

## **Vita for Mya Breitbart**

### **MYA BREITBART**

University of South Florida  
College of Marine Science  
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<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**

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

#### **Awards**

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**

Guest Editor for a Special Issue on Eukaryotic Single-stranded DNA Viruses for the Journal of Biomedicine and Biotechnology. 2012.  
Steering Committee for the 2013 Environmental Virology Workshop. 2012-present.  
USF Senate Research Council of Reviewers. 2012-present.  
Elected Member of the Executive Committee of the International Committee on the Taxonomy of Viruses. 2011-present. (Also member of the Anellovirus and Circoviridae Subgroups)  
President for the Florida Branch of the American Society for Microbiology. 2011-present.  
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.  
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.

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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-present.  
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-present.  
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.  
Ad hoc reviewer for Trends in Microbiology, Limnology and Oceanography, Environmental Microbiology, Aquatic Microbial Ecology, Molecular Biology and Evolution, Reviews in Medical Virology, FEMS Microbiology Ecology, Journal of Virological Methods, Journal of General Virology, Marine Ecology Progress Series, ISME Journal, Applied and Environmental Microbiology, Research in Microbiology, Science, Journal of Virology, Clinical Microbiology and Infection, Diseases of Aquatic Organisms, Microbial Ecology, Water Research, Virology Journal, New Phytologist, PLoS One, Virology.  
Ad hoc grant reviewer for National Science Foundation (Biotic Surveys and Inventories, Microbial Interactions and Processes, Biological Oceanography, Antarctic Programs, Geobiology, Assembling the Tree of Life, Science and Technology Centers), National Institutes of Health (National Institutes of General Medical Sciences – Minority Biomedical Research program), Austrian Research Council, US-Israel Binational Science Foundation, National Geographic Society, Marsden Fund (New Zealand).

## **Significant Outreach Activities**

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.

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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 Ciénegas, 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**

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**

Elizabeth Fahsbender – M.S. student (Fall 2012 – present)  
Dawn Goldsmith – Ph.D. student (Fall 2007 – present)  
Max Hopkins – Ph.D. student (Summer 2011 – present)  
Brittany Leigh – Ph.D. student (Fall 2012 – present)  
Monica Mion Cook – Ph.D. student (Fall 2007– present)  
Erin Symonds – Ph.D. student (Fall 2011 – present)

### **Former Graduate Students**

Erin Symonds – M.S. student, 2006 – 2008. M.S. received Spring 2008. Currently a Ph.D. student.

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Terry Fei Fan Ng – Ph.D. student, 2006 – 2010. Ph.D. received Fall 2010. Currently a postdoc at the Blood Systems Research Institute in San Francisco.

Karyna Rosario – Ph.D. student, 2006 – 2010. Ph.D. received Fall 2010. Currently a postdoc 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. Currently a postdoc at KAUST University in Saudi Arabia.

Darren Dunlap – M.S. student, 2009 – 2012. M.S. received Spring 2012. Currently a researcher at the United States Geological Survey in Reston, VA.

Sheila O’Dea – M.S. student, 2009 – 2012. M.S. received Summer 2012. Currently a researcher at the Florida Fish and Wildlife Commission in St Petersburg, FL.

### **Post-doctoral Researchers**

Kimberly Pause, 2007 – 2010. Currently the Direction 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 – present.

### **Undergraduate Students and Interns**

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

Bethany Levenson – Undergraduate (University of South Florida St Pete; Spring 2013)

Marco Padilla-Rodriguez – Undergraduate (University of South Florida; Spring 2011 – present)

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

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**

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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**

24 total: Brian Badgely (chair), Camille Daniels, Jennifer Delaney, Darren Dunlap, Terry Fei Fan Ng, Julia Galkiewicz, Adrienne George, Dawn Goldsmith, Lara Henry, Max Hopkins, Erica Hudson, Shannon McQuaig (chair), Jennifer Mobberley, Christin Murphy, Anthony Nitti, Sheila O’Dea, Karyna Rosario, Adam Spear, Erin Symonds, Min Tan, Robert Ulrich, Elizabeth Young, Brian Zielinski, Monica Mion Cook.

### **Student Awards**

Brittany Leigh (current graduate student)

- ASSEMBLE (Association of European Marine Biological Laboratories) program

Camille Daniels (current graduate student)

- 1<sup>st</sup> place graduate student oral presentation; Florida Branch of the American Society for Microbiology Annual Meeting; Islamorada, FL. 2010.
- Bridge to the Doctorate Endowed Fellowship; University of South Florida. 2006-2009.
- McKnight Doctoral Fellowship; Florida Education Fund. 2006-2010.
- Gulf Oceanographic Trust Fellowship; University of South Florida. 2006-2007.

