≺ CURRICULUM VITAE≻

RUSSELL TERRENCE HILL

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EDUCATION

Ph.D. in Microbiology (1988). Department of Microbiology, University of Cape Town, South Africa. Advisor: Professor David. R. Woods. Thesis: "Gene cloning studies in two nocardioform bacteria".
B.Sc. Honors in Biological Sciences (1979). Majors: Microbiology; Plant Physiology, University of Natal (now University of KwaZulu-Natal), Durban, South Africa.
B.Sc. in Biological Sciences (1978), University of Natal, Durban, South Africa.

POSITIONS AND EMPLOYMENT

1/2019-	Executive Director, Institute of Marine and Environmental Technology.
9/2012-	Director, Institute of Marine and Environmental Technology.
7/2011-8/2012	Interim Director, Institute of Marine and Environmental Technology.
7/2010-	Director, University of Maryland Center for Environmental Science-Institute of Marine and Environmental Technology.
2010-	Professor, Institute of Marine and Environmental Technology, University of Maryland Center for Environmental Science.
2010-2011	Interim Associate Director, Institute of Marine and Environmental Technology.
2009-2010	Professor, Center of Marine Biotechnology (COMB), University of Maryland Biotechnology Institute (UMBI).
2007-2010	Associate Director, COMB, UMBI.
2001-2009	Associate Professor, COMB, UMBI.
2002-2011	Part-time Faculty Member, Biotechnology Graduate Program, Advanced Academic Program, The Johns Hopkins University.
2002-2014	Adjunct Associate/Full Professor, Department of Pharmacy, University of Mississippi.
1998-2001	Senior Scientist, COMB, UMBI.
1997-2000	Senior Lecturer, School of Biomedical and Molecular Sciences, James Cook University, Townsville, Australia. Conjoint.
1996-1998	Research Scientist (Microbiology), Marine Bioproducts Group, Australian Institute of Marine Science.
1996-1998	Adjunct Faculty Member, COMB, UMBI.

1992-1996 Research Assistant Professor, COMB, UMBI.
1989-1992 Postdoctoral Research Associate, COMB, UMBI.
1988-1989 Postdoctoral Fellow, Dept. of Microbiology, University of Cape Town, South Africa.

PROFESSIONAL MEMBERSHIPS

1990-present Member, American Society for Microbiology.
1992-present Member, Sigma Xi.
1995-present Member, Society for Industrial Microbiology.
1998-present Member, Maryland Branch of the American Society for Microbiology.
2006-present Member, International Society for Microbial Ecology.
2007-present Board Member, past Secretary-Treasurer and Vice President, current President of the International Marine Biotechnology Association.

HONORS AND AWARDS

2016 University System of Maryland Board of Regents Faculty Award for Excellence in Mentoring 2015-2016.

2016 Chair, Okinawa Marine Science Center International Advisory Board. Okinawa Institute of Science and Technology, Okinawa, Japan.

2015 Elected to Fellowship in the American Academy of Microbiology, the honorific leadership group within the American Society for Microbiology, in recognition of excellence, originality, and leadership in the microbiological sciences.

2015 Graduate of Leadership Maryland. One of 50 Maryland leaders chosen for Leadership Maryland's 23rd class.

2014-2016 Elected as Divisional Group III (General and Applied Microbiology) Representative for the American Society for Microbiology membership, responsible for the divisions of General Microbiology, Microbial Ecology, Fermentation and Biotechnology, Food Microbiology, Environmental and General Applied Microbiology, Evolutionary and Genomic Microbiology and Microbiology Education.

2014 Institute for Microbial Biotechnology and Metagenomics Management Board, University of the Western Cape, South Africa.

2010 Barnett L. Cohen Award. The Cohen award is presented by the Maryland Branch of the American Society for Microbiology to a professional microbiologist in recognition of their contributions, devotion, and interest in promoting the science of microbiology.

2009 MEES Graduate Teaching Award for commitment to graduate education. Selected by vote of graduate students in the Marine Estuarine Environmental Sciences (MEES) Graduate Program.

2003	Elected as Fellow of the Society for Industrial Microbiology in recognition of distinguished career accomplishments and dedication to the advancement of the applied microbiological sciences.
1992	Elected to membership of Sigma Xi.
1988-1989	University of Cape Town Postdoctoral Fellowship.
1982-1988	Council for Scientific and Industrial Research Graduate Study Award.

GRANT SUPPORT

(Total Awards with Hill as PI, co-PI, or Associate Program Leader of >$13,900,000)

CURRENT GRANT SUPPORT

PI:	Russell Hill
Supporting agency:	Maryland Industrial Partnerships
Amount:	$199,999
Effective Date:	8/1/2018-7/31/2019
Title:	Improving algal growth via probiotic bacteria.

PI:	Russell Hill
Supporting agency:	Maryland Industrial Partnerships
Amount:	$99,999
Effective Date:	2/1/2017-7/31/2019 (NCE)
Title:	Treating algae to reduce NOx emissions in biocrude.

PIs:	Feng Chen (PI) and Russell T. Hill (co-PI).
Supporting agency:	Maryland Industrial Partnerships
Amount:	$83,049
Effective Date:	2/1/2018-7/31/2019
Title:	Increase methane in chicken manure digesters (Phase 2).

PI:	Russell Hill
Supporting agency:	NIST
Amount:	$883,780
Effective Date:	1/1/2016-9/31/2018
Title:	IMET-NIST Postdoctoral Research Program in Environmental and Marine Biotechnology

PIs:	Russell Hill, Nick Hammond and David Balcom.
Supporting agency:	Ratcliffe Foundation
Amount:	$181,830
Effective Date:	6/1/2015-6/30/2020
Title:	The IMET Environmental Biotechnology Incubator.

PI:	Russell Hill, Nick Hammond (co-PI).
Supporting agency:	Ratcliffe Foundation

Amount: $26,400
Effective Date: 6/1/2017-5/31/2019
Title: The IMET Harbor Launch Entrepreneur-in-Residence

PIs: Russell Hill, Nina Lamba and Monica Chacon.
Supporting agency: Ratcliffe Foundation
Amount: $800,000
Effective Date: 7/1/2014-6/30/2020
Title: The Ratcliffe Environmental Entrepreneurs Fellowship Program

RECENT GRANT SUPPORT

PIs: Feng Chen (PI) and Russell T. Hill (co-PI).
Supporting agency: Maryland Industrial Partnerships
Amount: $83,049
Effective Date: 2/1/2017-1/31/2018
Title: Increase methane in chicken manure digesters.

PIs: Russell Hill, Nick Hammond (co-PI).
Supporting agency: PNC Bank Foundation
Amount: $5,000
Effective Date: 6/1/2016-5/31/2018 (NCE).
Title: The IMET Harbor Launch Financial Network

PI: Russell T. Hill (PI).
Supporting agency: Maryland Industrial Partnerships
Amount: $199,998
Effective Date: 2/1/2015-1/31/2018
Title: Harvest of algal blooms for crude oil production: determining the link between species composition and crude oil quality.

PIs: Feng Chen (PI) and Russell T. Hill (co-PI).
Supporting agency: Maryland Industrial Partnerships
Amount: $101,439
Effective Date: 8/1/2015-7/31/2017
Title: Manure and bioflocculation in algal technology.

PIs: Feng Chen, Co-PI: Russell Hill, Yantao Li, Robert Mroz.
Supporting agency: Climate Change and Emissions Management Corporation (CCEMC), Canada.
Amount: $500,000
Effective Date: 4/4/2014-4/30/2016
Title: An innovative and highly efficient microalgae-based carbon sequestration system to reduce CO2 emission and produce valuable byproducts including biofuels in all climates.

PIs: Feng Chen (PI) and Russell T. Hill (co-PI).
Supporting agency: Maryland Industrial Partnerships
Amount: $249,999

Effective Date: 8/1/2014-8/31/2016
Title: Turning chicken manure into fertilizer and clean energy.

PIs: Russell T. Hill (PI) and Ryan Powell (co-PI).
Supporting agency: TEDCO
Amount: $40,000
Effective Date: 6/30/2014-3/31/2015
Title: Bead recycling to decrease the cost of harvesting algae for biofuels and high value products

PIs: Feng Chen (PI) and Russell T. Hill (co-PI).
Supporting agency: Maryland Industrial Partnerships
Amount: $101,439
Effective Date: 7/1/2013-2/28/2015
Title: Manure and bioflocculation in algal technology.

PI: Russell T. Hill (PI)
Supporting Agency: NSF Physiological and Structural Systems (PSS), Division of Integrative and Organismal Systems (IOS)
Amount: $498,583
Effective Date: 09/01/09-08/31/14 (NCE)
Title: The role of bacterial symbionts of marine sponges in nitrogen fixation (IOS-0919728).

PI: Russell T. Hill (Associate Program Leader); David G. I. Kingston (PI)
Supporting Agency: NIH International Cooperative Biodiversity Group
Amount: $975,314 (Hill) of $4,229,678
Effective Date: 6/1/13-5/31/14
Title: Biodiversity conservation and drug discovery in Madagascar Bridging funding.

PIs: Russell T. Hill (Associate Program Leader); David G. I. Kingston (PI)
Supporting Agency: NIH International Cooperative Biodiversity Group
Amount: $61,550 (Hill) of $186,000
Effective Date: 9/1/08-8/31/13
Title: Biodiversity conservation and drug discovery in Madagascar (2U01TW000313-16).

PIs: Russell T. Hill (Associate Program Leader); David G. I. Kingston (PI)
Supporting Agency: NIH International Cooperative Biodiversity Group
Amount: $232,400 (Hill)
Effective Date: 11/1/09-10/31/12
Title: Biodiversity conservation and drug discovery in Madagascar (Postdoctoral Supplement).

PIs: Russell T. Hill (PI), Feng Chen, Allen R. Place and Yonathan Zohar (co-PIs)
Supporting Agency: National Oceanographic and Atmospheric Administration

	NOAA-NMFS-NCBO-2010-2002511
Amount:	$99,500
Effective Date:	08/01/10-07/31/11
Title:	Metagenomic analysis of microalgae in the Chesapeake Bay
PIs:	Feng Chen (PI) and Russell T. Hill (co-PI).
Supporting agency:	Maryland Industrial Partnerships
Amount:	$89,961
Effective Date:	2/1/2011-1/31/2012
Title:	Selection of algal strains for CO2 sequestration and biofuel production in a novel closed photobioreactor system.
PIs:	Feng Chen (PI) and Russell T. Hill (co-PI).
Supporting agency:	Maryland Industrial Partnerships
Amount:	$99,782
Effective Date:	2/1/2012-1/31/2013
Title:	Optimizing the performance of selected microalgae in the HY-TEK Bio CO2 scrubber pilot system (Phase II project).

