

# Carlo C. Maley

## Curriculum Vitae

Prepared: 1/13/26

Address: Biodesign Institute  
1001 South McAllister Ave.  
Tempe, AZ 85281

phone: 480-727-7320  
email: maley@asu.edu

### EDUCATION:

1993-98	Massachusetts Institute of Technology (Rodney Brooks at MIT and Michael Donoghue at Harvard)	Ph.D.	Computer Science
1991-93	University of Oxford	M.Sc.	Zoology
1987-91	Oberlin College, Oberlin, OH	B.A.	Computer Science & Psychology

### PRINCIPAL POSITIONS HELD:

2023-now	Mayo Clinic	Research Affiliate	Hem/Onc
2022-now	Arizona State University	Professor	School of Life Sciences
2018-now	Arizona State University	Director	Arizona Cancer Evolution Center
2015-22	Arizona State University	Associate Professor	School of Life Sciences
2015-18	St. Joseph's Hospital and Medical Center	Research Professor <sup>1</sup>	Norton Thoracic Institute, Phoenix
2014-18	Institute of Cancer Research, London	Associate Director*	Centre for Evolution and Cancer
2010-15	University of California, San Francisco	Adjunct Associate Professor	Surgery
2007-10	University of Pennsylvania	Member	Cellular and Molecular Biology Graduate Group
2005-10	University of Pennsylvania	Member,	Genomics & Computational Biology Graduate Group,
2005-10	The Wistar Institute	Assistant Professor	Oncogenesis
2000-05	Fred Hutchinson Cancer Research Center	Staff Scientist	Human Biology

---

<sup>1</sup> This is/was an honorary position, with no associated salary.

\* This position supported travel to spend time at the institute but not salary

1998-2000	University of New Mexico	Postdoc	Carlo C. Maley
1998	Harvard University	Postdoc	Computer Science Organismal and Evolutionary Biology

**HONORS AND AWARDS:** *[All inclusive, most recent last]*

1991	Graduated Oberlin College <i>summa cum laude</i>
1991-1993	Marshall Scholarship
2000-2001	Alfred P. Sloan Fellowship in Computational and Molecular Biology
2001	NIGMS Fellowship Award (declined)
2001-2006	NCI Howard Temin Award (K01)
2003	AACR Rodger C. Haggitt Award
2008	First winner of the Landon AACR Innovator Award for Cancer Prevention Research
2013-2014	Fellow of the Berlin Institute for Advanced Study (Wissenschaftskolleg zu Berlin)
2018-2022	First elected president of the International Society for Evolution, Ecology and Cancer

**KEYWORDS/AREAS OF INTEREST:**

Cancer, somatic evolution, neoplastic progression, therapeutic resistance, cancer prevention, ecology, genomics, evolutionary biology, computational biology, agent-based modeling, Barrett's esophagus, breast cancer, colorectal cancer, translational medicine.

**INVITED PRESENTATIONS** *[last 5 years]*

INTERNATIONAL

- “What is Cancer?” Stop Cancer meeting, Bucharest, Romania, April 2025 (invited talk)
- Metastasis Working Group, Sete, France, March 2025 (invited participant)
- U. Bordeaux, Bordeaux, France, March 2025 (invited seminar)
- 6<sup>th</sup> Philosophy of Cancer Workshop, Bordeaux, France, March 2024 (invited talk)
- Barcelona Biomedical Research Park, Barcelona, Spain, March 2024 (invited talk)
- Adaptive Chemotherapy for Ovarian Cancer (ACTOv) clinical trial scientific subcommittee, London, England, November 2022 (invited talk)
- 24th Annual John Goldman Conference on Chronic Myeloid Leukemia: Biology and Therapy, Mandelieu-La Napoule, France, October 2022 (invited talk)
- Cancer Evolution Workshop, Arcachon, France, October 2022 (invited talk)
- Choremeio Research Laboratory, National and Kapodistrian University of Athens, Athens, Greece, June 2022 (invited seminar)
- 4th Philosophy of Cancer Biology Workshop, U. Bordeaux, December 2021 (keynote)
- Gustave Roussy Cancer Center, Paris, France, December 2021 (invited talk)
- METU Aykut Kence Evolution Conference, Ankara, Turkey, February 2021 (2 invited remote talks, one for the general public, one for academics)
- Leonardo Art Science Evening Rendezvous, Virtual, February 2021 (invited talk)
- Cancer adaptive therapy models, Virtual meeting: Dec. 7-10, 2020 (invited talk)
- Cancer Evolution and Combinatorial Cancer Therapies: Concepts and Challenges, an AACR Keystone meeting, Banff, Canada, Jan. 19-23, 2020. (invited talk)

## NATIONAL

- “Measuring tumor evolution” AACR Special Conference on Cancer Evolution the Dynamics of Progression and Persistence, Albuquerque, NM, December 2025 (invited talk)
- “Evolution of Resistance” AACR Scientist Survivor Program, American Association for Cancer Research Annual Meeting, April 2025 (invited talk)
- “Applying landscape ecology statistics to analyze the tumor microenvironment” American Association for Cancer Research Annual Meeting, April 2025 (invited talk)
- “Comparing different adaptive therapy protocols for controlling acquired therapeutic resistance” American Association for Cancer Research Annual Meeting, April 2025 (invited talk)
- “The problem of intra-tumor homogeneity in pre-clinical models” American Association for Cancer Research Annual Meeting, April 2025 (invited talk)
- Pharmacology Seminar, Mayo Clinic, Rochester, MN, August 2024 (invited seminar)
- Emergent Computation, Santa Fe Institute, Santa Fe, NM, December 2023 (invited talk)
- AACR Cancer Evolution and Data Science, Boston, MA, December 2023 (lightning talk and poster)
- Phenotypic Plasticity, Cancer, and Evolution City of Hope, Monrovia, CA, November 2023 (invited talk)
- Medical College of Wisconsin Cancer Center Scientific Retreat, Milwaukee, WI, May 2023 (keynote talk)
- Mathematical Oncology, Scottsdale, AZ, April 2023 (invited talk)
- Pennswood Village TEDTalk, Newtown, PA, March 2023 (invited public talk)
- Evolutionary Dynamics in Carcinogenesis and Response to Therapy Conference, Tampa, FL, March 2022 (invited talk)
- Cancer Across Species Conference, (virtual), May 2022 (invited talk)
- College of Veterinary Medicine, North Carolina State University, Raleigh, NC, March 2022 (invited seminar)
- Cancer Evolution Seminar Series, AACR’s Cancer Evolution Working Group, (virtual) February 2022.
- Cancer and Evolution Symposium, Boston, MA (virtual symposium), 2020 (invited talk)

