# [This is a condensed example CV with notes in red throughout to guide you as you compose your CV]

# Curriculum Vitae and Table of Contents Julia Kubanek, Ph.D.

Professor, School of Chemistry and School of Chemistry & Biochemistry Associate Dean for Research, College of Sciences

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[CoS Note: This is just a table, in Word, with all borders removed. If you'd like to use this version, but want to make edits, go to table properties, and click to show all borders, which will enable you to see the outline of the document. If you add subsections to the CV, make sure to add them to the ToC as well.]

# Julia Kubanek, Ph.D.

Professor and Associate Dean
School of Biological Sciences & School of Chemistry and Biochemistry
Aquatic Chemical Ecology Center
Parker H. Petit Institute of Bioengineering and Biosciences
Georgia Institute of Technology

I. Earned Degrees	[CoS note: Include advis	or name(s) by	graduate degree(s)]
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B.S.	Chemistry	1988-1991	Queen's University at Kingston, Ontario, Canada
Ph.D.	Organic Chemistry	1993-1998	University of British Columbia (advisor: R. Andersen)

II. Employment History	[Co	S note: I	nclud	le ac	lvisor	name(	s)	by post	doc pos	sition(	(s)]
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1998-2000	Postdoctoral Associate, Scripps Institution of Oceanography UCSD (advisor: W. Fenical)			
2000-2001	Postdoctoral Associate, University of North Carolina at Wilmington (advisor: D. Baden)			
2001-2006	Assistant Professor, School of Biology and School of Chemistry & Biochemistry, Georgia			
	Institute of Technology			
2006-2011	Associate Professor, School of Biology and School of Chemistry & Biochemistry, Georgia			
	Institute of Technology			
2009-2011	Associate Chair, School of Biology, Georgia Institute of Technology			
2011-present	Professor, School of Biology (changed to School of Biological Sciences in 2016) and			
	School of Chemistry & Biochemistry, Georgia Institute of Technology			
2014-present	Associate Dean for Research, College of Sciences, Georgia Institute of Technology			
[CoS note: It is	important to include advisor names so that the School RPT committee excludes these			
individuals from contention as external letter writers for tenure and promotion.]				

# **III. Honors and Awards**

2016	Georgia Tech College of Sciences Gretzinger Moving Forward School Award (for
	diversity and family-friendly program development)
2014	Georgia Tech Class of 1940 Course Survey Teaching Effectiveness Award
2013	Elected Councilor of the International Society of Chemical Ecology
2012	Elected Fellow of the American Association for the Advancement of Science (AAAS)
2012	Silverstein-Simeone Award of the International Society of Chemical Ecology
2011	Four "Thank a Teacher" Certificates from former organic chemistry students via the
	Center for Enhancement of Teaching and Learning, Georgia Tech
2010	Sigma Xi Best Faculty Paper Award (Kubanek, Fernandez, Hay) for PNAS 2009 research
	article on surface imaging of antifungal chemical defenses in a marine alga
2010	Waernska Guest Professorship, University of Gothenburg, Sweden
2009	Georgia Tech Faculty Woman of Distinction Award
2009	Georgia Tech College of Sciences Faculty Mentor Award
2007	Hesburgh Teaching Fellow (Georgia Tech)
2005	Blanchard Assistant Professorship (Georgia Tech)
2004	PECASE (Presidential Early Career Award for Scientists and Engineers)
2002	National Science Foundation (NSF) CAREER award
2000	Life Sciences Research Foundation (LSRF) postdoctoral award
2000	NIH National Research Service Award (NRSA) (declined by me to accept LSRF)

[CoS note: We have placed an ellipsis (...) where information has been redacted in an effort to save space as this CV is for demonstration purposes. If you have a question on how to list an item, please reach out to us.]

# IV. Research, Scholarship, and Creative Activities

\* next to item number indicates work done at Georgia Tech

[CoS note: It is best to create a legend of symbols to define your work done with students and postdocs that you add in the listing of scholarship. The Institute requests student names be in **boldface** too, which we have done in the sections below as well as add the corresponding symbol.]

Google Scholar profile at <a href="http://scholar.google.com/citations?user=AxeeT2wAAAAJ&hl=en">http://scholar.google.com/citations?user=AxeeT2wAAAAJ&hl=en</a> NIH NCBI My Bibliography at

https://www.ncbi.nlm.nih.gov/sites/myncbi/julia.kubanek.1/bibliography/45519846/public/?sort=date&direction=descending

H index = 36; 3650 citations since 1991

ORCID identifier: orcid.org/0000-0003-4482-1831

[CoS note: We recommend you set up a google scholar profile and add this link in this section of your CV.]

# A. Published Books, Book Chapters, and Edited Volumes

#### A1. Books

No data

# **A2. Refereed Book Chapters**

- 4. Pavia H, Baumgartner F, Cervin G, Enge S, Kubanek J, Nylunch GM, Selander E, Svensson JR, Toth GB (2012) Chemical defences against herbivores. In: <u>Chemical Ecology in Aquatic Systems</u>, Bronmark C, Hansson LA, Eds., Oxford University Press, Oxford UK. [*Invited book chapter*.]
- 3\*. **Stout EP**<sup>G</sup>, Kubanek J\* (2010) Marine macroalgal natural products. In: <u>Comprehensive Natural</u>

  <u>Products II: Chemistry and Biology</u>. Mander L, Lui HW, eds. Elsevier, Oxford, Vol. 2, 41-65.

  [Invited review written by Kubanek and her PhD student Paige Stout, published in peer-reviewed book]
- 2\*. Kubanek J\*, Snell TW (2008) Quorum sensing in rotifers. In <u>Chemical Communication Among</u>
  <u>Bacteria</u> Winans SC, Bassler BL (Eds.), ASM Press, Washington DC,.453-461.

  [Invited review written by Kubanek and Snell published in peer-reviewed book]
- 1\*. Lane AL<sup>G</sup>, Kubanek J\* (2008) Secondary metabolite defenses against pathogens and biofoulers. In <u>Algal Chemical Ecology</u>, Amsler CD (Ed.), Springer-Verlag, Berlin, 229-243. [Invited review written by Kubanek and her PhD student Amy Lane published in peer-reviewed book]

## A3. Edited Volumes

No data

# **B. Refereed Publications and Submitted Articles**

# **B1. Published and Accepted Journal Articles**

[CoS note: List all authors, putting them in the order in which they are found in the publication. If, in your discipline, authorship order does not bear any relationship to who led the work, then make a brief note at the top of this section regarding the convention of your discipline, e.g., point out if alphabetical order of authorship is used.

PD indicates Kubanek group postdoc author

<sup>&</sup>lt;sup>G</sup> indicates Kubanek group graduate student author

<sup>&</sup>lt;sup>UG</sup> indicates Kubanek group undergraduate author

<sup>\*</sup> indicates corresponding authorship

<u>Please add contextual information</u>, as we show below, to further explain the roles of the authors, which is especially valuable if you're publishing with former advisors and senior members of your field. For papers related to your grad and postdoc research, it's important to be clear, see #10 and #9. For papers initiated while a postdoc but finished at GT, it's important to make clear everyone's contribution. If a former advisor is included as co-author primarily due to material contribution, indicate this.]