SUMMARY OF PAST GRANT SUPPORT

Symbionts and signaling: Quorum sensing among sponge-associated bacteria (MCB-0703467). Clay Fuqua (PI), Russell T. Hill (co-PI), and Mair Churchill (co-PI). 09/01/07-08/31/10. $499,610 (Hill $216,050). National Science Foundation Microbial Observatories Program, Microbial Interactions and Processes.

Microbial diversity of procaryotes in marine sponges of the class Demospongiae (MCB-0238515). Hill (PI). $699,872. 4/15/03-09/30/08. National Science Foundation Microbial Observatories Program.

Microbial diversity of procaryotes in marine sponges of the class Demospongiae (supplement- Support for graduate student Naomi Montalvo). Hill (PI). $74,112. 5/31/07-9/30/08. National Science Foundation Microbial Observatories Program

Isolation of novel actinomycetes from marine sponges. Hill (PI). $196,013. 09/01/06-08/31/08. Merck, Sharp and Dohme, Spain.

AntiAIDS agents from marine organisms. Mark T. Hamann (PI), Raymond Schinazi (co-PI), Russell T. Hill (co-PI), Scott Franzblau (co-PI), Larry Walker (co-PI) and Michelle Kelly (co-PI). $100,000 (Hill) of $1,000,000. 5/1/04-4/30/08.

4th Annual Microbial Observatories PI Meeting and Workshop: Recent Advances and Prospects for Microbial Discovery Science to be held in Washington DC on March 1-3, 2007. National Science Foundation. $158,651. 9/1/06-8/31/07. PI.

Novel marine natural products from sponges and associated microbes. US-Israel Binational Agricultural Research and Development Fund. $150,000 (Hill) of $300,000. 7/1/04-6/30/07. Russell T. Hill (U.S) with M. Ilan, PI and M. Shpigel (Israel)

Isolation and molecular characterization of manzamine-producing bacteria from Red Sea sponges. USDA Egypt S+T Program. $30,000 (Hill) of $60,000. 9/1//04-8/31/06. US PI with Soad Abou-El-Ela (Egypt PI).

Partial support for US participants in the International Marine Biotechnology Conference, Eilat, Israel. National Science Foundation. $20,000. 1/1/07-12/30/07. Kevin Sowers (PI), Yonathan Zohar and Russell T. Hill (co-PIs).

Partial support for US participants in the International Marine Biotechnology Conference, Eilat, Israel. Office of Naval Research. $6,000. 1/1/07-12/30/07. Kevin Sowers (PI), Yonathan Zohar and Russell T. Hill (co-PIs).

Partial support for US participants in the International Marine Biotechnology Conference, Eilat, Israel. Maryland Sea Grant. $4,000. 1/1/07-12/30/07. Kevin Sowers (PI), Yonathan Zohar and Russell T. Hill (co-PIs).

Microbial diversity of procaryotes in marine sponges of the class Demospongiae (supplement- Support for graduate student Naomi Montalvo). National Science Foundation Microbial Observatories Program. $23,588. 1/11/05-12/31/06. PI.

Microbial diversity of procaryotes in marine sponges of the class Demospongiae (supplement-RET). National Science Foundation Microbial Observatories Program. $7,935. 6/1/05-12/31/05. PI.

The preclinical development of the manzamine alkaloids as treatments of malaria. Medicines for Malaria Venture foundation. $541,993; subcontract to R. Hill $131,641 in Year 1; $68,447 in Year 2. 11/1/03-5/31/05. Mark T. Hamann (PI), Russell T. Hill (co-PI), Subagus Wahyuono (co-PI), Larry Walker (co-PI) and William Charman (co-PI).

Odor modification of chicken litter using microbial supplementation. U. S. Poultry and Egg Association. $40,000. 4/1//04-3/31/05. Co-PI with Allen R. Place. Awarded but declined.

Partial support for US participants in the International Marine Biotechnology Conference, St. Johns, Canada 2005. Department of Energy. $12,000. 1/1//05-12/31/05 (co-PI with Y. Zohar and F. Chen).

Monitoring odor removal or modification by microbial communities in chicken manure processing. Maryland Industrial Partnerships/Perdue. $100,000. 2/1//04-1/31/05. Co-PI with A. Place.

Partial support for US participants in the Marine Biotechnology Conference, Japan 2003. National Science Foundation. $20,000. 6/1//03-12/31/03 (co-PI with Y. Zohar and F. Chen).

Partial support for US participants in the Marine Biotechnology Conference, Japan 2003. Department of Energy. $12,000. 6/1//03-12/31/03 (co-PI with Y. Zohar and F. Chen).

Partial support for US participants in the Marine Biotechnology Conference, Japan 2003. Maryland Sea Grant. $4,000. 6/1//03-12/31/03 (co-PI with Y. Zohar and F. Chen).

Isolation of novel actinomycetes from marine sponges and sediments. Schering-Plough Research Institute. PI $50,000 04/1/01-03/31/02.

Detection, Isolation, and Identification of Viruses Infecting symbiotic marine cyanobacteria. VIRTUE Project, Wallenburg Foundation (in collaboration with Swedish and Norwegian Investigators). $99,000. 09/01/98- 08/01/00. PI.

Establishment of the Center for Sustainable Use of Marine Resources at Harbor Branch Oceanographic Institution ($453,510). Subcontract to the Center of Marine Biotechnology for purchase of a Laser Scanning Confocal Microscope ($150,000). U.S. Health Resources and Services Administration. PI on sub-contract.

Investigation of the link between mercury resistance and antibiotic production in marine actinomycetes carrying linear megaplasmids. Schering-Plough. PI. $85,885.1996-1998.

Partial support for US participants in the 5th International Marine Biotechnology Conference. National Science Foundation. (Co-PI) $10,000.

Partial support for US participants in the 5th International Marine Biotechnology Conference. Department of Energy. (Co-PI) $ 7,500.

Partial support for US participants in the 5th International Marine Biotechnology Conference. Office of Naval Research. (Co-PI) $7,500.

Partial support for US participants in the 5th International Marine Biotechnology Conference. Dynamac Corporation. (Co-PI) $5,000.

Partial support for US participants in the 5th International Marine Biotechnology Conference. Society for Industrial Microbiology. (Co-PI) $2,000.

Molecular detection of Staphylococcus aureus in waters of Mamala Bay, Hawaii. Mamala Bay Study Commission. $55,000. PI. 8/1/95-12/31/95.

Investigation of the microbial ecology of municipal solid waste landfills. Office of Naval Research Scientific Officer Research Program (Anna Palmisano)(Co-PI) $15,000. 1996.

Isolation of marine actinomycetes from polluted and pristine tropical environments. Pfizer, Inc. $63,622. PI. 5/1/95-4/30/96.

Screening of actinomycete strains from the Chesapeake Bay. Oceanix Biosciences Corporation. PI. $20,000. 2/1/95-9/30/95.

Investigation of the microbial ecology of municipal solid waste landfills. Office of Naval Research Scientific Officer Research Program (Anna Palmisano)(Co-PI) $14,000. 1995.

Molecular investigation of the effect of pollution on pathogenic and indigenous bacteria in Mamala Bay (Supplemental funding for bacterial survival studies). Mamala Bay Study Commission. $30,800. PI. 7/1/93-6/30/94.

Development of new molecular methods for assessing populations of microorganisms in impacted marine environments. Office of Naval Research Scientific Officer Research Program (Anna Palmisano)(Co-PI) $15,000. 1994.

The ecological significance of bacteriophages in the Chesapeake Bay. Maryland Sea Grant College. $5,000. PI. 2/1/94-1/31/95.

Molecular investigation of the effect of pollution on pathogenic and indigenous bacteria in Mamala Bay. Mamala Bay Study Commission. PI. $250,000. 7/1/93-12/31/95.

Development of new molecular methods for assessing populations of microorganisms in impacted marine environments. Office of Naval Research Scientific Officer Research Program (Dr. A. Palmisano). (Co-PI) $15,000. 1993.

The enumeration, isolation and ecological impact of bacteriophages in the Chesapeake Bay. Omnibus Sea Grant Program support of a graduate student. PI. $14,800. 1993.

Isolation and Genetic Characterization of Metal Resistant Actinomycetes from Chesapeake Bay. Organization of American States. (Co-PI) $10,000. 9/1/92-8/31/93.

The enumeration, isolation and ecological impact of bacteriophages in the Chesapeake Bay. Omnibus Sea Grant Program support of a graduate student. PI. $8,000. 1992.

Microbiological investigations at deep water municipal sludge dumpsite 106. NOAA/NURP. (Co-PI) $160,089 for 1992.

Processes governing the fate and effects of material flux on deep sea communities at a long-term ecosystem observatory (LEO-2500) on the continental slope off the coast of New Jersey. NOAA/NURP. (Co-PI) $53,500 of $803,431 for 1991.

RESEARCH INTERESTS

Diversity and function of microbial symbionts of marine invertebrates.
Bacterial associations with microalgae.
Natural products from marine microorganisms, especially symbionts of sponges.
Actinomycete molecular biology, marine actinomycete ecology, and use of actinomycetes in bioremediation.
Marine molecular biology, microbial ecology and environmental microbiology.
Marine bacteriophages.

FIELD RESEARCH

Chief scientist in charge of more than twenty research cruises in U.S., Bahamian, Hawaiian, and Australian waters. Research scientist on more than ten additional cruises in U.S., Bahamian, Hawaiian, Australian and Japanese waters.
Scientist on three research dives (ca. 2,600 m) in submersible DSV ALVIN.
Research dive in submersible Johnson-Sea-Link (1,016 ft).
Research dive in Japanese submersible Shinkai 2000 in Okinawa Trough (1,020 m).

Lead scientist on sample collection trips in USA, Indonesia, Egypt, Israel, South Africa, Madagascar.
SCUBA certified (PADI).

PUBLICATIONS

PATENTS

Powell, R. and R. T. Hill. Compositions and methods for collecting algae. Non-provisional utility patent application. Filing date 2/28/2014. U.S. Patent No. 9,624,465 issued on April 18, 2017.

PATENT APPLICATIONS

Hill, R. T. and H. Wang. 2011. Aggregation of microalgae by use of bacterial strains. February 8, 2011. Provisional Application Number 61440521.

Hill, R. T. and M. T. Hamann. 2007. Isolation of a potent anti-malarial agent from a marine Streptomyces sp. strain H668. November 27, 2007. Provisional Patent Application 4115-250-PRV.

J. J. Enticknap, R. T. Hill, K. V. Rao and M. T. Hamann. 2003. Kahalalide-producing bacteria. Filing Date: October 31, 2003. Application No.: 60/516,006.

Hill, R. T., M. T. Hamann, O. Peraud, and N. Kasanah. Manzamine-producing actinomycetes. August 1, 2003. Application 4115-180 PCT.