Darren Dunlap (current graduate student)

- Outstanding student presentation award; 2012 Ocean Sciences Meeting; Salt Lake City, UT. 2012.
- Gulf Oceanographic Charitable Trust Endowed Fellowship in Marine Science. 2011.
- 3<sup>rd</sup> place student presentation award; College of Marine Science Graduate Student Symposium; Saint Petersburg, FL. 2011.

Dawn Goldsmith (current graduate student)

- Presidential Fellow; University of South Florida. 2007-2012.
- 3<sup>rd</sup> place student presentation award; College of Marine Science Graduate Student Symposium; Saint Petersburg, FL. 2012.
- Outstanding Graduate Student Achievement Award; University of South Florida. 2009.
- 3<sup>rd</sup> place student presentation award; College of Marine Science Graduate Student Symposium; Saint Petersburg, FL. 2009.
- Best presentation award; Florida Branch of the American Society for Microbiology; Jacksonville, FL. 2008

Max Hopkins (current graduate student)

- Presidential Fellow; University of South Florida. 2011-2016.

Erin Symonds (current graduate student)

- USF Graduate Student Research Challenge Grant

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- Environmental Protection Agency STAR Graduate Fellowship. 2011-2014.
- 2<sup>nd</sup> place student poster presentation award; 21<sup>st</sup> Annual Southwest Florida Water Resources Conference; Naples, FL. 2011.

Lauren Van Woudenberg (current undergraduate student)

- 1<sup>st</sup> place undergraduate student oral presentation; Florida Branch of the American Society for Microbiology Annual Meeting; Islamorada, FL. 2011.

Elizabeth Fahsbender (current undergraduate student)

- 2<sup>nd</sup> place undergraduate student oral presentation; Florida Branch of the American Society for Microbiology Annual Meeting; Islamorada, FL. 2011.

Allison Cohen (current undergraduate student)

- 3<sup>rd</sup> place undergraduate student oral presentation; Florida Branch of the American Society for Microbiology Annual Meeting; Islamorada, FL. 2011.

Terry Fei Fan Ng (graduated Fall 2010)

- 2<sup>nd</sup> place graduate student oral presentation; Florida Branch of the American Society for Microbiology Annual Meeting; Islamorada, FL. 2010.
- 1<sup>st</sup> place student presentation award at the 6<sup>th</sup> International Symposium on Aquatic Animal Health; Tampa, FL. 2010.
- Honorable Mention (2<sup>nd</sup> place) for the Terry Amundson Student Presentation Award at the Wildlife Disease Association Conference; Argentina. 2010.
- Elsie and William Knight, Jr. Endowed Fellowship; University of South Florida. 2008 - present.
- 2<sup>nd</sup> place student presentation award; College of Marine Science Graduate Student Symposium; Saint Petersburg, FL. 2009.
- Best student presentation award; 40<sup>th</sup> International Association for Aquatic Animal Medicine Conference; San Antonio, TX. 2009.
- Outstanding Graduate Student Achievement Award; University of South Florida. 2009.
- Best student presentation award; 39<sup>th</sup> International Association for Aquatic Animal Medicine Conference; Rome, Italy. 2008.
- 2<sup>nd</sup> place student presentation award; College of Marine Science Graduate Student Symposium; Saint Petersburg, FL. 2008.
- Distinct Graduate Student Achievement Award; University of South Florida. 2008.
- Gulf Oceanographic Trust Endowed Fellowship; University of South Florida. 2007-2008.
- Best student poster award; 38<sup>th</sup> International Association for Aquatic Animal Medicine Conference; Orlando, FL. 2007.
- 2<sup>nd</sup> place student presentation award; College of Marine Science Graduate Student Symposium; Saint Petersburg, FL. 2007.
- Library Graduate Scholarship; University of South Florida. 2007.

Anthony Nitti (graduated Fall 2010)

- Gulf Oceanographic Trust Endowed Fellowship; University of South Florida. 2008.
- United States Geological Survey Fellowship. 2008.

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- Von Rosenstiel Fellowship for Most Outstanding Incoming Chemical Oceanography Student; University of South Florida. 2007.

