

Florian A. Karreth, Ph.D.**Curriculum Vitae****Current position**

Assistant Member
 Department of Molecular Oncology
 H. Lee Moffitt Cancer Center & Research Institute
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Current Academic Appointment

Assistant Professor
 Department of Oncologic Sciences, MDC 44
 College of Medicine
 University of South Florida
 12901 Bruce B. Downs Blvd.
 Tampa, FL 33612

Education

1998-2004 M.Sc. (Mag. rer. nat.) in Genetics and Biochemistry, University of Vienna, Austria
 2004-2010 Ph.D. (Dr. rer. nat.) in Genetics, University of Vienna, Austria

Training

2001-2002 Scientific Assistant, School of Dentistry, University of Vienna, Vienna, Austria
 2002-2004 Master Student, Institute of Molecular Pathology, Vienna, Austria
 2004-2006 Ph.D. Student, University of Pennsylvania, Philadelphia, USA
 2006-2010 Ph.D. Student, Cambridge Research Institute, Cancer Research UK, Cambridge, UK
 2010-2014 Postdoctoral fellow, Beth Israel Deaconess Medical Center, Boston, USA
 2014-2016 Postdoctoral fellow, Weill Cornell Medical College, New York, USA

Academic Appointments and Employment

since 2016 Assistant Member, Department of Molecular Oncology, Moffitt Cancer Center
 since 2016 Assistant Member, Department of Cutaneous Oncology, Moffitt Cancer Center
 since 2016 Assistant Professor, Department of Oncologic Sciences, University of South Florida

Teaching

since 2016 USF/Moffitt Cancer Biology PhD program, Modern Basic Tools of Research (BSC6457)
 Lecture: "Modeling cancer in the mouse"
 since 2017 USF/Moffitt Cancer Biology PhD program, Cancer Biology III (PCB 6205)
 Lecture: "Non-coding RNAs in cancer"

Trainees**Post-doc trainees**

07/2016-02/2017 Nicole Vincelette, Ph.D.
 10/2017-present Koji Nakamura, M.D./Ph.D.
 07/2018-present Olga Vera Puente, Ph.D.
 11/2018-present Xiaonan Xu, Ph.D.

Graduate students

02/2017-present Ilah Bok (Cancer Biology, USF/MCC)
 01/2018-present Neel Jasani (Cancer Biology, USF/MCC)
 02/2020-present Kaizhen Wang (Cancer Biology, USF/MCC)

Master students

03/2017-08/2017 Tiffany Arnold (Biotechnology, USF)
 01/2018-06/2018 Oluwashanu Balogun (Biotechnology, USF)
 10/2019-09/2020 Nicol Mecozzi (University of Pisa, Italy)

Rotation students

09/2016-11/2016 Kayla Harrington (Cancer Biology, USF/MCC)
11/2016-02/2017 Ilah Bok (Cancer Biology, USF/MCC)
02/2017-04/2017 Brianna Sellers (Cancer Biology, USF/MCC)
11/2017-01/2018 Neel Jasani (Cancer Biology, USF/MCC)
11/2018-02/2019 Jessica Mandula (Cancer Biology, USF/MCC)
09/2019-11/2019 Kaizhen Wang (Cancer Biology, USF/MCC)

Undergraduate students

08/2017-05/2018 John Kushner (Rollins College, Orlando, FL)
08/2019-present Colyn White (USF)
09/2019-present Rachel Sullivan (USF)
11/2019-present Jorge Carrillo (USF)

SPARK summer students

06/2018-08/2018 Timothy Keeley (Brown University, Providence, RI)
05/2019-07/2019 Jacob Sullivan (Stetson University, Deland, FL)

Thesis Committees

2016-2017 Carly Harro (PhD, Cancer Biology, USF/MCC; Advisor: Alvaro Monteiro)
2017-present Sweta Dash (PhD, Cancer Biology, USF/MCC; Advisor: Alvaro Monteiro)
2018-2020 Christina Moss (PhD, CMMB, USF; Advisors: Margaret Park, Charles Chalfant)
2018-present Emily Mayo (PhD, CMMB, USF; Advisors: Margaret Park, Charles Chalfant)
2019-2020 Payal Goala (PhD, Cancer Biology, USF/MCC; Advisor: Elsa Flores)
2019-present Meagan Horton (PhD, CMMB, USF; Advisor: Margaret Park)
2019-present Nana Adjoa Ben-Crentsil (PhD, Mol. Medicine, USF Health; Advisor: Eric Padron)

PhD Qualifying Exam Committees

2018 Bina Desai
2018 Payal Goala
2020 Bryce Ordway (chair)
2021 Qian Liu

Postdoc Advisory Committees

2018-2019 Gregory Watson (Laboratory of Eric Lau)