## REGIONAL AND OTHER INVITED PRESENTATIONS

- Phoenix Best Science Luncheon, HonorHealth Research and Innovation Institute, Scottsdale, AZ, 2025 (invited seminar)
- Science of Medicine Grand Rounds, Mayo Clinic, Scottsdale, AZ, 2024 (invited seminar)
- Cancer Center Grant Rounds, Mayo Clinic, Phoenix, AZ, 2022 (invited seminar)

## RESEARCH

**GRANTS** (budget totals only include direct costs)

### CURRENT

6. 2025 Project Cure CRC Pilot Accelerator Award (Dr. C. Maley, PI)	1/1/26–12/31/27
Colorectal Cancer Alliance	\$200,000 total budget

## Dramatically Increasing Long-term Survival and Quality of Life with Adaptive Therapy

5. R01 CA285517 (Dr. C. Maley, PI) 8/22/25–6/30/30  
NIH/NCI \$2,706,569 total budget  
The Ecology of Barrett’s Esophagus \$643,726 to the Maley lab
4. ADAPT (Dr. Ken Buetow, Team PI) 5/20/25–5/19/31  
ARPA-H \$501,425 to the Maley lab  
Measure the parameters of somatic evolution in patient samples from the ADAPT clinical trials.
3. U54 (Dr. Kristin Swanson, PI) 8/31/24–8/30/26  
NIH/NCI \$25,000 to the Maley lab  
Mathematical Oncology Systems Analysis Imaging Center (MOSAIC): Phylogeography pilot award
2. R01 CA140657 (Dr. C. Maley, PI) 2/7/23–1/31/28  
NIH/NCI \$2,245,456 total budget  
Modeling Neoplastic Progression in Barrett’s Esophagus – Renewal 2 \$681,709 to the Maley lab
1. Marley Endowment Funds Award (Drs. Mina and Maley, Co-PIs) 7/15/23–7/14/25  
Mayo Clinic Comprehensive Cancer Center \$125,000 total budget  
A single arm pilot trial of adaptive therapy (AT) with capecitabine for the treatment of metastatic estrogen receptor positive, hormone refractory breast cancer

COMPLETED

24. Mayo-ASU Collaborative Research Seed Grant (Drs. Maley and Carr, Co-PIs) 7/1/23–6/30/25  
Mayo Clinic and Arizona State University \$100,000 total budget  
Evolutionary Therapy to Enhance Management of Gastrointestinal Malignancies
23. R21 CA257980 (Drs. Carlo Maley and Ron Weiss, Co-PIs) 3/1/22–2/28/24  
NIH/NCI \$635,980 total budget  
A cell-cycle induced genetic recorder for simultaneous recovery of cell divisions and lineage \$149,146 to the Maley lab
22. U54 CA217376 (Drs. Carlo Maley and Darryl Shibata, Co-PIs) 4/12/18–3/31/24  
NIH/NCI \$6,225,000 total budget  
Arizona Cancer Evolution Center \$1,326,272 to the Maley lab
21. U2C CA233254 (Drs. Shelley Hwang, Carlo Maley and Robert West, Co-PIs) 9/21/18-6/30/23  
NIH/NCI \$10,799,091 total budget  
Breast Pre-Cancer Atlas Center \$1,015,947 to the Maley lab
20. ADHS18-198847 (Dr. C. Maley, PI) 4/1/18-3/31/23  
Arizona Biomedical Research Commission \$750,000 total budget  
Pilot Trial of Adaptive Therapy for Late Stage Breast Cancer \$104,764 to the Maley lab
19. Breakthrough Award BC132057 (Drs. Carlo Maley & Shelley Hwang Co-PIs) 6/1/14-9/30/21

DoD/Breast Cancer Research Program Genomic and Microenvironmental Diversity as Drivers of Progression in DCIS (a separate award was given to the Hwang lab)	Carlo C. Maley \$2,390,410 total budget \$1,920,206 to the Maley lab
18. R01 CA140657 renewal (Dr. C. Maley, PI) NIH/NCI Modeling Neoplastic Progression in Barrett's Esophagus	8/1/14-7/31/20 \$1,443,958 total budget \$742,235 to the Maley lab
17. P01 CA091955 (Dr. Brian Reid, PI) NIH/NCI (Dr. C. Maley Co-I) Barrett's Esophagus: Predictors of Progression	4/1/14-3/30/19 \$208,952 total sub-contract budget \$208,952 to the Maley lab
16. R01 CA185138 (Drs. Carlo Maley and Shelley Hwang Co-PIs) NIH/NCI (PQC3) Genomic and Microenvironmental Diversity as Drivers of Metastasis in DCIS	4/1/14-3/31/18 \$163,430, total sub-contract budget \$98,058 to the Maley lab
15. R01 CA 170595 (Dr. Robert Gatenby, PI) NIH/NCI (Dr. C. Maley Co-I) Application of Evolutionary Principles to Maintain Cancer Control (PQ21)	7/1/12-6/30/17 \$720,584, total sub-contract budget \$84,448 to the Maley lab
14. R01 CA149566 (Dr. Martin Carroll, PI) NIH/NCI Stem Cells, Differentiation and Therapeutic Resistance in AML Co-investigator responsible for genomic sequencing and evolutionary analysis.	2/1/12-1/31/17 \$198,730 total budget \$198,730 to the Maley lab
13. R01 CA 140657 (Dr. C. Maley, PI) NIH/NCI Modeling Neoplastic Progression in Barrett's Esophagus	7/1/09-6/30/14 \$190,331 year 1 directs \$761,324 total directs
12. RSG-09-163-01-CNE (Dr. C. Maley, PI) AMERICAN CANCER SOCIETY Stem Cells, Mutation Rates and NSAIDs in Barrett's Esophagus	7/1/09-6/30/13 \$144,745 year 1 directs \$593,080 total directs
11. P01 CA 091955-07 (Dr. Brian Reid, PI) NIH/NCI Barrett's Esophagus: Predictors of Progression Leader of Project 3 Genetic Instability and co-leader of the Biostatistics and Evolutionary Analysis Core	8/13/07-6/30/12 \$77,881 year 1 directs to Maley lab \$339,555 total directs to Maley lab
10. N/A (Dr. C. Maley, PI) Bonnie J. Addario Lung Cancer Foundation Within-tumor genetic diversity in lung cancer	3/1/12-2/28/13 \$50,000 total directs to Maley lab
9. U54 CA 143803 (Dr. R. Austin, PI) NIH/NCI Pilot: A single cell genealogy assay to measure somatic	9/1/11-8/31/12 \$42,071 total directs to Maley lab

