washington D.C. and Los Angeles (December 24, 2019)

<https://www.fox10phoenix.com/news/eating-seaweed-could-prevent-colon-cancer-inflammation-of-digestive-tract-study-suggests>

*University of Florida on YouTube:* Luesch research lab featured in the University of Florida’s 2019 TV commercial which aired during Gator sporting events on ESPN and other stations (December 28, 2019)

[https://www.youtube.com/watch?v=SWTuAzCh9\\_U](https://www.youtube.com/watch?v=SWTuAzCh9_U)

COP feature on the UF College of Pharmacy Doctoral Dissertation Mentoring Award and success of graduates: “Dr. Hendrik Luesch wins Doctoral Dissertation Mentoring Award; mentees showcase research at Gordon Research Conference on Marine Natural Products” (March 4, 2020)

<https://pharmacy.ufl.edu/2020/03/04/luesch-wins-doctoral-dissertation-mentoring-award-mentees-showcase-research-at-gordon-research-conference-on-marine-natural-products/>

*University of Florida Foundation:* Luesch research featured during COVID-19 pandemic on the strength of the Gator Nation: *When the world starts to slow, we say Go. And when the world needs leaders, we say Gators.* “Go Gators” (April 7, 2020)

<https://www.youtube.com/watch?v=G-xCfgl51vw&feature=youtu.be>

*University of Florida Foundation:* Luesch research featured on Groundbreaking Announcement: UF + NVIDIA AI Initiative (July 21, 2020)

[https://www.youtube.com/watch?time\\_continue=3&v=l87\\_dbz2VE8&feature=emb\\_logo](https://www.youtube.com/watch?time_continue=3&v=l87_dbz2VE8&feature=emb_logo)

*Smithsonian - National Museum of Natural History:* Featuring the collaboration between the groups of Valerie Paul (Smithsonian Marine Station) and Hendrik Luesch (UF): “Decrypting defenses – Smithsonian research into cyanobacteria’s powerful chemical compounds yields benefits for humans as well as reef habitats” (July 31, 2020)

<https://naturalhistory.si.edu/decrypting-defenses>

*Florida Trend* magazine feature about our research into marine algae to combat and prevent diseases of the digestive tract and to protect other organs. “A side of seaweed?” by Amy Keller (December 30, 2020)

<https://www.floridatrend.com/article/30472/a-side-of-seaweed>

UF press release about the discovery and characterization of gatorbulin-1 as a new chemotype to target tubulin at a novel binding site towards new cancer treatments. “UF researchers discover marine natural product off Florida’s coast that could help fight cancer” (February 23, 2021)

<https://pharmacy.ufl.edu/2021/02/23/uf-researchers-discover-marine-natural-product-off-floridas-coast-that-could-help-fight-cancer/>

<https://ufhealth.org/news/2021/uf-researchers-discover-marine-natural-product-florida-s-coast-could-help-fight-cancer-0>

*Smithsonian Magazine* on the discovery of gatorbulin-1: “Scientists find blue-green algae chemical with cancer fighting potential” by Emily Leclerc (March 4, 2021)

<https://www.smithsonianmag.com/blogs/national-museum-of-natural-history/2021/03/04/scientists-find-blue-green-algae-chemical-cancer-fighting-potential/>

## Scientists, Students, Postdoctoral and Professional Fellows Mentored/Trained

### *Current Lab Members:*

#### **Graduate Students**

David A. Brumley	Department of Medicinal Chemistry, Ph.D. student	2017–
-	Best Student Seminar Award, Junior Division, Department of Medicinal Chemistry, 2018	
-	Best Student Seminar Award, Junior Division, Department of Medicinal Chemistry, 2019	
-	Best Student Seminar Award, Senior Division, Department of Medicinal Chemistry, 2020	
Lobna Elsadek	Department of Medicinal Chemistry, Ph.D. student	2018–
-	Winner Poster Division (Infectious Diseases), 33 <sup>rd</sup> Annual College of Pharmacy Research Showcase 2020	
-	Junior Award for Excellence, 2020 ( <i>in recognition of all-around excellence in didactic coursework and research during junior years</i> )	
-	Inaugural trainee for the Chemistry-Biology Interface Predoctoral Training Program (NIH T32)	
-	Best Poster Award (Graduate Student Category, Chemical Biology and Mechanisms of Action), 4 <sup>th</sup> UF Drug Discovery Symposium hosted by the Center for Natural Products, Drug Discovery and Development (CNP3D), 2021	
Emily Simon	Department of Medicinal Chemistry, Ph.D. student	2020–
Tam Pham	Department of Medicinal Chemistry, Ph.D. student	2020–