- 94\*. Poulin RX<sup>G</sup>, Lavoie S<sup>PD</sup>, Siegel K<sup>UG</sup>, Gaul D, Weissburg M, Kubanek J\* (2018) Chemical encoding of risk perception and predator detection among estuarine invertebrates. Proceedings of the National Academy of Sciences. 115:662-667; doi:10.1073/pnas.1713901115

  [Kubanek lab research in collaboration with Marc Weissburg (Georgia Tech; animal behavior). Press coverage: New York Times Science Trilobites

  https://mobile.nytimes.com/2018/01/08/science/blue-crabs-urine-mud-crabs.html?referer=https://www.google.com/ and Chemical & Engineering News

  https://cen.acs.org/articles/96/i4/crabs-avoid-being-eaten.html and Georgia Tech's Research Horizons http://www.rh.gatech.edu/news/600559/hide-or-get-eaten-urine-chemicals-tell-mud-crabs and Spektrum der Wissenschaft http://www.spektrum.de/news/urinspur-verraet-jagende-krabben/1530767 and Science 360 https://news.science360.gov/archives/20180111 as well as several regional and local news outlets]
- 93\*. **Poulin RX**<sup>G</sup>, **Poulson-Ellestad KL**<sup>G</sup>, **Roy J**<sup>G</sup>, Kubanek J\* (2018) Variable allelopathy among phytoplankton reflected in red tide metabolome. **Harmful Algae** 71:50-56. doi.org/10.1016/j.hal.2017.12.002 [Kubanek lab research.]
- 92.\* Mojib, N<sup>PD</sup>, Xu Jin, **Bartolek Z**<sup>UG</sup>, Imhoff B, McCarty N, Shin C, Kubanek J\* (2017) Zebrafish aversive taste co-receptor is expressed in both chemo- and mechanosensory cells and plays a role in lateral line development. **Nature Scientific Reports** 7:13475.

  [Kubanek group research in collaboration with Nael McCarty (Emory; molecular pharmacology); Chong Shin (Georgia Tech; zebrafish development).]
- 91\*. Topaz N, Mojib N<sup>PD</sup>, Kubanek J, Jordan IK. RampDB: a web application and database for the exploration and prediction of receptor activity modifying protein interactions (2017) Manuscript accepted by **DATABASE The Journal of Biological Databases and Curation.**[Collaborative research with K. Jordan and his student on joint NSF project. Kubanek and her postdoc Nazia Mojib provided insights about molecular basis for chemoreception in database construction.]
- 90\*. Lavoie S<sup>PD</sup>, **Brumley D**<sup>UG</sup>, **Alexander TS**<sup>G</sup>, **Jasmin C**<sup>UG</sup>, **Carranza FA**<sup>UG</sup>, Nelson K, Quave CL, Kubanek J\* (2017) Iodinated meroditerpenes from a red alga *Callophycus* sp. **Journal of Organic** <u>Chemistry</u> 82:4160-4169 doi: 10.1021/acs.joc.7b00096
- [Kubanek group research; Cassandra Quave at Emory contributed synergistic antibiotic assay] 89\*. Weissburg M, Poulin RX<sup>G</sup>, Kubanek J (2016) You are what you eat: a metabolomics approach to understanding prey responses to diet-dependent chemical cues released by predators. <u>Journal of Chemical Ecology</u>. 42:1037-1046. DOI:10.1007/s10886-016-0771-2
  - [Collaborative research with M. Weissburg, with Kubanek and her student Remington Poulin contributing metabolomics data, analysis, interpretation, and manuscript editing]
- 88\*. **Schwartz ER**<sup>G</sup>, **Poulin RX**<sup>G</sup>, Mojib N<sup>PD</sup>, Kubanek J\* (2016) Chemical ecology of the marine plankton. **Natural Product Reports** 33:843-860. DOI: 10.1039/C6NP00015K. [Bi-annual invited, peer-reviewed review written by Kubanek and her group members.]
- 87\*. Rasher DB, **Stout EP**<sup>G</sup>, Engel S, Shearer TL, Kubanek J, Hay ME (2015) Marine and terrestrial herbivores display convergent chemical ecology despite 400 million years of independent evolution. **Proceedings of the National Academy of Sciences** 112:12110-12115. doi:10.1073/pnas.1508133112

[Kubanek and her student Paige Stout collaborated with Hay lab on identification of chemical cues, data analysis, and manuscript preparation. Story featured in Chemical & Engineering News <a href="http://cen.acs.org/articles/93/web/2015/08/Marine-Slug-Steals-Preys-Chemical.html">http://cen.acs.org/articles/93/i37/Chemical-Communication-Under-Sea.html</a>]

- 86\*. Lunceford BE<sup>G</sup>, Kubanek J\* (2015) Reception of aversive taste. <u>Integrative and Comparative</u>
  <u>Biology</u> 55:507-517. doi: 10.1093/icb/icv058
  [Peer-reviewed invited review written by Kubanek's student Blair Lunceford and Kubanek, in
  - special issue "Chemicals that organize ecology: towards a greater integration of chemoreception, neuroscience, organismal biology, and chemical ecology".]
- 85\*. Selander E, Kubanek J, Hamberg M, Andersson MX, Cervin G, Pavia H (2015) Predator lipids induce paralytic shellfish toxins in bloom-forming algae. Proceedings of the National Academy of Sciences 112:6395-6400 (doi:10.1073/pnas.1420154112)

  [Kubanek collaborated with University of Gothenburg scientists on experimental design, data collection, data analysis and interpretation, and manuscript preparation. Story featured in Chemical & Engineering News "Science & Technology Concentrates", May 18, 2015, p.29 and Story featured in Chemical & Engineering News <a href="https://cen.acs.org/articles/93/i37/Chemical-Communication-Under-Sea.html">http://cen.acs.org/articles/93/i37/Chemical-Communication-Under-Sea.html</a>]
- 84\*. **Poulson-Ellestad KL**<sup>G</sup>, **Jones CM, Roy J**<sup>G</sup>, Viant MR, Fernandez FM, Kubanek J\*, Nunn BL\* (2014) Metabolomics and proteomics reveal impacts of chemically mediated competition on marine plankton. **Proceedings of the National Academy of Sciences** 111:9009-9014. doi: 10.1073/pnas.1402130111 [Kubanek group research in collaboration with Facundo Fernandez (mass spectrometry metabolomics) at GT, Brook Nunn (proteomics) at U. Washington, Mark Viant (metabolomics) at U. Birmingham.]
- 83\*. **Poulson-Ellestad K**<sup>G</sup>, **McMillan E**<sup>UG</sup>, Montoya J, Kubanek J\* (2014) Are offshore phytoplankton susceptible to *Karenia brevis* allelopathy? **Journal of Plankton Research** 36:1344-1356. doi: 10.1093/plankt/fbu064
  - [Kubanek group research in collaboration with Joe Montoya whose group ran nutrient analyses.]
- 82\*. Penczykowski RM, Lemanski BCP, **Sieg RD**<sup>G</sup>, Hall SR, Housley Ochs J, Kubanek J, Duffy MA (2014) Poor resource quality lowers transmission potential by changing foraging behaviour.

  <u>Functional Ecology</u> 28:1245-1255. DOI: 10.1111/1365-2435.12238

  [Research led by collaborator Meghan Duffy; Kubanek lab assisted REU student and Duffy group with chemical analyses.]
- 81\*. Srinivasan B, Zhou H, Kubanek J, Skolnick J (2014) Experimental validation of FINDSITEcomb virtual ligand screening results for eight proteins yields novel nanomolar and picomolar binders.

