

MYA BREI TBART

University of South Florida (USF)
College of Marine Science (CMS)
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Education

2006 Doctor of Philosophy, Cellular and Molecular Biology, San Diego State University and University of California San Diego
2000 Bachelor of Science, Biology, Florida Institute of Technology

Appointments

Awards

2022 Elected Member, Academy of Science, Engineering and Medicine of Florida
2019 American Academy of Microbiology Fellow
2018 USF Outstanding Faculty Award
2017 American Association for the Advancement of Science (AAAS) Fellow
2015 Girls Incorporated of Pinellas STEM Woman of the Year
2014 Florida Trend Magazine's All Star
2014 USF Outstanding Faculty Award
2013 Popular Science Magazine "Brilliant Ten" Young Investigators
2013 Honorable Mention, USF Outstanding Graduate Mentor Award
2009, 2010 Kavli Frontiers Fellow. National Academy of Sciences
2009 USF "Each One Teach One" Phenomenal Woman Award
2008 USF Outstanding Research Achievement Award
2007 Alfred P. Sloan Research Fellow
2006 Genome Technology Magazine's Young Investigator Award
2005-2006 Achievement Rewards for College Scientists (ARCS) Scholar

Funded Research Grants

2023-2028 NOAA National Centers for Coastal Ocean Science. Surveillance of Pollution from Emerging Chemical Threats in Tampa Bay as a co-PI, Steven Murawski (

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award = \$64,636.

- 2021-2022 National Science Foundation Research Experience for Post-Baccalaureate Students (REPS) supplement Deciphering the Ecology of Aquatic Single Stranded DNA Phages (Microviridae/ Gokushovirinae. Total award = \$39,139.
- 2021-2022 University of South Florida Internal Awards Program – Proposal Enhancement Grant. Ecology and Evolution of Seagrass Viruses. Total award = \$25,000
- 2021 Florida Department of Environmental Protection. "Analysis of Archived Piney Point Samples" I am a coPI, Kristen Buck (USF) is lead PI. My portion of the award = \$88,730.
- 2020-2025 Florida Fish and Wildlife Conservation Commission. "New Interdisciplinary Approaches to Enhance Red Tide Tracking and Forecasting on the West Florida Shelf". I am a coPI, Kristen Buck (USF) is lead PI. My portion of the award = \$125,000.
- 2019-2022 Florida RESTORE Act Centers of Excellence Program. "Spawning Habitat and Early-Life Linkages to Fisheries (SHELF)". I am a coPI, Ernst Peebles (USF) is lead PI. Total award = \$749,999.
- 2016-2021 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 PI. Total award = \$999,995. 09/15/16 – 09/14/21.
- 2016-2021 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.
- 2015-2020 U.S.-Israel Binational Science Foundation. "Quantifying the Recently Discovered, Ubiquitous ssDNA Phage Group and Identifying Hosts" I am the lead PI, Debbie Lindell (Technion, Israel) is the PI. Total award = \$180,000.
- 2017-2019 National Science Foundation – EAGER. "Virus Interactions in the Ocean". Lead PI is Kristen Buck, I am a PI. Total award = \$299,295.
- 2016-2018 Florida Institute of Oceanography, FL Centers of Excellence Research Grants Program. "Spawning Habitat and Early Life Linkages to Fisheries (SHELF)". Lead PI: Ernst Peebles. Total award = \$440,900.

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between NOAA, BOEM, and NASA. "National Marine Sanctuaries as Sentinel

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- 2007-2008 National Geographic Society. Impact of Human Activity on Microbes and Viruses Associated with Living Stromatolites in Cuatrociénegas, Mexico. Total award = \$19,973.
- 2007 Project AWARE Foundation. "The Microbiology of Coral Restoration". Total award = \$3,500.
- 2007 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". Lead PI is Dr. Pam Halloran Muller, I am a co-PI. My portion of the award = \$10,000.
- 2006-2007 Environmental Protection Agency: Region 4 Special Studies. Diversity and Distribution of Pathogenic Viruses in the Florida Keys. Total award = \$25,000.
- 2006-2007 University of South Florida: Internal New Investigator Award. "Diversity and Dynamics of Viruses Associated with Stromatolites in Cuatrociénegas, Mexico". Total award = \$10,000.

