

## MYA BREITBART

University of South Florida  
College of Marine Science  
140 7<sup>th</sup> Avenue South  
Saint Petersburg, FL 33701

email: mya@usf.edu  
phone: (727) 553-3520; FAX: (727) 553-1189  
<http://www.marine.usf.edu/genomics>

### Education

University of California San Diego & San Diego State University	Cell and Molecular Biology	Ph.D. 2006
Florida Institute of Technology	Biology	B.S. 2000

### Appointments

Full Professor at the University of South Florida	2016-present
Associate Professor at the University of South Florida	2012-2016
Assistant Professor at the University of South Florida	2006-2012

### Awards

American Academy of Microbiology Fellow. 2019.  
University of South Florida Outstanding Faculty Award. 2018.  
American Association for the Advancement of Science (AAAS) Fellow. 2017.  
Girls Incorporated of Pinellas STEM Woman of the Year. 2015.  
Florida Trend Magazine's All Star. 2014.  
University of South Florida Outstanding Faculty Award. 2014.  
Popular Science Magazine's "Brilliant Ten" Young Investigators. 2013.  
Honorable Mention, University of South Florida's Outstanding Graduate Mentor Award. 2013.  
Kavli Frontiers Fellow. National Academy of Sciences. 2009 and 2010.  
"Each One Teach One" Phenomenal Woman Award, University of South Florida Saint Petersburg. 2009.  
Outstanding Research Achievement Award, University of South Florida. 2008.  
Alfred P. Sloan Research Fellow. 2007.  
Genome Technology Magazine's Young Investigator Award. 2006.  
Achievement Rewards for College Scientists. 2005-2006.

### Professional Activities

Member of the USF Strategic Planning Advisory Task Force. 2021.  
Member of the USF Publication Council. 2020-2021.  
Member of the Selection Committee for the USF Outstanding Thesis/Dissertation Awards. 2020.  
Co-chair of Keystone Symposium on the Global Virome in Health and Disease. 2019-2020.  
CMS Safety Committee, 2020-present.  
CMS Dean Search Committee, 2019-2020.  
Ad hoc USF Research Misconduct Committee. 2018-2019.

## Vita for Mya Breitbart

Tenure & Promotion Committee Member, Biology Department, USFSP, 2018.  
Editorial Board Member, PeerJ. 2017-present.  
International Society for Microbial Ecology (ISME) International Board of Ambassadors. 2017-2020.  
University of South Florida Honors and Awards Council, 2017-2021.  
American Society for Microbiology 2017 Officer Nominating Committee.  
USF CIDER (Center for Infectious Disease Ecology Research) Advisory Board. 2016-present.  
USF Academy for Teaching and Learning Excellence (ATLE) Pedagogy All-Day Workshop. January 2016.  
Editor for Aquatic Microbial Ecology. 2015-2020.  
Session Chair, Gordon Conference on Animal-Microbe Symbiosis. June 2015.  
Session Chair, American Society for Microbiology General Meeting. June 2015.  
Research Advisory Committee, University of South Florida. July 2015-December 2017.  
National Science Foundation Graduate Research Fellowship Program Panel. January 2015.  
Scientific Advisory Board Member for International Society of Viruses of Microbes. 2015-2019.  
Scientific Advisory Board Member for the American Society for Microbiology. 2014-present.  
Chair of Division M (Bacteriophage) of the American Society for Microbiology. 2015-2016.  
Selection Committee Member – Renate E. Bernstein Outstanding Publication Award. 2014.  
Curator for the Aquatic Viruses Scoop.It Page. 2014-present.  
Editorial Board Member for Scientific Reports (part of the Nature Publishing Group). 2014-2016.  
Chair or Member of the Circoviridae Subgroup of the International Committee on the Taxonomy of Viruses. 2014-present.  
Member of the ICTV Bacterial & Archaeal Virus Taxonomy Consultative Group. 2014-present.  
Chair-Elect of Division M (Bacteriophage) of the American Society for Microbiology. 2014.  
External Thesis Review. August 2014. Rendy Ruvindy, The University of New South Wales School of Biotechnology and Biomolecular Sciences.  
Councilor for the Florida Branch of the American Society for Microbiology. 2013-2015.  
Co-founder for the Tampa Bay's Tiniest Biology Microbiology Group. 2013-present.  
University of South Florida QEP Steering Committee, Global Citizen Project. 2013 – present.  
NSF OCE Postdoctoral Research Fellowship Review Panel – April 2013.  
Nominating Committee for the ARCS Tampa Bay Chapter 2013-2014  
International Partner for MicroPolar Norway. 2013.  
USF Incentivizing, Recognizing and Rewarding International Engagement Among Faculty Workgroup. 2012 – 2013.  
Steering Committee for the 2013 Environmental Virology Workshop. 2012-2013.  
Member of the CMS Curriculum Committee. 2012-2015.  
USF Senate Research Council of Reviewers. 2012-present.  
Elected Member of the Executive Committee of the International Committee on the Taxonomy of Viruses. 2011-2014. (Also member of the Anellovirus and Circoviridae Subgroups)  
President for the Florida Branch of the American Society for Microbiology. 2011-2013.  
Co-organizer of the 19<sup>th</sup> Evergreen International Phage Biology Meeting. 2011.  
Presentation judge for the USF 9<sup>th</sup> Annual Undergraduate Research Symposium, 2011.

## Vita for Mya Breitbart

Organizing committee member for the National Academy of Science's Kavli Frontiers in Science Meeting. 2011.

Member of the USF Graduate School Recruitment Consortium. 2011-present.

Member of the USF Phytoplankton Ecologist Search Committee. 2011.

Member of the CMS Honors and Awards Committee. 2010-present.

Mentor for the STREAMS (Supporting Talented and Remarkable Environmental and Marine Science Students) Scholarship Program. 2009-present.

Faculty Advisor to the CMS Postdoctoral Researcher Association. 2009-present.

Member of the USF College of Marine Science Dean Search Committee. 2009-2010.

Scientific Member of the USF/Mote Affiliation Committee. 2009-present.

Proposal Enhancement Program (PEP) Expert for the USF Research Council. 2009-present.

Co-organizer of the 18<sup>th</sup> Evergreen International Phage Biology Meeting. 2009.

Vice-President for the Florida Branch of the American Society for Microbiology. 2008-2010.

Member of initiating group for the Tampa Bay ARCS (Achievement Rewards for College Scientists) Foundation. 2007-present.

Website development and maintenance for USF College of Marine Science. 2007-2009.

Member of the USF University Laboratory and Field Safety Committee. 2007-2012.

Marine Science Advisory Committee (MSAC) Faculty Advisor. 2007-present. (MSAC was recognized with the USF 2008-2009 Outstanding Student Organization Award)

Member of Florida Aquarium's Conservation and Research Advisory Committee. 2007-present.

Member of the STREAMS (Supporting Talented and Remarkable Environmental and Marine Science Students) Scholarship Program Advisory Board. 2007 – present.

Chair of Graduate Student Recruitment Weekend, USF College of Marine Science. 2006-2014.

Faculty advisory committee for the CMS Graduate Student Symposium. 2008 - present.

Secretary for the Florida Branch of the American Society for Microbiology. 2006-2008.

Member of the USF Strategic Planning Committee. 2007.

### Significant Outreach Activities

Resource and Expert Graphic Reviewer for the National Geographic February 2021 issue on Viruses.

Created a series of outreach videos on microbial water quality (<http://mera.marine.usf.edu/outreach-education/>) - 2020

Annual exhibitor at the Saint Petersburg Science Festival (2020 video here - <https://stpetescifest.org/kids/track-b-usf-college-of-marine-science-briertbart-lab/>)

Led Art & Science activities for local community artists, beginning with lab tours and hands-on experiences for the artists, and ending with an exhibit showcasing science-themed artwork. 2019-2020.

Created in-person and virtual DNA Detectives activity (<https://sites.google.com/view/dnadetectives/home>). 2019-2020.

Highlighted by the Finding Genius Podcast (<https://findinggeniuspodcast.com/podcasts/ocean-overview-dr-mya-breitbart-professor-of-biological-oceanography-at-the-university-of-south-florida-marine-microbes-bacteria-viruses-and-the-diversity-of-life-in-our-ocean/>). 2020

## Vita for Mya Breitbart

Various activities with Girls Incorporated and Girl Scouts at Camp Wai Lani, reaching over 500 girls. Ongoing. In 2019, led a 10-week, hands-on summer program on marine science for Girls Incorporated of Pinellas with Makenzie Kerr.

Featured in video “Drawn to the Sea: Florida Women in Marine Science” geared toward middle school girls - <https://www.youtube.com/watch?v=O1C1uagBrRg> – 2017.

Keynote speaker, Bright House Networks “Bright Ideas STEM From Today’s Youth” Semi-finalist Competition. 1/2016.

Various activities with Girls Incorporated and Girl Scouts at Camp Wai Lani, reaching over 500 girls. Ongoing.

Invited panelist, USF 11<sup>th</sup> annual diversity summit. 3/14.

Spoonbill Bowl Volunteer Moderator. 2014, 2015.

FabFems Role Model. 2013-present.

Leadership Team Member for Florida Girls Collaborative Project. 2010-present.

Designed a fully functional Marine Science Laboratory for Girl Scout Camp Wai Lani. 2011.

Designed and ran a Girl Scout Marine Science Workshop for an Girl Scout Encampment at Camp Wai Lani (150 Girls ranging from ages 5-13). 2009.

Co-organizer of a Girl Scout Marine Science and Technology Workshop at the College of Marine Science. 2008. <http://www.marine.usf.edu/news/girlscouts.shtml>

Faculty mentor for the USF Oceanography Camp for Girls. 2007-2011.

Created bilingual educational videos about microbialites in our field site of Cuatro Cienegas, Mexico. 2007. [http://www.desertfishes.org/cuatroc/literature/pdf/Breitbart\\_videos.php](http://www.desertfishes.org/cuatroc/literature/pdf/Breitbart_videos.php)

### Formal Courses Taught

Guest Lectures in Biological Oceanography (every year), undergraduate Virology (MCB4503 in 2019, 2020), USF Microbiome course (2020-2021).

Professional Development I (2-credit graduate-level professional development course; co-taught with Kristen Buck), Fall 2020.

Professional Development II (2-credit graduate-level professional development course; co-taught with Kristen Buck), Spring 2020.

Virology (3-credit graduate-level course; co-taught with Karyna Rosario), Fall 2018.

Professional Development II (2-credit graduate-level professional development course; co-taught with Kristen Buck), Spring 2018.

Microbes and Metals (2-credit graduate-level readings course; co-taught with Kristen Buck; OCE6934), Fall 2017.

Professional Development I (2-credit graduate-level professional development course; OCE6934), Fall 2017.

Professional Development I (2-credit graduate-level professional development course; OCE6934), Fall 2016.

Professional Development I (2-credit graduate-level professional development course; OCE6934), Fall 2015.

Molecular Microbiology Methods (2-credit graduate-level course covering modern methods in molecular microbiology). Spring 2015.

## **Vita for Mya Breitbart**

Professional Development II (2-credit graduate-level professional development course; OCE6934), Fall 2014.

Professional Development I (2-credit graduate-level professional development course; OCE6934), Fall 2014.

Micro-Macro Interactions (1 credit graduate-level readings course; OCE6934), Spring 2014.

Professional Development (2-credit graduate-level professional development course; OCE6934), Fall 2013.

Micro-Macro Interactions (1 credit graduate-level readings course; OCE6934), Spring 2013.

Professional Development (2-credit graduate-level professional development course; OCE6934), Fall 2012.

Foundations of Biological and Fisheries Oceanography (2 credit graduate-level readings course (OCE6934). Co-instructor with Kendra Daly and Pam Hallock-Muller. Spring 2012.

Professional Development (2-credit graduate-level professional development course; OCE6934), Fall 2011.