  <u>Journal of Cheminformatics</u> 6:16. doi: 10.1186/1758-2946-6-16

  [Research led by Skolnick group with postdoc Srinivasan collaborating with Kubanek who assisted with experimental design, data interpretation, and manuscript preparation.]
- 80\*. Kamio M, Schmidt M, Germann MW, Kubanek J, Derby CD (2014) The smell of moulting: *N*-acetylglucosamino-1,5-lactone is a premoult biomarker and candidate component of the courtship pheromone in the urine of the blue crab, *Callinectes sapidus*. **Journal of Experimental Biology** 217:1286-1296. doi: 10.1242/jeb.099051 [Kubanek collaborated with Chuck Derby's group at Georgia State Univ. on bioassay-guided
  - [Kubanek collaborated with Chuck Derby's group at Georgia State Univ. on bioassay-guided fractionation and structure elucidation of blue crab pheromones.]
- 79\*. Teasdale ME<sup>PD</sup>, Prudhomme J, Torres M, Braley M, Cervantes S, **Bhatia SC**<sup>UG</sup>, La Clair JJ, Le Roch K\*, Kubanek J\* (2013) Pharmacokinetics, metabolism, and *in vivo* efficacy of the antimalarial natural product bromophycolide A. <u>ACS Medicinal Chemistry Letters</u> 4:989-993. [Kubanek group research in collaboration with Karine Le Roch (malaria expert) at UC-Riverside and Jim La Clair (synthetic chemist) at Xenobe Research Institute.]

- 78\*. **Snare DJ**<sup>G</sup>, Fields AM, Snell TW, Kubanek J\* (2013) Lifespan extension of rotifers by treatment with red algal extracts. **Experimental Gerontology** 48:1420-1427. DOI:10.1016/j.exger.2013.09.007

  [Kubanek group research in collaboration with Snell group who pioneered life extension model.]
- 77\*. **Roy J**<sup>G</sup>, **Poulson-Ellestad K**<sup>G</sup>, **Sieg RD**<sup>G</sup>, **Poulin R**<sup>G</sup>, Kubanek J\* (2013) Chemical ecology of the marine plankton. <u>Natural Product Reports</u> 30:1364-1379. DOI: 10.1039/C3NP70056A. [Bi-annual invited, peer-reviewed review written by Kubanek and her group members. One of 11 articles selected as "Editors' Choice for 2013".]
- 76\*. **Sieg RD**<sup>G</sup>, **Wolfe K**<sup>UG</sup>, **Willey D**<sup>UG</sup>, Kubanek J\* (2013) Multiple chemical defenses produced by *Spartina alterniflora* deter farming snails and their fungal crop. **Marine Ecology Progress Series** 488:35-49. doi: 10.3354/meps10415

  [Kubanek group research]
- 75\*. Sieg RD<sup>G</sup>, Wolfe K<sup>UG</sup>, Willey D<sup>UG</sup>, Ortiz-Santiago V<sup>UG</sup>, Kubanek J\* (2013) Chemical defenses against herbivores and fungi limit establishment of fungal farms on salt marsh angiosperms.

  <u>Journal of Experimental Marine Biology & Ecology</u> 446:122-130. DOI 10.1016/j.jembe.2013.05.007

  [Kubanek group research]
- 74\*. **Sieg RD**<sup>G</sup>, Kubanek J\* (2013) Chemical ecology of marine angiosperms: opportunities at the interface of marine and terrestrial systems. **Journal of Chemical Ecology** 39:687-711. DOI 10.1007/s10886-013-0297-9

  [Review by Kubanek & her student]
- 73\*. Andras TD, **Alexander TS**<sup>G</sup>, Gahlena A, Parry RM, Fernandez FM, Kubanek J, Wang MD, Hay ME (2012) Seaweed allelopathy against coral: surface distribution of seaweed secondary metabolites by imaging mass spectrometry. **Journal of Chemical Ecology** 38:1203-1214. DOI 10.1007/s10886-012-0204-9

  [Research led by Hay group; Kubanek and Kubanek's student Troy Alexander collaborated on compound identification and interpretation of imaging data.]
- 72\*. Dove ADM, Leisen J, Zhou M, Byrne J, **Lim-Hing K**<sup>UG</sup>, Webb H, Gelbaum L, Viant M, Kubanek J, Fernandez FF (2012) Biomarkers of whale shark health a metabolomic approach. <u>PLoS ONE</u> 7(11)e49379. doi:10.1371/journal.pone.0049379

  [Research conceived of by Dove at the Georgia Aquarium, with all others performing metabolomics analyses of whale shark blood samples by NMR (Kubanek, Gelbaum, Leisen, Viant, Byrne) or MS (Fernandez, Zhou).]
- 71\*. Teasdale ME<sup>PD</sup>, Shearer TL, Engel S, **Alexander TS**<sup>G</sup>, Fairchild CR, Le Roch K, Prudhomme J, Aalbersberg W, Hay ME, Kubanek J\* (2012) Bromophycoic acids: bioactive natural products from a Fijian red alga *Callophycus* sp. **Journal of Organic Chemistry** 77:8000-8006 DOI: 10.1021/jo301246x. [Research initiated and led by Kubanek group in collaboration with Hay, Fairchild (Bristol-Myers Squibb), Le Roch (UC-Riverside), and Aalbersberg (Fiji). Manuscript written by Kubanek's postdoc Teasdale.]
- 70\*. Cervantes S, **Stout EP**<sup>G</sup>, Prudhomme J, Engel S, Bruton M, Cervantes M, Carter D, Tae-Chang Y, Hay ME, Aalbersberg W, Kubanek J, Le Roch K (2012) High content live cell imaging for the discovery of new antimalarial marine natural products. **BMC Infectious Diseases** 12:1. doi: 10.1186/1471-2334-12-1 [Research led by Le Roch group at UC-Riverside (malaria parasitology). Kubanek group
- collaborated on discovery of new natural products and extract library.]

  69\*. Rasher DB, **Stout EP**<sup>G</sup>, Engel S, Kubanek J, Hay ME (2011) Macroalgal terpenes function as allelogathic agents against reef corels. **Proceedings of the National Academy of Sciences**
- allelopathic agents against reef corals. **Proceedings of the National Academy of Sciences** 108:17726-17731 (DOI: 10.1073/pnas.1108628108)

- [Research designed and performed by the Hay group. Kubanek and her student Stout collaborated on natural product purification, structure determination, and compound quantification. Highlighted on Georgia Tech homepage, National Geographic, Time Magazine, Science NOW/Wired.]
- 68\*. Redshaw CH<sup>PD</sup>, **Sutter DA**<sup>UG</sup>, **Lim-Hing K**<sup>UG</sup>, Heckman ML, Jakobsson SL, Naar J, Kubanek J\* (2011) Tracking losses of brevetoxins on exposure to phytoplankton competitors: Ecological impacts. <u>Harmful Algae</u> 12:119-124 DOI: 10.1016/j.hal.2011.09.007. [Research conducted and manuscript written by Kubanek group; Naar (UNC) collaborated on toxin analysis.]
- 67\*. Zhang JL, Kubanek J, Hay ME, Aalbersberg W, Ye WC, Jiang RW<sup>PD</sup> (2011) Rapid identification of triterpenoid sulfates and hydroxy fatty acids including two new constituents from *Tydemania expeditionis* by liquid chromatography-mass spectrometry. **Journal of Mass Spectrometry** 46:908-916. DOI: 10.1002/jms.1969
  [Research initiated in Kubanek's lab while Jiang was postdoc there, and continued by Jiang and his student in his new faculty position at Jinan University. Hay & Aalbersberg correlated on collections of marine organisms.]
- 66\*. **Stout EP**<sup>G</sup>, Cervantes S, Prudhomme J, France S, La Clair JJ, Le Roch K\*, Kubanek J\* (2011) Bromophycolide A targets heme crystallization in the human malaria parasite *Plasmodium falciparum*. **ChemMedChem** 6:572-577. DOI: 10.1002/cmdc.201100252 [Research led and performed by Kubanek group in collaboration with Le Roch at UC-Riverside (antimalarial target and activity), La Clair at Xenobe Res Inst (molecular probe design and target identification), France at Georgia Tech (synthesis of analogs)].
- 65\*. **Sieg RD**<sup>G</sup>, **Poulson-Ellestad KL**<sup>G</sup>, Kubanek J\* (2011) Chemical ecology of the marine plankton.