PhD Thesis External Examiner

2018 Olga Vera Puente (La Paz University, Madrid, Spain)

Honors and Awards

2004 Boehringer Ingelheim Fonds PhD fellowship
2010 Selected Speaker for Future Leaders in Translational Research Special Symposium, AACR Annual Meeting
2011 FWF Erwin Schroedinger Fellowship (declined)
2012 Department of Defense Postdoctoral Fellowship
2013 Aflac AACR Scholar-in-Training Award
2014 Lymphoma Research Foundation AACR Scholar-in-Training Award
2014 American Cancer Society Postdoctoral Fellowship
2015 The NCI Transition Career Development Award (K22)
2017 Melanoma Research Alliance Young Investigator Award
2018 Cancer Biology & Evolution Program Innovation Award
2018 Melanoma Research Foundation Mucosal Melanoma Career Development Award
2019 Harry J. Lloyd Charitable Trust Career Development Grant

Current Research Support

External Grants

Melanoma Research Foundation – Career Development Award 01/01/2019 – 12/31/2020 (in NCE)
 Role: PI

Title: Using the ESC-GEMM approach to study mucosal melanoma in vivo

Effort: 2%

Total Amount of Award: \$100,000

NIH/NCI – R01 09/01/2016 – 08/31/2021

Role: Co-I (PI: Kanetsky)

Title: Epidemiology and Biology of lncRNAs in Ovarian Cancer

Effort: 4%

Total Amount of Award: \$4,403,271

Florida Biomedical Research Program – Live Like Bella 04/01/2019-03/31/2022

Role: Co-I (PI: Smalley)

Title: Defining and modeling pediatric melanoma development

Effort: 1%

Total Amount of Award: \$300,000

NIH/NCI – R01 05/01/2021-04/30/2026

Role: PI

Title: Chromosome 1q ceRNAs in Melanoma Progression and Metastasis

Effort: 20%

Total Amount of Award: \$2,084,690

Florida Biomedical Research Program – Bankhead Coley 06/08/2021-06/30/2024

Role: PI

Title: Elucidating PTEN tumor suppression in melanoma

Effort: 15%

Total Direct Cost: \$538,880

Internal Grants

Team Science Award 09/01/2020-08/31/2021

Role: co-PI (with Dennis Adeegbe)

Title: iGEMMs: using chimeras to study immune cell functions in autochthonous melanomas

Effort: 5%

Total Direct: \$75,000

SPORE Project Development Award 09/01/2020-08/31/2021

Role: PI

Title: Elucidate the tumor suppressive function of BACH2 in melanoma

Effort: 1%

Total Direct: \$25,000

Completed Research Support

External Grants

NIH/NCI – K22 08/09/2016 - 07/31/2019

Role: PI

Title: BACH2 in Melanoma Development and Resistance

Effort: 78%

Total Amount of Award: \$532,032

NIH/NCI – R21 01/01/2018 – 12/31/2019
Role: Co-I (PI: Padron)
Title: MALAT1 Depletion as a Therapeutic Strategy in Chronic Myelomonocytic Leukemia (CMML)
Effort: 1%
Total Amount of Award: \$411,510

NIH/NCI – R03 04/01/2018 – 03/31/2020
Role: PI
Title: An ESC-GEMM platform for rapid melanoma mouse modeling
Effort: 1%
Total Amount of Award: \$172,000

MRA – Young Investigator Award 05/1/2017 – 04/30/2020 (in NCE)
Role: PI
Title: The miR-29 circuit in melanoma initiation and progression
Effort: 4%
Total Amount of Award: \$225,000

MRA – Team Science Award 06/01/2018 – 05/31/2021
Role: Co-PI (PI: Smalley)
Title: Defining and targeting driver events in acral melanoma
Effort: 10%
Total Amount of Award: \$900,000

Harry J. Lloyd Charitable Trust – Career Development Grant 06/01/2019-05/31/2021
Role: PI
Title: Examining the therapeutic potential of the canonical and non-canonical functions of PTEN in melanoma
Effort: 4%
Total Amount of Award: \$250,000

Internal Grants

CBE Program – Innovation Award 01/01/2018 – 06/30/2018
Role: PI
Total Amount of Award: \$47,500

Melanoma SPORE – Career Enhancement Program 01/01/2017 – 12/31/2017
Role: PI
Title: Unraveling PTEN tumor suppression in melanoma
Effort: 1%
Total Amount of Award: \$75,000

American Cancer Society – Institutional Research Grant 01/01/2017 – 12/31/2017
Role: PI
Title: PP6 in melanoma development and drug resistance
Effort: 5%
Total Amount of Award: \$30,000