Professional Activities

- 2023-present Member of the Curriculum Committee for the American Society for Virology
- 2023-present CMS Seminar Committee (chair in Fall 2023, member in Spring 2024)
- 2023-present Member of the University Discipline Committee for the Distinguished University Professor nomination process
- 2023-present Faculty Mentor to Dr. Margaret Bisbin
- 2023-present Faculty advisor, CMS Graduate Student Symposium
- 2022-2026 Elected Member, Subcommittee on Elections, American Academy of Microbiology
- 2022-present Editorial Board Member, Applied and Environmental Microbiology
- 2022 Member of the US-CMS Preprint.-4 (https://www.us-cms.org/2022/07/20/2022-07-20-04)

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Ambassadors

2017 American Society for Microbiology Officer Nominating Committee

2016 USF Academy for Teaching and Learning Excellence (ATLE) Pedagogy All Day Workshop

2015 Session Chair, Gordon Conference on Animal-Microbe Symbiosis

2015 Session Chair, American Society for Microbiology General Meeting

2015-2017 USF Research Advisory Committee

2015-2019 Scientific Advisory Board Member for International Society of Viruses of Microbes

2015-2016 Division M (Bacteriophage) Chair of the American Society for Microbiology

2014-2016 Editorial Board Member for Scientific Reports

2014-2018 Chair of the Circoviridae Subgroup of the International Committee on the Taxonomy of Viruses

2014-2015 Chair-Elect of Division M (Bacteriophage) of the American Society for Microbiology

2013-2015 Councilor for the Florida Branch of the American Society for Microbiology

2013-2015 USF QEP Steering Committee Global Citizen Project

2013-2014 Nominating Committee for the ARCS Tampa Bay Chapter

2012-2013 USF Incentivizing, Recognizing and Rewarding Internal Engagement Among Faculty Workgroup

2012-2015 USF-CMS Curriculum Committee

2011-2014 Elected Member, Executive Committee of the International Committee on the Taxonomy of Viruses

2011 Organizing committee member, National Academy of Science's Kavli Frontiers in Science Meeting

2011-2013 President, Florida Branch of the American Society for Microbiology

2011 Co-organizer, 19th Evergreen International Phage Biology Meeting

2011 Presentation judge, USF 9th Annual Undergraduate Research Symposium

2011 USF-CMS Phytoplankton Ecologist Search Committee

2011 Organizing committee member, National Academy of Science's Kavli Frontiers in Science Meeting

2010-2016 USF-CMS Honors and Awards Committee Member

2009-2010 USF-CMS Dean Search Committee

2009-2011 Scientific Member of the USF/UM Affiliation Committee

2009 Co-organizer of the 18th Evergreen International Phage Biology Meeting

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

2007 Member of initiating group for the Tampa Bay ARCS Foundation

2007-2012 USF University Laboratory and Field Safety Committee

2007-2015 Florida Aquarium's Conservation and Research Advisory Committee

2006-2014 Chair of USF-CMS Graduate Student Recruitment Weekend

2008-2016 Faculty advisor, USF-CMS Graduate Student Symposium

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

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- 2006-2010 Terry Fei Fan Ng- Ph.D. student. Currently Senior Service Fellow at the Center for Disease Control in Atlanta and an Adjunct Assistant Professor at the University of Georgia
- 2006-2010 Karyna Rosario – Ph.D. student. Currently Scientific Writer at the Chan Zuckerberg Initiative
- 2006-2011 Camille Daniels- Ph.D. student. Currently a bioinformatician at Medical Device Innovation Consortium.
- 2006-2008 Erin Symonds – M.S. student. Currently Strategic Partnership Manager at Water for Good

Postdoctoral Researchers

- 2023-present Luis Alvarado
- 2022-present Shen Jean Lim
- 2021-2022 Meredith Kernbach. Currently in Oncology Sales at Pfizer
- 2018-2019 Y Nguyen. Currently a Gene Therapy Reviewer at the Food & Drug Administration
- 2017-2021 Erin Symonds. Currently Strategic Partnership Manager at Water for Good
- 2017-2018 Noemi Van Bogaert. Belgian American Education Foundation Fellow. Currently a Research Scientist at the Flanders Research Institute for Agriculture, Fisheries, and Food
- 2015-2019 Anni Djurhuus. Currently an Assistant Professor at the University of Groningen

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2020 Noah Yonas- University of Maryland Undergraduate, NSURP Fellow
2019-2020 Shelby Mahank – USF Undergraduate
2019 Emma Willard State Fellow (NY) [NYFO] (S) 3 0 32 9875802 1342020 (D) 43 (S10) T;50

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Outside Chair Brian Badgely (USF Integrative Biology), Shannon McQuaig (USF Integrative Biology)

Ph.D.: Kwasi Barnes, Kristina Deak, April Ellis, Julia Galkiewicz, Javier Gallardo (USF Integrative Biology), Adriana Gonzalez (USF Integrative Biology), Lara Henry, Adrienne Hollister, Eca Hudson, Abdiel Laureano, Juliana Leonato (USF Integrative Biology), Jennifer Mobberley, Christin Murphy, Delfina Navarro Estrada, Benjamin Ross, Alec Timpe, Robert Ulrich, Matthew Vebyla (USF Engineering), Brayana Vilanova Cuevas (Cornell University), Ian Williams, Brian Zielinski.