  Natural Product Reports 28:388-399. DOI: 10.1039/C0NP00051E

  [Bi-annual invited, peer-reviewed review written by Kubanek and her group members.]
- 64\*. **Stout EP**<sup>G</sup>, La Clair JJ, Snell TW, Shearer TL, Kubanek J\* (2010) Conservation of progesterone hormone function in invertebrate reproduction. **Proceedings of the National Academy of**

Sciences 107:11859-11864; DOI: 10.1073/pnas.1006074107 [Experiments conducted and manuscript written by Kubanek's student Stout, in collaboration with Jim La Clair (Xenobe Research Institute) and Terry Snell, as part of a project initiated and managed by Snell. Kubanek advised Stout on experimental design, data analysis, and edited the manuscript. Highlighted on Georgia Tech's home page and in Spotlight feature in ACS Chemical Biology.]

- 63\*. Cohen SP, Vincent KK, Halstead-Nussloch GE, Hatt H, Kubanek J, McCarty NA (2010) RL-TGR, a co-receptor involved in aversive chemical signaling. Proceedings of the National Academy of Sciences 107:12339-12344; DOI:10.1073/pnas.1000343107
  [Research conducted by Cohen, co-advised by Kubanek and in collaboration with Nael McCarty (Emory); Kubanek played substantial role in project conception, funding, experimental design, and manuscript preparation although almost all experimental work was done in McCarty lab]
- 10. Kubanek J\*, Fenical W, Hay ME, Brown PJ, Lindquist N (2000) Two new antifeedant lignans from the freshwater macrophyte *Saururus cernuus*. **Phytochemistry** 54:281-287 [Kubanek's postdoc research in Fenical's group in collaboration with Hay group]
- 9. Kubanek J, Faulkner DJ, Andersen RJ (2000) Geographic variation and tissue distribution of endogenous terpenoids in the Northeastern Pacific Ocean dorid nudibranch *Cadlina luteomarginata*.: implications for the regulation of *de novo* biosynthesis. **Journal of Chemical Ecology** 26:377-389

[Kubanek's PhD dissertation research]

•••

Naar J, Kubanek J, Weidner A, Flewelling L, Bourdelais AJ, Steidinger, K, Baden DG (2004)
 Brevetoxin depuration in shellfish via production of non-toxic metabolites: Consequences for
 seafood safety and the environmental fate of biotoxins. In: Steidinger KA, Landsberg JH, Tomas
 CR, Vargo GA (eds). <u>Harmful Algae 2002: Proceedings of the Xth International Conference</u>
 pp 488-490

[Kubanek's collaborative postdoc research in Baden's group – published in peer-reviewed conference proceedings book]

 Bourdelais AJ, Campbell S, Benson J, Abraham WM, Naar J, Kubanek J, Wright JLC, Jacocks H, Baden DG (2004) Florida's red tide dinoflagellate *Karenia brevis* may modulate its potency by producing a non-toxic competitive antagonist. In: Steidinger KA, Landsberg JH, Tomas CR, Vargo GA (eds). <u>Harmful Algae 2002: Proceedings of the Xth International Conference</u> pp 113-115

[Kubanek's collaborative postdoc research in Baden's group – published in peer-reviewed conference proceedings book]

## **B3. Other Refereed Material**

No data

# **B4. Submitted Journal Articles** (with date of submission)

**Poulin RX**<sup>G</sup>, Hogan S, **Poulson-Ellestad KL**<sup>G</sup>, **Brown E**<sup>G</sup>, Fernandez FM, Kubanek J\*. *Karenia brevis* allelopathy compromises the lipidome, membrane integrity, and photosynthesis of competitors. Revised manuscript submitted February 16, 2018 to **Nature Scientific Reports**.

**Chhetri BK**<sup>G</sup>, Lavoie S<sup>PD</sup>, **Sweeney-Jones AM**<sup>G</sup>, Kubanek J\*. Recent trends in the structure revision of natural products. Manuscript submitted February 1, 2018 to <u>Natural Product Reports</u>.

Kubanek J\*, Leal W, Meinwald J. Molecules as biotic messengers. Invited perspective submitted February 13, 2018 to <u>ACS Omega</u>.

## **B5.** Manuscripts in Preparation

Compounds against the wasting disease pathogen *Labyrinthula zosterae* in the eelgrass *Zostera marina*. Manuscript in preparation for **Aquatic Botany**.

[CoS note: Especially when it comes to Critical Review, it is useful to show manuscripts that are in preparation. Consider creating this additional subsection – B5.]

## C. Other Publications and Creative Products

- 5. Appendino G, Bronstrup M, Kubanek JM (2017) Olfaction, taste and chemoreception: scientific evidence replaces "Essays in biopoetry". **Natural Product Reports** 34:469-471.
- 4. Kubanek J (2014) There's something in the water: the future of marine chemical ecology. **Journal of Chemical Ecology** 40:218-219. doi: 10.1007/s10886-014-0394-4
- 3. Kubanek J (2011) Review of *Marine Ecology: Concepts and Applications*. **Journal of Natural Products** 74:1674.
- 2. Kubanek J (2003) Chemical defense in invertebrates. In <u>Encyclopedia of Life Support Systems</u>, Section: Chemical Ecology, edited by JD Hardege, developed under the auspices of UNESCO, EOLSS Publishers, Oxford UK <a href="http://www.eolss.net">http://www.eolss.net</a>
- 1. Kubanek J (1998) Chemical studies on the origin of secondary metabolites in selected marine invertebrates. Ph.D. dissertation, **University of British Columbia**.

#### **D. Presentations**

# Upcoming invited presentations:

Kubanek J (August 2018) **US-China Summit on Marine Biotechnology**, San Diego CA, USA [Invited plenary speaker]

# Invited presentations at conferences:

- Kubanek J (2018) Current challenges in marine chemical ecology research: what happens once natural products leave the organism that made them. **Gordon Research Conference on Marine Natural Products**, Ventura CA, USA. [Invited speaker]
- Kubanek J (2017) Marine natural products as inspiration for antibiotic discovery. **Antibiotics: discovery, resistance and alternatives,** Georgia Institute of Technology, Atlanta GA, USA. [Invited speaker]
- Kubanek J (2017) Metabolomic approaches for understanding the ecological impacts of natural products in marine systems. **American Society for Pharmacognosy**, Portland OR, USA. [Invited plenary lecturer]
- Kubanek J (2017) Metabolomic approaches reveal impacts of chemical cues on competitors and prey. **Message in a Bottle Workshop**, Eilat Israel. [Invited speaker]
- Kubanek J (2016) Designing a scientific career for the 21st century: lead with your brain, follow your heart. Mentoring lecture, 2016 Marine Microbes Gordon Research Seminar and invited discussion leader, 2016 Marine Microbes Gordon Research Conference, Girona, Spain.
- Lunceford B and Kubanek J (2015) Aversive chemoreception in predatory fish. **Annual Meeting of the Society for Integrative and Comparative Biology**, West Palm Beach, Florida, USA [Kubanek's student Blair Lunceford gave invited talk on Kubanek's behalf].