Miles for Moffitt 06/01/2018 – 05/31/2019
Role: PI

Title: Exploring the mechanisms of PTEN tumor suppression in melanoma

Effort: 2%

Total Amount of Award: \$100,000

Anna D. Valentine and Charles L. Oehler Award

05/01/2019 – 04/30/2020

Role: PI (Co-PI: Totary-Jain)

Title: Creation and characterization of humanized C19MC transgenic mice

Effort: 1%

Total Amount of Award: \$80,000

Postdoctoral and PhD Fellowships

American Cancer Society – Postdoctoral Fellowship

07/01/2014 – 06/30/2015

Role: PI

Title: Functional characterization of the oncogenic BRAF pseudogene in lymphoma

Department of Defense – Postdoctoral Fellowship

02/01/2012 – 01/31/2014

Role: PI

Title: Identification of prostate cancer metastasis genes using in vivo transposon insertional mutagenesis

Boehringer Ingelheim Fonds – Ph.D. Student Fellowship

11/01/2004 – 10/31/2007

Role: PI

Title: Genetic and biochemical analysis of Braf functions in melanomagenesis

Service

Cancer Biology PhD program

2017-2021 Interviewer, Cancer Biology PhD Program candidate interviews

2018, 2021 Evaluator, Cancer Biology PhD Program applications

2020 Faculty Advisor, Cancer Biology Summer Seminar Series

2020 Faculty Advisor, Qualifying Exam workshop

2021 Chair, Task Force to review Qualifying Exam process and policies

MCC Administrative Appointments

2016-present Scientific Director, Gene Targeting Core Facility

MCC Committees

2016-present Member, Core Leadership Committee

2018 Member, PDX Steering Committee

2020-present Member, Animal Resource Committee

2021 Co-Executive Sponsor, Business Plan to enhance vivarium operations

Organizing

2020 Co-organizer, Molecular Oncology Department Retreat

Panels

2021 Co-facilitator, Roundtable discussion on Melanoma Models, MRA Annual Retreat

2021 One-on-One with Distinguished Academic Researchers panel as part of the *Succeeding in Academic Science: Navigating the Scholastic Research Track* Career Course, ITERT, MD Anderson Cancer Center

2021 Panelist, Tenure Track Discussion, Moffitt Junior Scientist Retreat

Reviewing

Journals

pre-2016 Molecular Cell Biology, F1000Research, The International Journal of Biochemistry & Cell Biology, Molecular Genetics and Genomics,
 2016 JID, JEM
 2017 JID (x2), British Journal of Cancer, Oncogenesis, International Journal of Molecular Sciences, Molecular Oncology
 2018 Molecular Therapy, Cancer Discovery, JID, JEM (2x), Oncogene, Scientific Reports
 2019 JEM, JID (x4), PLOS Genetics (x2), Cancer Research, Cancer Biology & Therapy, Molecular Cancer
 2020 Cancer Research (x2), Molecular Cancer, Proceedings of the Singapore National Academy of Science, Cancer Biology & Therapy, JEM (x2), PCMR
 2021 Cancer Biology & Therapy, Aging, Bio-Protocol, Molecular Cancer

Grants

2016 Research Grants Council of Hong Kong
 2017 Research Grants Council of Hong Kong
 2018 Ad hoc member, NIH/NCI study section ZCA1 SRB-P (O1), R21/R03
 2018 Melanoma Research Foundation, Medical Student Grants
 2019 Ad hoc member, NIH/NCI study section ZCA1 SRB-P (M2), R21/R03
 2019 Melanoma Research Foundation, Medical Student Grants
 2020 Ad hoc member, NIH/NCI study section ZCA1 SRB-P (M1), R21/R03
 2020 Melanoma Research Foundation, Established Investigator Awards
 2020 Ad hoc member, CDMRP OCRP Investigator Initiated Research-Expansion-4

Editorial Activities

2019-2020 Guest Associate Editor, Frontiers in Molecular Biosciences – Protein and RNA Networks, Topic: Structural and Functional Characterization of Circular RNAs

Outreach

2018 Speaker, Taste of Science Tampa, Tampa, FL

Memberships

2010-2016 Associate Member, American Association for Cancer Research
 2016-present Active Member, American Association for Cancer Research