#### **Postdoctoral Fellows**

Sofia Kokkaliari	Postdoctoral Associate	2020–
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#### **Non-Tenure Track Research Faculty**

Qi-Yin Chen, Ph.D.	Research Assistant Professor	2018–
	Assistant Scientist	2012–
	Postdoctoral Associate	2008–2012
Ranjala Ratnayake, Ph.D.	Research Assistant Professor	2017–
	Assistant Scientist	2014–2017
	Postdoctoral Associate	2009–2011

#### **Visiting Students/Interns/Undergraduate Students**

Varvara Folimonova	Undergraduate student, Department of Chemistry, UF	2019–
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#### **Staff Scientists**

Kalina Rosenova Atanasova, Ph.D.	Biological Scientist III	2019–
Taylor Corcoran	Laboratory Technician	2020–



- Michelle S. Bousquet                      Ph.D., Department of Medicinal Chemistry                      2010–2015  
 Dissertation title: *“Characterization of Natural Products and Genes in Cytoprotective and Oncogenic Pathways Using Complementary in Vitro and in Vivo Model Systems”*  
 - Finalist Junior Division, 26<sup>th</sup> Annual College of Pharmacy Research Showcase 2013  
 - Finalist Junior Division, 27<sup>th</sup> Annual College of Pharmacy Research Showcase 2014  
 - A\*STAR Research Attachment Programme (ARAP) one-year scholarship by the Agency for Science, Technology and Research (A\*STAR) to study at the Institute of Molecular and Cell Biology (IMCB) in Singapore (2014/2015)  
 - Finalist Senior Division, 28<sup>th</sup> Annual College of Pharmacy Research Showcase 2015  
 - Best Research Paper Award 2019  
*First Position: Teacher, The School for Young Performers, New York City*  
*Next Position: Program Management Associate & Program Development Lead, Biorasi CRO, Miami*  
*Current Position: Senior Project Manager, Oncology, Premier Research, Durham, North Carolina*
- Khanh Ha                                      Ph.D., Department of Chemistry                                      2014–2016  
 Dissertation title: *“Development of Methodologies for Coupling and Cyclization of Peptides and Synthesis of Polyketide Fragments for Modified Peptides”*  
 - 2014 Procter & Gamble Award for Research Excellence  
 - Outstanding International Student Award, 2014  
 - Winner of the Alec Courtelis Award, 2014  
*First Position: Postdoctoral Associate, Harvard Medical School – Center for Systems Biology*
- Fatma Al-Awadhi                              Ph.D., Department of Medicinal Chemistry                              2012–2017  
 Dissertation title: *“Discovery and Characterization of Novel Anticancer and Antimetastatic Agents from Marine Cyanobacteria”*  
 - Outstanding International Student Award, 2014  
 - Winner Junior Division, 28<sup>th</sup> Annual College of Pharmacy Research Showcase 2015  
 - Finalist Junior Division, 29<sup>th</sup> Annual College of Pharmacy Research Showcase 2016  
 - Best Student Seminar Award, Senior Division, Department of Medicinal Chemistry 2016  
 - Finalist Senior “Millard” Division, 30<sup>th</sup> Annual College of Pharmacy Research Showcase, 2017  
 - Kilmer Prize Winner 2017; awarded by the American Pharmacists Association and the American Society of Pharmacognosy  
*First/Current position: Assistant Professor, Faculty of Pharmacy, Department of Pharmaceutical Chemistry, Health Science Center, Kuwait University, Kuwait*
- Weijing Cai                                      Ph.D., Department of Medicinal Chemistry                                      2012–2017  
 Dissertation title: *“Drug Discovery and Development of Natural Products from Marine Cyanobacteria as Anticancer Agents and Growth Factor Modulators”*  
 - Research abstract for the 2015 American Society of Pharmacognosy (ASP) Annual Meeting, Copper Mountain (CO), was selected for oral presentation  
 - Winner Junior Division, 29<sup>th</sup> Annual College of Pharmacy Research Showcase 2016  
 - Winner Senior “Millard” Division, 30<sup>th</sup> Annual College of Pharmacy Research Showcase 2017  
 - Best Student Seminar Award, Senior Division, Department of Medicinal Chemistry, 2017  
 - Best Research Paper Award 2018  
*First/Current position: Scientist, Intra-Cellular Therapies, Inc., New York, NY*
- Danmeng Luo                                      Ph.D, Department of Medicinal Chemistry                                      2013–2018  
 Dissertation title: *“Discovery, Synthesis and Biological Evaluation of Bioactive Secondary Metabolites from Marine Cyanobacteria”*  
 - Winner Poster Division, 29<sup>th</sup> Annual College of Pharmacy Research Showcase 2016  
 - Poster abstract selected for oral presentation at the Gordon Research Conference on Marine Natural Products 2016