Kubanek, J (2003) Seaweed resistance to microbial attack: A targeted chemical defense against marine fungi. U.S.-Japan Symposium on Marine Bioorganic Chemistry, Osaka, Japan. [This meeting included ~50 scientists chosen from the U.S. and Japan to share results and discuss the future of marine natural products chemistry.]

Kubanek, J (2000) Discussion Leader. **Gordon Research Conference on Marine Natural Products**, Ventura, California.

# Invited presentations at universities & institutes:

- Kubanek J (2018) Metabolomic approaches for understanding the ecological impacts of chemical cues in marine systems. Scripps Institution of Oceanography, University of California San Diego, Marine Biology Seminar Series.
- Kubanek J (2018) Metabolomic approaches for understanding environmental impacts of chemical cues. **University of Minnesota**, Biotechnology Institute Seminar Series.
- Kubanek J (2018) Ecological impacts of chemical cues in marine systems. **University of Michigan**, Department of Ecology, Evolution and Behavior.
- Kubanek J (2016) Chemical signaling in the ocean: From microbes to food webs to drug discovery, **Davidson College,** Department of Chemistry, Davidson NC.
- Kubanek J (2015) Drugs from coral reefs. **Georgia Institute of Technology,** College of Sciences Advisory Board Meeting, Atlanta GA.
- Kubanek J (2014) Metabolomics and proteomics reveal impacts of competition in the open ocean. **Georgia Institute of Technology,** Symposium on Systems-Scale Metabolism, Atlanta GA.

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# **Contributed presentations at conferences:**

- Poulin RX, Lavoie S, Siegel KJ, Weissburg M, Kubanek J (2017) Understanding the chemical basis for predator detection and avoidance in marine invertebrates. Oral presentation by R.X. Poulin, **Annual Meeting of the American Society of Limnology & Oceanography**, Honolulu HI.
- Poulin RX, Weissburg M, Kubanek J (2016) 1H NMR-based metabolomics reveals chemical basis for predator sensing by marine invertebrates. Oral presentation by R.X. Poulin, **Gordon Research Seminar on Marine Natural Products** and poster presentation by R.X. Poulin, **Gordon Research Conference on Marine Natural Products**, Ventura CA.
- Mojib N, Kubanek J (2016) Comparative transcriptomics reveals key differences in the G protein-coupled receptor-based chemical signaling among unicellular marine eukaryotes. Poster presentation by N. Mojib, Gordon Research Conference on Marine Natural Products, Ventura CA.
- Lavoie S. Brumley D, Alexander T, Kubanek J (2016) Diiodocallophycoic acid from a Fijian red alga with anti-MRSA activity. Poster presentation by S. Lavoie, **Gordon Research Conference on Marine Natural Products**, Ventura CA.
- Poulin RX, Martin K. Weissburg M, Fernandez F, McDonald J, Kubanek J (2016) Identification of a biological fear cue in blue crab urine via 1H NMR-based metabolomics. Poster presentation by K. Martin, **Pittcon Conference and Expo**, Atlanta GA.
- Poulin RX, Weissburg M, Kubanek J (2015) Chemical components of urine mediate predator-prey interactions. Oral presentation by R.X. Poulin, **Annual Meeting of the International Society of Chemical Ecology**, Stockholm, Sweden.
- Kubanek J, Selander E, Cervin G, Pavia H, Andersson MX, Hamberg M (2015) The chemistry of induced resistance in marine plankton: Tackling the challenges of identifying waterborne cues. Poster presentation by J. Kubanek, **Annual Meeting of the International Society of Chemical Ecology**, Stockholm, Sweden.

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# E. Grants and Contracts E1. As Principal Investigator

[CoS note: We set up a borderless table with all <u>required elements</u> listed in this section. You can keep the borders on or remove them, as we did, but make sure to populate the following fields to all applicable subsections of E.]

#### Currently funded:

Title: "Chemical analysis of unique edible organisms to enable discovery of new

natural ingredients"

Agency: The Coca Cola Company

Total Amount: \$221,130

Role: PI

Collaborators: Co-PI Facundo Fernandez at GT

Contract Period: 09/01/2017-12/31/2018

Candidate's Share: \$110,565

Title: "Collaborative research: Chemoreception of prey chemical defenses"

Agency: NSF IOS-1354837

Total Amount: \$604,893 to GT (similar budget also awarded to Emory on this collaborative

grant)

Role: PI

Collaborators: co-PIs King Jordan and Chong Shin at GT and PI Nael McCarty at Emory

Contract Period: 08/01/2014-7/31/2018

Candidate's Share: 75%

Title: "Exploration, conservation, and development of marine biodiversity in Fiji and

the Solomon Islands"

Agency: NIH ICBG U19 TW007401

Total Amount: \$4,950,387 Role: 1 of 3 PIs

Collaborators: Project Director Mark Hay; other PIs Paul Jensen (UCSD), Katy Soapi

(University of the South Pacific), Danielle Dixson (University of Delaware).

Contract Period: 09/01/2014-08/31/2019 Candidate's Share: \$750,000 direct costs

Previous funding:

Title: "2016 Marine Natural Products GRC/GRS"
Agency: NIH R13 1R13AT009147 Conference Grant

Total Amount: \$20,200 funded to Gordon Research Conferences with GRC chair Kubanek

Role: PI

Collaborators: Co-PI Katherine Duncan, GRS chair

Contract Period: 2016 Candidate's Share: 100%

Title: "Waterborne chemical cues in the marine plankton: a systems biology

approach"

Agency: NSF OCE-1060300

Total Amount: \$545.870

Role: PI

Collaborators: co-PIs Facundo Fernandez (GT) & Brook Nunn (University of Washington)

Contract Period: 2011-2015

Candidate's Share: 60%

... [CoS note: The ellipsis (...) here and throughout this example are only to show that information has been redacted for space-saving purposes.]