evolution

8. N/A (Dr. C. Maley, PI) MARTHA W. ROGERS CHARITABLE TRUST The Effects of Therapy on Cancer Stem Cells in AML Patients	1/1/09-12/31/10 \$12,500 directs to Maley lab/year \$25,000 total directs
7. R03 CA 137811-01 (Dr. C. Maley, PI) NIH/NCI An Intra-Neoplasm Genetic Diversity Assay	9/17/08-8/31/10 \$50,000 directs to Maley lab/year \$100,000 total directs
6. 08-06-27-MALE (Dr. C. Maley, PI) AMERICAN ASSOCIATION FOR CANCER RESEARCH Genetic Diversity within Intra-Epithelial Neoplasms and Cancer Prevention	7/1/08-6/30/10 \$50,000 directs to Maley lab/year \$100,000 total directs to Maley lab
5. R01 CA 119224-03 (Dr. G. Luebeck, PI) NIH/NCI MSM Scales of Carcinogenesis: Cells, Crypts and Cancer Role: Co-investigator.	9/1/05-8/31/09 \$14,334 directs to Maley lab/year \$51,403 total directs to Maley lab
4. N/A (Dr. C. Maley, PI) PHARMACEUTICAL RESEARCH & MANUFACTURERS OF AMERICA FOUNDATION Development of Microsatellite and Methylation Assays for Phylogenetics	2/1/07-1/31/09 \$30,000 directs to Maley lab/year \$60,000 total directs to Maley lab
3. P30 DK050306 (Dr. A. Rustgi, PI) UNIVERSITY OF PENNSYLVANIA PILOT PROJECT Center for Molecular Studies in Digestive and Liver Diseases Pilot project: Organotypic Tissue Culture of Barrett's Esophagus Pilot project PI.	7/1/06-6/30/07 \$10,000 total directs to Maley lab
2. N/A (Dr. C. Maley, PI) MCLEAN CONTRIBUTIONSHIP Description: Purchase of high-performance computing cluster for simulations and genomic analysis	4/1/06-2/28/07 \$20,895 total directs to Maley lab
1. K01 CA89267 (Dr. C. Maley, PI) NIH/NCI Evolutionary dynamics of Barrett's esophagus neoplasia	4/1/01-3/31/06 \$146,750 directs to Maley/year \$704,055 total directs to Dr. Maley

## PUBLICATIONS

---

*Legend: In my field, the person who carried out the majority of the work is the first author, and the senior author, who was responsible for supervising the work, is listed last. However, almost all publications are multi-author collaborations, and it has become common for multiple first authors and multiple senior authors to share credit. To support collaborative science, there should be no distinction in the actual listed order in these cases of shared credit. \* indicates shared first authorship, and underlined names with † indicates shared senior authorship. I have noted my postdoctoral fellows and staff scientists with italics, my graduate students in **bold**, and my*

*undergraduates are underlined. I have also added descriptions of my role in italics on the papers for which ASU was listed as my affiliation. For the journals, the CiteScore is the average number of citations per document over a 3 year period after publication, taken from Scopus, and the h5 is the h-index for the last five years for that journal according to Google Scholar.*

---

**Current h-index: 61**

**Total Citations: 20,813**

**Total publications: 168**

**First author publications: 36**

**Senior author publications: 65**

PEER REVIEWED:

**2025:**

136. **Compton Mellon, W. J.**, Sterner, B., Arvid Ågren, J., Vincze, O., Marx, M., Kapsetaki, S., Huang, P.-H., Yavari, B., McCollum, H. W., Natterson-Horowitz, B., Human, H., Baciú, C., **Richker, H.**, Mallo, D.†, Maley, C. C.†, Harmon, L.†, & Compton, Z. T.† (2025). Leveraging Comparative Phylogenetics for Evolutionary Medicine: Applications to Comparative Oncology. *Evolution, Medicine, and Public Health*, eoaf039.  
*I supervised this research in collaboration with my former PhD student Zach Compton.*
135. Vincze, O., Minias, P., Corthay, A., Colchero, F., Lemaître, J.-F., Maille, L., Malkócs, T., Hagemann, J., Conde, D. A., Pavard, S., Dujon, A. M., Ujvari, B., Thomas, F., Boddy, A. M., Maley, C. C., Chevallier, D., Sepp, T., Pradeu, T., & Giraudeau, M. (2025). Immunological surveillance against cancer across mammals. *Nature Communications*, 16(1), 10333.  
*I collaborated on this project, helping to develop the dataset and analyses.*
134. Maley, C. C., Boddy, A. M., Nedelcu, A., & Aktipis, A. (2025). Multicellular cooperation and the hallmarks of cancer: A new foundation. *Evolution, Medicine, and Public Health*, eoaf026.  
*I conceived of and was the primary author of this paper.*
133. Firsanov, D., Zacher, M., Tian, X., Sformo, T., Zhao, Y., Tomblin, G., Lu, J. Y., Zheng, Z., Perelli, L., Gurreri, E., Zhang, L., Guo, J., Korotkov, A., Volobaev, V., Biashad, S. A., Zhang, Z., Heid, J., Maslov, A., Sun, S., Tomblin G, Lu JY, Zheng Z, Perelli L, Gurreri E, Zhang L, Guo J, Korotkov A, Volobaev V, Biashad SA, Zhang Z, Heid J, Maslov A, Sun S, Wu Z, Gigas J, Hillpot E, Martinez JC, Lee M, Williams A, Gilman A, Hamilton N, Strelkova E, Haseljic E, Patel A, Straight M, Miller N, Ablueva J, Tam LM, Couderc C, Hoopmann M, Moritz RL, Fujii S, Pelletier A, Hayman DJ, Liu H, Cai Y, Leung AK, Zhang ZD, Nelson CB, Abegglen LM, Schiffman JD, Gladyshev V, Maley CC, Modesti M, Gorbunova, V. (2025). Evidence for improved DNA repair in long-lived bowhead whale. *Nature*. <https://doi.org/10.1038/s41586-025-09694-5>  
*I helped build the collaboration between the Gorbunova and Abegglen labs that generated this data.*
132. Lakatos, E., Gunasri, V., Zapata, L., Househam, J., Heide, T., Trahearn, N., Swinyard, O., Cisneros, L., Lynn, C., Mossner, M., Kimberley, C., Spiteri, I., Cresswell, G. D., Llibre-Palomar, G., Mitchison, M., Maley, C. C., Jansen, M., Rodriguez-Justo, M., Bridgewater, J., Trahearn N, Swinyard O, Cisneros L, Lynn C, Mossner M, Kimberley C, Spiteri I, Cresswell GD, Llibre-Palomar G, Mitchison M, Maley CC, Jansen M, Graham, T. A. (2025). Epigenetically driven and early immune evasion in colorectal cancer evolution. *Nature Genetics*, 1–11.