Surviving Academia (2 credit graduate-level professional development course; OCE6934). Fall 2010.

Marine Molecular Microbiology Laboratory (Undergraduate research course; OCE4930), Fall 2010.

Biological Oceanography (3 credit graduate-level lecture and lab course; OCB6050; REF# 80585). Fall 2009.

Foundations of Biological and Fisheries Oceanography (2 credit graduate-level readings course (OCE6934). Co-instructor with Kendra Daly and Pam Hallock-Muller. Spring 2009.

Biological Oceanography (3 credit graduate-level lecture and lab course; OCB6050; REF# 80674). Co-instructor with David Mann. Fall 2008.

Marine Molecular Methods (3 credit graduate-level lecture and lab course; OCE6934; REF# 12131). Spring 2007.

Metagenomic Bioinformatics (2 credit graduate-level lecture and lab course; OCE6934; REF# 54522). Summer 2007.

Micro-Macro Interactions (1 credit graduate-level readings course; OCE6934; REF# 89230). Fall 2007.

Biological Oceanography (3 credit graduate-level lecture and lab course; OCB6050; REF# 80674). Co-instructor with David Mann. Fall 2007.

### **Current Graduate Students**

Kema Malki – Ph.D. student (Fall 2016 – present)  
Natalie Sawaya – Ph.D. student (Fall 2015 – present)  
Christina Chadwick – M.S. student (Fall 2019 – present)

### **Current Postdoctoral Researchers**

Erin Symonds – 2017-2021.

### **Undergraduate Honors Thesis Advisor**

Paige Boleman – USF Saint Petersburg. 2021-2022.

## Vita for Mya Breitbart

Brett Galvin and Taylor Little – USF Tampa. 2020-2021.

Courtney Clark – USF Tampa. 2014.

Marco Padilla-Rodriguez – USF Saint Petersburg. 2012.

### Former Graduate Students

Erin Symonds – M.S. student, 2006 – 2008 and Ph.D. student 2011-2016. M.S. received 2008, PhD received 2016. Currently a postdoctoral researcher in my lab.

Terry Fei Fan Ng – Ph.D. student, 2006 – 2010. Ph.D. received Fall 2010. Completed a postdoc at the Blood Systems Research Institute in San Francisco and is currently an Investigator at the Center for Disease Control in Atlanta and an Adjunct Assistant Professor at the University of Georgia.

Karyna Rosario – Ph.D. student, 2006 – 2010. Ph.D. received Fall 2010. Currently a Research Associate in my laboratory.

Anthony Nitti – M.S. student, 2007 – 2010. M.S. received Fall 2010. Co-advised by David Hollander. Currently employed at NovoBiotic Pharmaceuticals in Massachusetts.

Camille Daniels – Ph.D. student, 2006-2011. Ph.D. received Fall 2011. Completed a postdoc at KAUST University in Saudi Arabia ; current position unknown.

Darren Dunlap – M.S. student, 2009 – 2012. M.S. received Spring 2012. Currently a Microbiologist at Boeing Research & Technologies.

Sheila O’Dea – M.S. student, 2009 – 2012. M.S. received Summer 2012. Currently the lead marine mammal observer for Petroleum Geo-Services (Africa).

Dawn Goldsmith – Ph.D. student, 2007-2014. Currently a Forensic DNA Examiner for the Defense Forensic Science Center.

Max Hopkins – M.S. student, 2011-2014. M.S. received Summer 2014. Currently a Scientist in the GeneWeave Division at Roche.

Stephanie Lawler- M.S. student, 2013 – 2016. M.S. received Spring 2016. Co-advised by Christina Kellogg (USGS). Currently working at Keep Pinellas Beautiful.

Monica Mion Cook – Ph.D. student, 2007 – 2015. Ph.D. received Spring 2015. Co-advised by Ted Van Vleet. Currently an Instructor at Saint Petersburg College.

Elizabeth Fahsbender – Ph.D.. student, 2012-2017. Currently a Product Applications Scientist at the Chan Zuckerberg Initiative.

Brittany Leigh – Ph.D. student, 2012-2017. Co-advised with Larry Dishaw (USF Health). Currently a postdoc at Vanderbilt, TN.

Alexandria Creasy – M.S. student, 2015-2018. Co-advised with Larry Dishaw (USF Health). Currently a Microbiologist at VistaPharm, Inc.

Amanda Sosnowski – M.S. student, 2015-2017. Co-advised with Heather Judkins (USFSP). Currently a Wildlife Filmmaking MA Graduate Student at the University of the West of England.

Makenzie Burrows – M.S. student, 2017-2019. Currently outreach coordinator in my lab and co-director of CMS Oceanography Camp for Girls.

Chelsea Bonnain – M.S. student, 2014-2019. M.S. received 2019. Co-advised with Kristen Buck. North FL Area Representative for LABRepCo, LLC.

## Vita for Mya Breitbart

Natalia Lopez-Figueroa – Ph.D. student, 2017-2020. Transferred to Pam Hallock-Muller’s lab in January 2020.

### Former Postdoctoral Researchers

Kimberly Pause, 2007 – 2010. Currently the Director of STEM Initiatives and an Assistant Professor of Biology at Stevenson University, MD.

Bhakti Dwivedi, 2009 – 2012. Currently a Senior Research Scientist at The Winship Cancer Institute of Emory University, GA.

Karyna Rosario, 2011 – 2013. Currently an independent Research Associate in my lab.

Anna Szekely, 2013-2015. Marie Curie Fellow.

Dawn Goldsmith. 2015-2016. Currently employed at the USGS and as an adjunct professor at Saint Petersburg College.

Noemi Van Bogaert. 2017-2018. Funded by a grant from the Belgian American Education Foundation.

Anni Djurhuus, 2015-2019. Currently an Assistant Professor at the University of the Faroe Islands.

Y Nguyen, 2018-2019. Currently at the U.S. Food & Drug Administration.

### Undergraduate Students and Interns

Taylor Little – USF Undergraduate Honors Thesis Student (2020-2021)

Brett Galvin – USF Undergraduate Honors Thesis Student (2020-2021)

Akash Dutta – Undergraduate (Indian Institute of Science Education and Research; 2020-2021)

Noah Yonas – Undergraduate (University of Maryland; Summer 2020)

Paige Boleman – Undergraduate (USFSP; 2019, 2021)

Shelby Mahank – Undergraduate (USFSP; Spring 2019-present)

Emma Willett – St Petersburg High School (Summer 2019)

Sophie Goldsmith – Palm Harbor University High School (Summer 2019)

Grace Koziol – Undergraduate (Eckerd College; Summer 2017, 2018, 2019)

Eva-Maria Bonnelycke – Undergraduate (Eckerd College; Summer 2017)

Kaitlin Mettel – Undergraduate (USF Tampa; Summer 2017)

Mason Kerr – Undergraduate (SPC; Summer 2017)

Makenzie Burrows – Undergraduate (USFSP; Fall 2015-Spring 2017)

Travis Thorn – Undergraduate (USFSP; Fall 2015-2016)

Sidney Fulford – Undergraduate (Eckerd College; Summer 2014-2016)

Anna Walters – St Petersburg High School Intern (Summer 2015-2016)

Lisbet Finseth – Postgraduate Intern (2014-2015)

Christian Marr – Postgraduate Intern (Spring-Summer 2014)

Dylan Kahn – Postgraduate Intern (Spring-Summer 2014)

Carina Graham – Undergraduate (Eckerd College; Summer 2014)

Bethany Levenson – Undergraduate (USF SP; Spring 2013 – Spring 2014)

Jendryx Fernandez – Undergraduate (Hillsborough Community College; Spring 2013)

Marco Padilla-Rodriguez – Undergraduate (USF SP; Spring 2011 – Summer 2013)

Bingjie Xue – Undergraduate (Virginia Commonwealth University; Summer 2011)

## Vita for Mya Breitbart

Lauren Van Woudenberg - Undergraduate (Eckerd College; Summer 2011)  
Allison Cohen – Undergraduate (Columbia University; Summer 2011 and Summer 2012)  
Laura Munoz – Undergraduate (University of South Florida; Spring 2011 –Summer 2011)  
Kristen Viola – Undergraduate (University of South Florida; Spring 2011)  
Rachael Trent – Undergraduate (University of South Florida; Spring 2011)  
Elizabeth Fahsbender – Undergraduate (University of South Florida; Fall 2010 – Summer 2012)  
Kelly Vasbinder – High School Student (Summer 2010)  
Giuseppe Crosti – Undergraduate (Duke University; Summer 2010)  
Elizabeth Ranalli – Undergraduate (REU summer intern with Mote Marine Lab from Sonoma State University, CA; Summer 2009)  
Amy Zeifman – Undergraduate (Eckerd College; Summer 2008)  
Elise Bixby – Undergraduate (Washington University at Saint Louis; Summer 2007 and 2008)  
Christopher Chung – Undergraduate (Duke University; Summer 2007)  
Maria Luisa Rubio Teso – Intern (Spring and Summer 2007)  
Clarke Jacobson – Middle-school Science Fair Student (Fall 2008)

### Visiting Scientists

Haris Paliogiannis – MS student from the University of Brussels. Summer 2017.  
Inmaculada Garcia Heredia – PhD student from the University Miguel Hernandez, Spain. Summer 2010.  
Sanela Svraka – PhD student from the Netherlands National Institute for Public Health and the Environment. Summer 2009.  
Shankar Alavandi – Visiting senior scientist from the Central Institute of Brackishwater Aquaculture in India – Spring 2009.

### Student Committees (\*indicates major advisor) –

Outside Chair: Brian Badgely (USF Tampa, Biology), Shannon McQuaig (USF Tampa, Biology)  
Ph.D.: Kwasi Barnes, Alexandria Creasy\*, Camille Daniels\*, Kristina Deak, Elizabeth Fahsbender\*, Terry Fei Fan Ng\*, Julia Galkiewicz, Javier Gallard (Integrative Biology), Dawn Goldsmith\*, Adriana Gonzalez (Integrative Biology), Meghan Gordon (CMMB), Lara Henry, Adrienne Hollister, Erica Hudson, Abdiel Laureano, Brittany Leigh\*, Juliana Leonard (Integrative Biology), Natalia Lopez-Figueroa\*, Kema Malki\*, Monica Mion Cook\*, Jennifer Mobberley, Christin Murphy, Karyna Rosario\*, Benjamin Ross, Natalie Sawaya\*, Erin Symonds\*, Robert Ulrich, Matthew Verbyla (USF Tampa, Engineering), Brian Zielinski.  
M.S.: Chelsea Bonnain\*, Makenzie Burrows\*, Jennifer Delaney, Darren Dunlap\*, Adrienne George, Aubrey Hetzler (USFSP), Adrienne Hollister, Max Hopkins\*, Makenna Martin, Anthony Nitti\*, Sheila O’Dea\*, Sarah Schmid, Amanda Sosnowski\*, Adam Spear, Erin Symonds\*, Elizabeth Young.