PEER-REVIEWED ARTICLES

Total of 117. h-Index 52; Total citations >7,700 (Google Scholar). (1st July, 2019).

In Preparation

Powell, R. J., L. Blasiak, L. Zheng, D. Sumutka, D. Belle, Z. Liu, F. Chen and R. T. Hill. 2019. Characterization of the bacterial community associated with the alga *Scenedesmus* sp. HTB1 grown in air, flue gas and 15% CO2. In preparation.

Submitted and In Press

Cusick, K. D., G. Durant, R. T. Hill and S. Polson. 2019. Development of a pulsed field gel electrophoresis method for detecting and sizing multiple mega-plasmids within *Alteromonas* strains. Appl. Environ. Microbiol. Submitted.

Zhang, F., L. Jonas, H. Lin and R. T. Hill. 2019. Microbially mediated nutrient cycles in marine sponges. FEMS Microbiol. Ecol. In press.

Published

Tizabi, D., A. Sosa, T. Bachvaroff and R. T. Hill. 2019. Draft genome sequences of three sponge-associated actinomycetes exhibiting anti-mycobacterial activity. Microbiol. Resour. Announc. 8:e00858-19.

Zan, J., Z. Li, M. D. Tianero, J. Davis, R. T. Hill and M. S. Donia. 2019. A microbial factory for defensive kahalalides in a tripartite marine symbiosis. Science 364: eaaw6732 DOI: 10.1126/science.aaw6732
Accompanying Research Article Summary. Science 364:1056.
Perspective: A marine chemical defense partnership. Mascuch, S. and J. Kubanek. Science 364:1034-1035.

Fuentes, M. S., P. E. Sineli, S. Pons, A. de Moreno de LeBlanc, C. S. Benimeli, R. T. Hill and S. A. Cuozzo. 2018. Study of the removal of a pesticides mixture by a *Streptomyces* strain and their effect on the cytotoxicity of treated systems. J. Environ. Chemical Eng. 6:6836-6843.

Dangi, A. K., B. Sharma, R. T. Hill and P. Shukla. 2018. Bioremediation through microbes: Systems biology and metabolic engineering approach. Crit. Rev. Biotechnol. https://doi.org/10.1080/07388551.2018.1500997

Singh, S. K., S. R. Major, H. Cai, F. Chen, R. T. Hill and Y. Li. 2018. Draft genome sequences of *Cloacibacterium normanense* IMET F, a microalgal growth promoting bacterium and *Aeromonas jandaei* IMET J, a microalgal growth inhibiting bacterium. Genome Announc. 6:e00503-18; doi:10.1128/genomeA.00503-18

Moitinho-Silva, L., S. Nielsen, A. Amir, A. Gonzalez, G. L. Ackermann, C. Cerrano, C. Astudillo-Garcia, C. Easson, D. Sipkema, F. Liu, G. Steinert, G. Kotoulas, G. P. McCormack, G. Feng, J. J. Bell, J. Vicente, J. R. Björk, J. M. Montoya, J. B. Olson, J. Reveillaud, L. Steindler, M-C. Pineda, M. V. Marra, M. Ilan, M. W. Taylor, P. Polymenakou, P. M. Erwin, P. J. Schupp, R. L. Simister, R. Knight, R. W. Thacker, R. Costa, R. T. Hill, S. Lopez-Legentil, T. Dailianis, T. Ravasi, U. Hentschel, Z. Li, N. S. Webster and T. Thomas. 2017. The sponge microbiome project. GigaScience 6:1-7. https://doi.org/10.1093/gigascience/gix077

Thao, Y.T., D. T. N. Linh, V. C. Si, T. W. Carter and R. T. Hill. 2017. Isolation and selection of microalgal strains from natural water sources in Viet Nam with potential for edible oil production. Mar. Drugs 15(194): doi:10.3390/md15070194

Marty, M. J., J. Vicente, B. L. Oyler, A. R. Place and R. T. Hill. 2017. Sponge symbioses between *Xestospongia deweerdtae* and *Plakortis* spp. are not motived by shared chemical defense against predators. PLoS One. 12(4): e0174816. https://doi.org/10.1371/journal.pone.0174816

Vicente, J., S. Zea and R. T. Hill. 2016. Sponge epizoism in the Caribbean and the discovery of new *Plakortis* and *Haliclona* species, and polymorphism of *Xestospongia deweerdtae* (Porifera). Zootaxa. 4178:209-233.

Vicente, J., N. Silbiger, B. A. Beckley, C. W. Raczkowski and R. T. Hill. 2016. Impact of high pCO2 and warmer temperatures on the process of silica biomineralization in the sponge *Mycale grandis*. ICES Journal of Marine Science. 73:704-714.

doi.org:10.1093/icesjms/fsv235.

Harinantenaina Rakotondraibe, L., R. Rasolomampianina, H-Y. Park, J. Li, C. Slebodnick, P. J. Brodie, L. C. Blasiak, R. T. Hill, K. TenDyke, Y. Shen, M. B. Cassera, F. Rejo-Fienena, D. G. I. Kingston. 2015. Antiproliferative and antiplasmodial compounds from selected *Streptomyces* species. Bioorg. Med. Chem. Lett. 25:5646-5649.

Zhang, F., L. C. Blasiak, J. O. Karolin, R. J. Powell, C. D. Geddes, and R. T. Hill. 2015. Phosphorus sequestration in the form of polyphosphate by microbial symbionts in marine sponges. Proc. Nat. Acad. Sci. USA. 112: 4381-4386. doi/10.1073/pnas.1423768112

Zheng, L., Z. Cui, L. Xu, C. Sun, R. J. Powell and R. T. Hill. 2015. Draft genome sequence of Rhodobacteraceae strain PD-2, an algicidal bacterium with a quorum-sensing system, isolated from the marine microalga *Prorocentrum donghaiense*. Genome Announc. 3(1):e01549-14. doi:10.1128/genomeA.01549-14.

Zan, J., O. Choi, H. Meharena, C. L. Uhlson, M. A. E. Churchill, R. T. Hill and C. Fuqua. 2015. A solo luxI-type gene directs acylhomoserine lactone synthesis and contributes to motility control in the marine sponge symbiont *Ruegeria* sp. KLH11. Microbiology. 161:50-56.

Wang, H., R. T. Hill, T. Zheng, X. Hu and B. Wang. 2015. Effects of bacterial communities on biofuel-producing microalgae: Stimulation, inhibition and harvesting. Crit. Rev. Biotechnol. 36:341-52.

Zhang, F., J. Vicente and R. T. Hill. 2014. Temporal changes in the diazotropic bacterial communities associated with Caribbean sponges *Ircinia strobilina* and *Mycale laxissima*. Front. Microbiol. 5:561 doi: 10.3389/fmicb.2014.00561

Vicente, J., S. Zea, R. J. Powell, J. R. Pawlik and R. T. Hill. 2014. New epizooic symbioses between sponges of the genera *Plakortis* and *Xestospongia* in cryptic habitats of the Caribbean. Mar. Biol. 161:2803-2818. doi: 10.1007/s00227-014-2546-z

Zhang, F., L. Pita, P. M. Erwin, S. Abaid, S. López-Legentil, R. T. Hill. 2014. Symbiotic archaea in marine sponges show stability and host specificity in community structure and ammonia oxidation functionality. FEMS Microbiol. Ecol. 90:699-707. doi: 10.1111/1574-6941.12427.

Waters, A. L., O. Peraud, N. Kasanah, J. Sims, N. Kothalawala, M. A, Anderson, S. H. Abbas, K. V. Rao, V. R. Jupally, M. Kelly, A. Dass, R. T. Hill and M. T. Hamann. 2014. An analysis of the sponge *Acanthostrongylophora igens'* microbiome yields an actinomycete that produces the natural product manzamine A. Front. Mar. Sci. 1:54. doi:10.3389/fmars.2014.00054

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Madagascar: Microbiological aspects. Society for Industrial Microbiology Annual Meeting. San Francisco, CA.

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Na, M-K, D. A. F. Meujo, D. Kevin, M. Anderson, R. T. Hill, R. F. Schinazi and M. T. Hamann. 2007. Anti-infective secondary metabolites from marine sponges and microorganisms. American Chemical Society 234th National Meeting & Exposition. Boston, MA.

Hill, R. T., N. F. Montalvo, N. M. Mohamed, O. Peraud, M. A. Anderson, Y. Lampert and M. T. Hamann. 2007. Bacterial symbionts of marine invertebrates are an important resource for drug discovery. 5th European Conference on Marine Natural Products, Ischia, Italy. Invited.

Hill, R. T., N. F. Montalvo, N. M. Mohamed, M. A. Anderson, Y. Lampert, E. S. Eid, M. R. El-Sayed, and S. Abou-El-Ela. Novel actinobacteria from marine invertebrates. 2007. 14th International Symposium on the Biology of Actinomycetes. Newcastle, UK. Invited.

Montalvo, N. M and R. T. Hill. 2007. Great diversity of culturable bacterial isolates from the marine sponge *Xestospongia muta*. 107th General Meeting of the American Society for Microbiology, Toronto, Ontario, Canada.

Hilyard, E. J., Montgomery, M. T., Hamdan, L. J., Spargo, B.J., and Hill, R. T. 2007. Multiple PAH-degrading bacteria isolated from estuarine sediment enrichment cultures. Abstract Q-100, 107th General Meeting of the American Society for Microbiology, Toronto, Ontario, Canada.

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Cicirelli, E., N. Mohamed, J. Kenzor, F. Chen, R. T. Hill and C. Fuqua. 2007. Social signals in sponge symbionts. 4th Microbial Observatories/Microbial Interactions and Processes Principal Investigators' Meeting and Workshop. Washington DC.

Montalvo, N. F. and R. T. Hill. 2007. A diverse assemblage of cultured bacterial isolates from Xestospongia spp. marine sponges. 4th Microbial Observatories/Microbial Interactions and Processes Principal Investigators' Meeting and Workshop. Washington DC.

Hill, R. T., J. J. Enticknap, O. Peraud, M. A. Anderson, N. Kasanah, K. V. Rao, J. J. Bowling and M. T. Hamann. 2007. Microbial symbionts of marine invertebrates: Implications for drug discovery. 12th International Symposium on Marine Natural Products. Queenstown, New Zealand. Invited.

Peng, J., R. Hill, A. Place, C. Anklin and M. Hamann. 2007. Marine microbes: The critical role they play in sustainable production of starting materials for the synthesis of drug leads and the structure for the elusive *Pfiesteria* toxin using ^{13}C enrichment and cryodual NMR studies. American Chemical Society 233rd National Meeting & Exposition. Chicago, IL.