M.S.: Calyn Crawford, Jennifer Delaney, Adrienne George, Aubrey Hetzler (USF Conservation Biology), Adrienne Hollister, Ava Larson (UNF), Makenna Martin, Lydia Ruggles, Sarah Schmid, Adam Spear, Elizabeth Young.

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

Total of 148 published journal articles (Google Scholar 24,470 citations as of 2/21/2024, H-index 74)

In review Vilanova-Cuevas BY, B Reyes-Chavez, M Breitbart, I Hewson. Design and validation of a PCR protocol to specifically detect the clade of *Philaster* associated with *Diadema antillarum* scuticociliatosis PeerJ. (Preprint available on bioRxiv, doi: 10.1101/2023.09.11.557215).

In revision Lim, SJ, K Rosario, ME Kernbach, AJ Gross, BT Furman, M Breitbart . Degenerate PCR primers for potexvirus detection in seagrasses. Journal of General Virology. (Preprint available on bioRxiv, doi: 10.1101/2023.12.11.571111).

In revision Natarajan O, SL Gibboney, MN Young, SJ Lim, N Pluta, CGF Atkinson, BA Leigh, A Liberti, E Kees, M Breitbart, J Gralnick, LJ Dishaw. Pages regulate *Shewanella fideles* motility and biofilm formation: implications for gut colonization dynamics in *Ciona robusta*. *mSphere* preprint available at <https://doi.org/10.1101/2022.11.23.517592>.

2024 Ritchie, IT, B Vilanova-Cuevas, A Altera, K Cornfield, C Evans, JS Evans, M Hopson-Fernandes, CA Kellogg, E Looker, O Taylor, I Hewson, M Breitbart . Transglobal spread of an ecologically significant sea urchin parasite. *ISME Journal*. doi: 10.1093/ismejo/wrae024.

2024 Evans, JS, JJ Voelschow, IT Ritchie, M Breitbart , I Hewson, CA Kellogg. Evaluation of in vitro treatments against the causative agent of *Diadema antillarum* scuticociliatosis (DAS). *Diseases of Aquatic Organisms* <https://doi.org/10.3354/dao03776>.

2023 Nguyen, BVV, Y Liu, CD Stallings, M Breitbart, SA Murawski, RH Weisberg, M Kerr, E-M Bønnelycke, EB Cebles. Retention and export of planktonic fish eggs in the northeastern Gulf of Mexico. *Fisheries Oceanography*. doi: 10.1111/fog.12655.

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2023

Breitbart, M, M Kerr, MJ Schram, I Williams, G KoziopE Peebles, CD

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- 2021 Breitbart, M and BA Fane. Microviridae. Encyclopedia of the Life Sciences (eLS). 2:doi: 10.1002/9780470015902.a0029280.
- 2021 Fernández, AG*, EM Symonds*, J Gallard, B Mull, JO Lukasik, P Navarro, AB Aguilar, J Peraud, M Brown, DM Alvarado, M Breitbart