### Funded Research Grants

Florida Fish and Wildlife Conservation Commission. “New interdisciplinary approaches to enhance red tide tracking and forecasting on the West Florida Shelf”. I am a co-PI,

## Vita for Mya Breitbart

- Kristen Buck (USF) is lead-PI. Total award = \$733,068. My portion is ~\$166,000. 07/01/20 – 06/31/25.
- Florida RESTORE Act Centers of Excellence Program. “Spawning habitat and early-life linkages to fisheries (SHELF)”. I am a co-PI, Ernst Peebles (USF) is lead-PI. Total award = \$749,999. 03/01/19 – 02/28/22.
- National Science Foundation – Coastal SEES. “Coastal SEES Collaborative Research: Integration of Human Behavior and Perception into a Risk-based Microbial Water Quality Management Approach”. I am the lead PI, Valerie Harwood (USF Integrative Biology) is a co-PI. Total award = \$999,995. 09/15/16 – 09/14/21.
- National Science Foundation – Division of Environmental Biology. “Deciphering the Ecology of Aquatic Single-Stranded DNA Phages (*Microviridae/Gokushovirinae*)”. I am the sole PI on this proposal. Total award = \$463,714. 07/01/16 – 06/30/21.
- U.S.-Israel Binational Science Foundation. “Quantifying the Recently Discovered, Ubiquitous ssDNA Phage Group and Identifying their Hosts” I am the lead PI, Debbie Lindell (Technion, Israel) is the co-PI. Total amount funded: \$180,000, my portion of the award: \$116,847. 09/01/15 – 08/31/20. (Average annual funding \$45,000).
- National Science Foundation – EAGER. “Iron-Virus Interactions in the Ocean”. Lead PI is Kristen Buck, I am a co-PI. Total award = \$299,295. 02/01/17 – 01/31/19.
- Florida Institute of Oceanography: Florida Centers of Excellence Research Grants Program. “Egg and Larval Barcoding for Gulf DEPM Stock Assessments”. Lead PI is Ernst Peebles, I am a co-PI. Total amount funded: \$129,265; my portion of the award: \$76,307. 09/01/15 – 08/31/17.
- National Science Foundation: Assembling the Tree of Life: “REU Supplement Request to Collaborative Research: AToL: ACCESS DNA viruses: A Comprehensive survey of Circular Eukaryotic Single-Stranded DNA viruses in Invertebrates and Fungi”. I am the sole PI. Total amount funded: \$6000. 05/01/16 – 04/30/17.
- National Science Foundation – Integrative Organismal Systems. “Role of phages in structuring bacterial communities: *Ciona intestinalis* as a model system”. Larry Dishaw is lead PI, I am a co-PI. Total award: \$440,300; my portion: \$74,071.
- NASA Grant NNX14AP62A, funded under the National Ocean Partnership Program (NOPP RFP NOAA-NOAA-NOS-IOOS-2014-2003803) in partnership between NOAA, BOEM, and NASA. “National Marine Sanctuaries as Sentinel Sites for a Demonstration Marine Biodiversity Observation Network (MBON)”. 08/01/14-07/31/19. I am a co-PI on a large proposal with Dr. Frank Muller-Karger as lead PI. My funded portion is \$190,987 in Year 1, with anticipated total funding over 5 years of \$912,314.
- National Science Foundation – Assembling the Tree of Life. “Collaborative Research: AToL: ACCESS DNA viruses: A Comprehensive survey of Circular Eukaryotic Single-Stranded DNA viruses in Invertebrates and Fungi” 10/15/12 – 10/14/17. \$995,371; co-PI is Karyna Rosario.
- University of South Florida Internal Awards Program – Proposal Enhancement Grant. “Exploring the diversity and ecology of marine single-stranded DNA phages” 11/01/11 – 10/31/12. \$24,913.
- University of South Florida – College of Marine Science Interdisciplinary Research Grant

## Vita for Mya Breitbart

- Program. “Development of a Serological Assay for the Detection of Sea Lion Anellovirus (ZcAV)” 6/1/10 – 5/31/12. \$50,000; co-PI with Larry Dishaw.
- National Science Foundation – EAGER. “Discovery of Viruses Infecting Marine Copepoda” 10/01/10 – 09/30/12. \$298,528.
- National Science Foundation – Systematic Biology and Biodiversity Inventories. “Collaborative Research: Vector-enabled discovery: Exploiting whiteflies to investigate the diversity, evolution, and biogeography of begomoviruses” 09/01/10 – 08/31/13. \$322,502.
- Mote Marine Laboratory – Protect Our Reefs Grant. “Spatial Variability in Coral-Associated Bacteria: Implications for Coral Restoration” 05/01/09 – 04/30/10. \$30,827.
- National Science Foundation – Advances in Bioinformatics. “Collaborative Research: PHANTOME: PHage ANnotation TOols and METHods” 04/01/09 – 03/31/12. \$460,142.
- Department of Energy – Genomes to Life. “Development of Proteogenomic Approaches to Analyze the Role of Virus-Microbe Interactions in Shaping Natural Microbial Communities” 10/01/07 – 09/30/10. \$1,703,000 total; co-PI with Drs. Jillian Banfield and Nathan Verberkmoes; my portion of the award is \$401,259.
- National Science Foundation – Microbial Interactions and Processes. “Abundance, Dynamics, and Diversity of Viruses in the Northwestern Sargasso Sea”. 09/15/07 – 09/14/10. \$474,929.
- Alfred P. Sloan Foundation Research Fellowship. 10/01/07 – 9/30/09. \$45,000.
- Florida Sea Turtle Grants Program. "Shotgun Sequencing of Viruses Associated with Sea Turtle Fibropapillomatosis". 05/01/08 - 04/30/09. \$29,867.
- American Association of University Women - Community Action Grant. "Girl Scouts Marine Science and Technology Workshop". 07/01/08 - 06/31/10. \$5,120.
- Florida Institute of Oceanography. 5 days of shiptime to Dry Tortugas, Florida Keys. 5/27/08 – 6/2/08.
- National Geographic Society. Impact of human activity on microbes and viruses associated with living stromatolites in Cuatrociengas, Mexico. 06/01/07 – 06/01/08. \$19,973.
- Project AWARE Foundation. “The Microbiology of Coral Restoration”. 3/01/07 – 9/01/07. \$3,500.
- Environmental Protection Agency: Region 4 Special Studies. “Application of historic data sets and bioindicators to assess status and ecological function of upper keys patch reefs”. 1/01/07 - 12/31/07. \$ 49,989. co-PI with Dr. Pam Hallock-Muller; my portion of the award is approximately \$10,000.
- Environmental Protection Agency: Region 4 Special Studies. “Diversity and Distribution of Pathogenic Viruses in the Florida Keys”. 10/1/06 – 9/30/07. \$25,000.
- University of South Florida: Internal New Investigator Award. “Diversity and Dynamics of Viruses Associated with Stromatolites in Cuatrociengas, Mexico”. 5/01/06 – 4/30/07. \$10,000.

**Peer-Reviewed Publications** (underline indicates my students or post-docs)  
**(137 published journal articles and 2 book chapters, 17,916 citations as of 2/19/21, H-index 61, Google Scholar)**

## Vita for Mya Breitbart

- Cooke, M., **M. Breitbart**, Cooperdock, E.H.G., Levin, N., Niemi, N., Bell, C., Viskupic (in review). Exposing the hidden curriculum of graduate school. GSA Groundworks.
- Breitbart, M.** and B.A. Fane (in press) *Microviridae*. Encyclopedia of the Life Sciences (eLS)
- Kerr, M. and **M. Breitbart** (2021) DNA Detectives: Outreach activity teaching students how to identify fish eggs using DNA barcoding. Journal of Microbiology and Biology Education. 22(1): doi:10.1128/jmbe.v22i1.2191.
- Fernández, A.G.\* , E.M. Symonds\*, J. Gallard, B. Mull, J.O. Lukasik, P.R. Navarro, A.B. Aguilar, J. Peraud, M. Brown, D.M. Alvarado, **M. Breitbart**, M.R. Cairns, V.J. Harwood. (2021). “Relationships among microbial indicators of fecal pollution, microbial source tracking markers, and pathogens in Costa Rican coastal waters. Water Research. \*indicates joint first-authorship. 188: 116507.
- Yonas, N., P. Boleman, Y. Nguyen, M. Kerr, K. Malki, A.M. Greco, **M. Breitbart**. (2020). Genome sequence of *Vibrio natriegens* phage vB\_VnaS-AQKL99. Microbiology Resources Announcements. 9: e00967-20.
- Kerr, M., J. Browning, E-M. Bonnelycke, Y. Zhang, C. Hu, S. Murawski, E. Peebles, **M. Breitbart** (2020). DNA barcoding of fish eggs collected off northwestern Cuba and across the Florida Straits demonstrates egg transport by mesoscale eddies. Fisheries Oceanography. 29: 340-348.
- Krupovic, M., A. Varsani, D. Kazlauskas, M. Breitbart, E. Delwart, K. Rosario, N. Yutin, Y.I. Wolf, B. Harrach, F. Murilo Zerbini, V.V. Dolja, J.H. Kuhn, E.V. Koonin (2020). *Cressdnaviricota*: a virus phylum unifying 7 families of Rep-encoding viruses with single-stranded, circular DNA genomes. Journal of Virology. doi: 10.1128/JVI.00582-20.
- Malki, K., K. Rosario, N.A. Sawaya, A.J. Szekely, M.J. Tisza, **M. Breitbart** (2020). Prokaryotic and viral community composition of freshwater springs in Florida, USA. mBio 11: e00436-20.
- Hollister, AP, M Kerr, K Malki, E Muhlbach, M Robert, CL Tilney, **M Breitbart**, KA Hubbard, KN Buck (2020). Regeneration of macronutrients and trace metals during phytoplankton decay: an experimental study. Limnology and Oceanography. 65: 1936–1960.
- Timm, LE, HD Bracken-Grissom, A Sosnowski, **M Breitbart**, M Vecchione, H Judkins (2020). Population genomics of three deep-sea cephalopod species between the Gulf of Mexico and northwestern Atlantic Ocean reveals connectivity. Deep Sea Research I. 158: 103222.
- Djurhuus, A., CJ Closek, RP Kelly, KJ Pitz, RP Michisaki, HA Starks, KR Walz, EA Andruszkiewicz, E Olesin, K Hubbard, E Montes, D Otis, FE Muller-Karger, FP Chavez, AB Boehm, **M Breitbart** (2020). Environmental DNA reveals seasonal shifts and potential interactions in a marine community. Nature Communications. 11:254.
- Rosario, K., KA Mettel, AM Greco, **M Breitbart** (2019). Prevalence of a vertically transmitted single-stranded DNA virus in spinybacked orbweavers (*Gasteracantha cancriformis*) from Florida, USA. Journal of General Virology. 100:1253-1265.
- Symonds, EM, K Rosario, **M Breitbart** (2019). Pepper mild mottle virus: Agricultural menace turned effective tool for microbial water quality monitoring and assessing (waste)water treatment technologies. PLOS Pathogens. 15: e1007639.