# E2. As Co-Principal Investigator

**Currently funded:** 

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## Previous funding:

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## E3. As Senior Personnel or Contributor

No data

# **E4. Pending Proposals**

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## E5. Proposals Submitted but not Funded (last 2 years)

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# F. Other Scholarly and Creative Accomplishments

- U.S. Provisional Patent Application US 62/023,390 filed July 11, 2014 by Georgia Tech: "Predator cues induce paralytic shellfish toxins in bloom-forming algae"
  - [Discovery of novel lipids from marine zooplankton that cause increased production of valuable paralytic toxins by Kubanek in collaboration with University of Gothenburg scientists since 2010]
- U.S. Patent Application serial number 13/021,171 filed February 4, 2011 by Georgia Tech and University of California Riverside and issued July 9, 2013 (U.S. Patent #8,481,757): "Compounds and compositions useful in the treatment of malaria".
  - [Discovery of novel antimalarial natural products by Kubanek & Hay groups as a result of NIH-ICBG project on drug discovery from coral reef organisms in Fiji]
- U.S. Provisional Patent Application filed February 12, 2009 and February 5, 2010 by Georgia Tech (serial #61/151,952): "Antimalarial activity of bromophycolide natural products" [Discovery of novel antimalarial natural products by Kubanek & Hay groups as a result of NIH-ICBG project on drug discovery from coral reef organisms in Fiji]
- U.S. Provisional Patent Application filed November 12, 2008 and December 1, 2009 by Georgia Tech (serial # 61/113,732): "Antibacterial neurymenolides from the Fijian red alga *Neurymenia fraxinifolia*"

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# G. Societal and Policy Impacts

No data

## **H.** Other Professional Activities

2010-2013 Waernska Guest Professor, University of Gothenburg, Sweden

(Professional leave from Georgia Tech March-July 2010; additional research visits to University of Gothenburg during summers 2012, 2013, 2014)

## V. Education

# **A.** Courses Taught [The Institute asks candidates to include the last 6 years, but pre-tenure candidates should list all courses, even if more than 6 years at GT.]

Fall 2016	BIOL/CHEM 6756 BIOL 4746 Signaling Molecules	22 students
Spring 2016	BIOL 8106 Tools of Science (co-taught)	20 students
Spring 2015	BIOL 8106 Tools of Science (co-taught)	26 students
Spring 2014	BIOL 4450 Senior Seminar	15 students
Fall 2013	CHEM 1315 Survey of Organic Chemistry	197 students
Spring 2013	BIOL 4450 Senior Seminar	12 students
Fall 2012	BIOL/CHEM 6756 BIOL 4746 Signaling Molecules	21 students
Fall 2012	BIOL 8801 Special Topics: Readings in Signaling Molecules	9 students
Spring 2012	BIOL 4450 Senior Seminar	14 students
Fall 2011	CHEM 1315 Survey of Organic Chemistry	142 students

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[CoS Note: State if courses are co-taught and/or if you created a course from scratch. No CIOS scores

should be included here. You need to check that your listing of classes in this section matches what the School pulls in the CIOS table. This information should align.]

# **B.** Individual Student Guidance

#### **B1. PhD Students**

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10. Bhuwan Khatri Chhetri Ph.D. student (Georgia Tech Chemistry, fall 2016-present)

Winner of GT Grad Symposium Best Poster Award, 2018; winner of best student poster award at the Gordon Research Conference on Marine Natural Products, 2018;

9. Anne Marie Sweeney-Jones Ph.D. student (Georgia Tech Chemistry, fall 2015-present)

Advanced to candidacy, summer 2017

8. Emily Schwartz Brown Ph.D. student (Georgia Tech Biology, fall 2015-present)

NSF Graduate Fellow, 2017-2020

7. Remington Poulin Ph.D. student (Georgia Tech Chemistry, graduated 2017)

Thesis title: "Waves of communication: Metabolomics describe the nature and role of waterborne cues in the marine environment"

GAANN Fellow, 2013-2014

School of Chemistry & Biochemistry Outstanding Graduate Teaching Assistant Award (2013) Georgia Tech CETL/BP Outstanding TA award finalist (2013)

International Society of Chemical Ecology Conference (2015) Best Student Oral Presentation Award

Currently postdoctoral researcher at Max Planck Institute for Chemical Ecology and Friedrich Schiller University of Jena, Germany

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5. Robert Drew Sieg Ph.D. student (Georgia Tech Biology, graduated 2013)

Thesis title: "Chemically mediated interactions in salt marshes: Mechanisms that plant communities use to deter closely associated herbivores and pathogens"

NSF IGERT fellow 2007-2008

Biology GAANN fellow 2010-2012

ASLO Best Student Poster Award 2011

Currently tenure-track Assistant Professor at Young Harris College, GA

4. Elizabeth Paige Stout Ph.D. student (Georgia Tech Chemistry, graduated 2010)

Thesis title: "Discovery and synthesis of bioactive natural probes from marine systems"

GAANN Drug Discovery fellow 2006-7 and 2008-9

NSF STEP teaching fellow 2007-2008

Invited to give mini-oral presentation at Gordon Conference on Marine Natural Products, Feb 2008

Georgia Tech Chemistry Graduate Research Symposium prize winner: 2<sup>nd</sup> place (among 5 nominated speakers from a student population of >200)

Invited to give full oral presentation at Gordon Conference on Marine Natural Products, 3/2010

Nominee, School of Chemistry & Biochemistry, Sigma Xi Best Thesis Award, 2011

NIH-NRSA postdoctoral fellow at the University of California – San Diego with Ted Molinski (2010-2014)

Currently scientist at Sirenas Marine Discovery, San Diego CA

3. Staci Padove Cohen PhD. student co-advised by me; primary advisor N. McCarty (Georgia Tech Biology, graduated 2009)

Thesis title: "Functional identification and initial characterization of a fish co-receptor involved in aversive signaling"

NSF-IGERT fellow 2004-2008

Award for Best Student Poster, Georgia Tech Biology retreat 2004

Currently scientist at Parion Sciences

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[Cos Note: It's important to highlight awards and recognitions received by your students, and their current position if they've graduated. If your student published papers related to their dissertation without you as an author, you should consider providing brief citations of those papers here, which are a credit to your mentorship. Also, make it clear if you are the co-advisor, as in #3 above.]

## **B2. M.S. students**

9. Troy Alexander M.S. non-thesis (Georgia Tech Chemistry, 2010-2015) Winner, Best 2<sup>nd</sup> Year Graduate Student Oral presentation, 2011

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7. David Snare M.S. with thesis (Georgia Tech Chemistry, graduated 2013)

Thesis title: "Mechanistic evaluation of red algal extracts that slow aging"

GAANN Drug Discovery fellow 2011-2012

6. Jessie Roy M.S. non-thesis (Georgia Tech Biology, graduated 2013)

Georgia Tech Presidential Fellow 2011-2013

5. Melanie Heckman M.S. with thesis co-advised by me; primary advisor M. Hay (Georgia Tech Biology, graduated 2011)

Thesis title: "A test of optimal defense theory vs. the growth-differentiation balance hypothesis as predictors of seaweed palatability and defenses"

Georgia Tech Presidential Fellow 2008-2011

Currently working as educational specialist for the Wylde Nature Center, Decatur GA

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1. Anne Prusak M.S. with thesis (Georgia Tech Biology, graduated 2004)

Thesis title: "Activated and Constitutive Chemical Defenses in Freshwater Plants"

NSF-IGERT fellow 2002-2003

Currently working as Associate Consultant at Environ International Corp (Portland, ME)

## **B3.** Undergraduate Students

- 65. Yifan Liu Georgia Tech Chemistry major, 2018-current
- 64. Madison Greene Georgia Tech Biology major, 2017-current

"Fast Track to Research" Undergraduate Research Fellowship 2017

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- 56. Hannah Smith Middle Georgia State University Chemistry major, summer REU student in USDA-funded "Bee Inspired" program, 2016
- 55. Alexander Beach Georgia Tech Materials Science & Engineering major, 2015-2016 Now in graduate program at Georgia Tech
- 54. Zinka Bartolek Georgia Tech Biomedical Engineering major, 2014-2017 Presidential Undergraduate Research Award 2015; Research Option
- 53. Kathryn Martin Georgia Tech Biomedical Engineering major, 2014-2017 Presidential Undergraduate Research Award 2016; Now in M.D. program at Medical College of Georgia – Augusta University
- 52. Katherine Siegel Georgia Tech Materials Science & Engineering major, 2014-2016 Presidential Undergraduate Research Award 2015; Research fellow at Jet Propulsion Lab
- 51. Erin Greenhaw Georgia Tech Biomedical Engineering major, 2014-2015
- 50. Paige Mandelare University of North Florida Chemistry summer REU student at Georgia Tech, 2014; Now in PhD program in Chemistry at Oregon State University