Bangura, S., N. Montalvo, M. A. Anderson and R. T. Hill. 2006. Analysis of the microbial community within a Microciona prolifera sponge and observation of AHL signaling compounds during the SMaRT course at the Center of Marine Biotechnology. Abstract D77. Annual Biomedical Research Conference for Minority Students (ABRCMS), Anaheim, CA.

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Kan, J., T. Hanson, B. Campbell, C. Cary, E. Wommack, R. T. Hill, and F. Chen. Meta-proteomics, a new way to explore microbial function in natural environments. HUPO 4th Annual World Congress, August 28-September 1, 2005. Munich, Germany (Poster). The abstract was published in Molecular and Cellular Proteomics 4.8 (Suppl. 1):S286.

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“How IMET is making Baltimore a leader in marine research”. Russell Hill. Technical.ly Baltimore. July 10, 2014.
http://technical.ly/baltimore/2014/07/10/marine-biotech-russell-hill-imet-baltimore/

"A Bit to Clean the Air with Algae" reported project by Chen, Hill, Mroz and French on use of microalgae to sequester green house gas CO2. Baltimore Sun. August 4, 2013.

"Algae Gobbles Greenhouse Gases", produced by Associated Press TV. Chen, Hill, Mroz and French interviewed by Tom Ritchie went online on March 15, 2013, and was featured in many local newspapers, radio and TV stations including Washington Times, Washington Examiner, Gloucester Daily Times (Massachusetts), New Zealand Herald (New Zealand), MSN.com, Canberra Times (Australia), AOL.com, Yahoo Business & Finance, Eagle Tribune (Massachusetts), WPXI (Pittsburgh), The Age (Australia), The Statesman (Austin, TX).

“The Dentist’s Chair: Biofilm is horrific for your oral health”. Dr. John Reitz. Reading Eagle. 3rd November, 2012.

“Quorum-sensing signal disperses bacteria from biofilms” by Carol Potera. Environmental Health Perspectives. I November, 2012.

“Researchers find clue that may get biofilm to leave teeth alone”. Dental Tribune. 25th September, 2012.

“New study finds that bacteria on marine sponges can develop capacity to move and inhibit biofilm formation”. Medical News Today. 10th September, 2012.

“Swimming towards success: turning marine research into commercial gold”. Bmore. http://bmoremedia.com/features/future091812.aspx. 18th September, 2012.

“Study of bacterial communication could lead to understanding of how to control an oral biofilm”. Vicki Cheeseman. Surgical Restorative Resource. September, 2012.

“Study of bacterial communication could lead to understanding of how to control an oral biofilm”. Vicki Cheeseman. Dentistry IQ. September, 2012.

“Sea sponge research sheds light on inhibiting biofilm”. Laboratory Equipment. 7th September, 2012.

"Marine sponge bacteria shed light on biofilm formation". DrBicuspid.com. 10th September, 2012.

"Bacteria on marine sponges can develop capacity to move and inhibit biofilm formation". Bionity.com. September, 2012.

"Study may lead to understanding of how to break up bacterial biofilms". R&D Magazine. 6th September, 2012.

"Bacteria on marine sponges can develop capacity to move and inhibit biofilm formation". Science Daily. 6th September, 2012.

"Bacteria on marine sponges can develop capacity to move and inhibit biofilm formation". Lab Spaces. 6th September, 2012.

"Bacteria on marine sponges can develop capacity to move and inhibit biofilm formation". Science Codex. 6th September, 2012.

"Bacteria on marine sponges can develop capacity to move and inhibit biofilm formation". Phys.org. 6th September, 2012.

"Bacteria able to make collective decisions and grow an appendage to move". http://nanopatentsandinnovations.blogspot.com. 6th September, 2012.

"Institute of Marine and Environmental Technology appoints Russell Hill as Director". CityBizList. 10th August, 2012.

"Key masters to scientific breakthrough" by Barbara Pash. Published in "What's Up? Annapolis" and "What's Up? Eastern Shore". July 2012.

"Mobile lab brings hands-on learning to schools across Md." The Daily Record, Annapolis, 27th March, 2012.

"Deep implications of micro-science". Rhodes University, South Africa. http://www.ru.ac.za/latestnews/name,41333,en.html. August, 2011.

"The inner lives of sponges". Gretchen Vogel. 2008. Science 320:1028-1030.

TV Interview: Baltimore Educational Television for Career Track Program. August, 2008.

"Medicines from the sea: A treasure trove awaits us". 12th Aug, 2005. Solares Hill, Florida Keys.

"Cures right out of the blue". Lufthansa Magazine. 2001. 8:73.

"Marine science careers: A Sea Grant guide to ocean opportunities". 2000. Featured on page 5. University of New Hampshire Sea Grant Program and the Woods Hole Oceanographic Institution Sea Grant Program. ISBN 0-9649529-2-0.

"Sea may be key in fighting disease". Townsville Bulletin, September 27, 2000. Australia.

"Die blaue apotheke" (in German). 1999. Geowissen. 24: 174-175.

"Hay actinomycetes nuevos en el mar" (in Spanish). 18th September, 1997. Tucuman "La Galeta". Argentina.

"Industry investors show increased interest in denizens of the deep". Karen Young Kreeger. 1st April, 1996. The Scientist.

"Marine organisms yield new cytotoxic agents, nutrients. Feb 1, 1996. Genetic Engineering News.

"Frogs and other cures" 3rd Oct, 1995. San Jose Mercury News, Science & Technology Section.

"College biotech center joins up with Pfizer". 14th September, 1995. Baltimore Business Journal.

"Pfizer joins marine: enters collaboration to test microorganisms for medicinal activity". F-D-C Reports. 57(35):15.

"Pfizer, UM team up on research". 25th August, 1995. The Sun. Baltimore, MD.

"Pfizer and COMB team up". Jeff Benjamin. 25th August, 1995. The Daily Record. Front page article. Maryland.

INVITED SEMINARS, LECTURES, WORKSHOPS, AND TRAINING COURSES

"New drugs from marine invertebrates and their symbionts". Host: Pratyoosh Shukla. Maharshi Dayanand University, Rohtak, India. November, 2017.

"Sponges and their bacterial symbionts: Nutrient cycling in the coral reef environment". Host: Yen Thao Tran. Institute of Oils and Oil Plants. Ho Chi Mihn City, Viet Nam. March, 2016.

"Sponges and their bacterial symbionts: Nutrient cycling in the coral reef environment". Host: Robert Hale. Virginia Institute of Marine Science. March, 2016.

"Microalgal biotechnology: Opportunities for Vietnam". Host: Yen Thao Tran. Institute of Oils and Oil Plants. Ho Chi Mihn City, Viet Nam. November, 2014.

Marine biotechnology". Keynote Speaker at Morgan State University 21st Science Symposium. 15th April, 2014.

"Bacterial symbionts in marine sponges: signaling and other interactions". Host: Russ Kerr. University of Prince Edward Island. Canada. March, 2013.

"Bacterial symbionts in marine sponges: signaling, bioactive compounds and other interactions". Host: Carole Bewley, NIDDK, National Institutes of Health. November, 2012.

"Marine biotechnology: Opportunities for South Africa". Host: Michael Davies-Coleman. University of the Western Cape. South Africa. June, 2012.

"Symbionts in marine sponges: Signaling and other interactions". Host: Michael Davies-Coleman. University of the Western Cape. South Africa. June, 2012.

"Bacterial symbionts in marine sponges: Signaling and other interactions". Host: Mair Churchill. University of Colorado, Denver. Anschultz Medical Campus. April, 2012.

"Marine sponges and their associated bacteria: A model system for complex symbioses". Host: Yiguo Hong. State Key Laboratory of Tropical Oceanography, South China Sea Institute of Oceanology, Chinese Academy of Sciences, Guangzhou. November, 2011.

"Marine sponges and their bacteria: An intimate relationship". Host: Janice Limson. 2011 Peter Rose Annual Lecture. Rhodes University, South Africa. August, 2011.

"Diversity and function of bacterial symbionts of marine sponges". Host: Zhiyong Li. School of Life Sciences & Biotechnology, Shanghai Jiao Tong University. October, 2010.

"Bacterial symbionts of marine sponges". Host: Tianling Zheng, State Key Laboratory of Marine Environmental Science, Xiamen University. October, 2010.

"Diversity and roles of symbiotic bacteria in marine sponges". Host: Lingyun Qu. First Institute of Oceanography, State Oceanic Administration. October, 2010.

"Bacterial communities of marine sponges: diversity and functions" Host: Michael Rappé. Hawaii Institute for Marine Biology. March 2010.

"Diversity and roles of bacterial symbionts of marine sponges". Host: James Van Etten. University of Nebraska. November, 2009.

"Bacterial symbionts of marine sponges: Diversity and roles". Host: Lasse Lindahl. Department of Biological Sciences. University of Maryland Baltimore County. October, 2009.

"Microbial Genomics at COMB". Host: Don Boesch. Appalachian Laboratory, University of Maryland Center for Environmental Science. October, 2009.

"Diversity and roles of symbiotic bacteria in marine sponges". Hosts: Tom Schmidt and Clegg Waldron. Department of Biology & Molecular Genetics. Michigan State University. September, 2009.

"Exportation of DNA samples from Madagascar. Presentation to 25 government officials outlining issues regarding access to biodiversity and requesting permission to export DNA samples from Madagascar as part of an International Cooperative Biodiversity

Group Project. Madagascar Department of Higher Education and Scientific Research. June, 2009.

"Bacterial symbionts of marine invertebrates: diversity, function and biotechnological potential". Host: Dr. Tamar Barkay. Rutgers University, Institute for Marine and Coastal Sciences and Microbiology Department joint seminar. December, 2008.

"Bacterial symbionts of marine sponges: Diversity and function." Host: Dr. Chris Kellogg. University of South Florida College of Marine Sciences. November, 2008.

"Biodiversity and roles of bacterial symbionts of marine sponges". Host: Dr. Wei Zhang. Dalian Institute of Chemical Physics. Chinese Academy of Science, Dalian, China. October, 2008.

"Bacterial symbionts of marine sponges: Diversity, roles and applications". Host: Dr. Trevor Douglas. Thermal Biology Institute, Montana State University, Bozeman, MT. September, 2008.

Featured Speaker. August, 2008. Alma Dietz Actinomycete Roundtable and Dinner. Convened by Carol Litchfield. "Actinomycetes from the marine environment: Implications for natural products discovery". Society for Industrial Microbiology Annual Meeting. San Diego.

"Bacterial symbionts of marine sponges: Diversity, role and biotechnological potential." Horn Point Laboratory, University of Maryland Center of Environmental Studies. April, 2008.