## Vita for Mya Breitbart

- Zhao, L, K Rosario, **M Breitbart**, S Duffy (2019). Eukaryotic Circular Rep-Encoding Single-Stranded DNA (CRESS DNA) viruses: ubiquitous viruses with small genomes and a diverse host range. *Advances in Virus Research*. 103: 71-133.
- Roux, S, EM Adriaenssens, BE Dutilh, EV Koonin, AM Kropinski, M Krupovic, JH Kuhn, R Lavigne, JR Brister, A Varsani, C Amid, RK Aziz, SR Bordenstein, P Bork, **M Breitbart**, GR Cochrane, RA Daly, C Desnues, MB Duhaim, JB Emerson, F Enault, JA Fuhrman, P Hingamp, P Hugenholtz, BL Hurwitz, NN Ivanova, JM Labonte, RR Malmstrom, M Martinez-Garcia, I Mizrachi, H Ogata, D Paez-Espino, M-A Petit, C Putonti, T Rattei, A Reyes, F Rodriguez-Valera, K Rosario, L Schrim, F Schulz, GF Steward, MB Sullivan, S Sunagawa, CA Suttle, B Temperton, SG Tringe, R Vega Thurber, NS Webster, KL Whiteson, SW Wilhelm, KE Wommack, T Woyke, K Wrighton, P Yilmaz, T Yoshida, MJ Young, N Yutin, L Zeigler Allen, NC Kyrpides, EA Eloe-Fadrosh (2019). Minimum Information about Uncultivated Virus Genomes (MIUViG): a community consensus on standards and best practices for describing genome sequences from uncultivated viruses. *Nature Biotechnology*. 37: 29-37.
- Sawaya, NA, CJ Closek, M Hepner, E Olesin, L Visser, C Kelble, K Hubbard, **M Breitbart**, A Djurhuus (2019). Assessing eukaryotic biodiversity in the Florida Keys National Marine Sanctuary through environmental DNA metabarcoding. *Ecology and Evolution*. 9: 1029-1040.
- Van Bogaert, N, K Rosario, B Furman, M Hall, A Greco, **M Breitbart** (2019). Discovery of a novel potexvirus in the seagrass *Thalassia testudinum* from Tampa Bay, Florida. *Limnology and Oceanography Letters*. 4:1-8.
- Burrows, M, J Browning, **M Breitbart**, SA Murawski, EB Peebles (2019). DNA barcoding reveals clear delineation between spawning sites for neritic versus oceanic fishes in the Gulf of Mexico. *Fisheries Oceanography*. 28: 228-239.
- Symonds, EM, KH Nguyen, VJ Harwood, **M Breitbart** (2018) Pepper mild mottle virus: A plant pathogen with a greater purpose in (waste)water treatment development and public health management. *Water Research*. 144: 1-12.
- Rosario, K, KA Mettel, BE Benner, R Johnson, C Scott, SZ Yusseff-Vanegas, CCM Baker, DL Cassill, C Storer, A Varsani, **M Breitbart** (2018) Virus discovery in all three major lineages of terrestrial arthropods highlights the diversity of single-stranded DNA viruses associated with invertebrates. *PeerJ*. 6:e5761.
- Creasy, A, K Rosario, BA Leigh, LJ Dishaw, **M Breitbart** (2018). Unprecedented diversity of ssDNA phages from the family *Microviridae* detected within the gut of a protochordate model organism (*Ciona robusta*). *Viruses*. 10: E404. doi: 10.3390/v10080404.
- Breitbart, M**, C Bonnain, K Malki, NA Sawaya (2018). Phage puppet masters of the marine microbial realm. *Nature Microbiology*. 3: 754–766.
- Leigh, BA, **M Breitbart**, HM Oksanen, DH Bamford, LJ Dishaw (2018). Genome sequence of PM2-like phage Cr39582 induced from *Pseudoalteromonas* sp. isolated from the gut of *Ciona robusta*. *Genome Announcements*. 6: e00368-18.
- Kerr, M, K Rosario, C Baker, **M Breitbart** (2018). Discovery of four novel circular single-stranded DNA viruses in fungus-farming termites. *Genome Announcements*. 6: e00318-18.

## Vita for Mya Breitbart

- Rosario, K, N Fierer, **M Breitbart** (2018). Near complete genome sequence of a novel single-stranded RNA virus discovered in indoor air. *Genome Announcements*. 6: e00198-18.
- Breitbart, M**, K Malki, NA Sawaya, C Bonnain, MO Martin (2018) Elementary student outreach activity demonstrating the use of phage therapy heroes to combat bacterial infections. *Journal of Microbiology and Biology Education*. doi: 10.1128/jmbe.v19i1.1407
- Kuiken, T, **M Breitbart**, M Beer, C Grund, D Höper, B van den Hoogen, JLH Kerkhoffs, ACM Kroes, K Rosario, P van Run, M Schwarz, S Svraka, J Teifke, M Koopmans (2018). Zoonotic infection with pigeon paramyxovirus type 1 linked to fatal pneumonia. *Journal of Infectious Diseases*. 218: 107-1044, doi: 10.1093/infdis/jiy036.
- Morrison, CL, L Iwanowicz, TM Work, E Fahsbender, **M Breitbart**, C Adams, D Iwanosicz, L Sanders, M Ackermann, RS Cornman (2018). Genomic evolution, recombination, and inter-strain diversity of chelonid alphaherpesvirus 5 from Florida and Hawaii green sea turtles with fibropapillomatosis. *PeerJ* 6:e4386.
- Rosario, K, N Fierer, SL Miller, J Luongo, **M Breitbart** (2018). Diversity of DNA and RNA viruses in indoor air as assessed via metagenomic sequencing. *Environmental Science and Technology*. 52: 1014-1027.
- Djurhuus, A, K Pitz, NA Sawaya, J Rojas-Marques, B Michaud, E Montes, F Muller-Karger, **M Breitbart** (2018). Evaluation of marine zooplankton community structure through environmental DNA metabarcoding. *Limnology and Oceanography Methods*. 16: 209-221.
- Leigh, BA, A Djurhuus, **M Breitbart**, LJ Dishaw (2018). The gut virome of the protochordate model organism, *Ciona intestinalis*. *Virus Research*. 244: 137-146.
- Djurhuus, A, J Port, C Closek, K Yamahara, O Romero, K Walz, D Goldsmith, R Michisaki, **M Breitbart**, A Boehm, F Chavez (2017). Evaluation of filtration and DNA extraction methods for eDNA biodiversity assessments across multiple trophic levels. *Frontiers in Marine Science*. 4: 314.
- Breitbart, M**, E Delwart, K Rosario, J Segales, A Varsani, ICTV Report Consortium (2017). ICTV Virus Taxonomy Profile: *Circoviridae*. *Journal of General Virology*. 98: 1997-1998.
- Fahsbender, E, JM Burns, S Kim, S Kraberger, G Frankfurter, AA Eilers, MR Shero, R Beltran, A Kirkham, R McCorkell, RK Bergartt, MF Male, G Ballard, DG Ainley, **M Breitbart**, A Varsani (2017) Diverse and highly recombinant anelloviruses associated with Weddell seals in Antarctica. *Virus Evolution*. 3: vex017.
- Polston, JE, MA Londono, AL Cohen, M Padilla-Rodriguez, K Rosario, **M Breitbart** (2017). Euphorbia mosaic virus from passionfruit and *Euphorbia heterophylla* in Florida, USA. *Genome Announcements*. 5: e01714-16.
- Knowles, B, B Bailey, L Boling, **M Breitbart**, AG Cobian-Guemes, J del Campo, R Edwards, B Felts, J Grasis, A Haas, P Katira, LW Kelly, T Luque, J Nulton, L Paul, G Peters, N Robinett, S Sandin, A Segall, C Silveira, R Young, F Rohwer. (2017) "Variability and host density independence in inductions-based estimates of environmental lysogeny. *Nature Microbiology*. 2: 17064.

## Vita for Mya Breitbart

- Leigh, BA, C Karrer, JP Cannon, **M Breitbart**, LJ Dishaw (2017). Isolation and characterization of a *Shewanella* phage–host system from the gut of the tunicate, *Ciona intestinalis*. *Viruses*. 9: 60.
- Rosario, K, **M Breitbart**, B Harrach, J Segales, E Delwart, P Biagini, A Varsani (2017). Revisiting the taxonomy of the family *Circoviridae*: Establishment of the genus *Cyclovirus* and removal of the genus *Gyrovirus*. *Archives of Virology*. 162: 1447-1463.
- Symonds, EM, S Young, ME Verbyla, SM McQuaig-Ulrich, E Ross, JA Jimenez, VJ Harwood, **M Breitbart** (2017). Microbial source tracking in shellfish harvesting waters in the Gulf of Nicoya, Costa Rica. *Water Research*. 111: 177-184.
- Simmonds, P, **M Breitbart**, JR Brister, EB Carstens, E Delwart, R Hull, EV Koonin, MJ Roossinck, MB Sullivan, CA Suttle, RB Tesh, M Benko, RA van der Vlugt, MJ Adams, AJ Davison, AE Gorbalenya, B Harrach, AMQ King, M Krupovic, JH Kuhn, EJ Lefkowitz, M Nibert, R Orton, S Sabanadzovic, A Varsani, FM Zerbini (2017). Virus taxonomy in the age of metagenomics. *Nature Reviews Microbiology*. 15: 161-168.
- Biller, SJ, LD McDaniel, **M Breitbart**, E Rogers, JH Paul, SW Chisholm (2017). Membrane vesicles in seawater: heterogeneous DNA content and implications for viral abundance estimates. *ISME Journal*. 11: 394-404.
- Roux, S, N Solonenko, VT Dang, BT Poulos, SM Schwenck, DB Goldsmith, ML Coleman, **M Breitbart**, MB Sullivan. (2016). Towards quantitative viromics for both double-stranded and single-stranded DNA viruses. *PeerJ*. 4:e2777.
- Symonds, E, C Sinigalliano, M Gidley, W Ahmed, SM McQuaig-Ulrich, **M Breitbart** (2016). Faecal pollution along the southeastern coast of Florida and insight into the use of pepper mild mottle virus as an indicator. *Journal of Applied Microbiology*. 121: 1469-1481.
- Bonnain, C, **M Breitbart**, KN Buck (2016). The ferrojan horse hypothesis: iron-virus interactions in the ocean. *Frontiers in Marine Science*. 3: 82.
- Szekely, A and **M Breitbart** (2016). Single-stranded DNA phages: from early molecular biology tools to recent revolutions in environmental microbiology. *FEMS Microbiology Letters*. 363: fnw027.
- Verbyla, ME, EM Symonds, RC Kafle, MR Cairns, M Iriarte, A Mercado, O Coronado, **M Breitbart**, C Ledo, JR Mihelcic (2016). Managing microbial risks from indirect wastewater reuse for irrigation in urbanizing watersheds. *Environmental Science and Technology*. 50: 6803-6813.
- Cook, MM, EM Symonds, B Gerber, ES Van Vleet, **M Breitbart** (2016). Removal of six estrogenic endocrine-disrupting compounds (EDCs) from municipal wastewater using aluminum electrocoagulation. *Water*. 8:128.
- Rosario, K, YM Seah, C Marr, A Varsani, S Kraberger, D Stainton, E Moriones, JE Polston, S Duffy, **M Breitbart** (2016). Begomovirus-associated satellite DNA diversity captured through vector-enabled metagenomic (VEM) surveys using whiteflies (Aleyrodidae). *Viruses*. 8: 36.
- Breitbart, M**, B Benner, P Jernigan, K Rosario, LM Birsa, RC Harbeitner, S Fulford, C Graham, A Walters, DB Goldsmith, SA Berger, JC Nejstgaard (2015) Discovery, prevalence, and persistence of novel circular single-stranded DNA viruses in the ctenophores *Mnemiopsis leidyi* and *Beroe ovata*. *Frontiers in Microbiology*. 6:1427.