49. Maeve Nagle Georgia Tech Chemistry major, 2014-2016

Best oral presentation, GT Undergraduate Research Kaleidoscope, 2015 Presidential Undergraduate Research Award 2015; Research Option

48. Nellie Ochs Emory University Chemistry summer REU student at Georgia Tech, 2013 Started PhD at ETH Zurich in fall 2014

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1. Kristen Whalen GIT researcher 2001, UNCW Biology major

MIT PhD graduate 2008 with NSF graduate fellowship, then NSF postdoc at UC Santa Barbara and postdoc at Scripps Institution of Oceanography. Assistant Professor at Haverford College starting 2016.

#### **B4.** Service on Thesis Committees

Mary Beth McWhirt Ph.D. student (Georgia Tech Biology, 2017-present)

Bo Lee Ph.D. student (Georgia Tech Quantitative Biosciences, 2017-present)

Federico Urbano-Munoz PhD. student (Georgia Tech Chemistry, 2017-present)
Ariel Parker Ph.D. student (Georgia Tech Chemistry, 2017-present)

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Kymberlee Osborne
Stephen Sarria
Stina Jakobsson
Cody Clements
Caleb Harris
M.S. student (Georgia Tech Chemistry, graduated 2018)
Ph.D. student (Gothenburg University, graduated 2017)
Ph.D. student (Georgia Tech Biology, graduated 2017)
Ph.D. student (Georgia Tech Chemistry, graduated 2017)
Ph.D. student (Georgia Tech Chemistry, graduated 2017)
Ph.D. student (Georgia Tech Biology, graduated 2017)
Monica Rojas-Pena
Rachel Johnston
M.S. student (Georgia Tech Biology, graduated 2016)

Shaobo Pan Ph.D. student (Georgia Tech Paper Science, graduated 2016) Daisy Bourassa Ph.D. student (Georgia Tech Chemistry, graduated 2016) Ph.D. student (Georgia Tech Chemistry, graduated 2015) Christina Jones Ph.D. student (Georgia Tech Chemistry, graduated 2015) Tyrone Wells Feifei Zhang Ph.D. student (Georgia Tech Chemistry, graduated 2014) **Brett Fellows** Ph.D. student (Georgia Tech Chemistry, graduated 2014) Larisa Pender-Healy M.S. student (Georgia Tech Biology, graduated 2014) M.S. student (Georgia Tech Biology, graduated 2014) Kathryn Nagel Lien Phun Ph.D. student (Georgia Tech Chemistry, graduated 2013)

Karen Bondoc M.Sc. student (University of the Philippines Marine Science, graduated 2012; I

served as external reader)

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# **B5.** Mentorship of Postdoctoral Fellows and Visiting Scholars

11. Prof. Cynthia Kicklighter
10. Dr. Samantha Mascuch
9. Dr. Serge Lavoie
8. Dr. Nazia Mojib
7. Dr. Korry Barnes
Visiting Professor, January-August 2016
Postdoctoral Fellow, Oct. 2015-present
Postdoctoral Fellow, July 2015-present
Postdoctoral fellow, Jan.-Aug. 2015

[now Visiting Professor of Chemistry at University of West Florida]
6. Dr. Margaret Teasdale Postdoctoral fellow, Jan. 2011-Aug. 2013

Invited to give mini-oral presentation at Gordon Conference on Marine Natural Products, Feb

2012 [now Chemist, Medical Neurogenetics LLC, Atlanta GA]

5. Dr. An-Shen (Anderson) Lin Postdoctoral fellow, 2008-2010

Invited to give mini-oral presentation at Gordon Conference on Marine Natural Products, March 2010 [now Director of Business Development at Anxo Pharmaceutical Co., in Taipei, Taiwan]

4. Dr. Clare Redshaw Postdoctoral fellow, 2008-2009

[now Lecturer of Environmental Toxicology at University of Plymouth and European Centre for Environment and Human Health, UK]

3. Dr. Renwang Jiang Postdoctoral fellow, 2006-2007

[now Assistant Professor of Natural Products Chemistry at Jinan University at Guangzhou, China]

2. Professor Al Panu Visiting Professor 2005-2006

Georgia Tech Faculty Development Award, Kennesaw State University

1. Dr. Dwight Collins Dreyfus Postdoctoral fellow, 2002-2004

[Co-founder and Director of Corporate Strategy and Research, Jamaica Scientific Research Institute]

[CoS Note: Some candidates have mentored high school students and have therefore added in an additional section – B6. Mentorship of High School Students. Whenever you add a subsection, be sure to add it to the table of contents as well.]

# **C.** Educational Innovations and Other Contributions *Workshops:*

I was an invited teacher at a one-week European Union-funded workshop on chemical approaches for marine ecology research, for 20 graduate students from around Europe, at the Italian National Research Center, in September 2007.

I designed and co-taught a one-week workshop on the natural products isolation for 22 graduate students, postdocs, and faculty at the Marine Biological Laboratory (Univ. of Gothenburg, Sweden), in June 2005.

I co-designed and co-taught another, similar 2-day workshop to 12 Fijian and Pacific Islander students at the University of the South Pacific in June 2004.

I co-designed and co-taught a one-week lecture, lab, and field workshop on marine chemical ecology, taught to 15 graduate students and 2 faculty members at the Tjarno Marine Biological Laboratory (Univ. of Gothenburg, Sweden) in May 2002.

## VI. Service

# A. Professional Contributions

# Conference Organizing:

Chair, Gordon Research Conference in Marine Natural Products, 2016

Vice Chair, Gordon Research Conference in Marine Natural Products, 2014

Member of the national steering committee for U.S. Harmful Algal Bloom Symposium, November 2009. Member of the local organizing committee for the Benthic Ecology Meetings, Atlanta GA, March 2007.

# Advisory Committees:

Chair of the Scientific Advisory Board for the Max Planck Institute for Chemical Ecology, Jena, Germany (2017-2022).

Member of the Scientific Advisory Board for the Max Planck Institute for Chemical Ecology, Jena, Germany (2012-2017).

Formal Partner and Member of the Steering Committee for the Centre for Marine Chemical Ecology at the University of Gothenburg, Sweden (since 2012).

Member of the National Steering Committee for the 5<sup>th</sup> Symposium on Harmful Algae held November 2009 in Ocean Shores, Washington.

Member of the scientific advisory committee for the Tjarno Marine Biological Laboratory (Univ. Gothenburg, Sweden) program in marine chemical ecology (2005).

# **Professional Societies:**

Elected Councilor of the International Society of Chemical Ecology (2014-2017).

Member of the World Cultural Council (WCC) Interdisciplinary Jury which evaluates nominations for the Albert Einstein World Award of Science (2016-present).

## Membership in Collaborative Center:

Faculty member of the Center for Behavioral Neuroscience (involving Emory, Georgia Tech, Georgia State and 5 other institutions in the Atlanta area), 2003-present.