Karyna Rosario (graduated Fall 2010; currently a postdoc in my lab)

- 2012 William M. Sackett Prize for Innovative Research by a recent USF College of Marine Science Graduate.
- Outstanding Student Poster Award; 110<sup>th</sup> General Meeting of the American Society for Microbiology; San Diego, CA. 2010.
- Outstanding Graduate Student Award; University of South Florida. 2010.
- National Science Foundation EAPSI (East Asia and Pacific Summer Institutes for Graduate Students) Recipient for study in New Zealand. 2010.
- Elsie and William Knight, Jr. Endowed Fellowship; University of South Florida. 2009 – present.
- 1<sup>st</sup> place student presentation award; College of Marine Science Graduate Student Symposium; Saint Petersburg, FL. 2009.
- Best oral presentation award in Microbiology at the 2009 SACNAS (Advancing Hispanics/Chicanos & Native Americans in Science) National Conference in Dallas, TX.
- Honorable mention, ASM Robert D. Watkins Graduate Research Fellowship 2009.
- 1st place student presentation award; College of Marine Science Graduate Student Symposium; Saint Petersburg, FL. 2008.
- 3rd place outstanding student presentation award; Florida Branch of the American Society for Microbiology Annual Meeting; Saint Petersburg, FL. 2007.
- Successful Latina Student Award; University of South Florida. 2007.
- Saint Petersburg Progress Endowed Fellowship; University of South Florida. 2007-2008.
- Alfred P. Sloan Minority Ph.D. Fellowship. 2007.
- NSF Bridge to the Doctorate Fellowship. 2006-2008.
- Latin American/Caribbean Scholarship. 2006-2010.

### **Chief Scientist**

R/V Atlantic Explorer, Bermuda Institute of Ocean Sciences. Bermuda. 9/2/08 – 9/4/08.

R/V Bellows, Florida Institute of Oceanography. Dry Tortugas. 5/29/07 – 6/3/07.

### **Funded Research Grants**

**(\$3,206,931 total)**

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 Program. “Development of a Serological Assay for the Detection of Sea Lion

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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 Cuatrociénegas, 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 Cuatrociénegas, Mexico”. 5/01/06 – 4/30/07.  
\$10,000.

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

**(63 published journal articles and 2 book chapters, 3469 citations as of 3/17/13, H-index 29)**

Ng, TFF, S Alavandi, A Varsani, S Burghart, **M Breitbart** (in review). Proactive viral  
monitoring – metagenomic characterization of a novel circular single-stranded DNA



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- virus and a nodavirus in asymptomatic *Farfantopenaeus duorarum* from the Gulf of Mexico. Diseases of Aquatic Organisms.
- 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 (in review). Metagenomic identification, seasonal dynamics and potential transmission mechanisms of a Daphnia-associated putative RNA-DNA hybrid virus in two temperate lakes. Limnology and Oceanography.
- McDaniel, LD, K Rosario, **M Breitbart**, JH Paul (in review). Comparative metagenomics: Natural populations of induced prophages demonstrate highly unique, lower diversity viral sequences. Environmental Microbiology.
- Ng, TFF, C Driscoll, R Myers, D Limpert, R Schmieder, B Dwivedi, J Wong, Y Cha, K Feldman, S Head, **M Breitbart**, E Delwart (in review). A distinct lineage of vesiculovirus from a bat tissue virome. Emerging Infectious Diseases Journal.
- Londono, A, AL Cohen, M Padilla-Rodriguez, K. Rosario, **M Breitbart**, J.E. Polston (in review). First report of *Euphorbia mosaic virus* in the United States. Plant Disease.
- 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. 10.1007/s00705-013-1606-x.
- 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.
- 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 (Epirocta) 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: Epirocta). 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. (2 citations).
- 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. (1 citation).
- Daniels, C. and **M. Breitbart** (2012). Bacterial communities associated with the ctenophores *Mnemiopsis leidyi* and *Beroe 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. (2 citations).
- Breitbart, M** (2012). Marine viruses: truth or dare. Annual Review of Marine Science. 4: 425-448. (4 citations).

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- Parsons, RJ, **M Breitbart**, MW Lomas, CA Carlson (2012). Ocean time-series reveals recurring seasonal patterns of viroplankton dynamics in the northwestern Sargasso Sea. *ISME Journal*, 6: 273-284. (6 citations).
- 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. (3 citations).
- Rosario, K and **M Breitbart** (2011). Exploring the viral world through metagenomics. *Current Opinion in Virology*. 1: 289-297. (7 citations).
- Skenneron, 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. (8 citations).
- 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. (13 citations).
- 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. (10 citations).
- 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. (13 citations).
- 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 samples and its detection in samples from multiple years. *Journal of General Virology*. 92: 1318-1323. (9 citations).
- 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. (7 citations).
- 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. (16 citations).
- 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. (9 citations).
- Sharon, I, N Battchikova, E-M Aro, C Giglione, T Meinel, 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. (18 citations).
- 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. (15 citations).

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- Aziz, RK, **M Breitbart**, RA Edwards (2010). Transposases are the most abundant, most ubiquitous genes in nature. *Nucleic Acids Research*. 38: 4207-4217. \*featured cover article, and evaluated by Faculty of 1000, placing the work in the top 2% of published articles in biology and medicine. (29 citations).
- 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. (55 citations).
- 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. (15 citations).
- 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. (27 citations).
- 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. (16 citations).
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- 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. (131 citations).
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**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. (315 citations).