Faculty Member of Training Course on "Chemical Methods in Marine Ecology". Taught class on Microbial symbionts and drug discovery. Twenty graduate students from eight EU countries participated in this training course. Marine Biodiversity and Ecosystem Functioning EU Network of Excellence. Naples, Italy. September, 2007.

"Symbionts of marine invertebrates: Sources of new drugs". Towson University. July, 2007.

"Bacterial symbionts of marine invertebrates: Potential sources of new drugs". University of Cape Town, South Africa. May 2007.

Sponges and their symbionts: Biodiversity and biotechnology". University of KwaZulu-Natal, South Africa. May 2007.

"Symbionts of marine sponges: diversity and role in production of bioactive compounds". Richmond University, VA. April 2007.

M. Ilan and R. T. Hill. 2007. "Novel marine natural products from sponges and associated microorganisms." University of Maryland-Israel Workshop for the US-Israel Binational Agricultural Research and Development Fund. Tel Aviv, 18th March.

Hill, R. T. 2006. Sponge microbial diversity and future challenges. Roundtable on Marine Sponges as Microbial Fermenters. 11th International Symposium on Microbial Ecology, Vienna, Austria.

"Microbial symbionts of marine invertebrates: Implications for biodiversity and drug discovery." Australian Institute of Marine Science, Townsville, Australia. June 2006. Invited Lecture.

"Drugs from the sea: The promise and the problems". 13th November, 2005. Explorations in Marine and Ocean Sciences Day, Center for Talented Youth, Johns Hopkins University. Invited Speaker.

Hill, R. T. "Bacterial symbionts of marine invertebrates: a solution to the "supply problem" for marine-derived drugs". Novartis. Basel, Switzerland. September, 2005.

Hill, R. T. 2005. Remarkable microbial diversity in marine sponges:
A resource for drug discovery. Invited talk in American Academy of Microbiology Roundtable on "Marine Microbial Diversity: The Key to Earth's Habitability."105th General Meeting of the American Society for Microbiology. Atlanta, GA.

Microbial production of the sponge-derived anti-malarial compound manzamine A. Center for Advanced Research in Biotechnology, UMBI. May, 2005. Invited Lecture.

Bacterial symbionts of marine invertebrates as sources of novel bioactive compounds. Graduate College of Marine Studies, University of Delaware (with interactive video link to Delaware Biotechnology Institute). 26th April, 2005. Invited Lecture.

Hamann, M. T. and R. T. Hill. 2005. The rational design of pharmaceutical products from marine invertebrates and their associated bacteria: The manzamine alkaloids as a model marine drug lead. Connecting the Gulf of Mexico and Human Health. May 4-6, 2005. Long Beach, Mississippi.

M. T. Hamann and R. T. Hill. The role of microbes in production of drug leads found in marine invertebrates. January, 2005. PharmaMar, Madrid, Spain.

M. T. Hamann and R. T. Hill. Marine macroorganisms and microbes as sources of neuroactive compounds. January, 2005. NeuroPharma, Madrid, Spain.

New technologies in aquaculture and marine pharmaceuticals.
Marine Biotechnology Workshop, Marine Institute, Memorial University, St. Johns, Canada. December, 2004. Invited Lecture.

Marine Biotechnology and Natural Products Discovery. Marine Biotechnology Outreach and Education Project. Hawaii Institute of Marine Biology. 27th July to 2nd August, 2004. Coconut Island, Hawaii. Invited Speaker.

Symbionts of marine invertebrates as sources of important bioactive compounds. Kosan Biosciences, Inc., Haywood, CA. 2004. Invited Lecture.

The manzamines and related marine metabolites with a likely microbial origin. Novartis Pharmaceuticals, Cambridge, MA. 2004.

Invited Lecture. US-Egypt Joint Science and Technology Board Meeting on Marine Products. Microbiological studies on Indonesian marine sponges that contain anti-malarial compounds. Ismalia, Egypt. 2002. Invited Lecture.

"Microbes from marine sponges: A resource for drug discovery". 19th November, 2002. Maryland Branch of the American Society for Microbiology. Invited Dinner Speaker.

"Microbiology of marine sponges: Potential for new drugs from the sea". 10th November, 2002. Explorations in Marine and Ocean Sciences Day, Center for Talented Youth, Johns Hopkins University. Invited Speaker.

"Novel microbes from marine sponges: A treasure trove for drug discovery". 13th November, 2002. School of Pharmacy, University of Maryland Baltimore. Invited Seminar.

"Novel microbes from marine sponges: A treasure trove for drug discovery". 12th September, 2002. Chesapeake Biological Laboratory, Solomons, MD. Invited seminar.

"Microbes from marine sponges: a resource for drug discovery". 7th June, 2002. Diversa. San Diego, CA. Invited Lecture.

"Symbiosis between marine sponges and microbes" 18th March, 2002. Marine Biotechnology Institute. Kamaishi, Japan. Invited Lecture.

"Marine sponges and microbes." 15th March, 2002. Japan Marine Science and Technology Center. Yokosuka, Japan. Invited Lecture.

"Marine sponges and microbes: an intimate relationship" 13th March, 2002. Tokyo University of Agriculture and Technology. Tokyo, Japan. Invited Lecture.

Invited Workshop Participant. Office of Ocean Exploration, National Oceanic and Atmospheric Administration. Identification of ocean exploration needs, opportunities, and priorities for the nation's ocean exploration program. Rosenstiel School of Marine and Atmospheric Science, Miami. February, 2002.

"Novel actinomycetes from marine sponges: a resource for pharmaceutical discovery". Delaware Biotechnology Institute, University of Delaware. 30th November, 2001. Invited Seminar.

"Novel actinomycetes from the marine environment". The Institute for Genome Research. 20th November, 2001. Invited Seminar.

Actinomycetes from the marine environment: Potential for natural products discovery. Goucher College, Towson, MD. Invited Lecture (Undergraduate Education). September, 2001.

Marine microbiology and drug discovery. Nereus Pharmaceuticals Inc. San Diego, CA. Invited Lecture. August, 2000.

Featured Speaker. July, 2000. Alma Dietz Actinomycete Roundtable and Dinner. Convened by Jennie Hunter-Cevera. "Actinomycetes from the Marine Environment:

Implications for Natural Products Discovery". Society for Industrial Microbiology Annual Meeting. San Diego.

Actinomycetes from the marine environment: a resource for natural products discovery. Microcide Inc. San Jose, CA. Invited Lecture. July, 2000.

Marine actinomycetes: A resource for natural products screening. Japan Marine Science and Technology Center. Yokosuka, Japan. Invited Lecture. June, 2000.

Marine actinomycetes and natural products discovery. Chesapeake Biological Laboratory, University of Maryland Center for Environmental Science. Invited Lecture. May, 2000.

Ecology and molecular biology of actinomycetes in the marine environment: implications for natural products discovery. Harbor Branch Oceanographic Institution. Invited Lecture. February, 1999.

Ecology and molecular biology of actinomycetes from the marine environment. Scripps Institute of Oceanography, San Diego. Invited Lecture. May, 1997.

Invited Lecture for Maryland Branch of the American Society for Microbiology. March, 1996. "The Potential of Marine Actinomycetes in Biotechnology."

"Ecology and Biotechnological Potential of Marine and Estuarine Actinomycetes." Australian Institute of Marine Science, Townsville, Australia. Invited Lecture. December 1995.

Copernicus Lecture (An International Televideo Series). 9 November, 1995. Lecture entitled "Marine Natural Products and Bioremediation." Broadcast on Interactive Television from the Center of Marine Biotechnology to North Carolina State University, University of Bergen (Norway) and Goteborg University (Sweden).

Chair of Pathogenic Contamination Workgroup of the New York-New Jersey Harbor Estuary Program, Hudson River Foundation at Rutgers University, August 22 and 23, 1995.

"Ecology and biotechnological potential of marine and estuarine actinomycetes." University of Massachusetts Lowell. Invited Lecture. April, 1995.

"Biotechnological uses of marine and estuarine actinomycetes". California State University Northridge. Invited Lecture. March, 1995.

"Natural Products and metal resistance in actinomycetes". Department of Biology, James Madison University, Harrisonburg, VA. Invited Lecture. December, 1994.

"Actinomycetes from the Chesapeake Bay: Potential in biotechnology". Institute of Marine and Coastal Science, Rutgers, New Brunswick, NJ. Invited Lecture. December, 1994.

"Unusual actinomycetes from the Chespeake Bay". Section of Microbiology, Cornell University, Ithaca, N.Y. Invited Lecture. October, 1994.

"Actinomycetes in the Chesapeake Bay". Microbiology Department, University of Cape Town, South Africa. Invited Lecture. March, 1994.

International Workshop on Environmental and Aquatic Microbiology and Biotechnology. Maryland Biotechnology Institute, University of Maryland System, and Department of Microbiology, University of Maryland College Park. September 7-11, 1993. Faculty. Lecture entitled "Molecular detection of pathogens in the environment".

Risk Assessment for Environmental Releases of Biotechnology Products. U.S. EPA, Environment Canada, and USDA Joint Meeting. Duluth, Minnesota. June 14-16, 1993. Lecture entitled "Physiology and molecular genetics of viable but nonculturable microorganisms".

World Resources Institute and U.S. EPA "Megatrends" Project. 1992. Participant in workshop on "Water Resources".

EDUCATION AND TRAINING

SUPERVISION

Postdoctoral fellows

Hanzhi Lin (September 2015- present)

Leah Blasiak (Jan 2010-June 2014). Characterization of polyketide synthase genes from actinomycetes from Malagasy soils and marine invertebrates. Now a scientist at Novozymes, Raleigh-Durham, NC.

Temesgen Mulaw (June 2010-2012). Isolation and characterization of actinomycetes from Malagasy soils and marine invertebrates.

Julie Enticknap (2002-2006). Research Scientist at CIBE- Merck Research Laboratories, Merck Sharp & Dohme de Españia. School teacher in UK.

Graduate students

Lauren Jonas. Current M.S. student, MEES Graduate Program.
Daniela Tizabi, current Ph.D. student, MEES Graduate Program.
Samuel Major, 2019. M.S. student, MEES Graduate Program. Thesis: The probiotics of fuel: A metagenomic study of microalgae grown for fuel production.
Jan Vicente, 2016. Ph.D. student, MEES Graduate Program. Dissertation: Sponge mutualism in the face of climate change. Currently a postdoctoral associate at University Of Hawai'i Manoa with Robert J. Toonen.
Fan Zhang, 2015 Ph.D. student, MEES Graduate Program. Dissertation: Roles of the symbiotic microbial communities associated with sponge hosts in the nitrogen and phosphorus cycles. Currently a postdoctoral associate at Baylor College with Buck Samuel.