*I helped lead the effort to develop evolutionary measures of colorectal cancer and fund this work.*

131. Ryser, M. D., Greenwald, M. A., Monyak, D., Sorribes, I. C., King, L., Hall, A., Geradts, J., Weaver, D. L., Mallo, D., Holloway, S. T., Wu, E., Murgas, K. A., West, R. B., Grimm, L. J., Maley, C. C., Marks, J. R., Shibata, D., & Hwang, E. S. (2025). Spatially discontinuous mutation topographies in ductal carcinoma in situ reveal non-competitive growth dynamics. *Cancer Research*. <https://doi.org/10.1158/0008-5472.CAN-24-4415>  
*I won the grants that generated this data and helped lead the evolutionary analysis DCIS.*
130. Laplane, L., Lamoureux, A., **Richker, H.I., Marquez Alcaraz, G.**, Fortunato, A., Shaffer, Z., Aktipis, A., Mischel, P.S., Plutynski, A., Townsend, J.P. and Maley, C.C., 2025. Applying multilevel selection to understand cancer evolution and progression. *PLoS biology*, 23(7), p.e3003290.  
*I conceived of this project, recruited the team, and co-wrote the structure and most of the manuscript with the first author.*
129. Vincze, O., Spada, B., Bilder, D., Cagan, A., DeGregori, J., Gorbunova, V., Maley, C.C., Schiffman, J.D., Seluanov, A., Giraudeau, M. and Pradeu, T., 2025. Advancing cancer research via comparative oncology. *Nature Reviews Cancer*, pp.1-9.  
*I was part of the team and wrote a section of this review paper on this topic of my expertise.*
128. Beck, R.J., Tagal, V., Amin, S., Bakhoun, S.F., Maley, C.C., Verhaak, R.G., Gomes, A.P. and Andor, N., 2025. Energetics of whole genome doubling and genomic instability. *Cancer Letters*, p.217878.  
*This was mainly written by Dr. Andor and her lab, but they recruited me for my advice and editing of the manuscript.*
127. Fortunato, A. \*, Mallo, D. \*, Cisneros, L. \*, King, L. M., Khan, A., Curtis, C., Ryser, M. D., Lo, J. Y., Hall, A., Marks, J. R., Hwang, E. S. †, & Maley, C. C. † (2025). Evolutionary measures show that recurrence of DCIS is distinct from progression to breast cancer. *Breast Cancer Research: BCR*, 27(1), 43. CiteScore=12, h5=63  
*Dr. Hwang and I co-wrote the grant and co-supervised this work. I contributed the evolutionary ideas that this paper was based on.*
126. Fortunato, A., Taylor, J., Scirone, J., **Seyedi, S.**, Aktipis, A. C., & Maley, C. C. (2025). *Tethya wilhelma* (Porifera) is highly resistant to radiation exposure and possibly cancer. *Biology*, 14(2), 171. CiteScore=5.7, h5=75  
*I conceived of this project and supervised it.*
125. Kapsetaki, S. E., Basile, A., **Compton, Z. T.**, Rupp, S. M., Duke, E. G., Boddy, A. M., Harrison, T. M., Sweazea, K. †, & Maley, C. C. † (2025). The relationship between diet, plasma glucose, and cancer prevalence across vertebrates. *Nature Communications*, 16(1), 2271. CiteScore=24.9, h5=375  
*I co-conceived of this project and co-supervised this project with Dr. Boddy, then collaborated with Dr. Sweazea on its realization.*
124. **Compton, Z. T., Mellon, W., Harris, V. K.**, Rupp, S., Mallo, D., Kapsetaki, S. E., Wilmot, M., Kennington, R., Noble, K., Baciuc, C., Ramirez, L. N., Peraza, A., Martins, B., Sudhakar, S., Aksoy, S., Furukawa, G., Vincze, O., Giraudeau, M., Duke, E. G., Spiro, S., Flach, E., Davidson, H., Li, C.I., Zehnder, A., Graham, T.A., Troan, B.V., Harrison, T.M. †, Tollis, M. †, Schiffman, J.D. †, Aktipis, A. †, Abegglen, L.M. †, Maley, C.C. †, Boddy, A.M. † (2025). Cancer prevalence across vertebrates. *Cancer Discovery*, 15(1):227-244. CiteScore=22.9, h5=136

*I co-directed this project with Dr. Boddy, who started this project in 2014 when she was my postdoc. It was the central part of the Ph.D. theses of my grad students Drs. Compton and Harris.*