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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. (84 citations).

**Presentations since 2010** (underline indicates my grad students, undergrads, or post-docs)

**Breitbart, M.** “The global marine virome”. Invited oral presentation. University of Tennessee; Knoxville, TN. 3/13.

Hopkins, M., A. Cohen, B. Dwivedi, **M. Breitbart**. “A PCR survey of the diversity of ssDNA Microviridae phages”. Poster presentation by M. Hopkins. Environmental Virology Workshop; Tucson, AZ. 1/13.

Goldsmith, D.B., G. Crosti, B. Dwivedi, L.D. McDaniel, A. Varsani, C.A. Suttle, M.G. Weinbauer, R.J. Parsons, M.W. Lomas, C.A. Carlson, R.A. Sandaa, **M. Breitbart**. “Pho regulon genes in phage: Development of phoH as a novel signature gene for assessing marine phage diversity”. Poster presentation by D. Goldsmith. Environmental Virology Workshop; Tucson, AZ. 1/13..

Symonds, E.M., K. Rosario, D.W. Griffin, C. Sinigalliano, J. Stewart, **M. Breitbart**. “Pepper mild mottle virus as a viral bioindicator of human fecal pollution”. Poster presentation by E. Symonds. 2012 Water and Health Conference; Chapel Hill, NC, 10/12.

**Breitbart, M.** “Virus hunting in the age of metagenomics”. Invited oral presentation. College of William and Mary; Williamsburg, VA. 9/12.

**Breitbart, M.** “The global marine virome”. Invited oral presentation. Virginia Institute of Marine Science; Gloucester Point, VA. 9/12.

Goldsmith, D.B., G. Crosti, B. Dwivedi, L.D. McDaniel, A. Varsani, C.A. Suttle, M.G. Weinbauer, R.J. Parsons, M.W. Lomas, C.A. Carlson, R.A. Sandaa, **M. Breitbart**. “Pho regulon genes in phage: Development of phoH as a novel signature gene for assessing marine phage diversity”. Poster presentation by D. Goldsmith. Viruses of Microbes Conference; Brussels, Belgium. 7/12.

Padilla-Rodriguez, M., K. Rosario, **M. Breitbart**. “Detection of circular single-stranded DNA viruses in insects and wild vegetation”. Poster presentation by M. Padilla-Rodriguez. USF Saint Petersburg Undergraduate Research Symposium; Saint Petersburg, FL. 4/12.

Symonds, E.M. and **M. Breitbart**. “Pepper mild mottle virus as an alternative viral bioindicator of human fecal pollution”. Oral presentation by E. Symonds. Gulf of Mexico Alliance Microbial Source Tracking Workshop III; Saint Petersburg, FL. 4/12.

**Breitbart, M.** “Viruses in sewage and reclaimed water: the hunt for novel bioindicators”. USF Environmental & Water Resources Engineering Seminar Series; Tampa, FL. 3/12.

Goldsmith, D.B., G. Crosti, B. Dwivedi, L.D. McDaniel, R.A. Sandaa, R.J. Parsons, **M. Breitbart**. “Diversity of marine viral communities over depth and time in the