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- 2018 Leigh, BA, M Breitbart, HM Oksanen, DH Bamford, LJ Dishaw Genome sequence of M2-like phage Cr39582 induced from *Pseudoalteromonas* isolated from the gut of *Ciona robusta*. *Genome Announcements*. 6: e00368-18.
- 2018 Kerr, M, K Rosario, C Baker, M Breitbart. Discovery of four novel circular single-stranded DNA viruses in fungus farming termites. *Genome Announcements*. 6: e00318-18.
- 2018 Rosario, K, N Fierer, M Breitbart. Near complete genome sequence of a novel single-stranded RNA virus discovered in indoor air. *Genome Announcements*. 6: e00198-18.
- 2018 Breitbart, M, K Malki, NA Sawaya, C Bonnain, M Martin. Elementary student outreach activity demonstrating the use of phage therapy heroes to combat bacterial infections. *Journal of Microbiology and Biology Education*. 19: 1407
- 2018 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 Zoonotic infection with pigeon paramyxovirus type 1 linked to fatal pneumonia. *Journal of Infectious Diseases*. 218: 107-1044.
- 2018 Morrison, CL, L Ivanowicz, TM Work, E Fahsbender, M Breitbart, C Adams, D Iwanosicz, L Sanders, M Ackermann, RS Cornman. Genomic evolution, recombination, and inter-strain diversity of chelonid alphavirus 5 from Florida and Hawaii green sea turtles with papillomatosis. *PeerJ*. 6: e4336.
- 2018 Rosario, K, N Fierer, SL Miller, J Luongo, M Breitbart Diversity of DNA and RNA viruses in indoor air as assessed via metagenomic sequencing. *Environmental Science and Technology*. 52: 1014-1027.
- 2018 Djurhuus, A, K Pitz, NA Sawaya, J Rojas Marques, B Michaud, E Monte F Muller-Karger, M Breitbart. Evaluation of marine zooplankton community structure through environmental DNA metabarcoding. *Limnology and Oceanography Methods*. 16: 209-221.
- 2018 Leigh, BA, A Djurhuus, M Breitbart, LJ Dishaw. The gut virome of the protochordate model organism, *Ciona intestinalis*. *Virus Research*. 244: 137-146.
- 2017 Djurhuus, A, J Port, C Closek, K Yahara, C Romero, K Walz, D Goldsmith, R Michisaki, M Breitbart, A Boehm, F Chavez. Evaluation of filtration and DNA extraction methods for eDNA biodiversity assessments across multiple trophic levels. *Frontiers in Marine Science*. 4: 314.
- 2017 Breitbart, M, E Delwart, K Rosario, J Segales, A Varsani, ICTV Report Consortium ICTV Virus Taxonomy Profile: Circoviridae. *Journal of General Virology*. 98: 1997-1998.
- 2017 Fahsbender, E, JM Burns, S Kim, S Keeler, G Frankfurt, AA Eilers, MR Shero, R Beltran, A Kirkham, R Corkell, RK Bengartt, MF Male, G Ballard, DG Ainley, M Breitbart, A Varsani. Diverse and highly recombinant anelloviruses associated with Weddell seals in Antarctica. *Virus Evolution*. 3: vex017.

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- 2017 Polston, JE, MA Londono, AL Cohen, M Pla-Rodriguez, K Rosario, M Breitbart . Euphorbia mosaic virus from passionfruit and Euphorbia heterophylla in Florida, USA. Genome Announcements. 5: e01714-16.
- 2017 Knowles, B, B Bailey, L Boling, M Breitbart, AG CobianGuemes, J delCampo, R Edwards, B Felts, C Grasis, A Haas, P Kara, LW Kelly, T Luque, J Nulton, L Paul, G Peters, N Robinett, S Sandin, A Segas, S Ceira, R Young, F Rohwer. "Variability and host density independence in inductible estimates of environmental lysogeny. Nature Microbiology. 2: 17064.
- 2017 Lei Dh-2 (, S)-4 (-23 (S) (M) (T) (270) (n) (5) (6) (7) (23) (e) (4) (m) (104) (m) (6) (4) (6) (4) (5) (6) (6) (7) (h) (270)

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- indirect wastewater reuse for irrigation in urbanizing watersheds *Environmental Science and Technology*. 50: 6803-6813.
- 2016 Cook, MM, EM Smonds, B Gerber, ES Van Vleet, M Breitbart Removal of six estrogenic endocrine-disrupting compounds (EDS) from municipal wastewater using aluminum electrocoagulation. *Water*. 8:128.
- 2016 Rosario, K, YM Seah, C Marr, A Varsani, S Kraberger, D Stainton, E Moriones, JE Polson, S Duffy, M Breitbart. Begomovirus-associated satellite DNA diversity captured through vectore-enabled metagenomic (VEM) surveys using whiteflies (*Aleyrodidae*). *Viruses* 8: 36.
- 2015 Breitbart, M, B Benner, P Jenigan, K Rosario, LM Birsa, RC Harbeitner, S Fulford, C Graham, A Walters, DB Goldsmith, SA Berger, JC Nejtgaard Discovery, prevalence, and persistence of novel circular single-stranded DNA viruses in the ctenophores *Mnemiopsis leidyi* and *Beroe ovata*. *Frontiers in Microbiology*. 6:1427.
- 2015 Rosario, K, YM Seah, C Marr, A Varsani, S Kraberger, D Stainton, E Moriones, JE Polson, S Duffy, M Breitbart. Vector-enabled metagenomic (VEM) surveys using whiteflies (*Aleyrodidae*) reveal novel begomovirus species in the New and Old Worlds. *Viruses*. 7: 5553-5570.
- 2015 Goldsmith, DB, JR Brum, M Hopkins, CA Carlson, M Breitbart. Water column stratification structures viral community diversity in the Sargasso Sea. *Aquatic Microbial Ecology* 76: 85-94. *chosen as feature article.
- 2015 Rosario, K, RO Schenck, RC Harbeitner, SN Lawler, M Breitbart. 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.
- 2015 Goldsmith, DB, RJ Parsons, D Beyene, B Salamon, M Breitbart Deep sequencing of the viral phageome reveals seasonal variations, depth-specific composition, and diversity. *Frontiers in Microbiology* 6: 1-10.