## Vita for Mya Breitbart

- Rosario, K, YM Seah, C Marr, A Varsani, S Kraberger, D Stainton, E Moriones, JE Polston, S Duffy, **M Breitbart** (2015). Vector-enabled metagenomic (VEM) surveys using whiteflies (Aleyrodidae) reveal novel begomovirus species in the New and Old Worlds. *Viruses*. 7: 5553-5570.
- Goldsmith, DB, JR Brum, M Hopkins, CA Carlson, **M Breitbart** (2015). Water column stratification structures viral community diversity in the Sargasso Sea. *Aquatic Microbial Ecology* 76: 85-94. \*chosen as feature article.
- Rosario, K, RO Schenck, RC Harbeitner, SN Lawler, **M Breitbart** (2015). Novel circular single-stranded DNA viruses identified in marine invertebrates reveal high sequence diversity and consistent predicted intrinsic disorder patterns within putative structural proteins. *Frontiers in Microbiology* 6: 696.
- Goldsmith, DB, RJ Parsons, D Beyene, P Salamon, **M Breitbart** (2015). Deep sequencing of the viral *phoH* gene reveals seasonal variations, depth-specific composition, and persistent dominance of the same viral *phoH* genes in the Sargasso Sea. *PeerJ* 3: e997.
- Fahsbender, E, I Hewson, K Rosario, AD Tuttle, A Varsani, **M Breitbart** (2015). Discovery of a novel circular DNA virus in the Forbes sea star, *Asterias forbesi*. *Archives of Virology*. 160: 2349-2351.
- Adams, MJ, EJ Lefkowitz, AMQ King, DH Bamford, **M Breitbart**, AJ Davison, SA Ghabrial, AE Gorbalenya, NJ Knowles, P Krell, R Lavigne, D Prangishvili, SG Siddell, P Simmonds, H Sanfacon, EB Carstens. (2015). Ratification vote on taxonomic proposals to the International Committee on Taxonomy of Viruses (2015). *Virology Division News, Archives of Virology* 160: 1837-1850.
- Aziz, RK, B Dwivedi, S Akhter, **M Breitbart**, RA Edwards (2015) Multidimensional metrics for estimating phage abundance, distribution, dene density, and sequence coverage in metagenomes. *Frontiers in Microbiology*. 6: 381.
- Fahsbender, E, K Rosario, JP Cannon, F Gulland, LJ Dishaw, **M. Breitbart** (2015). Development of a serological assay for the sea lion (*Zalophus californianus*) anellovirus, ZcAV. *Scientific Reports*. 5 : 9637.
- Symonds, EM, MM Cook, SM McQuaig, RM Ulrich, RO Schenck, JO Lukasik, ES Van Vleet, **M Breitbart** (2015). Reduction of nutrients, microbes, and personal care products in domestic wastewater by a benchtop electrocoagulation unit. *Scientific Reports*. 5: 9380.
- Polston, JE, K Rosario, **M Breitbart** (2015) Molecular surveillance of plant viruses: identification of new and emerging viruses of tomato before they cause epidemics. *ISHS Acta Horticulturae* 1069: IV International Symposium on Tomato Diseases. 127-131.
- Symonds, EM and **M Breitbart**. (2015). Affordable enteric virus detection techniques are needed to support changing paradigms in water quality management. *CLEAN - Soil Air Water*. 43: 8-12.
- Hewson, I, JB Button, BM Gudenkauf, B Miner, AL Newton, JK Gaydos, J Wynne, GL Groves, G Hendler, M Murray, S Fradkin, **M Breitbart**, E Fahsbender, KD Lafferty, AM Kilpatrick, CM Miner, P Raimondi, L Lahner, CS Friedman, S Daniels, M Haulena, J Marliave, CA Burge, ME Eisenlord, CD Harvell (2014). Densovirus associated with sea-star wasting disease and mass mortality. *Proceedings of the National Academy of Sciences of the USA*. 111: 17278-17283.

## Vita for Mya Breitbart

- Symonds, EM, ME Verbyla, JO Lukasik, RC Kafle, **M Breitbart**, JR Mihelcic (2014). A case study of enteric virus removal and insights into the associated risk of water reuse for two wastewater treatment pond systems in Bolivia. *Water Research*. 65: 257-270.
- Muller-Karger, FE, MT Kavanaugh, E Montes, WM Balch, **M Breitbart**, FP Chavez, SC Doney, EM Johns, RM Letelier, MW Lomas, HM Sosik, AE White (2014). A framework for a marine biodiversity observing network within changing continental shelf seascapes. *Oceanography*. 27: 18-23.
- Hopkins, M, S Kailasan, A Cohen, S Roux, KP Tucker, A Shevenell, M Agbandje-McKenna, **M Breitbart**. (2014). Diversity of environmental single-stranded DNA phages revealed by PCR amplification of the partial major capsid protein. *ISME Journal*. 8: 2093-2103.
- Burghart, SE, L Van Woudenberg, CA Daniels, SD Myers, EB Peebles, **M Breitbart** (2014). Disparity between plankton fish egg and larval communities as indicated by DNA barcoding. *Marine Ecology Progress Series*. 503: 195-204.
- Rosario, K, H Capobianco, TFF Ng, **M Breitbart**, JE Polston (2014) RNA viral metagenome of whiteflies leads to the discovery and characterization of a whitefly-transmitted carlavirus in North America. *PLoS ONE*. 9: e86748.
- Ng, TFF, C Driscoll, R Myers, D Limpert, R Schmieder, B Dwivedi, J Wong, Y Cha, K Feldman, S Head, **M Breitbart**, E Delwart (2013). Distinct lineage of vesiculovirus from big brown bats, United States. *Emerging Infectious Diseases*. 19: 1978–1980.
- Ng, TFF, S Alavandi, A Varsani, S Burghart, **M Breitbart** (2013). Metagenomic identification of a nodavirus and a circular ssDNA virus in semi-purified viral nucleic acids from the hepatopancreas of healthy *Farfantepenaeus duorarum* shrimp. *Diseases of Aquatic Organisms*. 105: 237-242.
- McDaniel, LD, K Rosario, **M Breitbart**, JH Paul (2013). Comparative metagenomics: Natural populations of induced prophages demonstrate highly unique, lower diversity viral sequences. *Environmental Microbiology*. 16: 570–585.
- Hewson, I, G Ng, WF Li, BA LaBarrel, I Aguirre, JG Barbosa, **M Breitbart**, AW Greco, CM Kearns, A Looil, LR Schaffner, PD Thompson, NG Hairston Jr (2013). Metagenomic identification, seasonal dynamics and potential transmission mechanisms of a Daphnia-associated single-stranded DNA virus in two temperate lakes. *Limnology and Oceanography*. 58: 1605-1620.
- Dayaram, A, KA Potter, AB Moline, DD Rosenstein, M Marinov, JE Thomas, **M Breitbart**, K Rosario, GR Arguello-Astorga, A Varsani (2013). High global diversity of cycloviruses amongst dragonflies. *Journal of General Virology*. 94: 1827-1840.
- Dwivedi, B, B Xue, D Lundin, RA Edwards, **M Breitbart** (2013). A bioinformatics analysis of ribonucleotide reductase genes in phage genomes and metagenomes. *BMC Evolutionary Biology*. 13: 33.
- Padilla-Rodriguez, M, K Rosario, **M Breitbart** (2013). Discovery of a novel cyclovirus found in a Florida Woods Cockroach (*Eurycotis floridana*). *Archives of Virology*. 158: 1389-1392.
- Dunlap, DS, TFF Ng, K Rosario, JG Barbosa, AM Greco, **M Breitbart**, I Hewson (2013). Molecular and microscopic evidence of viruses in marine copepods. *Proceedings of the National Academy of Sciences USA*. 110: 1375-1380.

## Vita for Mya Breitbart

- Rosario, K, M Padilla-Rodriguez, S Kraberger, D Stainton, DP Martin, **M Breitbart**, A Varsani (2013). Discovery of a novel mastrevirus and alphasatellite-like circular DNA in dragonflies (Ephemeroptera) from Puerto Rico. *Virus Research*. 171: 231-237.
- Rosario, K, A Dayaram, M Marinov, J Ware, S Kraberger, D Stainton, **M Breitbart**, A Varsani (2012). Diverse circular single-stranded DNA viruses discovered in dragonflies (Odonata: Ephemeroptera). *Journal of General Virology*. 93: 2668-2681.
- Rosario, K, S Duffy, **M Breitbart** (2012). A field guide to eukaryotic circular single-stranded DNA viruses: Insights gained from metagenomics. *Archives of Virology*. 157: 1851-1871.
- Nitti, A, C Daniels, J Siefert, V Souza, D Hollander, **M Breitbart** (2012). Spatially resolved genomic, stable isotopic, and lipid analyses of a modern freshwater microbialite from Cuatro Ciénegas, Mexico. *Astrobiology*. 12: 685-698.
- Daniels, C and **M Breitbart** (2012). Bacterial communities associated with the ctenophores *Mnemiopsis leidyi* and *Beroë ovata*. *FEMS Microbiology Ecology*. 82: 90-101.
- Dwivedi, B, R Schmieder, DB Goldsmith, RA Edwards, **M Breitbart** (2012). PhiSiGns: an online tool to identify signature genes in phages and design PCR primers for examining phage diversity. *BMC Bioinformatics*. 13: 37.
- Breitbart, M** (2012). Marine viruses: truth or dare. *Annual Review of Marine Science*. 4: 425-448.
- Parsons, RJ, **M Breitbart**, MW Lomas, CA Carlson (2012). Ocean time-series reveals recurring seasonal patterns of virioplankton dynamics in the northwestern Sargasso Sea. *ISME Journal*, 6: 273-284.
- Goldsmith, DB, G Crosti, B Dwivedi, LD McDaniel, A Varsani, CA Suttle, MG Weinbauer, RA Sandaa, **M Breitbart** (2011). Development of *phoH* as a novel signature gene for assessing marine phage diversity. *Applied and Environmental Microbiology*. 77: 7730-7739.
- Rosario, K and **M Breitbart** (2011). Exploring the viral world through metagenomics. *Current Opinion in Virology*. 1: 289-297.
- Skennerton, CT, FE Angly, **M Breitbart**, L Bragg, S He, KD McMahon, P Hugenholtz, GW Tyson (2011). Phage encoded H-NS: A potential Achilles heel in the bacterial defence system. *PLoS ONE*. 6: e20095.
- Ng, TFF, D Willner, YW Lim, R Schmieder, B Chau, C Nilsson, S Anthony, Y Ruan, F Rohwer, **M Breitbart** (2011). Broad surveys of DNA viral diversity obtained through viral metagenomics of mosquitoes. *PLoS ONE*. 6: e20579.
- Ng, TFF, S Duffy, JE Polston, E Bixby, GE Vallad, **M Breitbart** (2011). Exploring the diversity of DNA plant viruses and their satellites using vector-enabled metagenomics on whiteflies. *PLoS ONE*. 6: e19050.
- Rosario, K, M Marinov, D Stainton, S Kraberger, EJ Wiltshire, DA Collings, M Walters, DP Martin, **M Breitbart**, A Varsani (2011). Dragonfly cyclovirus, a novel single-stranded DNA virus discovered in dragonflies (Odonata: Anisoptera). *Journal of General Virology*. 92: 1302-1308.
- Ng, TFF, E Wheeler, D Greig, TB Waltzek, F Gulland, **M Breitbart** (2011). Metagenomic identification of a novel anellovirus in harbor seal (*Phoca vitulina richardsii*) lung

## Vita for Mya Breitbart

- samples and its detection in samples from multiple years. *Journal of General Virology*. 92: 1318-1323.
- Daniels, CA, A Zeifman, K Heym, KB Ritchie, CA Watson, I Berzins, **M Breitbart** (2011). Spatial heterogeneity in bacterial communities in the mucus of *Montastraea annularis*. *Marine Ecology Progress Series*. 426: 29-40.
- Sime-Ngando, T, S Lucas, A Robin, KP Tucker, J Colombet, Y Bettarel, E Desmond, S Gribaldo, P Forterre, **M Breitbart**, D Prangishvili (2011). Diversity of virus-host systems in hypersaline Lake Retba, Senegal. *Environmental Microbiology*. 13: 1956-1972.
- Tucker, KP, R Parsons, EM Symonds, **M Breitbart** (2011). Diversity and distribution of single-stranded DNA phages in the North Atlantic Ocean. *The ISME Journal*. 5: 822-830.
- Sharon, I, N Battchikova, E-M Aro, C Giglione, T Meinnel, F Glaser, RY Pinter, **M Breitbart**, F Rohwer, O Beja (2011). Comparative metagenomics of microbial traits within oceanic viral communities. *The ISME Journal*. 5: 1178-1190.
- Svraka, S, K Rosario, E Duizer, H van der Avoort, **M Breitbart**, M Koopmans (2010). Metagenomic sequencing for virus identification in a public health setting. *Journal of General Virology*. 91: 2846-2856.
- Aziz, RK, **M Breitbart**, RA Edwards (2010). Transposases are the most abundant, most ubiquitous genes in nature. *Nucleic Acids Research*. 38: 4207-4217.
- Rodriguez-Brito, B, L Li, L Wegley, M Furlan, F Angly, **M Breitbart**, J Buchanan, C Desnues, E Dinsdale, R Edwards, B Felts, D Willner, M Haynes, H Liu, D Lipson, J Mahaffy, A Martin-Cuadrado, A Mira, J Nulton, L Pasic, S Rayhawk, J Rodriguez-Mueller, F Rodriguez-Valera, P Salamon, S Srinagesh, TF Thingstad, T Tran, RV Thurber, M Youle, F Rohwer (2010). Viral and microbial community dynamics in four aquatic environments. *ISME Journal*. 4: 739-751.
- Rosario, K, EM Symonds, C Sinigalliano, J Stewart, **M Breitbart** (2009). *Pepper mild mottle virus* as an indicator of fecal pollution. *Applied and Environmental Microbiology*. 75: 7261-7267.
- Blinkova, O, K Rosario, L Li, A Kapoor, B Slikas, F Bernardin, **M Breitbart**, E Delwart (2009). Frequent detection of highly diverse *Cardiovirus*, *Cosavirus*, *Bocavirus*, and *Circovirus* in sewage samples collected in the United States. *Journal of Clinical Microbiology*. 47: 3507-3513.
- Angly, F, M Youle, B Nosrat, S Srinagesh, B Rodriguez-Brito, P McNairnie, G Deeyanat-Yzadi, **M Breitbart**, F Rohwer (2009). Genomic analysis of multiple Roseophage SIO1 strains. *Environmental Microbiology*. 11: 2863-2873.
- Rosario, K, S Duffy, **M Breitbart** (2009). Diverse circovirus-like genome architectures revealed by environmental metagenomics. *Journal of General Virology*. 90: 2418 – 2424.
- Rosario, K, C Nilsson, YW Lim, Y Ruan, **M Breitbart** (2009). Metagenomic analysis of viruses in reclaimed water. *Environmental Microbiology*. 11: 2806-2820.
- Ng, TFF, W Suedmeyer, E Wheeler, F Gulland, **M Breitbart** (2009) Novel anellovirus discovered from a mortality event of captive California sea lions. *Journal of General Virology*. 90: 1256-1261.
- Thurber, RV, M Haynes, **M Breitbart**, L Wegley, F Rohwer (2009). Laboratory procedures to generate viral metagenomes. *Nature Protocols*. 4: 470-483.