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- northwestern Sargasso Sea”. Oral presentation by D. Goldsmith. 30<sup>th</sup> Annual USF College of Marine Science Graduate Student Symposium; St. Petersburg, FL. 2/12.
- Symonds, E.M. and **M. Breitbart**. “Development of Pepper mild mottle virus as a bioindicator of fecal pollution in shellfish harvesting areas”. Oral presentation by E. Symonds. 30<sup>th</sup> Annual USF College of Marine Science Graduate Student Symposium; St. Petersburg, FL. 2/12.
- Hopkins, M. and **M. Breitbart**. “Exploring the diversity and ecology of ssDNA viruses in the ocean”. Oral presentation by M. Hopkins. 30<sup>th</sup> Annual USF College of Marine Science Graduate Student Symposium; St. Petersburg, FL. 2/12.
- Dunlap, D.S., **M. Breitbart**, I. Hewson. “Evidence for virus infection in the calanoid copepods *Acartia tonsa* and *Labidocera aestiva* in Tampa Bay, Florida”. ASLO Ocean Sciences; Salt Lake City, UT. 2/12.
- Breitbart, M.** “Virus hunting in the age of metagenomics: exploring active infections, environmental reservoirs, and transmission mechanisms. USF Global Health Seminar Series; Tampa, FL. 2/12.
- Symonds, E.M., K. Rosario, D.W. Griffin, C. Sinigalliano, J. Stewart, M. Breitbart. “Viruses found in sewage and their potential to indicate fecal pollution in coastal waters”. Poster presentation by E. Symonds. 21<sup>st</sup> Annual Southwest Florida Water Resources Conference; Naples, FL. 11/11.
- Symonds, E.M., K. Rosario, D.W. Griffin, C. Sinigalliano, J. Stewart, M. Breitbart. “Viruses found in sewage and their potential to indicate fecal pollution in coastal waters”. Poster presentation by E. Symonds. Aquatic Virus Workshop; The Netherlands. 11/11.
- Dunlap, D., I. Hewson, **M. Breitbart**. “Evidence for virus infection in the calanoid copepod *Acartia tonsa* from Tampa Bay, Florida”. Oral presentation by D. Dunlap. Annual Meeting of the Florida Branch of the American Society for Microbiology; Islamorada, FL. 9/11.
- Padilla-Rodriguez, M., K. Rosario, **M. Breitbart**. “Novel single-stranded DNA viruses identified in insects”. Oral presentation by M. Padilla-Rodriguez. Annual Meeting of the Florida Branch of the American Society for Microbiology; Islamorada, FL. 9/11.
- Cohen, A., K. Rosario, **M. Breitbart**. “Rolling circle amplification as a tool for hunting novel single-stranded DNA viruses”. Oral presentation by A. Cohen. Annual Meeting of the Florida Branch of the American Society for Microbiology; Islamorada, FL. 9/11.
- Hopkins, M., B. Dwivedi, K.P. Tucker, **M. Breitbart**. “Single-stranded DNA phages in the marine environment”. Oral presentation by M. Hopkins. Annual Meeting of the Florida Branch of the American Society for Microbiology; Islamorada, FL. 9/11.
- Van Woudenberg, L., C. Daniels, S. Burghart, R. Kitzmiller, E. Peebles, **M. Breitbart**. “Genetic identification of single fish eggs for a community analysis of Terra Ceia Bay, Florida”. Oral presentation by L. Van Woudenberg. Annual Meeting of the Florida Branch of the American Society for Microbiology; Islamorada, FL. 9/11.
- Fahsbender, E., C. Daniels, R. Cunnig, A. Baker, **M. Breitbart**. “Bacterial profiling of the scleractinian coral *Pocillopora damicornis*”. Oral presentation by E. Fahsbender. Annual Meeting of the Florida Branch of the American Society for Microbiology; Islamorada, FL. 9/11.

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- Cook, M.M., K. Rosario, S. McQuaig, H. Adkison, **M. Breitbart**, E. Van Vleet. "Electrocoagulation technology for removal of microbiological contaminants and estrogenic endocrine disruptors". Oral presentation by M. Cook. Annual Meeting of the Florida Branch of the American Society for Microbiology; Islamorada, FL. 9/11.
- Breitbart, M.** "How diverse is the global marine virome?" Invited plenary talk. 19<sup>th</sup> Evergreen International Phage Biology Meeting: Olympia, WA. 8/11.
- Aziz, R., B. Dwivedi, **M. Breitbart**, R.A. Edwards. "Phages without borders: a global survey of phage nucleic acids in metagenomes and microbiomes". Oral presentation by R. Aziz. 19<sup>th</sup> Evergreen International Phage Biology Meeting: Olympia, WA. 8/11.
- Hopkins, M., B. Dwivedi, K. Tucker, **M. Breitbart**. "Single-stranded DNA phages in the marine environment". Oral presentation by M. Hopkins. 19<sup>th</sup> Evergreen International Phage Biology Meeting: Olympia, WA. 8/11.
- Dwivedi, B., R. Schmieder, D. Goldsmith, R.A. Edwards, **M. Breitbart**. "PhiSiGns: an online tool to identify signature genes in phages and design PCR primers for examining phage diversity". Poster presentation by B. Dwivedi. 19<sup>th</sup> Evergreen International Phage Biology Meeting: Olympia, WA. 8/11.
- Breitbart, M.** "Spatial and temporal variability in the distribution of marine viruses". Invited plenary talk. American Society for Microbiology 111<sup>th</sup> General Meeting: New Orleans, LA. 5/11.
- Fahsbender, E., C. Daniels, R. Cunnig, A. Baker, **M. Breitbart**. "Bacterial profiling of the scleractinian coral *Pocillopora damicornis*". USF 9<sup>th</sup> Annual Undergraduate Research Symposium; Tampa, FL. 4/11.
- Breitbart, M.** "Viral discovery in the age of metagenomics". Invited oral presentation. Cornell University; Ithaca, NY. 4/11.
- Breitbart, M.** "Viral discovery in the age of metagenomics". Invited oral presentation. University of South Carolina; Columbia, SC. 4/11.
- Breitbart, M.** "Viral discovery in the age of metagenomics: Exploration of active infections, environmental reservoirs, and transmission mechanisms". Invited oral presentation. Blood Systems Research Institute: San Francisco, CA. 3/11.
- Breitbart, M.**, T.F.F. Ng, K. Suedmeyer, F. Gulland, E. Wheeler, K. Rosario, E. Symonds, Y. Ruan, C. Nilsson, Y.W. Lim, C. Sinigalliano, J. Stewart, E. Bixby, J. Polston, G. Vallad, S. Duffy. "Virus hunting in the age of metagenomics". Invited poster presentation. NSF Ecology of Marine Infectious Diseases Workshop. San Juan, Puerto Rico. 2/11.
- Hewson, I., J. Barbosa, **M. Breitbart**, J. Brown, C. Couch, D. Dunalp, N. Hairston, D. Harvell, C. Kearns, B. LaBarre, M. Mouchka, T. Ng. "Metaviromic-enabled ecological investigations of aquatic invertebrate disease". Oral presentation by I. Hewson. ASLO Aquatic Sciences Meeting; San Juan, Puerto Rico. 2/11.
- Goldsmith, D.B., G. Crosti, L. McDaniel, B. Dwivedi, R. Parsons, C. Carlson, C.A. Suttle, M.G. Weinbauer, R.A. Sandaa, **M. Breitbart**. "Biogeography of marine viruses as revealed through sequencing of PhoH, a novel signature gene involved in phosphate metabolism". Oral presentation by D. Goldsmith. 29<sup>th</sup> Annual USF College of Marine Science Graduate Student Symposium; St. Petersburg, FL. 1/11.