Jeanette Davis, 2015 Ph.D. student, MEES Graduate Program. Dissertation: Characterization of the bacterial communities associated with the tropical sacoglossan mollusks *Elysia rufescens* and *Elysia crispata*. Knauss Sea Grant Fellow and subsequently employed at NOAA Fisheries, Office of Science and Technology.
Ryan Powell, 2014 Ph.D. graduate, MEES Graduate Program. Dissertation: Rapid harvest of algae for biofuel production with the aggregating bacterium *Bacillus* sp. strain RP1137.Founder of biotechnology company Manta Biofuel.
Jindong Zan, 2013 Ph.D. graduate, MEES Graduate Program. Dissertation: "Quorum sensing in bacterial symbionts associated with the marine sponges *Mycale laxissima* and *Ircinia strobilina*". Currently a postdoctoral associate at Princeton University with Mohamed Donia.
Hui Wang, 2012 Ph.D. graduate, Xiamen University, co-advised with Dr. Tian. Dissertation: "Diversity and function of bacterial communities associated with biofuel-producing microalga Nannochloropsis oceanica IMET1." Currently Assistant Professor, Yantai Institute of Coastal Zone Research, Chinese Academy of Sciences.
Naomi Montalvo, 2011 Ph.D. graduate, Graduate Program in Life Sciences. Dissertation: "The bacterial communities associated with two marine sponges of the genus *Xestospongia*." Currently Scientific Editor.
Naglaa Mohamed, 2007 Ph.D. graduate in MEES Program. Dissertation: "Ecophysiology of microbial communities associated with marine sponges *Ircinia strobilina* and *Mycale laxissima*." Currently Senior Scientist at Pfizer.
Olivier Peraud, 2006 Ph.D. graduate in MEES Program, currently Principal Applications Scientist, Roche Diagnostics. Dissertation: "Isolation and characterization of a sponge-associated actinomycete that produces manzamines."
Jayme E. Lohr, MS 2003 graduate in MEES Program, currently Scientist, Luminex Corporation. Thesis: "Genomic analysis and characterization of a marine phage that infects a sponge-associated alpha-proteobacterium." Currently
Nicole Webster, (co-advisor with Dr. Leigh Owens) Ph.D. graduate at James Cook University 2000, currently Research Scientist, Australian Institute of Marine Science. Dissertation: "Microbial ecology of the Great Barrier Reef sponge *Rhopaloeides odorabile*."
Jacques Ravel, Ph.D.1998 graduate in MEES Program. Dissertation: "Characterization of giant linear plasmids encoding mercury resistance in actinomycetes." Currently Associate Director and Professor, Institute for Genome Sciences, Department of Microbiology & Immunology, University of Maryland School of Medicine.
Michelle Ramsay. Co-advisor (with Prof. Warren Shipton). M.Sc. 1999. James Cook University, Australia. Thesis: "Influence of oil and bioremediation strategies on mangrove microbial communities."
Johanna Johnson. Co-advisor (with Dr. Emma Gyuris). M. Sc. 2000. James Cook University, Australia. Thesis: "Isolation and characterization of hydrocarbon-degrading bacteria from Australia's Northwest shelf."
Heather Almborg. Co-advisor (with Dr. Emma Gyuris). M.Sc. 1999. James Cook University, Australia. Thesis: "Genomic analysis and characterization of a marine phage that infects a sponge-associated alpha-proteobacterium."

Technicians

Samuel Major. August 2018-January 2019.
Lauren Jonas. July 2017-August, 2018.
Taylor Carter. Sept. 2013-April 2018.
Matthew Anderson. March 2003-Sept. 2010.

Mentorships and Internships

Xavi Geisen. Rising senior at Baltimore Polytechnic Institute. September 2019-present.
Sophie LeClaire. Rising senior at Mount Hebron High School. June-August, 2019.
Bryanna Sanders. Junior in Marine Science. Savannah State University. June 2018-August, 2018.
Lily Xiao. High-school student. Major in Science at Baltimore Polytechnic Institute. September 2016-April 2017.
Ema Pagliaroli. High-school student. Major in Science at Baltimore Polytechnic Institute. September 2015-April 2016.
Kavia DeLorme. Undergraduate student. Double major in Biology and Psychology at Cheyney University. June 2014-August 2014, LMRCSC program. Worked with Jeanette Davis.
Susana Yeboah. Undergraduate student. Major in Pharmacy at University of Maryland Eastern Shore. June 2013-August 2013, LMRCSC program. Worked with Leah Blasiak and Jeanette Davis.
Summara Abaid. High-school student. Major in Science at Baltimore Polytechnic Institute. August 2012 to May 2013.
Joelle Bess. High-school student. Major in Science at Baltimore Polytechnic Institute. August 2011 to April 2012.
Brooke-Logann Williams. High-school student. Major in Science at Baltimore Polytechnic Institute. August 2010 to April 2011.
Bernadette Hritzo. Semi-finalist in the Intel Science Talent Search 2011. "Determining the bioactive capacity and identity of the antibiotic compounds extracted from marine sponges." Named Russell Hill as "the one person who has been most influential in the development of my scientific career".
Kehau Hagiwara. June-August 2010. Intern. BS student in Marine Science at the University of Hawaii, Hilo.
Damian Smoot. March-August 2009. High-school intern. Completed BS at Towson University. Started Pharmacy School Fall 2009. Undergraduate student. Major in Pharmacy at Towson University. June 2011-August 2011, LMRCSC program. Worked with Jindong Zan.
Chris Crump. Summer 2009, 10th Grade, Dulaney High School, Baltimore County, MD.
Darius Gaymon. High school biology teacher. Bladensburg High School. Prince George's County, MD. Summer 2009.
Miera Armstead. High-school student. Major in Science at Baltimore Polytechnic Institute. 2008-2009. Selected for Intel International Science and Engineering Fair, Reno NV, 2009. Undergraduate student. Major in Microbiology at University of Maryland College Park. June 2012-August 2012, LMRCSC program. Worked with Jeanette Davis.
Bernadette Hritzo. Summer 2008, 9th Grade Student at Villa Joseph Marie High School, Holland, Bucks County, PA. Mentorship for Science Fair Project by e-mail. Project on bacteria and bioactive compounds from marine sponges. School Science Fair: Best Novice Project and Best of Fair. Bucks County Science Fair: First Place in Zoology and the Congressional Award for Excellence in Science. Delaware Valley Science Fair (Eastern Pennsylvania, Southern New Jersey and Delaware): First Place in Zoology. Intel International Science and Engineering Fair, Atlanta GA, 2008; 4th Place Grand Award in Animal Sciences; 1st Place in category prize from US Army.
Returned as intern, Summer 2009.
Garima Narayen. UMCP Undergraduate major in Biology. Volunteer intern. 2007-2008.

Raquel Pittiglio. MS student in Johns Hopkins University Graduate School Biotechnology Program. Independent Research Project. 2007-2008.
Kiara Cooper. High-school student. Major in Science at Baltimore Polytechnic Institute. 2007-2008.
Virginia Albarricin, Ph.D. Postdoctoral Fulbright Scholar from Argentina. 2007.
Julían Dib. Graduate Fulbright Scholar from Argentina. 2007.
Benjamin Smith. Undergraduate major in biology and a minor in Organic Chemistry, Gettysburg College, PA. Volunteer intern. Summer 2007.
Jeanette Davis. Undergraduate intern. Senior at Hampton University. Living Marine Resources Cooperative Science Center funding. Summer 2007.
Rosetta Jordan. High school teacher. Magruder High School, Montgomery County, MD. Extended Professional Experience in Research for Teachers (ExPERT) Program funding. Summer 2007.
Katy Sander. High school teacher. Wootton High School, Rockville, Montgomery County, MD. Extended Professional Experience in Research for Teachers (ExPERT) Program funding. Summer 2007.
Lion Novak. Graduate student at Tel Aviv University. 2 months in Hill Laboratory. 2007.
Markus Haber. Graduate student at Tel Aviv University. 2 months in Hill Laboratory. 2007.
Jason Gvazdauskas. Extended Professional Experience in Research for Teachers (ExPERT) Host. Intensive training of this high-school teacher (Montgomery County, MD). July-August 2004; July-August 2005, July-August 2006.
Jessica Neumyer, Hammond High School, Howard County 2003.
Toby Wright, University of Maryland Baltimore 2002-2003.
Gerre Dias, Towson University 2002-2003.
Dovi Kelman, Ph.D. Postdoctoral Fulbright Scholar from Israel. 2002.
Yael Lampert. Graduate student volunteer. 2002.
Sifat Chowdhury. High-school internship. Summer 2005. Summer 2006.
Robin Thompson, Penn State 2002. Undergraduate internship.
Anthony Agyapong, Baltimore Polytechnic 2001-2003.
Vera Mendjiwa, Baltimore City Community College 2001.
Susanne Böhn, Mannheim University of Applied Sciences, Germany 2001-2002.
Chika Eziani, Ph.D. student in the Department of Botany and Microbiology at the University of Lagos, Nigeria. 2000-2001.
Lindsay Stevenson, New College of Florida 2000-2001.
Dennis J. Spencer, High-school intern, Baltimore Polytechnic 1999-2000. Subsequently B.S. Biology Magna cum Laude at Morehouse College, Ph.D. 2013 at The Rockefeller University, in Weill Medical College of Cornell University/ Rockefeller University/ Memorial Sloan-Kettering Tri-Institutional MD/PhD Program.
Robert Watkins, Baltimore Polytechnic 1999.
Steven Gibson, The Gilman School; University of Virginia 1993-1995.

Visiting Scientists Hosted

Dr. Jing Zhao, Associate Professor Visiting Scientist, College of Ocean and Earth Science, Xiamen University, China.
Dr. Li Zheng, Associate Professor, First Institute of Oceanography, State Oceanic Administration, Qindao, China. March 2013-March, 2014.
Dr. Gui Zheng, Postdoctoral associate from laboratory of Dr. Henry Williams, Florida A&M University. Traineeship. Training in pulsed field gel electrophoresis. 2007.

Arnheidur Eythorsdottir, Visiting Scientist. Traineeship. Akureyri University, Iceland. 2006.
Sabbatical, Dr. LeLeng To Isaacs. Professor, Goucher College. 2002-2003.

COURSE INSTRUCTION

Responsible Conduct of Research. MEES 608B. Marine, Estuarine and Environmental Science. University of Maryland College Park Graduate Program. Course Instructors: R. T. Hill and T. Miller. Fall 2013, Fall 2015, Fall 2016, Fall 2017, Fall 2018. 1 credit.

Marine Microbial Ecology MEES608L. Marine, Estuarine and Environmental Science. University of Maryland College Park Graduate Program. Course Instructors: R. T. Hill and F. Chen. Spring 2002. Spring 2003, Spring 2004. Spring 2007, Spring 2008, Spring 2009, Spring 2010, Spring 2013, Spring 2014, Spring 2015, Spring 2016. 2 credits.