## Vita for Mya Breitbart

- Ng, TFF, C Manire, K Borrowman, T Langer, L Ehrhart, **M Breitbart** (2009). Discovery of a novel single-stranded DNA virus from a sea turtle fibropapilloma by using viral metagenomics. *Journal of Virology*. 83: 2500-2509.
- Symonds, EM, DW Griffin, **M Breitbart** (2009). Eukaryotic viruses in wastewater samples from the United States. *Applied and Environmental Microbiology*. 75: 1402-1409.
- Breitbart, M**, A Hoare, A Nitti, M Haynes, E Dinsdale, R Edwards, J Siefert, V Souza, F Rohwer, D Hollander (2009). Metagenomic and stable isotopic analyses of modern freshwater microbialites in Cuatro Ciénegas, Mexico. *Environmental Microbiology*. 11: 16-34.
- McDaniel, L, **M Breitbart**, J Mobberley, A Long, M Haynes, F Rohwer, J Paul (2008). Metagenomic analysis of lysogeny in Tampa Bay: implications for prophage gene expression. *PLoS ONE*. 3: e3263.
- Breitbart, M**, M Haynes, S Kelley, F Angly, RA Edwards, B Felts, JM Mahaffy, J Mueller, J Nulton, S Rayhawk, B Rodriguez-Brito, P Salamon, F Rohwer (2008). Viral diversity and dynamics in an infant's gut. *Research in Microbiology*. 159: 367-373.
- Breitbart, M**, M Middelboe, F Rohwer (2008). Marine viruses: Community dynamics, diversity, and impact on microbial processes. In: Kirchman, D [ed]. *Microbial Ecology of the Oceans*, 2nd edition. John Wiley and Sons, Inc. Hoboken, New Jersey. pp. 443-479.
- Dinsdale, EA, RA Edwards, D Hall, F Angly, **M Breitbart**, JM Brulc, M Furlan, C Desnues, M Haynes, L Li, L McDaniel, MA Moran, KE Nelson, C Nilsson, R Olson, J Paul, B Rodriguez-Brito, Y Ruan, BK Swan, R Stevens, DL Valentine, R Vega-Thurber, L Wegley, BA White, F Rohwer (2008). Functional metagenomic profiling of nine biomes. *Nature*. 452: 629-633.
- Desnues, C, B Rodriguez-Brito, S Rayhawk, S Kelley, T Tran, M Haynes, H Liu, M Furlan, L Wegley, B Chau, Y Ruan, D Hall, FE Angly, RA Edwards, L Li, R Vega Thurber, RP Reid, J Siefert, V Souza, DL Valentine, BK Swan, **M Breitbart**, F Rohwer (2008). Biodiversity and biogeography of phages in modern stromatolites and thrombolites. *Nature*. 452: 340-343.
- Kunin, V, S He, F Warnecke, SB Peterson, H Garcia Martin, M Haynes, N Ivanova, LL Blackall, **M Breitbart**, F Rohwer, KD McMahon, P Hugenholtz (2008). A bacterial metapopulation adapts locally to phage predation despite global dispersal. *Genome Research*. 18: 293-297.
- Fierer, N, **M Breitbart**, J Nulton, P Salamon, C Lozupone, R Jones, M Robeson, RA Edwards, B Felts, S Rayhawk, R Knight, F Rohwer, RB Jackson (2007). Metagenomic and small-subunit rRNA analyses reveal the genetic diversity of bacteria, archaea, fungi, and viruses in soil. *Applied and Environmental Microbiology*. 73: 7059-7066.
- Heinz Hoffmann, K, B Rodriguez-Brito, **M Breitbart**, D Bangor, F Angly, B Felts, J Nulton, F Rohwer, P Salamon (2007). Power law rank-abundance models for marine phage communities. *FEMS Microbiology Letters*. 273: 224-228.
- Breitbart, M**, LR Thompson, CA Suttle, MB Sullivan (2007). Exploring the vast diversity of marine viruses. *Oceanography*. 20: 135-139.
- Angly, FE, B Felts, **M Breitbart**, P Salamon, RA Edwards, C Carlson, AM Chan, M Haynes, S Kelley, H Liu, J Mahaffy, JE Mueller, J Nulton, R Olson, R Parsons, S Rayhawk, CA

## Vita for Mya Breitbart

- Suttle, F Rohwer (2006). The marine viromes of four oceanic regions. *PLoS Biology*. 4:e368.
- Casas, V, J Miyake, H Balsley, J Roark, S Telles, S Leeds, I Zurita, **M Breitbart**, D Bartlett, F Azam, F Rohwer (2006) Widespread occurrence of phage-encoded exotoxin genes in terrestrial and aquatic environments in Southern California. *FEMS Microbiology Letters*. 261: 141-149.
- Edwards, RA, B Rodriguez-Brito, L Wegley, M Haynes, **M Breitbart**, DM Peterson, MO Saar, S Alexander, EC Alexander Jr., F Rohwer (2006) Using pyrosequencing to shed light on deep mine microbial ecology under extreme hydrogeologic conditions. *BMC Genomics*. 7: 57.
- Zhang, T, **M Breitbart**, WH Lee, J-Q Run, CL Wei, SWL Soh, ML Hibberd, E Liu, F Rohwer, Y Ruan (2006) RNA viral community in human feces: Prevalence of plant pathogenic viruses. *PLoS Biology*. 4: e3.
- Yu, Y, **M Breitbart**, P McNairnie, F Rohwer (2006) FastGroupII: A web-based bioinformatics platform for analyses of large 16S rDNA libraries. *BMC Bioinformatics*. 7:57.
- Kline, D, NM Kuntz, **M Breitbart**, N Knowlton, F Rohwer (2006) Role of elevated organic carbon levels and microbial activity in coral mortality. *Marine Ecology Progress Series*. 314: 119-125.
- Breitbart, M**, and F Rohwer (2005) Method for discovering novel DNA viruses in blood using viral particle selection and shotgun sequencing. *Biotechniques*. 39: 729-736.
- Breitbart, M**, and F Rohwer (2005) Here a virus, there a virus, everywhere the same virus? *Trends in Microbiology*. 13: 278-284.
- Breitbart, M**, F Rohwer, ST Abedon (2005) Phage Ecology and Bacterial Pathogenesis. In: M Waldor, D Freedman, S Adhya (eds). *Phages: Their Role in Bacterial Pathogenesis and Biotechnology*. ASM Press. Washington D.C. pp. 66-91.
- Angly, F, B Rodriguez-Brito, D Bangor, P McNairnie, **M Breitbart**, P Salamon, B Felts, J Nulton, J Mahaffy, F Rohwer (2005) PHACCS, an online tool for estimating the structure and diversity of uncultured viral communities using metagenomic information. *BMC Bioinformatics*. 6:41.
- Breitbart, M**, R Bhagooli, S Griffin, I Johnston, F Rohwer (2005) Microbial communities associated with skeletal tumors on *Porites compressa*. *FEMS Microbiology Letters*. 243: 431-436.
- Casas, V, D Kline, L Wegley, Y Yu, **M Breitbart**, F Rohwer (2004) Widespread association of a *Rickettsiales*-like bacterium with reef-building corals. *Environmental Microbiology*. 6: 1137-1148.
- Breitbart, M**, JH Miyake, F Rohwer (2004) Global distribution of nearly identical phage-encoded DNA sequences. *FEMS Microbiology Letters*. 236: 245-252.
- Breitbart, M**, B Felts, S Kelley, JM Mahaffy, J Nulton, P Salamon, F Rohwer (2004) Diversity and population structure of a nearshore marine sediment viral community. *Proceedings of the Royal Society B*. 271: 565-574.
- Breitbart, M**, L Wegley, S Leeds, T Schoenfeld, F Rohwer (2004) Phage community dynamics in hot springs. *Applied and Environmental Microbiology*. 70: 1633-1640.

## Vita for Mya Breitbart

- Wegley, L, Y Yu, **M Breitbart**, V Casas, D Kline, F Rohwer (2004) Coral-associated *Archaea*. Marine Ecology Progress Series. 273: 89-96.
- Breitbart, M**, I Hewson, B Felts, JM Mahaffy, J Nulton, P Salamon, F Rohwer. (2003) Metagenomic analyses of an uncultured viral community from human feces. Journal of Bacteriology. 185: 6220-6223.
- Mosier-Boss, PA, Lieberman, SH, Andrews, JM, Rohwer, F, Wegley, LE, and **M Breitbart** (2003) Use of fluorescently-labeled phage in the detection/identification of bacterial species. Applied Spectroscopy. 57: 1138-1144.
- Breitbart, M**, P Salamon, B Andresen, J Mahaffy, A Segall, D Mead, F Azam, F Rohwer (2002) Genomic analysis of uncultured marine viral communities. Proceedings of the National Academy USA. 99: 14250-14255.
- Rohwer, F, **M Breitbart**, J Jara, F Azam, N Knowlton (2001) Diversity of bacteria associated with the Caribbean coral *Montastraea franksi*. Coral Reefs. 20: 85-91.
- Rohwer, F, AM Segall, G Steward, V Seguritan, **M Breitbart**, F Wolven, F Azam (2000) The complete genomic sequence of the marine phage Roseophage SIO1 shares homology with non-marine phages. Limnology and Oceanography. 45: 408-418.

### **Non-Peer-Reviewed Publications** (underline indicates my students or post-docs)

- Closek, C., A. Djurhuus, **M. Breitbart** (2020) How can we track life in the ocean? Science Journal for Kids and Teens. <https://sciencejournalforkids.org/articles/how-can-we-track-life-in-the-ocean/>.