**Undergraduate and Professional Students**

Kathrina Gonzalez	University of Florida, Biology (left for UF Pharmacy School)	2008–2009
Kristen Lee	University of Florida, Biochemistry (left for UF Pharmacy School)	2009
Chudi Onyiuke	University of Florida, Pharm.D. program	2010
Gabriel Jerkins	University of Florida, Chemistry	2012–2013
Samantha Riccini	University of Florida, Pre-Pharmacy	2014
Shelby Thomas	University of Florida, Marine Science	2015
Latoy Waite	University of Florida, Pharm.D. program	2016–2017
Duyen A. Truong	University of Florida, Pre-Pharmacy; Major Anthropology, Minor Chemistry	2017–2018
Arsany Makkar	Summer Student (Pharm.D.), Rutgers University	2018

**High School Students**

Jessica Lee	Eastside High School, Gainesville	2013–2014
Project title: <i>“Extraction and Evaluation of Cancer Preventive Properties of Green Algae from Florida”</i>		
- Winner at the Alachua County Regional Science Fair:		
o GAIN Young Innovator’s Award		
o Naval Research Award		
o First Place in Biochemistry; advanced to Florida State Science Fair (State Finalist)		
o Selected to compete at the International Science Fair (ISEF Finalist)		
<i>Current Position: Pennsylvania State University/Thomas Jefferson Medical School (BS/MD program)</i>		

**Advanced Pharmacy Practice Experiences (APPE) Students**

Jennifer Corder	APPE rotation: Research	2014
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**Postdoctoral Associates and Assistant Scientists**

Susan Matthew, Ph.D.	Postdoctoral Associate (now Chemical Advisor, TOTALS Petrochemicals/Refining (French Oil & Gas), Houston, Texas)	2006–2009
Yanxia Liu, M.D., Ph.D.	Postdoctoral Associate Assistant Scientist	2006–2010 2010–2014
- Neuroscience 2007, the 37 <sup>th</sup> Annual Meeting of the Society for Neuroscience; abstract selected for press release (top 5%)		
- Winner Poster Postdoc Division, University of Florida, College of Pharmacy, 21 <sup>th</sup> Annual Research Showcase 2008		
Qi-Yin Chen, Ph.D.	Postdoctoral Associate (now Research Assistant Professor at UF)	2008–2012
Ranjala Ratnayake, Ph.D.	Postdoctoral Associate (now Research Assistant Professor at UF)	2009–2011
Pamela Havre, Ph.D.	Assistant Scientist	2014–2015
Dimitris Kallifidas, Ph.D.	Postdoctoral Associate (now: Research Scientist – Warp Drive Bio, Boston)	2013–2017
James H. Matthews, Ph.D.	Postdoctoral Associate (now: Associate Medical Publications Manager – Succinct Communications, London, UK)	2015–2018
Ahmad Mostafa, Ph.D.	Postdoctoral Associate (now: Lecturer – Department of Pharmacognosy, Al-Azhar University, Egypt)	2018
Atsushi Kawamura, Ph.D.	Postdoctoral Associate (now: Assistant Professor, Institute for Biomedical Sciences, Interdisciplinary Cluster for Cutting Edge Research (ICCER), Shinshu University, Japan)	2018–2019

**Visiting Scholars**

Wei Zhang, Ph.D.	Fudan University, Shanghai, China	2012–2013
Mylene Uy, D.Sc.	Mindanao State University-Iligan Institute of Technology,	2014

## Iligan City, Philippines

Mariangela Soares de Azevedo, Ph.D.	Universidade Federal de Rondônia, Brazil	2014–2015
Bereket Mochona, Ph.D.	Florida A&M University	Summer 2016
Yoshiharu Okuno, Ph.D.	Wakayama College, Japan	2017–2018
Masteria Yunovilsa Putra	Research Center for Oceanography, Indonesian Institute of Sciences, Indonesia	2018
Rodrigo Rezende Kitagawa	Associate Professor, Department of Pharmaceutical Sciences, Federal University of Espirito Santo, Vitoria, Brazil	2018–2019
Rita de Cássia Ribeiro Gonçalves	Associate Professor, Department of Pharmaceutical Sciences, Federal University of Espirito Santo, Vitoria, Brazil	2018–2019
Na Liu	Associate Professor, University of Jinan, China	2019–2020