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- 2015 Fahsbernd, E, K Rosario, JPCannon, F Gulland, LJ Shaw, M. Breitbart. Development of a serological assay for the sea lion *Zalophus californianus* anellovirus, ZcAV. *Scientific Reports* 5 : 9637.
- 2015 Symonds, EM, MM Cook, SM McQuaig, RM Ulrich, RO Schenck, O Lukasik, ES Van Vleet, M Breitbart Reduction of nutrients, microbes, and personal care products in domestic wastewater by a bench-top electrocoagulation unit. *Scientific Reports*. 5: 9380.
- 2015 Polston, JE, K Rosario, M Breitbart . Molecular surveillance of plant viruses: identification of new and emerging viruses of tomato to see they cause epidemics. *ISHS Acta Horticulturae* 1069:IV International Symposium on Tomato Diseases. 12731.
- 2015 Symonds, EM and M Breitbart Affordable enteric virus detection techniques are needed to support changing paradigms in water quality management. *CLEAN - Soil Air Water*. 43: 8-12.
- 2014 Hewson, J, JB Button, BM Gudenkauf, B Miner, ANewton, JK Gaydos, J Wynne, GL Groves, G Hendrick, M Murray, S Fradkin, M Breitbart, E Fahsbender, D Lafferty, AM Kilpatrick, CM Miner, P Raimondi, L Lahner, CS Friedman, S Daniels, M Haulena, J Mavris, CABurge, ME Eisenlord, CD Harvell. Densovirus associated with sea star wasting disease and mass mortality. *Proceedings of the National Academy of Sciences of the USA*. 111: 17278-17283.
- 2014 Symonds, EM, ME Vetyla, JO Lukasik, RC Kaflem Breitbart , JR Miheloc. 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.
- 2014 Muller-Karger, FE, MTKavanaugh, E Montes, WM Balch, M Breitbart, FP Chavez, S Doney, EM Johns, RM Letelier, MWomas, HM Sosik, AE White A framework for a marine biodiversity observing network within changing continental shelf seascapes. *Oceanography*. 27: 18-23.
- 2014 Hopkins, M, S Kailasan, A Cohen, S Roux, KP Tucker, A Sheybal Agbandje-McKenna, M Breitbart . Diversity of environmental single-stranded DNA phages revealed by PCR amplification of the partial major capsid protein. *ISME Journal*. 8: 2093-2103.
- 2014 Burghart, SE, L Van Woudenberg, CA Daniels, SD Myers, EB Peebles, M Breitbart . Disparity between plankton fish egg and larval communities as indicated by DNA barcoding. *Marine Ecology Progress Series*. 503: 195-204.
- 2014 Rosario, K, H Capobianco, TFFNg, M Breitbart , JE Polston. RNA viral metagenome of whiteflies leads to the discovery and characterization of a whitefly-transmitted calivirus in North America. *PLoS ONE* 9: e86748.

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vesiculovirus from big brown bats, United States. Emerging Infectious Diseases. 19: 1978–1980.

2013

Ng, TFF, S Alavandi, A Varsani, S Burghart, M Breitbart . Metagenomic identification of a rodavirus and a circular ssDNA virus in semi-purified viral nucleic acids from the hepatopancreas of headless *Penaeus duorarum* shrimp Diseases of Aquatic Organisms. 105: 237-242.

2013

McDaniel, LD, K Rosario, M Breitbart, JH Paul. Comparative metagenomics: Natural populations of induced prophages demonstrate highly unique, lower diversity hepadelta virus (delta) and hepatitis B virus (HBV) in the liver of *Penaeus duorarum* shrimp. PLoS ONE 8(12): e81212. doi:10.1371/journal.pone.0081212