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- Dunlap, D., T.F.F. Ng, I. Hewson, M. Breitbart. “Novel circovirus identified in the calanoid copepod *Labidocera aestiva* from Tampa Bay, Florida”. Oral presentation by D. Dunlap. 29<sup>th</sup> Annual USF College of Marine Science Graduate Student Symposium; St. Petersburg, FL. 1/11.
- Breitbart, M.** “The global marine virome”. Invited oral presentation. Uppsala University; Uppsala, Sweden. 12/10.
- Breitbart, M.** “The global marine virome”. Invited oral presentation. Stockholm University; Stockholm, Sweden. 12/10.
- Breitbart, M.** “The global marine virome”. Invited oral presentation. University of Bergen; Bergen, Norway. 12/10.
- Breitbart, M., T.F.F. Ng, D. Willner, Y.W. Lim, E. Bixby, R. Schmieder, B. Chau, C. Nilsson, S. Anthony, G.E. Vallad, Y. Ruan, F. Rohwer, S. Duffy, J.E. Polston.** “Vector-enabled metagenomics on whiteflies and mosquitoes leads to the discovery of novel plant and animal viruses”. Invited plenary talk. 6<sup>th</sup> International Symposium on Geminiviruses; Guanajuato, Mexico. 11/10.
- Rosario, K., M. Marinov, D. Stainton, S. Kraberger, D. Martin, M. Breitbart, A. Varsani. “Discovery of a novel ssDNA virus in dragonflies”. Talk by K. Rosario. 6<sup>th</sup> International Symposium on Geminiviruses; Guanajuato, Mexico. 11/10.
- Breitbart, M.** “Virus hunting in the age of metagenomics”. Invited oral presentation. 22<sup>nd</sup> Annual Kavli Frontiers of Science Symposium; Irvine, CA. 11/10.
- Breitbart, M.** “Viral discovery in the age of metagenomics: Exploring infections, environmental reservoirs, and transmission mechanisms”. Invited oral presentation as a UA ADVANCE Junior Scientist Speaker. University of Arizona; Tucson, AZ. 11/10.
- Breitbart, M.** “The ocean and human health: The good, the bad, and the ugly”. Invited oral presentation. The Pier Aquarium’s SciCafe; St. Petersburg, FL. 10/10.
- Breitbart, M.** “Viral discovery in the age of metagenomics: Stories of sewage and sick sea creatures”. Invited oral presentation, Hillsborough Community College; Tampa, FL. 9/10.
- Ng, T.F.F., S. Alavandi, M. Breitbart. “Metagenomic studies reveal novel viruses in shrimp”. Oral presentation by T. Ng, Sixth International Symposium on Aquatic Animal Health; Tampa, FL. 9/10.
- Ng, T.F.F., C. Driscoll, B. Dwivedi, D. Limpe, S. Lamere, S. Head, K. Feldman, D. Salomon, M. Breitbart. “High diversity of novel RNA viruses found in big brown bats using high-throughput metagenomic sequencing”. Oral presentation by T. Ng. Annual Meeting of the Florida Branch of the American Society for Microbiology; Islamorada, FL. 10/10.
- Daniels, C., P. Turner, M.B. Decker, M. Breitbart. “Bacterial communities associated with *Mnemiopsis leidyi*”. Oral presentation by C. Daniels. Annual Meeting of the Florida Branch of the American Society for Microbiology; Islamorada, FL. 10/10.
- Dunlap, D., T.F.F. Ng, I. Hewson, M. Breitbart. “Novel circovirus identified in the calanoid copepod *Labidocera aestiva* from Tampa Bay, Florida”. Oral presentation by D. Dunlap. Annual Meeting of the Florida Branch of the American Society for Microbiology; Islamorada, FL. 10/10.
- Dwivedi, B., R.K. Aziz, R. Edwards, M. Breitbart. “Phage Eco-Locator: A systematic survey of known phage genomes in environmental metagenomes”. Oral presentation by B.