**Graduate Student Thesis/Dissertation Committee Member (University of Florida)**

Leah Stuchal	Medicinal Chemistry, Ph.D.	2005
Aleksandar Todorovic	Medicinal Chemistry, Ph.D.	2005–2006
Krista Wilson	Medicinal Chemistry, Ph.D.	2005–2008
Beatrice Nyagode	Medicinal Chemistry, Ph.D.	2005–2007
Bettina Proneth	Medicinal Chemistry, Ph.D.	2005–2007
Kristen Merritt	Medicinal Chemistry, Ph.D.	2006–2011
Nicole Teoh	Pharmacology & Therapeutics (College of Medicine), Ph.D.	2007–2009
John Ketcham	Chemistry, Ph.D.	2008–2013
Chaevien Clendinen	Biochemistry & Molecular Biology (College of Medicine), Ph.D.	2010–2014
Yue Zhou	Chemistry, Ph.D.	2011–2017
Jarrod Mousa	Chemistry, Ph.D.	2011–2014
Sriram Ambadapadi	Medicinal Chemistry, Ph.D.	2011–2012
Sean Robbins	College of Medicine, M.S.	2012–2013
Ashton Bartley	Chemistry, M.S., Ph.D.	2012–2014
Lindsey DeRatt	Chemistry, Ph.D.	2013–2015
Prashant Singh	Chemistry, M.S.	2013–2016
Joo-in June Jung	Neuroscience (College of Medicine), Ph.D.	2013–2014
Erin Jackson	Medicinal Chemistry, Ph.D.	2013–2015
Pauline Fountaine	Zoology, Ph.D.	2014–2017
Guo Zhong	Medicinal Chemistry, Ph.D.	2014–2016
Yasmeen Abouelhassan	Medicinal Chemistry, Ph.D.	2014–2018
Nicholas Paciaroni	Medicinal Chemistry, Ph.D.	2014–2018
Aaron Garrison	Medicinal Chemistry, Ph.D.	2014–2017
Yi Zhang	Medicinal Chemistry, Ph.D.	2014–2019
Ran Zuo	Medicinal Chemistry, Ph.D.	2014–2018
Verrill Norwood	Medicinal Chemistry, Ph.D.	2015–2019
Evan Craig	Microbiology and Cell Science, Ph.D.	2015–2020
Vindhya Vijay	Hematology/Oncology (College of Medicine), Ph.D.	2015–2019
Fabien Emmetiere	Chemistry, Ph.D.	2015–2020
Ehsan Fereyduni	Chemistry, Ph.D.	2016–2020
Mohammad Rezaei	Chemistry, Ph.D.	2017–2019
Richard Schroeder	Chemistry, Ph.D.	2017–2019
Shahbaz Gardezi	Chemistry, Ph.D.	2017–
Brittany Smith	Chemistry, Ph.D.	2017–
Wei Zhou	Biochemistry & Molecular Biology (College of Medicine), Ph.D.	2017–2020
Hongfen Yang	Medicinal Chemistry, Ph.D.	2017–2020
Guangde Jiang	Medicinal Chemistry, Ph.D.	2017–2019
Evgeniya Semenova	Chemistry, Ph.D.	2018–
Ke Liu	Medicinal Chemistry, Ph.D.	2019–



Manyun Chen	Medicinal Chemistry, Ph.D.	2019–
Jeremy Coleman	Medicinal Chemistry, Ph.D.	2019–2021
Subhradeep Dutta	Chemistry, Ph.D.	2019–
Michael Mannchen	Chemistry, Ph.D.	2020–
Michael Dougherty	Department of Medicine (College of Medicine), Ph.D.	2021–

#### External Student Dissertation Examiner

James H. Matthews	Victoria University of Wellington, New Zealand	2010
Sabine Kuznia	Ernst Moritz Arndt University of Greifswald, Germany	2016
Laurence K. Jennings	Griffith University (Gold Coast Campus), Queensland, Australia	2019

#### University of Florida Junior Faculty Mentoring Committee Member

Xin (Cindy) Qi, Assistant Professor, Department of Medicinal Chemistry	2012–2015
Robert Huigens, III, Assistant Professor, Department of Medicinal Chemistry	2013–2015
Yousong Ding, Assistant Professor, Department of Medicinal Chemistry	2013–2015
Guohua An, Assistant Professor, Department of Pharmaceutics	2013–2014

#### Research Support

##### Completed:

Irving S. Sigal Postdoctoral Fellowship                      Luesch (PI)                      08/01/2002–07/31/2004  
*“The Mode of Action of the Potent Antitumor Agent Apratoxin A”*                      **\$90,000 direct/total**  
 Postdoctoral fellowship awarded for projects on the interface of chemistry and biology.