Publications

Peer-reviewed primary publications

1. Gruber R, Karreth F, Fischer MB, Watzek G. *Platelet-released supernatants stimulate formation of osteoclast-like cells through a prostaglandin/RANKL-dependent mechanism.* **Bone.** 2002 May;30(5):726-32.
2. Gruber R, Schofnagl M, Karreth F, Fischer MB, Watzek G. *The stable analog carbocyclic TXA2 but not platelet-released TXA2 induces osteoclast-like cell formation.* **Prostaglandins Leukot Essent Fatty Acids.** 2003 Apr;68(4):267-72.
3. Gruber R, Karreth F, Frommlet F, Fischer MB, Watzek G. *Platelets are mitogenic for periosteum-derived cells.* **J Orthop Res.** 2003 Sep;21(5):941-8.
4. Kenner L, Hoebertz A, Beil T, Keon N, Karreth F, Eferl R, Scheuch H, Szrzenska A, Amling M, Schorpp-Kistner M, Angel P, Wagner EF. *Mice lacking JunB are osteopenic due to cell-autonomous osteoblast and osteoclast defects.* **J Cell Biol.** 2004 Feb 16;164(4):613-23.
5. Gruber R, Karreth F, Kandler B, Fuerst G, Rot A, Fischer MB, Watzek G. *Platelet-released supernatants increase migration and proliferation, and decrease osteogenic differentiation of bone*

- marrow-derived mesenchymal progenitor cells under *in vitro* conditions. **Platelets**. 2004 Feb;15(1):29-35.
6. Meixner A, Karreth F, Kenner L, Wagner EF. *JunD regulates lymphocyte proliferation and T helper cell cytokine expression*. **EMBO J**. 2004 Mar 24;23(6):1325-35.
 7. Eferl R, Hoebertz A, Schilling AF, Rath M, Karreth F, Kenner L, Amling M, Wagner EF. *The Fos-related antigen Fra-1 is an activator of bone matrix formation*. **EMBO J**, 2004 Jul 21;23(14):2789-99
 8. Karreth F, Hoebertz A, Eferl R, Wagner EF. *The AP-1 transcription factor Fra-2 is required for efficient cartilage development*. **Development**, 2004 131: 5717-5725.
 9. King AJ, Patrick DR, Batorsky RS, Ho ML, Do HT, Zhang SY, Kumar R, Rusnak DW, Takle AK, Wilson DM, Hugger E, Wang L, Karreth F, Lougheed JC, Lee J, Chau D, Stout TJ, May EW, Rominger CM, Schaber MD, Luo L, Lakdawala AS, Adams JL, Contractor RG, Smalley KS, Herlyn M, Morrissey MM, Tuveson DA, Huang PS. *Demonstration of a genetic therapeutic index for tumors expressing oncogenic BRAF by the kinase inhibitor SB-590885*. **Cancer Res**. 2006 Dec 1;66(23):11100-5.
 10. Karreth FA, DeNicola GM, Winter SP, Tuveson DA. *C-Raf inhibits MAPK activation and transformation by B-RafV600E*. **Mol Cell**. 2009 Nov 13;36(3):477-86.
 11. Meixner A, Karreth F, Kenner L, Penninger JM, Wagner EF. *Jun and JunD-dependent functions in cell proliferation and stress response*. **Cell Death Differ**. 2010 Mar 19.
 12. Skoulidis F, Cassidy LD, Pisupati V, Jonasson JG, Bjarnason H, Eyfjord JE, Karreth FA, Lim M, Barber LM, Clatworthy SA, Davies SE, Olive KP, Tuveson DA, Venkitaraman AR. *Germline Brca2 Heterozygosity Promotes Kras^{G12D}-Driven Carcinogenesis in a Murine Model of Familial Pancreatic Cancer*. **Cancer Cell**. 2010 Nov 16;18(5):499-509.
 13. DeNicola GM, Karreth FA, Wei C, Frese K, Mangal D, Gopinathan A, Yu KH, Yeo CJ, Calhoun ES, Scrimieri F, Winter JM, Hruban RH, Iacobuzio-Donahue C, Kern SE, Blair IA, Tuveson DA. *Ras oncogene-induced ROS detoxification promotes tumorigenesis*. **Nature**. 2011 Jul 6;475(7354):106-9.
 14. Karreth FA, Frese KK, DeNicola GM, Baccarini M, Tuveson DA. *C-Raf is required for the initiation of lung cancer by K-Ras^{G12D}*. **Cancer Discovery**. July 2011 1:128-136.
 15. Tay Y, Kats L, Salmena L, Weiss D, Tan SM, Ala U, Karreth F, Poliseno L, Provero P, Di Cunto F, Lieberman J, Rigoutsos I, Pandolfi PP. *Coding-independent regulation of the tumor suppressor PTEN by competing endogenous mRNAs*. **Cell**. 2011 Oct 14;147(2):344-57.
 16. Karreth FA, Tay Y, Perna D, Ala U, Tan SM, Rust AG, DeNicola GM, Webster KA, Weiss D, Perez-Mancera PA, Krauthammer M, Halaban R, Provero P, Adams DJ, Tuveson DA, Pandolfi PP. *In vivo identification of tumor suppressive PTEN ceRNAs in an oncogenic BRAF-induced mouse model of melanoma*. **Cell**. 2011 Oct 14;147(2):382-95.
 17. Gopinathan A, DeNicola GM, Karreth FA, Reinheckel T, Tuveson DA. *Cathepsin-B promotes the progression of pancreatic ductal adenocarcinoma in mice*. **Gut**. 2012 Jun;61(6):877-84.
 18. Ala U*, Karreth FA*, Bosia C, Pagnani A, Taulli R, Leopold V, Tay Y, Provero P, Zecchina R, Pandolfi PP. *Integrated transcriptional and competitive endogenous RNA networks are cross-regulated in permissive molecular environments*. **PNAS**. 2013 Apr 30;110(18):7154-9. *equal contribution
 19. Sadow PM, Priolo C, Nanni S, Karreth FA, Duquette M, Martinelli R, Husain A, Clohessy J, Kutzner H, Mentzel T, Carman CV, Farsetti A, Henske EP, Palescandolo E, Macconail LE, Chung S, Fadda G, Lombardi CP, De Angelis AM, Durante O, Parker JA, Pontecorvi A, Dvorak HF, Fletcher C, Pandolfi PP, Lawler J, Nucera C. *Role of BRAFV600E in the First Preclinical Model of Multifocal Infiltrating Myopericytoma Development and Microenvironment*. **J Natl Cancer Inst**. 2014 Jul 25;106(8).
 20. Tay Y, Tan SM, Karreth FA, Lieberman J, Pandolfi PP. *Characterization of Dual PTEN and p53-Targeting MicroRNAs Identifies MicroRNA-638/Dnm2 as a Two-Hit Oncogenic Locus*. **Cell Rep**. 2014 Aug 7;8(3):714-22.