### **Blog Posts and Popular Press**

#### **2020:**

- <https://www.usf.edu/marine-science/news/2020/matchmaker-matchmaker-make-me-a-match.aspx>
- <https://creativepinellas.org/magazine-items/scientists-and-artists-collaborate-at-usfs-college-of-marine-science/>
- <https://www.usf.edu/marine-science/news/2020/think-macro-act-micro.aspx>
- <http://crowsneststpete.com/2020/01/20/when-art-met-science-marine-art-exhibit-creates-community/>.
- <https://www.theatlantic.com/science/archive/2020/02/oh-look-ton-giant-viruses-inside-your-mouth/606763/>
- <https://www.usf.edu/marine-science/news/2020/scientists-conduct-first-census-of-viruses-and-bacteria-living-in-florida-springs.aspx>
- [https://issuu.com/usfucm/docs/usf\\_magazine\\_summer\\_2020](https://issuu.com/usfucm/docs/usf_magazine_summer_2020)
- [https://www.nsf.gov/discoveries/disc\\_summ.jsp?cntn\\_id=300716&org=NSF&from=news](https://www.nsf.gov/discoveries/disc_summ.jsp?cntn_id=300716&org=NSF&from=news)
- <https://www.usf.edu/marine-science/news/2020/a-scamper-egg-hunt-in-the-gulf-of-mexico.aspx>

#### **2019:**

- <https://www.usf.edu/marine-science/news/2019/15-year-study-will-collect-fish-eggs-across-the-entire-west-florida-shelf-for-dna-barcoding-analysis.aspx>
- <https://www.marine.usf.edu/blogs/girls-go-gaga-over-science/>

## Vita for Mya Breitbart

<https://www.marine.usf.edu/blogs/great-american-teach-in-largo-high-school/>  
<https://www.marine.usf.edu/blogs/the-great-american-teach-in-2019/>  
<https://www.marine.usf.edu/news-and-events/crap-thats-a-lot-of-curry/>  
<https://www.marine.usf.edu/news-and-events/researchers-discover-first-case-of-a-vertically-transmitted-virus-in-spiders/>  
<https://www.marine.usf.edu/news-and-events/mya-breitbart-decoding-marine-mysteries-with-the-virus-hunter/>

**Recent Presentations** (underline indicates my graduate students, undergraduates, or post-docs)

**Breitbart, M.**, N. Yonas, P. Boleman, Y. Nguyen, M. Kerr, K. Malki, A.M. Greco, K.N. Buck. “Isolation, characterization, and genome sequencing of *Vibrio natriegens* phage aquatic killer 99 (vB\_VnaS-AQKL99)”. Invited speaker, Vnat 2021. 2/21.

**Breitbart, M.** “Viral discovery in the age of metagenomics”. Invited speaker, University of Michigan. 1/21.

**Breitbart, M.** “Viral discovery in the age of metagenomics”. Invited speaker, University of Alabama at Birmingham. 1/21.

**Breitbart, M.** “Viral discovery in the age of metagenomics”. Invited speaker, University of Michigan. 1/21.

**Breitbart, M.** “Deciphering the dissolved: discovery, diversity, and dynamics of marine viruses”. Invited speaker, Marine Biological Laboratory. 1/21.

**Breitbart, M.** “Marine virus hunting”. Invited talk for West Port High School. Ocala, FL. 1/21.

**Breitbart, M.**, K.N. Buck, C. Chase, S. Caprara, Y. Nguyen. “Deciphering the “Dissolved”: Virus-Iron Interactions in the Oceans“. Invited speaker, AGU Fall Meeting. 12/20.

Cooke, M.L., C.J. Bell, **M. Breitbart**, E. Cooperdock, N.E. Levin, A.M.S. Marshall, N.A. Niemi, L.M. Stevens. “Making the hidden curriculum transparent through 1<sup>st</sup> year courses for geosciences graduate students”. Geological Society of America. 10/20.

Yonas, N. and **M. Breitbart**. “Analysis & report of the complete genome sequences of *Vibrio* phage Aquatic Killer and *Bdellovibrio* phage VAMYR & WEREWLF.” NSURP poster presentation. \*Awarded Honorable Mention.

**Breitbart, M.**, K. Malki, N. Sawaya, K. Buck, S. Caprara, Y. Nguyen, C. Chase. “Deciphering the “dissolved”: ecological roles of aquatic viruses”. Invited talk at the Keystone Symposium on the Global Virome in Health and Disease. Tahoe City, CA. 3/20.

Rosario, K., N. Lopez, N. Van Bogaert, **M. Breitbart**. “Eukaryotic viruses associated with aquatic plants”. Poster presentation by K. Rosario. Keystone Symposium on the Global Virome in Health and Disease. Tahoe City, CA. 3/20.

Mahank, S., N.A. Sawaya, N. Baran, D. Lindell, **M. Breitbart**. “Perfecting the Polony Method: A way of quantifying single-stranded DNA (ssDNA) bacteriophage (*Gokushovirinae*) to better understand their ecological roles”. Oral presentation by S. Mahank. Annual Meeting of the Florida Branch of the American Society for Microbiology. Clearwater, Florida. 10/19.

Boleman, P., Y. Nguyen, A. Greco, **M. Breitbart**. “Isolation and complete genome sequencing of a novel marine phage infecting *Vibrio natriegens*”. Poster presentation by P. Boleman.

## Vita for Mya Breitbart

- Annual Meeting of the Florida Branch of the American Society for Microbiology. Clearwater, Florida. 10/19.
- Willett, E., S. Goldsmith, K. Rosario, A.M. Greco, M. Breitbart. “Comparison of polyethylene glycol and iron chloride precipitation for concentrating single- and double-stranded DNA viruses from environmental waters”. Poster presentation by E. Willett and S. Goldsmith. Annual Meeting of the Florida Branch of the American Society for Microbiology. Clearwater, Florida. 10/19.
- Koziol, G., K. Malki, A.M. Greco, B.A. Fane, M.O. Martin, M. Breitbart. “Complete genome sequences of vB\_BdbM-Alien and vB\_BdbM-Predator: dwarf myoviruses infecting *Bdellovibrio bacteriovorus*”. Poster presentation by G. Koziol. Annual Meeting of the Florida Branch of the American Society for Microbiology. Clearwater, Florida. 10/19.
- Symonds, E.M., P.N. Rivera, G. Ulmer, A.F. González., J. Gallard, M. Brown, B. Mull, J.O. Lukasik, D. Mora A., V.J. Harwood, M. Breitbart, M.R. Cairns. “The MERA Investigation: A transdisciplinary approach to tropical beach management”. Poster presentation by E.M. Symonds. 20th International Symposium on Health Related Water Microbiology. Vienna, Austria. 9/19.
- Lopez-Figueroa, N.B., K. Rosario, H. Paliogiannis, N. Van Bogaert, M. Kerr, M. Breitbart. “Exploring viral diversity in submerged aquatic vegetation in Florida’s springs”. Oral presentation by N. Lopez-Figueroa. Ecological Society of America Annual Meeting. Louisville, KY. 8/19.
- Malki, K., K. Rosario, N. Sawaya, M. Tisza, A. Szekely, M. Breitbart. “Exploring the viral and microbial communities of Florida’s freshwater springs”. Oral presentation by K. Malki. 23rd Biennial Evergreen International Phage Meeting. Olympia, WA. 8/19.
- Sawaya, N.A., N. Baran, S. Mahank, D. Lindell, M. Breitbart. “Quantification and diversity of a ubiquitous ssDNA phage group (*Gokushovirinae*) in the Red Sea”. Poster presentation by N.A. Sawaya. 23rd Biennial Evergreen International Phage Meeting. Olympia, WA. 8/19.
- Rosario, K., K.A. Mettel, A.M. Greco, M. Breitbart. “Prevalence of a vertically transmitted single-stranded DNA virus in spinybacked orbweavers (*Gasteracantha cancriformis*) from Florida, USA”. Poster presentation by K. Rosario. Gordon Conference on Animal-Microbe Symbioses. West Dover, VT. 6/19.
- Rosario, K., N. Fierer, S. Miller, J. Luongo, M. Breitbart. “Metagenomic analysis of DNA and RNA viruses in indoor air “. Invited oral presentation by K. Rosario. Viruses in the Built Environment (VIBE) workshop. Virginia Tech, VA. 5/19.
- Breitbart, M.** “The Marvels of Marine Phage”. Invited oral presentation. 5<sup>th</sup> Annual Florida Regional SEA PHAGES Symposium. Tampa, Florida. 4/19.
- Mahank, S., N. Sawaya, N. Baran, D. Lindell, M. Breitbart. “Perfecting the polony method to quantify marine viruses”. Poster presentation by S. Mahank. USFSP 16th Annual Student Research Symposium. St Petersburg, Florida. 4/19.
- Sawaya, N.A., N. Baran, M. Carlson, D. Lindell, M. Breitbart. "Optimization of the polony technique for quantification of ssDNA gokushoviruses in the Red Sea". Poster presentation by N. Sawaya. USF Genomics Symposium. Tampa, Florida. 3/19.

## Vita for Mya Breitbart

- López Figueroa, N., K. Rosario, N. Van Bogaert, M. Kerr, H. Paliogiannis, M. Breitbart. "Exploring viral diversity in submerged aquatic vegetation in Florida's springs". Poster presentation by N. Lopez Figueroa. USF Genomics Symposium. Tampa, Florida. 3/19.
- Burrows, M., J. Browning, M. Armenteros, S. Murawski, M. Breitbart. "DNA barcoding of fish eggs collected off northwest Cuba and across the Florida straits during May 2017". Oral presentation by M. Burrows. MarCuba. Havana, Cuba. 10/18.
- Breitbart, M.** "Short stories in marine viral ecology". Invited plenary speaker. American Society for Virology Annual Meeting. College Park, Maryland. 7/18.
- Breitbart, M.** "Welcome to the jungle: Wild viruses bend the bars of taxonomic cages". Invited symposium speaker. American Society for Virology Annual Meeting. College Park, Maryland. 7/18.
- Malki, K., K. Rosario, N. Sawaya, A. Djurhuus, A. Szekely, M. Breitbart. "Exploring the viral and bacterial communities in Florida's freshwater springs". Oral presentation by K. Malki. Aquatic Virus Workshop 9. Lincoln, Nebraska. 6/18.
- Djurhuus, A., B. Leigh, M. Kavanaugh, M. Breitbart. "Biogeography of viral communities trace seascapes with time". Oral presentation by A. Djurhuus. Aquatic Virus Workshop 9. Lincoln, Nebraska. 6/18.
- Sawaya, N.A., N. Baran, M. Carlson, D. Lindell, M. Breitbart. "Optimization of the polony technique for quantification of ssDNA gokushoviruses in the Red Sea". Poster presentation by N. Sawaya. Aquatic Virus Workshop 9. Lincoln, Nebraska. 6/18.
- López Figueroa, N., K. Rosario, N. Van Bogaert, M. Kerr, H. Paliogiannis, M. Breitbart. "Exploring viral diversity in submerged aquatic vegetation in Florida's springs". Poster presentation by N. Lopez Figueroa. Aquatic Virus Workshop 9. Lincoln, Nebraska. 6/18.
- Gallard-Gongora, J., A. Gonzalez-Fernandez, D. Mora-Alvarado, P. Rivera-Navarro, J. Lukasik, B. Mull, J. Peraud, E.M. Symonds, G. Ulmer, M. Brown, M. Breitbart, M. Cairns, and V.J. Harwood. "Fecal indicator and pathogen analysis to inform an interdisciplinary study of water quality and human health risk in Costa Rica". Water Microbiology Conference. Chapel Hill, North Carolina, USA. Oral presentation by J. Gallard-Gongora. 5/18.
- Van Bogaert, N., K. Rosario, B.T. Furman, M.O. Hall, A.M. Greco, M. Breitbart. "Discovery, prevalence and biogeographical distribution of viruses in the seagrass *Thalassia testudinum*". Poster presentation by N. Van Bogaert. 2018 Ocean Sciences Meeting. Portland, Oregon. 2/18.
- Djurhuus, A., K. Pitz, N.A. Sawaya, J. Rojas-Marquez, B. Michaud, E. Montes, F. Muller-Karger, M. Breitbart. "Evaluation of marine zooplankton community structure through environmental DNA metabarcoding". Poster presentation by A. Djurhuus. 2018 Ocean Sciences Meeting. Portland, Oregon. 2/18.
- Burrows, M., J. Browning, E. Peebles, M. Breitbart. "Fish egg DNA barcoding to support Gulf reef-fish stock assessments". Oral presentation by M. Burrows. 2018 USF College of Marine Science Graduate Student Symposium. Saint Petersburg, Florida. 1/18.
- Kerr, M., K. Rosario, M. Breitbart. "Discovery of single-stranded DNA viruses in fungus-farming termites". Oral presentation by M. Kerr. The 103<sup>rd</sup> Annual Southeastern Branch American Society for Microbiology Meeting. Saint Petersburg, Florida. 11/17.