**2024:**

123. **Kapsetaki, S. E., Compton, Z. T., Mellon, W., Vincze, O., Giraudeau, M., Harrison, T. M., Abegglen, L. M.†, Boddy, A. M.†, Maley, C. C.†, & Schiffman, J. D.†** (2024). Germline mutation rate predicts cancer mortality across 37 vertebrate species. *Evolution, Medicine, and Public Health*, 12(1), 122–128. CiteScore=5.4, h5=27  
*I am co-senior author on this paper as I supervised this research.*
122. **Seyedi, S., Harris, V. K., Kapsetaki, S. E., Narayanan, S., Saha, D., Compton, Z., Yousefi, R., May, A., Fakir, E., Boddy, A. M., Gerlinger, M., Wu, C., Mina, L., Huijben, S., Gouge, D. H., Cisneros, L., Ellsworth, P. C., & Maley, C. C.** (2024). Resistance management for cancer: Lessons from farmers. *Cancer Research*.  
<https://doi.org/10.1158/0008-5472.CAN-23-3374> CiteScore=16.1, h5=123  
*I conceived of this project and supervised it.*
121. Laplane, L., & Maley, C. C. (2024). The evolutionary theory of cancer: challenges and potential solutions. *Nature Reviews Cancer*, 24(10), 718–733.  
*Dr. Laplane and I developed and co-wrote this paper.*
120. Giraudeau, M., Vincze, O., Dupont, S. M., Sepp, T., Baines, C., Lemaitre, J.-F., Lemberger, K., Gentès, S., Boddy, A., Dujon, A. M., Bramwell, G., Harris, V., Ujvari, B., Alix-Panabières, C., Lair, S., Sayag, D., Conde, D. A., Colchero, F., Harrison, T. M., Pavard, S., Padilla-Morales, B., Chevallier, D., Hamede, R., Roche, B., Malkocs, T., Aktipis, C.A., Maley, C., DeGregori, J., Le Loc'h, G., Thomas, F. (2024). Approaches and methods to study wildlife cancer. *The Journal of Animal Ecology*, 93(10), 1410–1428.  
*I collaborated with this consortium of comparative oncologists to help develop this paper.*
119. **Kapsetaki, S. E., Compton, Z. T., Dolan, J., Harris, V. K., Mellon, W., Rupp, S. M., Duke, E. G., Harrison, T. M., Aksoy, S., Giraudeau, M., Vincze, O., McGraw, K. J., Aktipis, A., Tollis, M., Boddy, A. M.†, & Maley, C. C.†** (2024). Life history traits and cancer prevalence in birds. *Evolution, Medicine, and Public Health*, eoae011.  
<https://doi.org/10.1093/emph/eoae011>  
*I supervised this project along with Dr. Boddy.*
118. Hnatyshyn, R., Hong, J., Maciejewski, R., Norby, C., & Maley, C. C. (2024). Capturing cancer as music: Cancer mechanisms expressed through musification. *International Conference on Human Factors in Computing Systems*.  
<https://doi.org/10.1145/3613904.3642153> CiteScore=4.8, h5=71.  
*I came up with the original idea and designed the algorithm. I then supervised the project.*
117. **Kapsetaki, S.E., Cisneros, L.H. & Maley, C.C.** Cell-in-cell phenomena across the tree of life. *Sci Rep* 14, 7535 (2024). <https://doi.org/10.1038/s41598-024-57528-7>. CiteScore=7.5, h5=210  
*I supervised this project.*
116. **Seyedi, S., Teo, R., Foster, L., Saha, D., Mina, L., Northfelt, D., Anderson, K. S., Shibata, D., Gatenby, R., Cisneros, L. H., Troan, B., Anderson, A. R. A., & Maley, C. C.** (2024). Testing Adaptive Therapy Protocols Using Gemcitabine and Capecitabine in a Preclinical Model of Endocrine-Resistant Breast Cancer. *Cancers*, 16(2), 257. CiteScore=5.8, h5=101  
*I designed and supervised this project.*

**2023:**

115. **Kapsetaki, S.E., Fortunato, A., Compton, Z., Rupp, S.M., Nour, Z., Riggs-Davis, S., Stephenson, D., Duke, E.G., Boddy, A.M., Harrison, T.M. and Maley, C.C.,** 2023. Is

chimerism associated with cancer across the tree of life?. *PloS one*, 18(6), p.e0287901. CiteScore=6.0, h5=212

*I supervised this research.*

114. Chen H, Shu J, Maley CC, Liu L. A Mouse-Specific Model to Detect Genes under Selection in Tumors. *Cancers (Basel)*. 2023 Oct 26;15(21):5156. doi: 10.3390/cancers15215156. PMID: 37958330; PMCID: PMC10647215. CiteScore=5.8, h5=101  
*I helped advise on this project, but the primary supervisor was Dr. Liu.*
113. Schrom, E., Kinzig, A., Forrest, S., Graham, A. L., Levin, S. A., Bergstrom, C. T., Castillo-Chavez, C., Collins, J. P., de Boer, R. J., Doupé, A., Ensafi, R., Feldman, S., Grenfell, B. T., Halderman, J. A., Huijben, S., Maley, C., Moses, M., Perelson, A. S., Perrings, C., ... Tiwari, M. (2023). Challenges in cybersecurity: Lessons from biological defense systems. *Mathematical Biosciences*, 109024. Citescore=6.9, h5=36  
*This is a white paper that came out of a series of workshops.*
112. Jens Luebeck, Alvin Wei Tian Ng, Patricia C Galipeau, Xiaohong Li, Carissa A Sanchez, Annalise C Katz-Summercorn, Hoon Kim, Sriganesh Jammula, Yudou He, Scott M Lippman, Roel GW Verhaak, Carlo C Maley, Ludmil B Alexandrov, Brian J Reid, Rebecca C Fitzgerald, Thomas G Paulson, Howard Y Chang, Sihan Wu, Vineet Bafna, Paul S Mischel. (2023). Extrachromosomal DNA in the cancerous transformation of Barrett's oesophagus. *Nature*. <https://www.nature.com/articles/s41586-023-05937-5> CiteScore=70.2, h5=444  
*I helped to co-supervise Dr. Luebeck in the application of his methods to my specialty of Barrett's esophagus.*
111. AbdulJabbar, K., Castillo, S. P., Hughes, K., Davidson, H., Boddy, A. M., Abegglen, L. M., Minoli, L., Iussich, S., Murchison, E. P., Graham, T. A., Spiro, S., Maley, C. C., Aresu, L., Palmieri, C., & Yuan, Y. (2023). Bridging clinic and wildlife care with AI-powered pan-species computational pathology. *Nature Communications*, 14(1), 2408. CiteScore=23.2, h5=307  
*I am the co-PI on the grant that supported this work, and I co-led the comparative oncology project that generated it.*
110. Pradeu, T., Daignan-Fornier, B., Ewald, A., Germain, P.-L., Okasha, S., Plutynski, A., Benzekry, S., Bertolaso, M., Bissell, M., Brown, J. S., Chin-Yee, B., Chin-Yee, I., Clevers, H., Cognet, L., Darrason, M., Farge, E., Feunteun, J., Galon, J., Giroux, E., ... Laplane, L. (2023). Reuniting philosophy and science to advance cancer research. *Biological Reviews of the Cambridge Philosophical Society*, n/a(n/a). <https://doi.org/10.1111/brv.12971> CiteScore=21, h5=89  
*This was a white paper that came out of a philosophy of cancer workshop where I gave a keynote address, and then contributed my portion to the manuscript.*
109. Preston, A. J., Rogers, A., Sharp, M., Mitchell, G., Toruno, C., Barney, B. B., Donovan, L. N., Bly, J., Kennington, R., Payne, E., Iovino, A., Furukawa, G., Robinson, R., Shamloo, B., Buccilli, M., Anders, R., Eckstein, S., Fedak, E. A., Wright, T., Maley, C. C., Kiso, W. K., Schmitt, D., Malkin, D., Schiffman, J. D., Abegglen, L. M. (2023). Elephant TP53-RETROGENE 9 induces transcription-independent apoptosis at the mitochondria. *Cell Death Discovery*, 9(1), 66. CiteScore=5.8, h5=44  
*I am a Co-PI on the grant that generated this data and had a minor role in supervising the project in the lab of our collaborators.*