Microbial and Environmental Genomics MEES608G. Marine, Estuarine and Environmental Science. University of Maryland College Park Graduate Program. Course Instructors: R. T. Hill and F. Chen. Fall 2007, Fall 2008, Fall 2009, Fall 2011. 2 credits.

Marine Biotechnology. B.Sc. Honors Course. Rhodes University, Grahamstown, South Africa. August 2011, August 2012. Instructors: R. T. Hill and G. Matcher.

Marine Biotechnology. An intensive course in Marine Biotechnology at Ruppin Academic Center, Michmoret, Israel to 80 final year undergraduate and graduate students. Course Instructors: Y. Zohar and R. T. Hill. Fall, 2007. Spring 2009. Spring 2010. Spring 2011.

Class in Microbial Symbionts of Marine Invertebrates as part of Marine Chemical Ecology course for European graduate students in Naples, Italy, funded by the Marine Biodiversity and Ecosystem Functioning EU Network of Excellence. Fall, 2007.

Microbial Ecology BSCI464/MEES608J. University of Maryland College Park. Course Instructor: J. DiRuggiero. Guest lecturer: Six lectures in Marine Microbial Ecology. Undergraduate/graduate. Fall 2001. Fall 2003. Fall 2004 3 credits.

Marine Biotechnology 410.617.01. 3 credit class in Biotechnology Graduate Program. The Johns Hopkins University. Spring 2002, Spring 2004, Spring 2006, Spring 2009, Spring 2011. Course Instructor: R. T. Hill.

Bioinformatics: Principles, Methods and Applications. Course Leader Frank Robb. Faculty: H. Schreier, G. Gilliland, R. Hill, J. DiRuggiero, J. Ravel, D. Maeder, N-K. Birkelande, T. Lien, L. Sjolin, A. Tygerstrom. A 3-credit 11 week graduate course with contributions from the Universities of Maryland, Bergen and Goteborg.

SERVICE ACTIVITIES

IMET, UMCES and USM Committees and Programs
Member, IMET Governing Council. July 2011-present.
Chair, IMET Program Committee. July 2011-present.
Member, UMCES Executive Council. July 2011-present

Member, UMCES Administrative Council. July 2011-present.
Chair, IMET Faculty Search Committee. October, 2011-August, 2012.
Member, IMET Program Committee. July 2010- July 2011.
Member, IMET Director Search Committee. May-December, 2010.
Member, Vice-President Academic Affairs-USM committee on the future of the MEES Graduate Program. 2007-2008.
Member, UMBI External Review Planning Committee. 2007-2008.
Member, MEES Graduate Program Committee. 2001-2010.
Member, Fish Immunology Faculty Search Committee 2004-5.
Chair, Environmental Molecular Biology and Biotechnology Area of Specialization, Marine Environmental and Estuarine Science Program. 2005-2010.
Co-chair, Environmental Molecular Biology and Biotechnology Area of Specialization, Marine Environmental and Estuarine Science Program. 2001-2005.
Member, Radiation Safety Committee, Environmental Health and Safety, University of Maryland Baltimore. 2001-2007.
Member, Basic Research Radiation Safety Sub-committee, Environmental Health and Safety, University of Maryland Baltimore. 2001-2007.
Member of Seminar Committee at the Center of Marine Biotechnology from 1993 to 1995, responsible for arranging ca. 20 seminars per year by visiting scientists. Chair of Seminar Committee from 1994.

Graduate student advisory committees
Special Membership of the Graduate Faculty at the University of Maryland College Park.
Faculty Member of the Marine Estuarine Environmental Sciences (MEES) Program, University of Maryland College Park.
Member, Graduate Faculty of the University of Maryland Graduate School, Baltimore, Graduate Program in Life Sciences (GPILS).

Graduate Committee member for the following students:

Current:

Victoria Laye, MEES Graduate Student, UMB.
Rebecca Wenker, MEES Graduate Student, University of Maryland Eastern Shore.
Sabrina Klick, MEES Graduate Student, University of Maryland Eastern Shore.
Rudy Park, Biology Department, UMBC.
Daniel Fucich, MEES Graduate Student, UMCES-IMET.

Completed:

Yuanchao Zhan, Ph.D. 2017. MEES Graduate Student, UMCES-IMET.
Sara Rowland, Ph.D. 2016. MEES Graduate Student, UMB-IMET.
Kate Gillespie, Ph.D. 2015. MEES Graduate Student, UMCES-IMET.
Bin Wang. Ph.D. 2012. Department of Pharmacognosy, University of Mississippi.
Verena Starke. Ph.D. 2012. MEES Graduate Program, IMET.
Haifeng Geng. Ph.D. 2010. MEES Graduate Program, COMB.
Soumya Ganguly, Ph.D. 2010. MEES Graduate Program, UMBC.
Stephanie Kroll. MS. 2010. Department of Biology, Indiana University.
Stephen Techtmann, Ph.D. 2009. Graduate Program in Life Sciences, Univ. Maryland Baltimore.

Kelsy Smith, Ph.D. 2008. Graduate Program in Life Sciences, University of Maryland Baltimore.
Noer Kasanah, Ph.D. 2008. School of Pharmacy, University of Mississippi.
Elisha Cicirelli, Ph.D. 2007. Department of Biology, Indiana University.
Kui Wang, Ph.D. 2007. MEES Program, COMB.
Wolf Pecher, Ph.D. 2006. MEES Program, COMB.
Sonja Fagervold, Ph.D. 2006. MEES Program, COMB.
Jinjun Kan. Ph.D. 2006. MEES Program, COMB.
Eric W. Odom. Ph.D. 2004. MEES Graduate Student, COMB.
Todd Miller. Ph.D. 2004. MEES Graduate Student, COMB.
PongPan Laksanalamai. Ph.D. 2003. MEES Program, COMB.
Glynis Perrera. Ph.D. 2002. MEES Program, COMB.
Marcie L. Baer. Ph.D. 1998. Dental Microbiology. University of Maryland Baltimore.
K. Eric Wommack. Ph.D. 1997. MEES Program, COMB.
Julie D. Gauthier. Ph.D. 1997. MEES Program, COMB.
Victoria Boccuzzi. M.S. 1995. MEES Program, COMB.

Service for the scientific community

American Society for Microbiology Track Leader for Ecological and Evolutionary Science (EES) 2016-2018.
American Society for Microbiology Divisional III Representative. July 1, 2014 to June 30, 2016.
Board Member and Secretary-Treasurer of the International Marine Biotechnology Association. 2007-present.
American Society for Microbiology Pre-Meeting Workshop Scholarship Review Committee 2006-2009.
Advisory Committee to the National Marine Biotechnology Briefing Team, 2005.
Member, Faculty of 1000. 2004-present.
President, American Society for Microbiology, Maryland Branch, 2005-2006.
President-elect, American Society for Microbiology, Maryland Branch, 2004-2005.
Councilor, American Society for Microbiology, Maryland Branch. 2000-2004.
Chair, Nominating Committee. Division N (Microbial Ecology), American Society for Microbiology. 2002.
Member, Nominations Committee. American Society for Microbiology, Maryland Branch. 2000.
Coordinator, Molecular Sciences Discussion Group, Australian Institute of Marine Science. 1997- 1998.
Institutional Biosafety Committee member, Australian Institute of Marine Science. 1997-1998.

Community Outreach

Venture for America event at IMET. VFA is a fellowship program for top college graduates to launch their careers as entrepreneurs. Opening remarks highlighting IMET's economic development activities; 250 attendees. May, 2017.

Baltimore Tech Series event at IMET organized by Laura Gaworecki, Moxie Promotions. Opening remarks highlighting IMET's economic development activities; 60 attendees. May, 2017.

Start-up CFO event at IMET hosted by BioBuzz and sponsored by PNC Bank. Opening remarks highlighting IMET's economic development activities; 50 attendees. April, 2017.

Maryland Chamber of Commerce event at IMET. Opening remarks highlighting IMET's economic development activities; 80 attendees. February, 2017.

American Geophysical Union Executive Board Meeting at IMET. Opening remarks highlighting IMET's scientific activities. November, 2016.

Phillips Wharf Environmental Center Bay Bay, Tilghman Island. Manned IMET booth and communicated our research to the general public (with Eric Schott), May, 2015; May, 2016.

Near East and North African Delegation visit to IMET, US State Department's International Visitor Leadership Program. April, 2016.

Delegation from Jeollanamdo Province, South Korea, led by Governor Nak-Yon Lee. February, 2016.

Addressed Oyster Summit, Building Conservation Trust, Coastal conservation Association , IMET, April, 2016.

Presentation and laboratory tour for Marine Conservation Club, Goucher College, MD. March, 2014.

Presentation and laboratory tour for Biology Club, Morgan State University, MD. February, 2014.

Presentation and laboratory tour for group from Fisheries and Marine Institute, Memorial University of Newfoundland, Canada. January, 2014.

Presentation and laboratory tour for Assistant Attorneys-General, State of Maryland. January, 2014.

Presentation and laboratory tour for 12th-grade Advanced Placement students from Allegheny High School, Allegheny County, MD. 18th April, 2012.

Presentation to the Atlantis Rangers Skin and Scuba Diving Club, Greenbelt, Maryland. Talk entitled "Marine Sponges, Symbiotic Bacteria and New Drugs" and group discussion between Russell Hill, Naomi, Montalvo and Jan Vicente and the Club Members. 13th April, 2012.

Summer Microbiology and Research Training (SMaRT) Course. This intensive laboratory-based course is designed to encourage minority undergraduate students to consider career options in science. Nine participants. July 2011.

Presentation to the Ernest E. Just Biology Club comprising undergraduate students from Morgan State University. April, 2011.

Panelist, Public Forum on "Emerging Opportunities in Biotechnology" organized by the Center for Biotechnology Education, The Johns Hopkins University, 18th November, 2010.

Summer Microbiology and Research Training (SMaRT) Microbial Observatory on Marine Sponges Course. This intensive laboratory-based course is designed to encourage minority undergraduate students to consider career options in science. July 2009.

Featured speaker at dinner meeting of the Maryland Association of Science Teachers. Presented the talk "Symbionts of Marine Invertebrates: Importance in Biotechnology" to audience of 45 science teachers from all around Maryland. November, 2008.

Summer Microbiology and Research Training (SMaRT) Microbial Observatory on Marine Sponges Course. This intensive laboratory-based course is designed to encourage minority undergraduate students to consider career options in science. July 2006.

Science Fair Judging for the Maryland Branch of the American Society for Microbiology: The Twenty-Fourth Annual Morgan State University Science-Mathematics Engineering Fair, March 2004.