## Vita for Mya Breitbart

- Mettel, K., K. Rosario, C. Baker, M. Breitbart. “Discovery and prevalence of single-stranded DNA viruses associated with spinybacked orbweavers (*Gasteracantha cancriformis*) from Florida, USA. The 103<sup>rd</sup> Annual Southeastern Branch American Society for Microbiology Meeting. Saint Petersburg, Florida. 11/17.
- Rosario, K., N. Fierer, S. Miller, J. Luongo, M. Breitbart. “Diversity of viruses circulating in indoor air as assessed via metagenomic sequencing”. The 103<sup>rd</sup> Annual Southeastern Branch American Society for Microbiology Meeting. Saint Petersburg, Florida. 11/17.
- Koziol, G., K. Malki, M. Breitbart. “Culturing and identifying bacteria from Florida’s freshwater springs”. Florida Branch Meeting of the American Society for Microbiology Meeting. Saint Petersburg, FL. 10/17.
- Sawaya, N., A. Djurhuus, C. Closek, M. Hepner, E. Olesin, L. Visser, C. Kelble, K. Hubbard, M. Breitbart. “Assessing biodiversity in the Florida Keys National Marine Sanctuary through environmental DNA metabarcoding”. International Council for the Exploration of the Sea (ICES) Conference. Fort Lauderdale, FL. 10/17.
- Burrows, M., J.S. Browning, M. Breitbart, E.B. Peebles. “Egg and Larval DNA Barcoding to Support Gulf Reef-Fish Stock Assessments”. Oral presentation by M. Burrows. 147th Annual Meeting of the American Fisheries Society. Tampa, Florida. 8/17.
- Malki, K., M. Martin, B. Fane, M. Breitbart. “Characterization of *Bdellovibrio bacteriovorus* phage”. Poster presentation by K. Malki. 22nd Biennial Evergreen International Phage Meeting. Olympia, WA. 8/17.
- Leigh, B.A., Z. Graham, A. Liberti, M. Breitbart, L.J. Dishaw. “Unraveling a role for prophages in shaping gut microbiomes”. Oral presentation by B. Leigh. 22nd Biennial Evergreen International Phage Meeting. Olympia, WA. 8/17.
- Bonnain, C., S. Caprara, K.N. Buck, M. Breitbart. “Testing the ferrojan horse hypothesis: Iron-virus interactions in the oceans”. Oral presentation by C. Bonnain. 22nd Biennial Evergreen International Phage Meeting. Olympia, WA. 8/17.
- Leigh, B.A., Z. Graham, A. Liberti, J.P. Cannon, M. Breitbart, L.J. Dishaw. “*Ciona intestinalis*: a model system for dissecting the roles of prophages in modulating host-associated microbial communities”. Animal-Microbe Symbiosis Gordon Research Conference. West Dover, VT. 6/17.
- Symonds, E.M., S. Young, M.E. Verbyla, S.M. McQuaig-Ulrich, E. Ross, J.A. Jimenez, V.J. Harwood, and M. Breitbart. “Fecal Pollution and Microbial Source Tracking in Shellfish Harvesting Waters in the Gulf of Nicoya, Costa Rica”. Oral presentation by E. Symonds. Water Microbiology Conference, Chapel Hill, NC.
- Breitbart, M.** “Virus hunting in the age of metagenomics”. Invited plenary speaker, University of Tampa Undergraduate Research Symposium. Tampa, FL. 4/17.
- Breitbart, M.** “Small but significant: single-stranded DNA viruses in the environment”. Oral presentation. Ninth workshop on Virus Evolution. State College, PA. 3/17.
- Rosario, K. and Breitbart, M. “Exploring the diversity of circular single-stranded DNA viruses in insects”. Oral presentation by K. Rosario. Ninth workshop on Virus Evolution. State College, PA. 3/17.

## Vita for Mya Breitbart

- Djurhuus, A., B. Leigh, M. Kavanaugh, **M. Breitbart**. “Seascape-informed analysis of viral communities on the west Florida shelf” Poster presentation by A. Djurhuus. ASLO Ocean Sciences Meeting. Honolulu, HI. 2/17.
- Sosnowski, A., **M. Breitbart**, H. Judkins, M. Vecchione. “Genetic identification and population characteristics of deep-sea cephalopod species in the Gulf of Mexico and northwestern Atlantic Ocean. Poster presentation by A. Sosnowski. GOMOSES Conference. New Orleans, LA. 2/17.
- Burrows, M., E. Fahsbender, **M. Breitbart**. “Genomic variation of the chelonid fibropapillomatosis-associated herpesvirus”. Oral presentation by M. Burrows. Florida Branch Meeting of the American Society for Microbiology Meeting. Miami, FL. 10/16.
- Fahsbender, E., K. Rosario, **M. Breitbart**. “The use of vector-enabled metagenomics (VEM) for surveillance of animal and plant viruses”. Oral presentation by E. Fahsbender. Florida Branch Meeting of the American Society for Microbiology Meeting. Miami, FL. 10/16.
- Leigh, B., Z. Graham, A. Creasy, A. Liberti, J. P. Cannon, G. W. Litman, **M. Breitbart**, and L. J. Dishaw. Exploring phage roles in the gut of a marine protochordate, *Ciona intestinalis*. Oral presentation by B. Leigh. American Society of Microbiology Conference on Beneficial Microbes. Seattle, WA. 9/16.
- Creasy, A. B., Leigh, A. Liberti, Z. Graham, J. Cannon, G. Litman, **M. Breitbart**, L.J. Dishaw. “Dissecting ecological principles of gut bacteria in *Ciona intestinalis*”. Poster presentation by A. Creasy. American Society of Microbiology Conference on Beneficial Microbes. Seattle, WA. 9/16.
- Verbyla, M.E. E.M. Symonds, R.C. Kafle, M.R. Cairns, M. Iriarte, A. Mercado, O. Coronado, **M. Breitbart**, C. Ledo, and J.R. Mihelcic. Managing microbial risks from indirect wastewater reuse for irrigation using riverbank filtration. Oral presentation by E. Symonds. Aerobic Spores and Other Microbial Indicators to Determine Ground Water Under the Direct Influence of Surface Water (GWUDI), Riverside, California, USA. 2016.
- Leigh, B., Z. Graham, A. Creasy, A. Liberti, J. P. Cannon, G. W. Litman, **M. Breitbart**, and L. J. Dishaw. Exploring prophage roles at the onset of gut colonization in a marine protochordate, *Ciona intestinalis*. Oral presentation by B. Leigh. 8<sup>th</sup> Aquatic Virus Workshop. Plymouth, UK. 7/16.
- Bonnain, C., K.N. Buck, **M. Breitbart**. “The ferrojan horse hypothesis: iron-virus interactions in the ocean”. Poster presentation by C. Bonnain. 8<sup>th</sup> Aquatic Virus Workshop. Plymouth, UK. 7/16.
- Breitbart, M.** “Short stories in marine viral ecology”. Invited oral presentation. 8<sup>th</sup> Aquatic Virus Workshop. Plymouth, UK. 7/16.
- Breitbart, M.** “Virus hunting in the age of metagenomics”. Invited oral presentation. University of Liverpool. 7/16.
- Breitbart, M.** “Marine viral diversity and spatiotemporal variability”. Invited oral presentation. Viruses of Microbes. Liverpool, UK. 7/16.
- Leigh, B., Z. Graham, A. Creasy, A. Liberti, J. P. Cannon, G. W. Litman, **M. Breitbart**, and L. J. Dishaw. “*Ciona intestinalis*: a new model system for dissecting the roles of phages in

## Vita for Mya Breitbart

- modulating host-associated microbial communities”. Oral presentation by B. Leigh. Viruses of Microbes. Liverpool, UK. 7/16.
- Bonnain, C., K.N. Buck, **M. Breitbart**. “The ferrogan horse hypothesis: iron-virus interactions in the ocean”. Poster presentation by C. Bonnain. Viruses of Microbes. Liverpool, UK. 7/16.
- Fahsbender, E.M., P. Jernigan, B. Stacy, J. Keene, L. Byrd, T. Norton, A. Page-Karjian, L. Iwanowicz, D. Iwanowicz, R.S. Cornman, T.M. Work, L. Sanders, J. Casey, C. Adams, M. Ackermann, C. Morrison, **M. Breitbart**. “Genomic variation of chelonid fibropapillomatosis-associated herpesvirus CFPHV among three different Florida sea turtle species”. International Sea Turtle Society Symposium, Lima, Peru. 2016.
- Symonds, E.M., E. Ross Salazar, J.A. Jimenez, V.J. Harwood, **M. Breitbart**. Conjunto de herramientas para el rastreo de fuentes de contaminación microbiana para la identificación de contaminación fecal en la costa del Pacífico de Costa Rica (Microbial source tracking toolbox for the identification of fecal pollution for the Pacific coast of Costa Rica). Oral presentation by E. Symonds. 59° Congreso Internacional Asociación Colombiana de Ingeniería Sanitaria y Ambiental & Asociación Interamericana de Ingeniería Sanitaria y Ambiental XXXV Congreso Interamericano de Ingeniería Sanitaria y Ambiental, Cartagena, Colombia 2016.
- Breitbart, M.** “Sequences without particles: virus taxonomy in the age of metagenomics”. ICTV Conference on Metagenomics and Taxonomy. Boston, MA. 5/16.
- Symonds, E.M. C. Sinigalliano, M. Gidley, W. Ahmed, S.M. McQuaig-Ulrich, **M. Breitbart**. Performance of a pepper mild mottle virus RT-qPCR method in coastal waters exposed to untreated wastewater pollution and its simulated risk of gastrointestinal illness. Poster presentation by E. Symonds. Annual American Society of Microbiology Microbes Meeting, Massachusetts, USA. 5/16.
- Breitbart, M.** “Ctenophore-associated bacteria and viruses”. Ctenopalooza. St. Augustine, FL. 3/16.
- Djurhuus, A., D. Goldsmith, N. Sawaya, **M. Breitbart**. “Estimating diversity of Florida Keys zooplankton using new environmental DNA methods”. Oral presentation by A. Djurhuus. 2016 Ocean Sciences Meeting. New Orleans, LA. 2/16.
- Chavez, F., J. Port, **M. Breitbart**, K. Yamahara. “From microbes to whales: using genomics to track changing marine biodiversity”. Poster presentation by F. Chavez. 2016 Ocean Sciences Meeting. New Orleans, LA. 2/16.
- Bonnain, C., K. Buck, **M. Breitbart**. “Iron-virus interactions in the oceans”. Poster presentation by C. Bonnain. 2016 Ocean Sciences Meeting. New Orleans, LA. 2/16.
- Muller-Karger, F., F. Chavez, S. Gittings, S. Doney, M. Kavanaugh, E. Montes, **M. Breitbart**, B. Kirkpatrick, D. Anderson, M. Tartt. “National marine sanctuaries as sentinel sites for a demonstration marine biodiversity observation network (MBON). Poster by F. Muller-Karger. 2016 Ocean Sciences Meeting. New Orleans, LA. 2/16.
- Breitbart, M.** “Bright ideas STEM from today’s youth”. Invited plenary talk. Bright House Networks Bright Ideas Semi-Finalist Competition. Tampa, FL. 1/16.