Individual Allocation from the American Cancer Society's Individual Research Grant Award to the UF Shands Cancer Center                      Luesch (PI)                      11/01/2005–12/31/2006  
 University of Florida Shands Cancer Center  
*“Proteomics Strategies to Identify the Target of Apratoxin A”*                      **\$20,000 direct/total**  
 The goal is to develop strategies to determine the target of the antiproliferative natural product apratoxin A. (Seed funding)  
 Role: PI

The Evelyn F. McKnight Brain Research Flyer Grant                      Luesch (PI)                      12/01/2005–10/31/2009  
 Evelyn F. and William L. McKnight Brain Institute of the University of Florida  
*“Genome-Scale Approaches to the Discovery of Novel Targets for Neuroprotection”*                      **\$250,000 direct/total**  
 The goal is to carry out functional screens and identify and validate genes/proteins involved in neuroprotection as potential targets for oxidative stress-related disorders including age-related memory loss. (Note: Funds were awarded as seed money for high risk projects in the area of age-related memory loss.)  
 Role: PI

Florida Institute of Oceanography                      Luesch (PI)                      07/01/2006–06/30/2007  
 Shiptime Proposal  
*“Algal Diversity in the Florida Keys and Dry Tortugas for Drug Discovery”*                      **\$10,000 direct/total**  
 The goal is to collect marine cyanobacteria and macroalgae for drug discovery efforts.  
 Role: PI

NA06OAR4170014                      Paul (PI)                      02/01/2006–07/31/2008  
 NOAA/Florida Sea Grant                      **\$121,307 direct (my sub: \$44,862)**  
*“Chemical Variation in Marine Cyanobacteria for Drug Discovery”*                      **[\$146,000 total (my sub: \$62,999)]**  
 The goal is to collect marine cyanobacteria in Florida and explore their potential for various biomedical applications.

Role: Co-PI

- 06NIR-07 Luesch (PI) 07/01/2006–06/30/2009  
 James & Esther King Biomedical Research Program **\$399,801 direct**  
*“The Mode of Action of the Antitumor Agent Apratoxin A”* **[\$427,500 total]**  
 The goal is to develop strategies to determine the target of the antiproliferative natural product apratoxin A.  
 Role: PI
- 0635161B Luesch (PI) 07/01/2006–06/30/2009  
 American Heart Association (Florida Affiliate) **\$240,000 direct**  
*“Protection from Stroke-Induced Brain Damage through Modulation of Gene Expression”* **[\$264,000 total]**  
 The goal is to characterize and validate genes putatively involved in neuroprotection *in vitro* and *in vivo*.  
 Role: PI
- Florida Institute of Oceanography Luesch (PI) 07/01/2007–06/30/2008  
 Shiptime Proposal  
*“Algal Diversity in the Florida Keys and Dry Tortugas for Drug Discovery”* **\$11,200 direct/total**  
 The goal is to collect marine cyanobacteria and macroalgae for drug discovery efforts.  
 Role: PI
- R21CA133681 Luesch (PI) 07/01/2008–06/30/2011  
 NIH/NCI **\$272,807 direct**  
*“Activation of the Cancer Preventive Nrf2-ARE Pathway by Seaweed”* **[\$357,447 total]**  
 The goal is to collect and screen marine algae for cancer preventive properties. Active constituents should be isolated and characterized.  
 Role: PI
- Florida Institute of Oceanography Luesch (PI) 07/01/2008–06/30/2009  
 Shiptime Proposal  
*“Biological and Chemical Diversity of Algae and Cyanobacteria in the Bahamas”* **\$24,800 direct/total**  
 The goal is to collect marine cyanobacteria and macroalgae to assess biodiversity and potential for drug discovery.  
 Role: PI
- Commercialization Fund Award Luesch (PI) 07/01/2008–12/31/2009  
 Office of Technology (University of Florida)  
*“Drug Development of Antitumor Marine Natural Products”* **\$25,288 direct/total**  
 The goal is to provide essential data required for potential commercialization/licensing of drug candidates.  
 Role: PI
- Florida Institute of Oceanography Luesch (PI) 07/01/2009–06/30/2010  
 Shiptime Proposal  
*“Algal Diversity in the Florida Keys and Dry Tortugas for Drug Discovery”* **\$3,100 direct/total**  
 The goal is to collect marine cyanobacteria and macroalgae for drug discovery efforts.  
 Role: PI
- 2009 Research Opportunity Fund Award 07/01/2009–06/30/2011  
 UF Office of Research  
*“In vivo Target Identification and Antitumor Efficacy of Novel Anticancer Agents”* **\$86,000 direct/total**  
 The goal is to assess toxicity, efficacy and targets of marine natural products with promising antiproliferative activity.