Technical Advisory Committee for the Oregon/Hawaii Sea Grant Marine Biotechnology Outreach and Education Project. 2004. Assist high school teachers in incorporation of Marine Biotechnology in lesson plans. Participant in Curriculum Development Workshop 27th July to 2nd August, 2004.

Summer Microbiology and Research Training Microbial Observatory on Marine Sponges (SmaRT MOMS) Course. This intensive laboratory-based course is designed to encourage minority undergraduate students to consider career options in science. July 2004.

Host and Speaker for annual visit to COMB of the Multicultural students At Sea Together (MAST) Program. MAST involves a three-week cruise on the Chesapeake Bay and includes a one-day visit to COMB (2002, 2003, 2004, 2005).

Lecture entitled "Drugs from the Sea: The promise and the problems" to Dunbar High School students. November, 2005.

Consulting service to industry and agencies

Consultant to BioSynergies Pty. Ltd. (Canada) on Marine Biotechnology commercial development. 2000-2002.
Consultant to the Food and Drug Administration. 2003.

Conference organization

Chair, Session on Environmental and Agricultural Microbiology. 58th Annual Conference of the Association of Microbiologists of India (AMI-2017). November 16-19, 2017. Lucknow, India.
Co-Chair (with Haruko Takeyama). Marine Microbiology and Bio-energy. Asia-Pacific Marine Biotechnology Conference. 22-24 May, 2017. Manoa, Hawai'i.

Conference Director, September, 2016. 11th International Marine Biotechnology Conference. Baltimore, Maryland, USA.
Conference Director, October, 2014. 2nd International Symposium on Sponge Microbiology. Baltimore, Maryland, USA.
Convener, May 2014. The roles of antibiotics in Nature: A long-standing enigma. American Society for Microbiology, Denver, Colorado.
Convener, March 2011. Discussion on future directions for sponge microbiology. 1st International Symposium on Sponge Microbiology. Würzburg, Germany.
Co-Convener (with Margo Haygood). August 2010. Natural Products-Introduction and overview of the International Cooperative Biodiversity Group Program. Society for Industrial Microbiology Annual Meeting. San Francisco, CA.
Convener. August, 2010. Alma Dietz Actinomycete Roundtable and Dinner. Speaker: Michael Fischbach, "A gene-to-molecule approach to discovering and characterizing natural products from the human microbiome". Sponsored by Pfizer. Society for Industrial Microbiology Annual Meeting. San Francisco, CA.
Discussion Leader (with William Gerwick). 2010. Harnessing the Biosynthetic Capacity of Microbial Symbionts. Gordon Research Conference on Marine Natural Products. Ventura Beach, CA. 28th Feb-5th March, 2010.
Convener. August, 2009. Alma Dietz Actinomycete Roundtable and Dinner. Speaker: Paul Jensen, "What's in a name: Linking species concepts to natural product discovery in the post-genomic era". Sponsored by Cubist. Society for Industrial Microbiology Annual Meeting. Toronto, Canada.
International Marine Biotechnology Association (IMBA) Board Member for the International Marine Biotechnology Conference in Qingdao, China in 2010.
Co-chair with Anthony Moss. Session entitled "Microbial Associations with Marine Invertebrates". 2008 Ocean Sciences Meeting. From the watershed to the global ocean. Orlando, FL.
International Program Committee and the International Marine Biotechnology Association (IMBA) Executive Committee for the International Marine Biotechnology Conference held in Eilat, Israel in March, 2007.
Co-Convener with Dominick Mendola. "Moving natural products from the sea to drugs on pharmacy shelves: The supply problem and other issues." 8th International Marine Biotechnology Conference. Eilat, Israel. March 2007.
Co-Convener (with Jo Handelsman). 4th Annual Microbial Observatories PI Meeting and Workshop: Recent Advances and Prospects for Microbial Discovery Science. Washington DC on March 1-3, 2007.
Judging Panel, ManaproXII, Marine Natural Products Conference, Queenstown, New Zealand, February, 2006.
Judge, Awards for Innovation in Health and Food, funded by Merck, Sharp and Dohme, Mexico City, November, 2006.
Co-Convener, Roundtable entitled "Marine Sponges as Microbial Fermenters", 11th International Symposium on Microbial Ecology, Vienna, Austria. 20-25th August, 2006.
Chair, Session entitled "Symbioses between Microbes and Invertebrates: Novel Biodiversity and Ecophysiology." SIM Annual Meeting. 21-25th August, 2005. Chicago.
Co-Chairs: Russell Hill and David Newman. "New drugs from marine microbes: the tide is turning". SIM Annual Meeting. 21-25th August, 2005. Chicago.
Member, International Organizing Committee, Marine Biotechnology Conference, St. Johns, Canada, 2005.
Member, International Program Committee, Marine Biotechnology Conference, St. Johns, Canada, 2005.

Member of the Steering Committee for the symposium “Marine Microbial Diversity: The Key to Earth’s Habitability” organized by the American Academy for Microbiology. 11-13th April, 2005. San Francisco.
Member, International Organizing Committee, Marine Biotechnology Conference, Chiba, Japan, 2003.
Chair, International Program Committee, Marine Biotechnology Conference, Chiba, Japan, 2003.
Co-Chair of session “Natural Products from Marine Microbes” Society for Industrial Microbiology Annual Meeting 2003. Minneapolis, MN.
Chair of session “Heterotrophic Microorganisms at the “Marine Biotechnology: Basics and Applications” conference in Spain, March 2003.
Advisory Board for the “Marine Biotechnology: Basics and Applications” conference in Spain, March 2003.
International Program Committee, 5th International Marine Biotechnology Conference, Townsville, Australia October 2000.

Service as reviewer
Ad hoc reviewer for “Proceedings of the National Academy of Science USA”, “Nature Reviews Microbiology”, “Nature Scientific Reports”, “Applied and Environmental Microbiology”, “ISME Journal”, “Environmental Microbiology”, “Journal of Bacteriology”, “Microbiology”, “Aquatic Microbial Ecology”, “Microbial Ecology”, “Systematic and Applied Microbiology”, “Medicinal Chemistry Research”, “Soil Biology and Biochemistry”, “Journal of Marine Biotechnology”, “Journal of Industrial Microbiology and Biotechnology”, “Marine Biotechnology”, “Botanical Bulletin of Academia Sinica”, “Hydrobiologia”, “Canadian Journal of Microbiology”, “Brazilian Journal of Microbiology”, “Comparative Biochemistry and Physiology”, “Applied Biochemistry and Biotechnology”, “Applied Microbiology and Biotechnology”, “FEMS Microbiology Ecology”, “Journal of Experimental Marine Biology and Ecology”, “Bioresource Technology”, “Marine Ecology Progress Series”, “Molecular Ecology”, “Oryx”, “Water SA”, “Marine Drugs”, “Pakistan Journal of Zoology”, “African Journal of Marine Science”, “PLOS One”, “International Journal of Systematic and Evolutionary Microbiology”, “Biotechnology Advances”, “Current Biology”.

Service on editorial boards
Applied and Environmental Microbiology. 2003-2011 (Three-year terms, re-appointed twice).
Marine Biotechnology 1999-present.
Frontiers in Microbial Symbiosis 2014-present.
Microbial Biotechnology 2016-present.

Reviewer/panelist for granting agencies
Genome British Columbia’s Strategic Opportunities Fund. 2013.
National Science Foundation BIO-Integrative Organismal Systems Panel. 2012.
Cooperative Institute for Ocean Exploration, Research and Technology (CIOERT) Science Review.
National Oceanographic and Atmospheric Administration, Ocean Exploration and Research. 2012.
Wellcome Trust/Department of Biotechnology India Alliance Fellowship Reviewer 2012.
Reviewer for Open Programme of the NWO Research Council for Earth and Life Sciences, Netherlands, 2011.

Technical Reviewer, Atlantic Innovation Fund, Atlantic Canada Opportunities Agency, 2010.
National Science Foundation Dimensions of Biodiversity Panel. 2010.
Scientific Advisory Panel Member. 2008, 2009, 2010, 2011. Biotechnology Research Grants. North Carolina Biotechnology Center.
National Science Foundation SBIR/STTR Panel 2007.
Irish Research Council for Science, Engineering and Technology, Embark Initiative Postdoctoral Program 2005.
National Science Foundation Microbial Interactions and Processes 2004.
National Science Foundation Program for Enhancement of Expertise on Systematics (PEET) Panel 2003.
DOE Genes to Life (GTL) Panel 2002.
Florida Sea Grant Review Panel 2005, 2007.
Washington Sea Grant Review Panel 2000, 2003, 2006.
Oregon Sea Grant Review Panel 1999, 2001, 2005.
DOE Biotechnological Investigations-Ocean Margins Program (BI-OMP) Panel, 2000.
Reviewer of proposals for National Science Foundation (Biological Oceanography, Biotic Surveys and Inventories, Microbial Interactions and Processes).
National Oceanographic and Atmospheric Administration (National Undersea Research Program, Florida Sea Grant, Washington Sea Grant and Oregon Sea Grant).
US Department of Agriculture Egypt-US Science and Technology Program.
Natural Environment Research Council (UK).
Department of Industry, Science and Tourism (Australia).
National Research Foundation (South Africa).
ICSC-World Laboratory (Switzerland).
Israel Science Foundation.
International Foundation for Science, Stockholm, Sweden, 2004, 2005, 2006, 2007, 2008, 2009.
Natural Sciences and Engineering Research Council of Canada.

University Promotion External Reviewer

University of Haifa. 2017.
University of Michigan. 2016.
Scripps Institution of Oceanography, 2016.
University of Vienna, Austria. 2016.
Ben-Gurion University of the Negev, Israel. 2016.
University of New South Wales., Australia. 2016.
Scripps Institution of Oceanography, 2015.
University of Tennessee, Knoxville, 2015.
Rutgers University, 2013.
Shanghai Jiao Tong University, China. 2012.
Hebrew University of Jerusalem. 2012.
University of Richmond. 2011.
University of Maryland Baltimore. 2011.
University of Wisconsin Milwaukee. 2008.
University of Utah. 2005, 2007.
University of Maryland Baltimore. 2007.
University of Connecticut. 2005, 2007.
Scripps Institution of Oceanography, University of California San Diego. 1998, 2006, 2008, 2009.

University of Mississippi. 2004.
University of Arizona. 2002.
University of Cape Town. 1997.

Thesis External Examiner

University of Prince Edward Island, Canada. Ph.D. 2013.
University of New South Wales. Ph.D. 2012.
Rhodes University, Grahamstown, South Africa. M.Sc. 2009.
University of Cape Town. Ph.D., 1998; Ph.D. 2008.
University of Akureyri, Iceland. MS. 2007. External Opponent.
University of Queensland. 2006 (two Ph.D. dissertations).