21. Perna D*, Karreth FA*, Rust AG, Perez-Mancera PA, Rashid M, Iorio F, Alifrangis C, Arends MJ, Bosenberg M, Bollag G, Tuveson DA, Adams DJ. *BRAF inhibitor resistance mediated by the AKT pathway in an oncogenic BRAF mouse melanoma model*. **PNAS**. 2015 Feb 10;112(6):E536-45. *equal contribution
22. Karreth FA, Reschke M, Ruocco A, Ng C, Chapuy B, Leopold V, Sjoberg M, Keane TM, Verma A, Ala U, Tay Y, Wu D, Seitzer N, Del Castillo Velasco-Herrera M, Bothmer A, Fung J, Langellotto F, Rodig SJ, Elemento O, Shipp MA, Adams DJ, Chiarle R, Pandolfi PP. *The BRAF pseudogene functions as a competitive endogenous RNA and induces lymphoma in vivo*. **Cell**. 2015 Apr 9;161(2):319-32.
23. Yoon SO, Shin S, Karreth FA, Buel GR, Jedrychowski MP, Plas DR, Dedhar S, Gygi SP, Roux PP, Dephore N, Blenis J. *Focal Adhesion- and IGF1R-Dependent Survival and Migratory Pathways Mediate Tumor Resistance to mTORC1/2 Inhibition*. **Mol Cell**. 2017 Aug 3;67(3):512-527.
24. Permuth JB, Chen DT, Yoder SJ, Li J, Smith AT, Choi JW, Kim J, Balagurunathan Y, Jiang K, Coppola D, Centeno BA, Klapman J, Hodul P, Karreth FA, Trevino JG, Merchant N, Magliocco A, Malafa MP, Gillies R. *Linc-ing Circulating Long Non-coding RNAs to the Diagnosis and Malignant Prediction of Intraductal Papillary Mucinous Neoplasms of the Pancreas*. **Sci Rep**. 2017 Sep 5;7(1):10484.
25. Liu H, Murphy CJ, Karreth FA, Emdal KB, White FM, Elemento O, Toker A, Wulf G, Cantley LC. *Identifying and Targeting Sporadic Oncogenic Genetic Aberrations in Mouse Models of Triple Negative Breast Cancer*. **Cancer Discov**. 2018 Mar;8(3):354-369.
26. Olga Vera O, Rodriguez-Antolin C, de Castro J, Karreth FA, Sellers TA, Ibanez de Caceres I. *An epigenomic approach to identifying differential overlapping and cis-acting lncRNAs in cisplatin-resistant cancer cells*. **Epigenetics**. 2018 Apr 2:1-13
27. Bok I, Vera O, Xu X, Jasani N, Nakamura K, Reff J, Nenci A, Gonzalez JG, Karreth FA. *A versatile ES cell-based melanoma mouse modeling platform*. **Cancer Research**. 2020 Feb 15;80(4):912-921.
28. Kang YP, Falzone A, Liu M, Saller JJ, Karreth FA, DeNicola GM. *PHGDH supports liver ceramide synthesis and sustains lipid homeostasis*. **Cancer Metab**. 2020 Jun 15;8:6.
29. Vera O, Bok, I, Jasani N, Nakamura K, Xu X, Mecozzi N, Tsai KY, Karreth FA. *A MAPK/miR-29 Axis Suppresses Melanoma by Targeting MAFG and MYBL2*. **Cancers**. 2021 Mar 4; 13(6), 1408.
30. Smalley KSM, Teer JK, Chen YA, Wu JY, Yao J, Koomen JM, Chen WS, Rodriguez-Waitkus P, Karreth FA, Messina JL. *A Mutational Survey of Acral Nevi*. **JAMA Dermatol**. 2021 May 12.