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- Dwivedi. Annual Meeting of the Florida Branch of the American Society for Microbiology; Islamorada, FL. 10/10.
- Breitbart, M.** “Viral discovery in the age of metagenomics”. Invited oral presentation. 13<sup>th</sup> International Symposium on Microbial Ecology: Seattle, WA. 8/10.
- Daniels, C., P. Turner, M.B. Decker, **M. Breitbart**. “Bacterial communities associated with *Mnemiopsis leidyi*”. Poster presentation by C. Daniels. 13<sup>th</sup> International Symposium on Microbial Ecology: Seattle, WA. 8/10.
- Goldsmith, D.B., R. Parsons, **K.P. Tucker**, C.A. Carlson, **M. Breitbart**. “Abundance and Diversity of viruses throughout the water column in the Northwestern Sargasso Sea.” Poster presentation. 13<sup>th</sup> International Symposium on Microbial Ecology: Seattle, WA. 8/10.
- Dunlap, D.S., T.F.F. Ng, I. Hewson, **M. Breitbart**. “Novel circovirus identified in the calanoid copepod *Labidocera aestiva* from Tampa Bay, Florida. Poster presentation by D. Dunlap. 13<sup>th</sup> International Symposium on Microbial Ecology: Seattle, WA. 8/10.
- Parsons, R.J., **M. Breitbart**, M.W. Lomas, C.A. Carlson. “Time series study reveals regular temporal and vertical variability of viral abundance in the subtropical North Atlantic”. Poster presentation by R. Parsons. 13<sup>th</sup> International Symposium on Microbial Ecology: Seattle, WA. 8/10.
- Sun, C.L., B.C. Thomas, V.J. Denef, **K.P. Tucker**, P. Wilmes, C. Pan, R.L. Hettich, N.C. VerBerkmoes, **M. Breitbart**, J.F. Banfield. “Analysis of virus-CRISPR interactions in a natural system”. Poster presentation by C. Sun. 13<sup>th</sup> International Symposium on Microbial Ecology: Seattle, WA. 8/10.
- Ng, T.F.F., C. Driscoll, B. Dwivedi, D. Limpet, S. Lamere, S. Head, K. Feldman, D. Salomon, **M. Breitbart**. “High diversity of novel RNA viruses found in big brown bats using viral metagenomics”. Oral presentation by T. Ng. 59<sup>th</sup> Annual Wildlife Disease Association International Meeting: Iguazu, Argentina. 6/10.
- Goldsmith, D.B., R. Parsons, M. Lomas, C. Carlson, **M. Breitbart**. “Abundance and diversity of viruses throughout the water column in the northwestern Sargasso Sea”. Poster presentation by D. Goldsmith. Viruses of Microbes Conference: Paris, France. 6/10.
- Ng, T.F.F., S. Alavandi, E. Wheeler, D. Dunlap, W.K. Suedmeyer, F. Gulland, I. Hewson, **M. Breitbart**. “Metagenomic studies reveal novel single-stranded DNA viruses in aquatic animals”. Oral presentation by T. Ng. 41<sup>st</sup> Annual International Association for Aquatic Animal Medicine Conference: Vancouver, Canada. 5/10.
- Aziz, R.K., **M. Breitbart**, R.A. Edwards. “Phage Eco-locator: Mapping phage nucleic acids in 310 metagenomes”. Poster presentation by R. Aziz. San Diego Microbiology Group Annual Meeting: San Diego, CA. 5/10.
- Aziz, R.K., B. Dwivedi, J. Anderson, B. Hurwitz, J.P. Massar, M. Sullivan, J. Elhai, **M. Breitbart**, R. Edwards. “PhAnToMe (Phage Annotation Tools and Methods): A platform for phage annotation and comparative genomics”. Poster presentation by R. Aziz. San Diego Microbiology Group Annual Meeting: San Diego, CA. 5/10.
- Rosario, K., S. Svraha, E. Duizer, **M. Breitbart**, M. Koopmans. “Metagenomics for virus identification in a public health setting”. Poster presentation by K. Rosario. American Society for Microbiology 110<sup>th</sup> General Meeting: San Diego, CA. 5/10.