- “Development of Scale-up Synthetic Method for Apratoxin S4,  
 a Novel Drug for the Treatment of Colorectal Cancer” **[\$100,000 total]**  
 The goal is to synthesize apratoxin S4 for preclinical evaluation.  
 Role: PI
- 3KF04 Luesch (PI) 07/01/2013–12/31/2014  
 James & Esther King Biomedical Research Program (TTF)  
 “Development of a Scalable Synthetic Method for Lyngbyastatin 7 as a  
 New Treatment of Pulmonary Diseases” **\$86,957 direct**  
**[\$100,000 total]**  
 The goal is to synthesize lyngbyastatin 7 for preclinical evaluation.  
 Role: PI
- Florida Institute of Oceanography Luesch (PI) 07/01/2014–06/30/2015  
 Shiptime Proposal  
 “Algal Diversity in the Florida Keys and Dry Tortugas for Drug Discovery” **\$15,450 direct/total**  
 The goal is to collect marine cyanobacteria and macroalgae for drug discovery efforts.  
 Role: PI
- 4BB07 Luesch (PI) 12/01/2013–11/30/2015  
 Bankhead-Coley Cancer Research Program **\$347,826 direct**  
 “Chemistry and Biology of Apratoxins” **[\$400,000 total]**  
 The goal is to further define the unusual mode of action of apratoxins and establish structure-activity  
 relationship data *in vitro* and *in vivo*.  
 Role: PI
- R01EY02025 Lewin (PI) 03/01/2011–02/29/2016  
 NIH/NEI **\$1,017,534 direct (my sub: \$104,745)**  
 “Mitochondrial Oxidative Stress in the Retinal Pigment Epithelium  
 as a Model for Atrophic Macular Degeneration” **[\$1,467,874 total (my sub: \$153,451)]**  
 The goals are to characterize retinal degeneration in various systems and to prevent retinal degeneration  
 using pharmacological agents.  
 Role: Co-Investigator
- 2014 Research Opportunity Fund Award Borchelt (PI) 06/01/2014–05/31/2017  
 UF Office of Research Borchelt, Luesch (MPI) **\$84,000 direct/total (my sub: \$42,000)**  
 “Novel Therapeutics for Activation of the Antioxidant Response”  
 The goal is to assess the activity of a novel Nrf2/ARE activator in models of ALS.  
 Role: Co-PI
- Agency for Science, Technology and Research (A\*STAR) Singapore 09/01/2014–10/31/2015  
 Research Attachment Programme (Individual Training Grant) **\$32,500 direct/total**  
 “Probing Cancer and Angiogenesis Relevant Pathways using Natural Product and Genomic Approaches in  
 Vitro and in Vivo”  
 Trainee: Michelle Bousquet Role: Co-mentor (H. Luesch/USA & T. Carney/Singapore)  
 The goal is to identify natural products and genes proteins involved in the cancer preventive Nrf2/ARE  
 pathway and inhibitors of HIF transcription. The student will develop and apply cellular and organismal  
 tools enabling to screen for these pathway modulators and validate their activities in various model systems.  
 The Institute of Molecular and Cell Biology (IMCB) is the host A\*STAR institute for US collaborator’s  
 student, who will be co-mentored during the scholarship period.
- PROSPER Research Enhancement Award Shenoy, Luesch (PI) 12/01/2015–06/30/2017  
 College of Pharmacy, University of Florida **\$30,000 direct/total**

*“Developing Neutrophil Elastase Inhibitors for Pulmonary Hypertension Therapy”*

The goal is to synthesize lymbyastatin 7 in sufficient quantities for preliminary in vivo testing.