# Membership in Professional and Honor Societies:

American Association for the Advancement of Science American Chemical Society American Society of Limnology and Oceanography International Society of Chemical Ecology International Society for the Study of Harmful Algae American Association of Underwater Science

## Editorial Board Memberships:

Natural Product Reports published by the Royal Society of Chemistry (U.K), impact factor 10.2 (2014-2022).

Marine Drugs published by MDPI (Molecular Diversity Preservation International), Basel, Switzerland, impact factor 3.85 (2009-2018)

Journal of Chemical Ecology published by SpringerLink, impact factor 2.66 (2011-present)

## Peer Reviewing:

# Manuscripts reviewed (~20 per year total) for:

American Zoologist, Applied and Environmental Microbiology, Aquatic Microbial Ecology, Archiv fuer Hydrobiologie, Biological Bulletin, Bioorganic and Medicinal Chemistry, Bioorganic and Medicinal Chemistry Letters, Brazilian Journal of Oceanography, Canadian Journal of Chemistry, ChemBioChem, Chemoecology, Chinese Journal of Oceanology and Limnology, Comparative Biochemistry & Physiology, Coral Reefs, Ecology, Ecology Letters, FEMS Micriobiology & Ecology, Harmful Algae, ISME Journal, Invertebrate Biology, Journal of the American Chemical Society, Journal of the American Water Resources Association, Journal of Chemical Ecology, Journal of Experimental Biology, Journal of Experimental Marine Biology and Ecology, Journal of Ecology, Journal of Experimental Marine Biology and Ecology, Journal of Fish Biology, Journal of Molecular Structure, Journal of Natural Products, Journal of Organic Chemistry, Journal of Phycology, Limnology & Oceanography, Limnology & Oceanography Methods, Marine Biology, Marine Chemistry, Marine Drugs, Marine Ecology Progress Series, Marine & Freshwater Research, Oecologia, Organic Letters, Natural Product Letters, Nature, Nature Chemistry, Nature Communications, Phycologia, Phytochemical Analysis, Phytochemistry, Phytochemistry Reviews, PLoS One, Proceedings of the National Academy of Sciences, Proceedings of the Royal Society B, Tetrahedron, Toxicon, Trends in Ecology and Evolution, Springer-Verlag book "Ecology of Harmful Algae", CRC Press book "Marine Chemical Ecology", Springer book "Algal Chemical Ecology", Garland Science Publishing book "Chemical Biology".

Guest editor for a PNAS manuscript (April 2007).

# Proposals reviewed for:

NSF, NOAA National Undersea Research Program, EPA/NOAA/NSF ECOHAB program, National Sea Grant, California Sea Grant, Rhode Island Sea Grant, National Marine Fisheries Service Southeast

Regional Office Saltsonstall-Kennedy grant program, American Chemical Society PRF, Natural Environment Research Council of the U.K., Research Corporation for Science Advancement, Royal Society of the U.K.

Member of funding evaluation panel for EPA/NOAA/NSF ECOHAB program, April 2006.

Member of funding evaluation panel for NSF CAREER (Ocean Sciences), November 2007.

Member of funding evaluation panel for California Sea Grant, 2008, 2009, 2011.

Member of funding evaluation panel for NSF IOS (Interactive Organismal Systems), Oct 2010.

Ad hoc member of NIH Synthetic and Biological Chemistry B study section, Feb 2013.

# Opponent at Swedish Ph.D. defense:

In 2007, I acted as "opponent" at the Ph.D. defense of Erik Selander of the University of Gothenburg, Department of Marine Ecology. Title of thesis: "Chemical ecology of paralytic shellfish toxin producing dinoflagellates".

# Leadership and management training:

- 2012 Georgia Tech Institute for Leadership & Entrepreneurship Training
- 2015 Graduate Student Mentorship & Management Workshop, Georgia Tech School of Chemistry & Biochemistry
- 2016 Situational Leadership, Emory-Georgia Tech BEST Mentoring Program

# **B. Public and Community Service**

Panelist on Persisting in the Passion for Research and Publication Productivity (2009), ADVANCE workshop, Georgia Tech

Kubanek J (2006) Life as an academic scientist. Georgia Tech Women's Resource Center Graduate Student Lunch, Atlanta GA.

## Government Workshops:

Invited member of three-day State of Florida workshop on red tide control and mitigation (February 2010).

Invited member of two-day NIH workshop on the future of natural products chemistry and biomedical science (April 2009).

## **C.** Institute Contributions

#### 2017-2018

Associate Dean for Research, College of Sciences

Georgia Tech representative, Oak Ridge National Laboratory Core University Liaison Committee

Co-chair, EVPR & Provost's Academic & Research Space Advisory Working Group

Co-chair, EVPR & Provost's Committee on Strategic Research Space Planning

Member and CoS representative, Provost's Committee on Faculty Awards

Member, IT Research Support Committee

Organizer and co-facilitator, College of Sciences New Faculty Mentoring Program

Secretary and ex-officio member, College of Sciences Committee for External Faculty Awards

Ex-officio member, College of Sciences Diversity Council

Lead for Faculty Development Initiatives at Georgia Tech and Collaborator, Atlanta NIH BEST (Broadening Experience in Scientific Training) program "Beyond the Professoriate:

Transforming pathways for biomedical research careers" at Emory and Georgia Tech

Advisory board member, Women in Chemistry graduate student organization

Member, Search committee for Director of Animal Program & Facilities

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## 2005-2006:

School of Chemistry and Biochemistry graduate committee member

School of Biology ecology faculty search committee member

College of Sciences mass spectrometry facility committee member

School of Chemistry & Biochemistry faculty search committee member

School of Biology ad-hoc committee member to revise Freshman Biology courses

Member of committee for organization, recruitment, and training for IGERT "Signals in the Sea" program

Faculty mentor to Assistant Professor Todd Streelman in School of Biology

Georgia Tech Freshman Partner to a student peer leader and her freshman group

#### 2004-2005:

Co-organizer of Harold Nations Symposium "Frontiers in Analytical, Biochemical, and Biological Sensing in the Ocean"

School of Biology undergraduate committee member

School of Chemistry and Biochemistry graduate committee member

School of Chemistry & Biochemistry faculty search committee member

School of Biology space allocation committee member

Member of committee for organization, recruitment, and training for IGERT "Signals in the Sea" program Georgia Tech Freshman Partner to a student peer leader and her freshman group

#### 2003-2004:

School of Chemistry and Biochemistry graduate committee member

School of Civil and Environmental Engineering faculty search committee member

School of Biology ecology faculty search committee member

School of Biology ad-hoc committee member to revise Freshman Biology courses

Member of committee for organization, recruitment, and training for IGERT "Signals in the Sea" program

# 2002-2003:

Co-organizer of First School of Biology scientific retreat

School of Chemistry and Biochemistry graduate committee member

Member of committee for organization, recruitment, and training for IGERT "Signals in the Sea" program

#### 2001-2002:

School of Biology departmental seminar organizer

Member of committee for organization, recruitment, and training for IGERT "Signals in the Sea" program Member, School of Chemistry and Biochemistry bio-analytical faculty search committee

Common reasons for returning the CV before it goes to the Institute for review –

- o Changing the subsection names or ordering not following the template exactly
- o Not having a table of contents
- o Not adding page numbers
- o Not adding the date to at least the first page of the CV and the table of contents
- o Not providing the information requested in the grant section (IV E.)