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- Angly, F.E., M. Youle, B. Nostrat, S. Srinagesh, B. Rodriguez-Brito, P. McNairnie, G. Deyanat-Yazdi, **M. Breitbart**, G. Tyson, F. Rohwer. "Evolution and distribution of Roseobacter SIO phage strains in the ocean". Poster presentation by F. Angly. American Society for Microbiology 110<sup>th</sup> General Meeting: San Diego, CA. 5/10.
- Aziz, R.K., **M. Breitbart**, R.A. Edwards. "Phages without borders: distribution of phage nucleic acids in 310 metagenomes". Poster presentation by R. Aziz. American Society for Microbiology 110<sup>th</sup> General Meeting: San Diego, CA. 5/10.
- Aziz, R.K., B. Dwivedi, J. Anderson, B. Hull, B. Hurwitz, J. Massar, M. Sullivan, J. Elhai, **M. Breitbart**, R.A. Edwards. "PhAnToMe (Phage annotation tools and methods): A platform for phage annotation and comparative genomics". Poster presentation by R. Edwards. American Society for Microbiology 110<sup>th</sup> General Meeting: San Diego, CA. 5/10.
- Breitbart, M.** "Virus hunting in the age of metagenomics: expect the unexpected". Invited oral presentation. American Society for Microbiology 110<sup>th</sup> General Meeting: San Diego, CA. 5/10.
- Breitbart, M.**, D. Hollander, A. Nitti, B. Van Mooy, J. Siefert, V. Souza. "Modern freshwater microbialites of Cuatro Cienegas, Mexico. I: Metagenomic and stable isotopic analyses to assess microbial community structure and function". Astrobiology Science Conference; League City, TX. 4/10.
- Hollander, D., **M. Breitbart**, A. Nitti, B. Van Mooy, J. Siefert, V. Souza. "Modern freshwater microbialites, Cuatro Cienegas, Mexico. II. Detailed spatial analysis of geochemical signals linked to microbial activity and carbonate precipitation". Oral presentation by D. Hollander. Astrobiology Science Conference; League City, TX. 4/10.
- Souza, V., **M. Breitbart**, D. Hollander, J. Elser, V. Meadows, J. Siefert. "Cuatro Cienegas, a desert oasis with active stromatolites: an astrobiological project". Oral presentation by V. Souza. Astrobiology Science Conference; League City, TX. 4/10.
- Ng, T.F.F., D. Willner, C. Nilsson, Y.W. Lim, R. Schmieder, B. Chau, Y. Ruan, F. Rohwer, **M. Breitbart**. "Vector-based metagenomics for animal virus surveillance". Poster presentation by T. Ng. 14<sup>th</sup> International Congress on Infectious Diseases (ICID): Miami, FL. 3/10.
- Hewson, I., **M. Breitbart**, J. Brown, D. Doud, L. McDaniel, T.F. Ng, E. Webb. "Genomic and transcriptomic insights into microbial and viral roles in ocean biogeochemistry". Oral presentation by I. Hewson. 2010 Ocean Sciences Meeting; Portland, OR. 2/10.
- Tucker, K.P., C.L. Sun, B.D. Dill, P. Wilmes, R. Hettich, B.C. Thomas, V. Denef, N. VerBerkmoes, L. Comolli, B. Luef, J.F. Banfield, **M. Breitbart**. "Metagenomic and metaproteomic analysis of viruses from an acid mine drainage system". Poster presentation by K.P. Tucker. Department of Energy Genomic Science Awardee Workshop 2010; Arlington, VA. 2/10.
- Sun, C., B. Thomas, V. Denef, K.P. Tucker, P. Wilmes, R. Barrangou, C. Pan, M.P. Thelen, R. Hettich, N. VerBerkmoes, **M. Breitbart**, J. Banfield. "Community proteogenomic analysis of virus-host interactions in a natural system". Poster presentation by C. Sun. Department of Energy Genomic Science Awardee Workshop 2010; Arlington, VA. 2/10.

### **Vita for Mya Breitbart**

- VerBerkmoes, N., B. Dill, J. Young, K.P. Tucker, C. Sun, B. Thomas, V. Deneff, P. Wilmes, P. Carey, M. Shah, C. Pan, R. Hettich, R. Barrangou, **M. Breitbart**, J. Banfield. "Advanced proteomics methods to identify low level viral signatures in isolate and environmental samples". Poster presentation by N. VerBerkmoes. Department of Energy Genomic Science Awardee Workshop 2010; Arlington, VA. 2/10.
- Breitbart, M.** "Viruses in sewage and reclaimed water". Invited oral presentation. Special Seminar: The Impending Water Crisis of Tampa Bay: Waste, Reuse, and Environmental Protection; Tampa, FL. 1/10.