Review articles and book chapters

1. Karreth F and Tuveson DA. *Twist induces an epithelial-mesenchymal transition to facilitate tumor metastasis*. **Cancer Biol Ther**. 2004 Nov;3(11):1058-9.
2. Karreth FA, Tuveson DA. *Modelling oncogenic Ras/Raf signaling in the mouse*. **Curr Opin Genet Dev**. 2009;19(1):4-11.
3. Karreth FA, Pandolfi PP. *ceRNA Cross-Talk in Cancer: When ce-bling Rivalries Go Awry*. **Cancer Discovery**. 2013 Oct;3(10):1113-21.
4. Karreth FA, Ala U, Provero P, Pandolfi PP. *Pseudogenes as competitive endogenous RNAs: target prediction and validation*. **Methods Mol Biol**. 2014;1167:199-212.
5. DeNicola GM*, Karreth FA*#, Adams DJ, Wong CC#. *The utility of transposon mutagenesis for cancer studies in the era of genome editing*. **Genome Biol**. 2015 Oct 19;16:229. * equal contribution, # co-corresponding author
6. Eroglu Z, Holmen SL, Chen Q, Khushalani NI, Amaravadi R, Thomas R, Ahmed KA, Tawbi H, Chandra S, Markowitz J, Smalley I, Liu JKC, Ann Chen Y, Najjar YG, Karreth FA, Abate-Daga D, Glitza IC, Sosman JA, Sondak VK, Bosenberg M, Herlyn M, Atkins MB, Kluger H, Margolin K, Forsyth PA, Davies MA, Smalley KSM. *Melanoma central nervous system metastases: An update to approaches, challenges, and opportunities*. **Pigment Cell Melanoma Res**. 2019 Feb 3.

7. Karreth FA. *A Roadmap for the Computational Prediction and Experimental Validation of Competitive Endogenous RNAs*. **Methods Mol Biol**. 2019;1970:237-250.
8. Chen YA, Teer JK, Eroglu Z, Wu JY, Koomen JM, Karreth FA, Messina JL, Smalley KSM. *Translational pathology, genomics and the development of systemic therapies for acral melanoma*. **Semin Cancer Biol**. 2019 Nov 2. pii: S1044-579X(19)30343-8.
9. Vera O, Jasani N, Karreth FA. *Long non-coding RNAs in melanoma development and biology*. **Proceedings of the Singapore National Academy of Science**. Vol. 14, No. 02, pp. 145-166 (2020)
10. Patton EE, Mueller KL, Adams DJ, Anandasabapathy N, Aplin AE, Bertolotto C, Bosenberg M, Ceol CJ, Chi P, Herlyn M, Holmen SL, Karreth FA, Kaufman CK, Khan S, Kobold S, Leucci E, Levy C, Lombard DB, Lund AW, Marie KL, Marine JC, Marais R, McMahon M, Robles-Espinoza CD, Ronai Z, Samuels Y, Soengas MS, Villanueva J, Weeraratna AT, White RM, Yeh I, Zhu J, Zon LI, Hurlbert MS, Merlino G. *Melanoma models for the next generation of therapies*. **Cancer Cell**. 2021 Feb 4: S1535-6108(21)00055-6.
11. Karreth FA, Ala U, Provero P, Pandolfi PP. *Pseudogenes as Competitive Endogenous RNAs: Target Prediction and Validation*. **Methods Mol Biol**. 2021;2324:115-129.
12. Bok I, Karreth FA. *Strategies to study the functions of pseudogenes in mouse models of cancer*. **Methods Mol Biol**. 2021;2324:287-304.
13. Xu X, Karreth FA. *Pseudogenes as Competitive Endogenous RNAs: testing miRNA dependency*. **Methods Mol Biol**. 2021;2324:131-147.