## 2022:

108. Strand, S. H., Rivero-Gutiérrez, B., Houlahan, K. E., Seoane, J. A., King, L. M., Risom, T., Simpson, L. A., Vennam, S., Khan, A., Cisneros, L., Hardman, T., Harmon, B., Couch,

- F., Gallagher, K., Kilgore, M., Wei, S., DeMichele, A., King, T., McAuliffe, P. F., ... Maley, C., Marks, J. R., Colditz, G. A., Hwang, E. S., West, R. B. (2022). Molecular classification and biomarkers of clinical outcome in breast ductal carcinoma in situ: Analysis of TBCRC 038 and RAHBT cohorts. *Cancer Cell*, 40(12), 1521–1536.e7. <https://doi.org/10.1016/j.ccell.2022.10.021> CiteScore=41.9, h5=137  
*I am a Co-PI on the grant that generated this data and I helped co-supervise the work along with the primary supervisor Dr. West.*
107. Sobhani, F., Muralidhar, S., Hamidinekoo, A., Hall, A. H., King, L. M., Marks, J. R., Maley, C., Horlings, H. M., Hwang, E. S., & Yuan, Y. (2022). Spatial interplay of tissue hypoxia and T-cell regulation in ductal carcinoma in situ. *NPJ Breast Cancer*, 8(1), 105. CiteScore=6.5, h5=40  
*I am a co-PI on the grant that funded this work and I helped to co-supervise the work along with the primary supervisor Dr. Yuan.*
106. Ahmadinejad, N., Troftgruben, S., Wang, J., Chandrashekar, P. B., Dinu, V., Maley, C., & Liu, L. (2022). Accurate Identification of Subclones in Tumor Genomes. *Molecular Biology and Evolution*, 39(7). <https://doi.org/10.1093/molbev/msac136> CiteScore=21.9, h5=79  
*I helped to co-supervise this work, along with Dr. Liu who was the primary supervisor.*
105. Hagos, Y. B., Sobhani, F., Castillo, S. P., Hall, A. H., AbdulJabbar, K., Salgado, R., Harmon, B., Gallagher, K., Kilgore, M., King, L. M., Marks, J. R., Maley, C., Horlings, H. M., West, R., Hwang, E. S., & Yuan, Y. (2022). DCIS AI-TIL: Ductal Carcinoma In Situ Tumour Infiltrating Lymphocyte Scoring Using Artificial Intelligence. *Artificial Intelligence over Infrared Images for Medical Applications and Medical Image Assisted Biomarker Discovery*, 164–175.  
*I am a co-PI on the grant that funded this work and I helped to co-supervise the work along with the primary supervisor Dr. Yuan.*
104. Sobhani, F., Hamidinekoo, A., Hall, A. H., King, L., Marks, J. R., Maley, C., Horlings, H. M., Shelley Hwang, E., & Yuan, Y. (2022). Automated DCIS Identification From Multiplex Immunohistochemistry Using Generative Adversarial Networks. *2022 IEEE 19th International Symposium on Biomedical Imaging (ISBI)*, 1–5. CiteScore=NA, h5=55  
*I am a co-PI on the grant that funded this work and I helped to co-supervise the work along with the primary supervisor Dr. Yuan.*
103. Hou, R., Grimm, L. J., Mazurowski, M. A., Marks, J. R., King, L. M., Maley, C. C., Lynch, T., van Oirsouw, M., Rogers, K., Stone, N., Wallis, M., Teuwen, J., Wesseling, J., Hwang, E. S., & Lo, J. Y. (2022). Prediction of Upstaging in Ductal Carcinoma in Situ Based on Mammographic Radiomic Features. *Radiology*, 303(1), 54–62. CiteScore=17.7, h5=128  
*I am a co-PI on the grant under which this work was done, though I was peripheral to this work itself.*
102. **Thomas, D. S.**, Cisneros, L. H., Anderson, A. R. A., & Maley, C. C. (2022). In Silico Investigations of Multi-Drug Adaptive Therapy Protocols. *Cancers*, 14(11). <https://doi.org/10.3390/cancers14112699> CiteScore=5.8, h5=101  
*I generated the ideas and supervised this research.*
101. Maley, C. C., & **Seyedi, S.** (2022). The life history theory of the Lord of the Rings: a randomized controlled trial of using fact versus fiction to teach life history theory. *Evolution, Education and Outreach* 15(1), 2. CiteScore=3.8, h5=16  
*I generated the idea, led the experiment and wrote the manuscript.*
100. Paulson, T. G., Galipeau, P. C., Oman, K. M., Sanchez, C. A., Kuhner, M. K., Smith, L. P., Hadi, K., Shah, M., Arora, K., Shelton, J., Johnson, M., Corvelo, A., Maley, C. C.,

Yao, X., Sanghvi, R., Venturini, E., Emde, A.-K., Hubert, B., Imielinski, M., Robine N., Reid B.J., Li, X. (2022). Somatic whole genome dynamics of precancer in Barrett's esophagus reveals features associated with disease progression. *Nature Communications*, 13(1), 1–17. CiteScore=23.2, h5=307

*I helped supervise and interpret this research.*

99. Kapsetaki, S.E. \*, **Marquez Alcarazm, G.\***, Maley, C.C., Whisner, C.M.†, Aktipis, A.†. Diet, microbes, and cancer across the tree of life: a systematic review. *Current Nutrition Reports*. CiteScore=8.1, h5=30

*I helped supervise this research by Dr. Kapsetaki, a postdoc in my lab, and Ms. Marquez, a new graduate student in my lab.*