Role: Co-Principal Investigator

Florida Institute of Oceanography      Luesch (PI)      07/01/2016–06/30/2017  
Shiptime Proposal

*“Algal Diversity in the Florida Keys and Dry Tortugas for Drug Discovery”*      **\$31,200 direct/total**

The goal is to collect marine cyanobacteria and macroalgae for drug discovery efforts.

Role: PI

SECIM Pilot and Feasibility grant      Luesch (PI)      09/01/2016–06/30/2017

Parent grant: U24DK097209 from the NIH Common Fund metabolomics program      **\$20,700 direct/total**

Southeast Center for Integrated Metabolomics (SECIM), University of Florida

*“The Functional Interplay of Marine Natural Products: Marine Cyanobacterial Small Molecules as Activators of Secondary Metabolism in Marine Actinobacteria”*

The goal is to activate the expression of silent gene clusters using marine natural products.

Role: PI

R43CA195895      Chaturvedi (PI)      08/01/2015–07/31/2017

NIH/NCI

**\$212,068 direct**

*“Process Chemistry of Largazole, a Marine HDAC Inhibitor with Anticancer Activity”*      **[\$291,335 total]**

The goal is to further improve the process route to largazole.

Role: Consultant

Cancer Research Grant      Luesch (PI)      07/01/2016–06/30/2018

Ocala Royal Dames for Cancer Research, Inc.

**\$50,000 direct/total**

*“Novel Synthetic Apratoxins Acting Through a New Mechanism as an Alternative Treatment of Cancers with Activated Growth Factor Signaling”*

The goal is to obtain preliminary data on the potential of apratoxins as a treatment for pancreatic cancer.

Role: PI

PROSPER Research Enhancement Award      Schmittgen (PI)      01/01/17–12/31/2018

UF College of Pharmacy

**\$40,000 direct/total**

*“A Medium-Throughput Screen to Discover Compounds that Interfere with the Early Events in the Development of Pancreatic Cancer”*

The goal is to identify compounds that interfere with acinar ductal metaplasia (ADM), the earliest precursor lesion in the development of pancreatic ductal adenocarcinoma (PDAC).

Role: Co-Investigator

R01CA172310      Luesch (PI)      03/06/2013–08/31/2019

NIH/NCI

**\$1,788,942 direct**

*“Novel Targeted Anticancer Agents from Marine Cyanobacteria”*

**[\$2,296,268 total]**

The goal is to discover new anticancer agents with promising mechanisms of action using unique genetic model systems.

Role: PI

R01CA172310-04S1      Luesch (PI)      08/01/2016–02/28/2019

NIH/NCI

**\$105,582 direct**

*“Novel Targeted Anticancer Agents from Marine Cyanobacteria”*

**[\$159,063 total]**

NIH Minority Supplement for grant R01CA172310

Student: Kara Spencer

Mindanao State University Scholarship 08/01/2019–03/31/2020  
 Mindanao State University-Iligan Institute of Technology (MSU-IT)/Department of Science and Technology (DOST), The Philippines **\$14,628 total/direct**  
*“Potential Anticancer Drug Leads from the Marine Sponges Collected off the Coast of Surigao City”*  
 The goal is to isolate, characterize and test sponge natural products from Mindanao for anticancer activity.  
 Role: Mentor for two students (Yusoph C Manalundong & Harmie N. Luyao) from MSU-IT.

R01DK105010 Malany (PI) 12/01/2018–11/30/2019  
 NIH / Univ of Colorado Denver **\$85,895 subcontract**  
*“Identifying CXCR4 Receptor Agonists to Improve Diabetic Healing”*  
 The goal is to design, synthesize, optimize and test small molecules that modulate CXCR4.  
 Role: Co-I

R01AG056315 Malany (PI) 12/01/2018–05/31/2020  
 NIH / Mayo Clinic **\$150,140 subcontract**  
*“Small Molecule Discovery for Particulate Guanylyl Cyclase Receptor B Enhancers”*  
 The goal is to design, synthesize, optimize and test small molecules that modulate GCB.  
 Role: Co-I

UH2TR002087 Zarrinpar (PI) 09/21/2017–08/31/2020  
 NIH/NCATS **\$200,000 direct (my sub: \$7,315)**  
**[\$305,000 total (my sub: \$11,155)]**  
*“Utilization of Phenotypic Precision Medicine to Identify Optimal Drug Combination”*  
 The goal is to use phenotypic precision medicine (PPM) to find novel drug combinations of repurposed/repositioned drugs to treat hepatocellular carcinoma (HCC, liver cancer).  
 Role: Co-Investigator