News & Views and Commentaries

1. Tay Y, Karreth FA, Pandolfi PP. *Aberrant ceRNA activity drives lung cancer*. **Cell Res**. 2014 Mar;24(3):259-60.
2. Karreth FA, Tay Y, Pandolfi P. *Target competition: transcription factors enter the limelight*. **Genome Biol**. 2014 Apr 28;15(4):114.

Preprints

1. Bok I, Vera O, Xu X, Jasani N, Nakamura K, Reff J, Nenci A, Gonzalez JG, Karreth FA. *A versatile ES cell-based melanoma mouse modeling platform*. **BioRxiv**. June 3, 2019. Available from: <https://doi.org/10.1101/658260>
2. Kang YP, Falzone A, Liu M, Saller JJ, Karreth FA, DeNicola GM. *PHGDH supports liver ceramide synthesis and sustains lipid homeostasis*. **BioRxiv**. November 12, 2019. Available from: <https://doi.org/10.1101/838482>
3. Vera O, Bok, I, Jasani N, Nakamura K, Xu X, Mecozzi N, Karreth FA. *MAPK-induced miR-29 restrains melanoma progression by targeting MAFG*. **BioRxiv**. January 28, 2020. Available from: <https://doi.org/10.1101/2020.01.27.922153>
4. Mecozzi N, Nenci A, Vera O, Falzone A, DeNicola GM, Karreth FA. *Genetic tools for the stable overexpression of circular RNAs*. **BioRxiv**. May 27, 2021. Available from: <https://doi.org/10.1101/2021.05.27.446018>

Presentations

Invited Talks

- 2010 *Modulation of oncogenic transformation by Raf proteins*. Future Leaders in Translational Research Special Symposium, AACR 101st Annual Meeting, Washington DC, USA
- 2012 *Competitive endogenous RNAs: novel regulators of gene expression*. Ludwig Boltzmann Institute for Cancer Research, Vienna, Austria
- 2015 *Competitive endogenous RNAs in cancer development*. Research in Progress Seminar Series, Institute of RNA Medicine, Beth Israel Deaconess Medical Center, Boston, MA, USA

- 2015 *Cooperation of competitive endogenous RNAs and BRAF in cancer.* The Wistar Institute, Philadelphia, PA, USA
- 2015 *Cooperation of competitive endogenous RNAs and BRAF in cancer.* Cancer Science Institute of Singapore, National University of Singapore, Singapore
- 2015 *Cooperation of competitive endogenous RNAs and BRAF in cancer.* School of Biological Sciences, Nanyang Technical University, Singapore
- 2015 *Cooperation of competitive endogenous RNAs and BRAF in cancer.* Department of Experimental Radiation Oncology, MD Anderson Cancer Center, Houston, TX, USA
- 2015 *Cooperation of competitive endogenous RNAs and BRAF in cancer.* Department of Dermatology, Brigham and Women's Hospital, Boston, MA, USA
- 2015 *Cooperation of competitive endogenous RNAs and BRAF in cancer.* Moffitt Cancer Center, Tampa, FL, USA
- 2017 *Competitive endogenous RNAs in cancer.* Florida Academic Cancer Center Alliance Retreat, Orlando, FL, USA
- 2017 *ES cell-based mouse modeling for rapid cancer gene in vivo analysis.* Ovarian Cancer Association Consortium Functional Working Group Meeting, Washington DC, USA
- 2018 *Accelerated Melanoma Modeling Using ESC-GEMMs.* Melanoma Research Foundation Brain Metastases Summit, Tampa, FL, USA
- 2018 *Maximizing melanoma modeling in the mouse.* CNIO, Madrid, Spain
- 2018 *Maximizing melanoma modeling in the mouse.* Ponce Health Sciences University, Ponce, Puerto Rico
- 2018 *Maximizing melanoma modeling in the mouse.* Boehringer Ingelheim Fonds 12th North America Meeting, Woods Hole, MA, USA
- 2018 *Maximizing melanoma modeling in the mouse.* University of South Florida, Department of Molecular Medicine, Work in Progress seminar series, Tampa, FL, USA
- 2019 *Maximizing melanoma modeling in the mouse.* University of South Florida, Department of Cell Biology, Microbiology and Molecular Biology, Seminar series, Tampa, FL, USA
- 2019 *Maximizing melanoma modeling in the mouse.* Institute for Fundamental Biomedical Research, Johns Hopkins All Children's Hospital, St. Petersburg, FL, USA
- 2019 *Maximizing melanoma modeling in the mouse.* 11th European Melanoma Workshop, Otranto, Italy
- 2019 *Maximizing melanoma modeling in the mouse.* Skin & Endothelium Research Division, University of Vienna, Vienna, Austria
- 2020 *MiRNA deregulation in melanoma progression.* Melanoma Research Alliance 12th Annual Retreat, Washington DC, USA
- 2020 *Traditional and next generation melanoma GEMMs.* Melanoma Models Workshop at the Melanoma Research Alliance 12th Annual Retreat, Washington DC, USA
- 2021 *Non-coding RNAs in melanoma progression.* International Laboratory for Human Genome Research (LIIGH), Universidad Nacional Autónoma de México (virtual)