98. Lips, E. H., Kumar, T., Megalios, A., Visser, L. L., Sheinman, M., Fortunato, A., Shah, V., Hoogstraat, M., Sei, E., Mallo, D., Roman-Escorza, M., Ahmed, A. A., Xu, M., van den Belt-Dusebout, A. W., Brugman, W., Casasent, A. K., Clements, K., Davies, H. R., Fu, L., Grigoriadis A., Hardman, T. M., King, L. M., Krete, M., Kristel, P., de Maaker, M., Maley, C. M., Marks, J. R., Menegaz, B. A., Mulder, L., Nieboer, F., Nowinski, S., Pinder, S., Quist, J., Salinas-Souza, C., Schaapveld, M., Schmidt, M. K., Shaaban, A. M., Shami, R., Sridharan, M., Zhang, J., Stobart, H., Collyar, D., Nik-Zainal, S., Wessels, L. F. A., Hwang, E. S., Navin, N. E., Futreal, P. A., Grand Challenge PRECISION consortium, Thompson, A. M., Wesseling, J., Sawyer, E. J. (2022). Genomic analysis defines clonal relationships of ductal carcinoma in situ and recurrent invasive breast cancer. *Nature Genetics*, 54(6), 850–860. CiteScore=53.8, h5=191

*I helped set up and supervise some of the cohorts of samples that went into this analysis. I also helped advise about evolutionary and clonal analyses of recurrences.*

97. Risom, T., Glass, D. R., Averbukh, I., Liu, C. C., Baranski, A., Kagel, A., McCaffrey, E. F., Greenwald, N. F., Rivero-Gutiérrez, B., Strand, S. H., Varma, S., Kong, A., Keren, L., Srivastava, S., Zhu, C., Khair, Z., Veis, D. J., Deschryver, K., Vennam, S., Maley, C., Hwang, E.S., Marks, J.R., Bendall, S.C., Colditz, G.A., West, R.B. †, Angelo, M. † (2022). Transition to invasive breast cancer is associated with progressive changes in the structure and composition of tumor stroma. *Cell*, 185(2), 299–310.e18. CiteScore=102, h5=300

*I am a co-PI on the grant that supports this research. I discussed the results with the team as they were being developed and edited the paper.*

## 2021:

- 96 Fortunato, A., Fleming, A., Aktipis, A.†, Maley, C.C.† (2021) Upregulation of DNA repair genes and cell extrusion underpin the remarkable radiation resistance of *Trichoplax adhaerens*. *PLoS Biology* 19(11): e3001471. <https://doi.org/10.1371/journal.pbio.3001471> CiteScore=15.4, h5=103

*I initiated this project with Dr. Fortunato and supervised the research which was carried out in my lab.*

95. Vincze, O., Colchero, F., Lemaître, J.-F., Conde, D. A., Pavard, S., Bieuville, M., Urrutia, A. O., Ujvari, B., Boddy, A. M., Maley, C. C., Thomas, F., & Giraudeau, M. (2022). Cancer risk across mammals. *Nature*, 601(7892), 263–267. CiteScore=70.2, h5=444

*I collaborated with Drs. Vincze and Giraudeau on the analysis of this data and edited the paper.*

94. Dujon, A. M., Aktipis, A., Alix-Panabières, C., Amend, S. R., Boddy, A. M., Brown, J. S., Capp, J.-P., DeGregori, J., Ewald, P., Gatenby, R., Gerlinger, M., Giraudeau, M., Hamede, R. K., Hansen, E., Kareva, I., Maley, C. C., Marusyk, A., McGranahan, N., Metzger, M. J., ... Ujvari, B. (2021). Identifying key questions in the ecology and evolution of cancer. *Evolutionary Applications*, 14(4), 877–892. CiteScore =7.5, h5=42

*I contributed key questions and commentary to this overview and discussion.*

93. Fortunato, A., Mallo, D., Rupp, S. M., King, L. M., Hardman, T., Lo, J. Y., Hall, A., Marks, J. R., Hwang, E. S., & Maley, C. C. (2021). A new method to accurately identify single nucleotide variants using small FFPE breast samples. *Briefings in Bioinformatics*. <https://doi.org/10.1093/bib/bbab221> CiteScore=12.8,  
*I supervised this research which was carried out in my lab.*
92. Law, J., Paulson, T. G., Sanchez, C. A., Galipeau, P. C., Jansen, M., Stachler, M. D., Maley, C. C., & Yuan, Y. (2021). Wisdom of the Crowd for Early Detection in Barrett's Esophagus. *IEEE 18th International Symposium on Biomedical Imaging (ISBI)*, pp. 531-535. CiteScore=NA, h5=55  
*I led the collaboration that generated this project and I helped to supervise this work with Dr. Yuan.*
91. Narayanan, P. L., Raza, S. E. A., Hall, A. H., Marks, J. R., King, L., West, R. B., Hernandez, L., Guppy, N., Dowsett, M., Gusterson, B., Maley, C., Hwang, E. S., & Yuan, Y. (2021). Unmasking the immune microecology of ductal carcinoma in situ with deep learning. *NPJ Breast Cancer*, 7(1), 19. CiteScore=6.5, h5=40  
*I helped co-supervise this work that was carried out as part of our U54 Arizona Cancer Evolution center grant.*
90. Tollis, M., Ferris, E., Campbell, M. S., **Harris, V. K.**, Rupp, S. M., Harrison, T. M., Kiso, W. K., Schmitt, D. L., Garner, M. M., Aktipis, C. A., Maley, C. C., Boddy, A. M., Yandell, M., Gregg, C., Schiffman, J. D., & Abegglen, L. M. (2021). Elephant Genomes Reveal Accelerated Evolution in Mechanisms Underlying Disease Defenses. *Molecular Biology and Evolution* 38.9: 3606-3620. <https://doi.org/10.1093/molbev/msab127> CiteScore=25.9, h5=79  
*I helped lead the component of the paper that analyzed cancer prevalence in different species of elephants.*
89. Winfrey, P., Robertson, C., Maley, C., & Aktipis, A. (2020). Endless Forms Most Beautiful: A Garden Shows That Cancer Is a Part of Life. *Leonardo*, 1–8. CiteScore=0.7, h5=14  
*In collaboration with the other co-authors, I conceived of this project, helped supervise it, and co-wrote the paper.*
- 2020:**
88. Tollis, M., Schneider-Utaka, A. K., & Maley, C. C. (2020). The Evolution of Human Cancer Gene Duplications across Mammals. *Molecular Biology and Evolution*. 37:2875-2886. <https://doi.org/10.1093/molbev/msaa125> CiteScore =25.9, h5=77  
*I co-supervised this work with Dr. Tollis which was carried out by Ms. Schneider-Utaka and Dr. Tollis.*
87. Phan, T., Crook, S. M., Bryce, A. H., Maley, C. C., & Kostelich, E. J. (2020). Mathematical modeling of prostate cancer and clinical application. *Applied Sciences*. 10(8):2721 <https://doi.org/10.3390/app10082721> CiteScore=5.4, h5=53, citations=3  
*I provided feedback and suggestions on this work.*
86. Boddy, A. M., Abegglen, L. M., Pessier, A. P., Schiffman, J. D., Maley, C. C., & Witte, C. (2020). Lifetime cancer prevalence and life history traits in mammals. *Evolution, Medicine, and Public Health*. <https://doi.org/10.1093/emph/eoaa015> CiteScore=6.4, h5=24, citations=11  
*I initiated and supervised this work, and then edited the manuscript written by Dr. Boddy.*
85. **Birtwell, D.**, Luebeck, E.G., & Maley, C.C. (2020). The Evolution of Metapopulation Dynamics and the Number of Stem Cells in Intestinal Crypts and Other Tissue Structures