S10OD028753 Long (PI) 06/20/2020–06/19/2021  
 NIH/Office of the Director **\$600,000 direct/total**  
*“NMR Console Upgrade for Structural Biology and Metabolomics”*  
 Instrument grant to enhance NMR capabilities for small molecule and protein work.  
 Role: Co-I

### **Active:**

R50CA211487 Ratnayake (PI) 09/20/16–08/31/2021  
 NIH/NCI Research Specialist Award **\$310,320 direct [\$465,481 total]**  
*“Development of Complex Natural Product Libraries and Multidimensional Anticancer Screening Platforms”*  
 The goal is to support NCI investigators and cancer researchers at the University of Florida in the area of drug discovery, particularly using natural products but also genomic library screening.  
 Role: Mentor

U01AG055137 Esser (PI) 12/01/2016–11/30/2022  
 NIH/NIA **\$1,481,803 direct (my sub: \$30,480)**  
**[\$2,197,678 total (my sub: \$46,482)]**  
*“UF PASS: Regulation of Exercise Transducers” (Physical Activity Preclinical Study Sites)*  
 The goal is to identify regulators of exercise transducers.  
 Role: Collaborator

P41GM122698 Cross (PI) 07/01/2017– 05/01/2022

- NIH/NIGMS **\$1,357,271 direct/total (instrumentation)**  
*“National Resource for Advanced NMR Technology”*  
 This grants supports a technology resource center to develop NMR probe technologies for use in ultrahigh magnet fields to characterize biomolecules.  
 Role: Collaborator
- R25CA214225 Odedina (PI) 04/30/2017–04/29/2022  
 NIH/NCI **\$1,400,515 direct**  
*“Florida Cancer ReTOOL Program for Underrepresented Minority Students”*  
 Role: Science Mentor
- 131947-RSG-18-013-01-CDD Huigens (PI) 07/01/2018–6/30/2022  
 American Cancer Society **\$660,000 direct (my sub: \$214,401)**  
**[\$800,000 total (my sub: \$257,281)]**  
*“Alkaloid Ring Distortion: A Platform for New Cancer Therapies”*  
 The major goals of this project are to access novel natural product like chemical space through ring distortion methodologies and probe the compounds for anticancer activity.  
 Role: Co-I
- OR-DRPD-ROF2018 Choe/Luesch (PI) 07/01/2018–10/30/2021  
 2018 Research Opportunity Fund Award, UF Office of Research **\$83,043 direct/total (my sub: \$30,000)**  
*“A C. elegans Based Drug Discovery Platform for Modulators of pre-mRNA Processing”*  
 The goal is to identify compounds that cause general RNA processing defects in the *Caenorhabditis elegans* whole-animal model system as a starting point for a new anticancer drug discovery campaign.  
 Role: Co-PI
- 1828064 McElwee-White (PI) 08/01/2018–07/31/2021  
 NSF **\$279,000 direct/total**  
*“MRI: Acquisition of an X-Ray Diffractometer for Next Generation Functional Molecules and Materials”*  
 Role: Collaborator
- CNPD3 Grant Luesch (PI) 09/01/2018–08/31/2021  
 UF Health Cancer Center - Shands **\$300,000 direct/total**  
*“Screening Core Support Grant”*  
 This grant provides support for cancer-related high-throughput screening in the Molecular Diversity and Screening Core (MDSC) in the Center for Natural Products, Drug Discovery and Development (CNPD3).  
 Role: PI
- R01CA172310 Luesch (PI) 09/01/2019–08/31/2024  
 NIH/NCI **\$1,615,330 direct**  
**[\$2,208,774 total]**  
*“Novel Targeted Anticancer Agents from Marine Cyanobacteria”*  
 The goal is to discover new anticancer agents with promising mechanisms of action using unique genetic model systems. *This grant is a competitive renewal of R01CA172310.*  
 Role: PI
- T32GM136583 Li (PI) 07/01/2020–06/30/2025  
 NIH/NIGMS **\$752,800 direct**  
**[\$800,510 total]**  
*“Chemistry-Biology Interface Training Program at the University of Florida”*  
 Predoctoral training grant led by the Department of Medicinal Chemistry. This is the first ever predoctoral training grant awarded to UF’s College of Pharmacy and a direct result of our leadership in UF’s preeminence initiative in drug discovery and development.  
 Role: Department Chair, Internal Advisory Committee, and Mentor (trainee: Lobna Elsadek)