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- 2012 Daniels, Cand M Breitbart. Bacterial communities associated with the ctenophores *Mnemiopsis leidyi* and *Beroe ovata*. *FEMS Microbiology Ecology*. 82: 90-101.
- 2012 Dwivedi, B, R Schmieder, DB Goldsmith, RA Edwards, M Breitbart PhiSiGns: an online tool to identify signature genes in phages and design primers for examining phage diversity. *BMC Bioinformatics*. 13: 37.
- 2012 Breitbart, M . Marine viruses: truth or dare. *Annual Review of Marine Science*. 4: 425-448.
- 2012 Parsons, RJ, M Breitbart, MW Lomas, CA Cadon. Ocean time-series reveals recurring seasonal patterns of viroplankton dynamics in the northwestern Sargaso Sea. *ISME Journal*, 6: 273-284.
- 2011 Goldsmith, DB, G Costi, B Dwivedi, LD McDaniel, A Varsani, A Suttle, MG Weinbauer, RA Sandaa, M Breitbart . Development of phoH as a novel signature gene for assessing marine phage diversity. *Applied and Environmental Microbiology*. 77: 7730-7739.
- 2011 Rosario K and M Breitbart. Exploring the viral world through metagenomics. *Current Opinion in Virology*. 1: 289-297.
- 2011 Skennerton, CT, FE Angly, M Breitbart, L Bragg, S He, KD McMahon, P Hugenholtz, GW Tyson. Page encoded NIS: A potential Achilles heel in the bacterial defence system. *PLoS One*. 6: e20095.
- 2011 Ng, TFF, D Willner, YW Lim, R Schmieder, B Chau, C Nilsson, S Anthony, Y Ruan, F Rbwler, M Breitbart . Broad surveys of DNA viral diversity obtained through viral metagenomics of mosquitoes. *PLoS One*. 6: e20579.
- 2011 Ng, TFF, S Duffy, JE Polston, E Bixby, GE Vallad, M Breitbart. Exploring the diversity of DNA plant viruses and their satellites using next-generation metagenomics on whiteflies. *PLoS One*. 6: e19050.
- 2011 Rosario, K, M Marinov, D Stainton, S Kraberg, EJ Wiltshire, DA Collings, M Walters, DP Martin, M Breitbart, A Varsani Dragonfly cyclovirus, a novel single-stranded DNA virus discovered in dragonflies (Odonata: Anisoptera). *Journal of General Virology*. 92: 1302-1308.
- 2011 Ng, TFF, E W

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- 2011 Tucker, KP, R Parsons, EM Symonds, M Breitbart Diversity and distribution of single-stranded DNA phages in the North Atlantic Ocean. The ISME Journal. 5: 822-830.
- 2011 Sharoni, N Battchikova, E-M Aro, C Giglione, T Meinel, F Glasby Pinter, M Breitbart, F Rohwer, O Beja. Comparative metagenomics of microbial traits within oceanic viral communities. The ISME Journal. 5: 1178-1190.
- 2010 Svraka, S, K Rosario E Duizer, H van der Avoort, M Breitbart, M Koopmans. Metagenomic sequencing for virus identification in a public health setting. Journal of General Virology. 91: 2846-2856.
- 2010 Aziz, RK, M Breitbart, RA Edwards Transposases are the most abundant, most ubiquitous genes in nature. Nucleic Acids Research. 38: 4207-4217.
- 2010 Rodriguez-Brito, B, L Li, 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, 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 Viral and microbial community dynamics in four aquatic environments. ISME Journal. 4: 739-751.
- 2009 Rosario, K, EM Symonds, C Sinigalliano, J Stewart, M Breitbart Reppemild mottle virus as an indicator of fecal pollution. Applied and Environmental Microbiology. 75: 7261-7267.

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- 2009 Symonds, E, MDW Griffin, M Breitbart . Eukaryotic viruses in wastewater samples from the United States Applied and Environmental Microbiology. 75: 1402-1409.
- 2009 Breitbart, M, A Hoare, A Nitti, M Haynes, E Dinsdale, R Edwards, J Siefert, V Souza, F Rohwer, D Hollander Metagenomic and stable isotopic analyses of modern freshwater microbialites in Cuatro Ciénegas, Mexico. Environmental Microbiology. 11: 16-34.
- 2008 McDaniel, L, M Breitbart, J Mobberley, A Long, M Haynes, F Rohwer, J Paul. Metagenomic analysis of lysogeny in Tampa Bay: implications for prophage gene expression. PLoS One. 3: e3263.
- 2008 Breitbart, M, M Haynes, S Kelley, F Angly, RA Edwards, B Felts, JM Mahaffy, J Mueller, J Nitun, S Rayhawk, B Rodriguez-Brito, P Salamon, F Rohwer Viral diversity and dynamics in an infant's gut. Research in Microbiology. 159: 367-373.
- 2008 Dinsdale, EA, RA Edwards, D Hoff 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, A Dertine, R Vega-Thurber, L WET BT /P <</MCID 2 >>BDC ohwerTw 2.16E0 (K)-.68 0 Td 0..97 0 T