Talks selected from abstracts

- 2008 *Regulation of MAPK signaling by Raf dimerization.* International PhD student conference, NKI, Amsterdam, the Netherlands
- 2008 *Mouse models of melanoma.* Genetic screens in mouse cancer models symposium. Wellcome Trust Sanger Institute, Hinxton, UK
- 2009 *C-Raf Differentially Modulates Transformation by B-RafV600E and K-RasG12D.* Mechanisms & Models of Cancer Meeting, Salk Institute, La Jolla, CA, USA

- 2013 *The BRAF pseudogene is a proto-oncogenic competitive endogenous RNA.* Mechanisms & Models of Cancer Meeting, Salk Institute, La Jolla, CA, USA
- 2014 *The BRAF pseudogene is a proto-oncogenic competitive endogenous RNA.* Mechanisms & Models of Cancer Meeting, CSHL, Cold Spring Harbor, NY, USA
- 2014 *The BRAF pseudogene is a proto-oncogenic competitive endogenous RNA in DLBCL.* 56th Annual ASH Meeting, San Francisco, CA, USA
- 2015 *The BRAF pseudogene is a proto-oncogenic competitive endogenous RNA.* Biology of Cancer: Microenvironment, Metastasis & Therapeutics Meeting, CSHL, Cold Spring Harbor, NY, USA
- 2015 *The BRAF pseudogene is a proto-oncogenic competitive endogenous RNA.* Keystone Conference: MicroRNAs and Noncoding RNAs in Cancer, Keystone, CO, USA
- 2019 *Identification of co-amplified ceRNA genes and their role in melanoma progression.* The 3rd International Symposium on Frontiers in Molecular Science - RNA Regulatory Networks. Lisbon, Portugal
- 2020 *A versatile ES cell-based melanoma mouse modeling platform.* AACR Special Conference: The Evolving Landscape of Cancer Modeling. San Diego, California, USA

Trainee Accomplishments

Positions

- 2020 Koji Nakamura: Assistant Professor, Osaka University Medical School, Japan

Awards

- 2018 Olga Vera Puente: Scholar-in-Training Award, AACR Melanoma: From Biology to Target Meeting
- 2019 Koji Nakamura: Overseas Research Fellowship, The Uehara Memorial Foundation
- 2020 Olga Vera Puente: Best poster award (2nd place), Molecular Oncology Department retreat
- 2021 Ilah Bok: Cancer Biology Outstanding Research Award, Moffitt Cancer Biology PhD Program
- 2021 Neel Jasani: Best poster award, USF Health Research Day

Selected Oral Presentations (external)

- 2019 Olga Vera Puente: *Regulation of the tumor suppressive miR-29 family by oncogenic MAPK signaling in melanoma.* AACR Special Conference on Melanoma: From Biology to Target

Selected Oral Presentations (internal)

- 2020 Olga Vera Puente: *MAPK-induced miR-29 restrains melanoma progression by targeting MAFG.* Moffitt Scientific Symposium

External Posters

- 2017 *Speedy-mouse models to study melanomagenesis.* Ilah Bok, Florian A. Karreth. AACR Meeting: Advances in Modeling Cancer in Mice: Technology, Biology, and Beyond. Orlando, FL, USA
- 2019 *A versatile mouse-modeling platform for rapid in vivo melanoma studies.* Ilah Bok, Arianna Nenci, Jose G. Gonzalez, Jordan N. Reff, Florian A. Karreth. AACR Special Conference on Melanoma: From Biology to Target. Houston, TX, USA
- 2019 *Regulation of the tumor suppressive miR-29 family by oncogenic MAPK signaling in melanoma.* Olga Vera, Ilah Bok, Neel Jasani, Oluwashanu Balogun, Koji Nakamura and Florian Karreth. AACR Special Conference on Melanoma: From Biology to Target. Houston, TX, USA
- 2019 *LINC00886, a risk locus-associated long non-coding RNA, promotes ovarian cancer progression.* Koji Nakamura, Brett Reid, Thomas Sellers, Florian A. Karreth. AACR Special Conference on Advances in Ovarian Cancer Research. Atlanta, GA, USA
- 2019 *Identification of co-amplified ceRNA genes and their role in melanoma metastasis.* Xiaonan Xu, Florian A. Karreth. Cell Symposia: Hallmarks of Cancer. Seattle, WA, USA