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- 2024 Stallings, C., M. Breitbart, S. Murawski, E. Peebles. "Spawning Habitat & Early-Life Linkages to Fisheries (SHELFL): Results and Impacts of the First Decade of the Florida RESTORE Act Center for Excellence Program." Editor: Nicole A. Raineault.
- 2023 Research highlighted https://peej.com/blog/post/115284887103/author-interview-dna-metabarcoding-fish-eggs/?utm_source=summary_email_blog&utm_medium=email&utm_campaign=connection; <https://www.usf.edu/marine-science/news/2023/scientists-identify-2022-seaurchin-killer.aspx>; <https://www.wtsp.com/article/tech/science/environment/research-seaurchins->

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- Science and Astrobiology Decadal Survey 2023-2032. Bulletin of the American Astronomical Society
- 2020 Featured on Finding Genius podcast
(<https://www.findinggeniuspodcast.com/podcasts/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 Closek, C., A. Djurhuus, M. Breitbart 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/>
- 2020 Research highlighted in several blog posts [https://www.usf.edu/marine-science/news/2020/matchmaker-matchmaker-\(m\)-6.002-Tc-0.0-T5S-\(JTJ-0.003-Tc-exr\)-2](https://www.usf.edu/marine-science/news/2020/matchmaker-matchmaker-(m)-6.002-Tc-0.0-T5S-(JTJ-0.003-Tc-exr)-2)

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- 2024 Kerr, M. and M. Breitbart. "SEA toSEE: Exploring marine science through an artist's eye". Poster presentation by Makenzie Kerr. 2024 Ocean Sciences Meeting 2/24.
- 2024 Rodriguez, A., K. KeelG. Zapfe, C. Stallings, M. Breitbart "Evaluating fish egg community composition with respect to collection depth on the West Florida Shelf". Poster presentation by Arianna Rodriguez. 2024 Ocean Sciences Meeting 2/24.
- 2024 Keel, K., M. Kerr, L.Y. Liu, Y. Liu, J.P. Kilborn, G. Zapfe, E.B. Peebles, C.D. Stallings, M. Breitbart. "Exploring the dynamics of September fish spawning on the West Florida Shelf through the DNA barcoding of fish eggs". Poster presentation by Keith Keel. 2024 Ocean Sciences Meeting 2/24.
- 2024 Sawaya, N.A., S. MahanD. Lindell, M. Breitbart. "Quantification and diversity of a ubiquitous ssDNA phage group (Cokushovirinae) in the Red Sea". Oral presentation by Natalie Sawaya. 2024 Ocean Sciences Meeting 2/24.
- 2024 Caprara, M., Breitbart, C. Hu, K. Hubbard, C. Lembke, Y. Liu, R.H. Weisberg, J.P. Cannizzaro, M. Garrett, D. Navarero Estrada, N. Murphy, K.N. Buck. "Insights from repeat observations of trace metal concentrations in the eastern Gulf of Mexico

MYA BREITBART

Diadema antillarum mass mortality event also induces scuticociliatosis in Diadema setosum 2024 Ocean Sciences Meeting. 2/24.

- 2024 Lim, S.J., A. Rogers, K. Rosario, M. Kerr, M. Garrett, J. Koester, K.A. Hubbard, M. Breitbart . “RNA viruses associated with *Karenia brevis* harmful algal blooms in the coastal waters of Southwest Florida”. Poster presentation by Jean Lim and Alexandra Rogers. Gulf of Mexico Conference. 2/24.
- 2024 Keel, K., M. Kerr, L.Y. Liu, Y. Liu, J.P. Kilborn, G. Zapfe, E.B. Peebles, C.D. Stallings, M. Breitbart . “Exploring the dynamics of September fish spawning on the West Florida Shelf through the DNA barcoding of fish eggs”. Poster presentation by Keith Keel. 40th Annual USF College of Marine Science Graduate Student Symposium. 2/24.
- 2024 Sawaya, N.A., S. MahankD. Lindell, M. Breitbart . “Quantification and diversity of a ubiquitous ssDNA phage group (Cokushovirinae) in the Red Sea”. Oral presentation by Natalie Sawaya. 40th Annual USF College of Marine Science Graduate Student Symposium. 2/24.
- 2024 Ritchie, I.T., B. Vilanova-Cuevas, A. Altera, K. Cornfield, C. Evans, J.S. Evans, M. Hopson-Fernandes, C.A. Kellogg, E. Looker, O. Taylor, I. Hewson, M. Breitbart . “The ciliate *Philaster apodigitiformis* responsible for the 2022 Diadema antillarum mass mortality event also induces scuticociliatosis in Diadema setosum Oral presentation by Isabella Ritchie 40th annual USF College of Marine Science Graduate Student Symposium. 2/24.
- 2024 Mitchem, A.B., A. Rodriguez, K. Keel, M. Hopson-Fernandes, M. Kerr, G. Zapfe, C.D. Stallings, M. Breitbart . “Analyzing spawning patterns of economically important fishes on the West Florida Shelf using DNA barcoding”. Oral presentation by Alexis Mitchem. 40th Annual USF College of Marine Science Graduate Student Symposium. 2/24.
- 2024 Stallings, C., M. Breitbart

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- 2019 Koziol, G., K. Malki, A.M. Græco, B.A. Fane, M.O.Martin, M. Breitbart .
“Complete genome sequences of B_BdbM-Alien and vB_BdbMPredator 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.
- 2019 Symonds, E.M., P.N. Rivera, G. Ulmer, AF. González., J. Gallard, M. Bro, 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.
- 2019 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.
- 2019 Malki, K., K. Rosario, N. Sawya, M. Tisza, A. Szekely, M. Breitbart .
“Exploring the viral and microbial communities of Florida’s freshwater springs”. Oral presentation by K. Malki. 23rd Bioinformatics (o)-4 (f)-1 (A)-12 (m)-54.28 4eFd A

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Sea". Poster presentation by N. Lopez Figuera at USF Genomics Symposium. Tampa, Florida. 3/19.

2019 López Figuera, N., K. Rosario, N. Van Bogaert, M. Kerr, H. Palogiannis M. Breitbart. "Exploring viral diversity in submerged aquatic ecosystem in Florida's springs". Poster presentation by N. Lopez Figuera at USF Genomics Symposium. Tampa, Florida. 3/19.

2018 Burrows, M., 18.52 0 Td [(a.)-4 (U)-2 (S)1tTJ EMC (,)]TJ (e6T7 (s)-ma,)-4 (F706 Tw [(8

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- the seagrass *Thalassia testudinum*. Poster presentation by N. Van Bogaert. 2018 Ocean Sciences Meeting, Portland, Oregon. 2/18.
- 2018 Djurhuus, A., K. Pitz, N.A. Sawaya, J. Rojas Marquez, B. Michad, E. Mortes, 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.
- 2018 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.
- 2017 Kerr, M., K. Rosario, M. Breitbart. "Discovery of single stranded DNA viruses in fungus farming termites". Oral presentation by M. Kerr. The 103rd Annual Southeastern Branch American Society for Microbiology Meeting. Saint Petersburg, Florida. 11/17.
- 2017 Mettel, K., K. Rosario, C. Baker, M. Breitbart. "Discovery and prevalence of single-stranded DNA viruses associated with mybacked orbweavers (*Gasteracantha cancriformis*) from Florida, USA. The 103rd Annual Southeastern Branch American Society for Microbiology Meeting. Saint Petersburg, Florida. 11/17.
- 2017 Rosario, K., N. Fierer, S. Miller, J. Luongo, M. Breitbart. "Diversity of viruses circulating in indoor air as assessed via metagenomic sequencing". The 103rd Annual Southeastern Branch American Society for Microbiology Meeting. Saint Petersburg, Florida. 11/17.
- 2017 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.
- 2017 Sawaya, N. A. Djurhuus, C. Closek, M. Hepner, E. Olesin, L. Visser, C. Blak, K. Hubbard, M. Breitbart. "Assessing biodiversity in the Florida Keys National Marine Sanctuary through environmental DNA metabarcoding". International Council for the Exploration of th

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- three different Florida sea turtle species". International Sea Turtle Society Symposium, Lima, Peru. 2016.
- 2016 Symonds, E.M., E. Ross Salazar, J.A. Jimenez, 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.
- 2016 Breitbart, M. "Sequences without particles: virus taxonomy in the age of metagenomics". ICTV Conference on Metagenomics and Taxonomy. Boston, MA. 5/16.
- 2016 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 African Society of Microbiology Microbes Meeting, Massachusetts, USA. 5/16.
- 2016 Breitbart, M. "Ctenophore associated bacteria and viruses". Ctenophore. St Augustine, FL. 3/16.
- 2016 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.
- 2016 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.
- 2016 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.
- 2016 Muler-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. Muler-Karger. 2016 Ocean Sciences Meeting. New Orleans, LA. 2/16.
- 2016 Breitbart, M. "Bright ideas STEM from today's youth". Invited plenary talk. Bright House Networks Bright Ideas Semifinalist Competition

2014

Schenck, R.,