in Multicellular Bodies. *Evolutionary Applications*, 13:1771-1783. CiteScore =7.5, h5=42, citations=1

*This work was carried out in my lab under my direct supervision and in consultation with Dr. Luebeck.*

84. Rozenblatt-Rosen, O., Regev, A., Oberdoerffer, P., Nawy, T., Hupalowska, A., Rood, J. E., Ashenberg, O., Cerami, E., Coffey, R. J., Demir, E., Ding, L., Esplin, E. D., Ford, J. M., Goecks, J., Ghosh, S., Gray, J. W., Guinney, J., Hanlon, S. E., Hughes, S. K., ... Human Tumor Atlas Network. (2020). The Human Tumor Atlas Network: Charting Tumor Transitions across Space and Time at Single-Cell Resolution. *Cell*, 181(2), 236–249. CiteScore=58.7, h5=269, citations=56

*I am a Co-PI in the Human Tumor Atlas Network consortium that produced this report.*

83. Marc Ryser, Diego Mallo, Allison Hall, Timothy Hardman, Lorraine King, Sergei Tatischev, Inmaculada Sorribes, Carlo Maley, Jeffrey Marks, E. Shelley Hwang, and Darryl Shibata. (2020). Minimal Barriers to Invasion During Human Colorectal Tumor Growth. *Nature Communications*, 11:1280. DOI:10.1038/s41467-020-14908-7 Cite score=18.1, h5=273, citations=5

*I consulted on this project and I am the Co-PI on the grant under which the work was done.*

82. Cresswell, G. D., Nichol, D., Spiteri, I., Tari, H., Zapata, L., Heide, T., Maley, C. C., Magnani, L., Schiavon, G., Ashworth, A., Barry, P., & Sottoriva, A. (2020). Mapping the breast cancer metastatic cascade onto ctDNA using genetic and epigenetic clonal tracking. *Nature Communications*, 11(1), 1446. Cite Score=18.1, h5=273, citations=10

*I co-supervised Dr. Nichol and collaborated with Dr. Sottoriva on this project.*

81. Merlo, L.M.F., Sprouffske, K., Howard, T.C., Gardiner, K.L., Caulin, A.F., Blum, S.M., Evans, P., Bedalov, A., Sniegowski, P.D., Maley, C.C. (2020). Application of Simultaneous Selective Pressures Slows Adaptation. *Evolutionary Applications*, 13:1615-1625. CiteScore=7.5, h5=42, citations=1

*I conceived of this project and supervised its design and implementation.*

80. Maley, C.C. Evolutionary Processes in Cancer. *Oxford Bibliographies*, in press. IF, h5, citations NA.

79. Chandrashekar, P., Ahmadienejad, N., Wang, J., Sekulic, A., Egan, J. B., Asmann, Y. W., Kumar, S., Maley, C., & Liu, L. (2020). Somatic selection distinguishes oncogenes and tumor suppressor genes. *Bioinformatics*, 36(6), 1712–1717. CiteScore=8.6, h5=125, citations=5

*I provided feedback and comments on the work in progress, served on the dissertation committee of Dr. Ahmedinejad, and edited the manuscript.*

78. Acar, A., Nichol, D., Fernandez-Mateos, J., Cresswell, G. D., Barozzi, I., Hong, S. P., Trahearn, N., Spiteri, I., Stubbs, M., Burke, R., Stewart, A., Caravagna, G., Werner, B., Vlachogiannis, G., Maley, C. C., Magnani, L., Valeri, N., Banerji, U., & Sottoriva, A. (2020). Exploiting evolutionary steering to induce collateral drug sensitivity in cancer. *Nature Communications*, 11(1), 1923. doi:10.1038/s41467-020-15596-z CiteScore=18.1, h5=273, citations=19

*I co-supervised Drs. Acar and Nichol in the design and implementation of this work.*

## 2019:

77. A. Moorman, C. C. Samaniego, C. Maley and R. Weiss. (2019). A Dynamical Biomolecular Neural Network. *2019 IEEE 58th Conference on Decision and Control (CDC)*, Nice, France, 2019, pp. 1797-1802, doi: 10.1109/CDC40024.2019.9030122. Citations=3

*I helped supervise Mr. Moorman but only had minimal input on this project.*

76. Nawaz, S., Trahearn, N. A., Heindl, A., Banerjee, S., Maley, C. C., Sottoriva, A., & Yuan, Y. (2019). Analysis of tumour ecological balance reveals resource-dependent adaptive strategies of ovarian cancer. *EBioMedicine*, 48:224-235, 2019. doi: 10.1186/s13058-015-0638-4, CiteScore=8.7, h5=54, citations=1  
*This project is based on the recommendations of how to develop an ecological classification of tumors from Maley et al. 2015 (#65 below). I helped to mentor Dr. Nawaz, and gave feedback on the versions of the manuscript as it was developed.*
75. May, A., Narayanan, S., Alcock, J., Varsani, A., Maley, C., & Aktipis, A. (2019). Kombucha: a novel model system for cooperation and conflict in a complex multi-species microbial ecosystem. *PeerJ*, 7, e7565, 2019, CiteScore=3.5, h5=61, citations=21  
*This project emerged out of discussions with Dr. Aktipis. I helped design and supervise this project.*
74. Hou, R., Mazurowski, M. A., Grimm, L. J., Marks, J. R., King, L. M., Maley, C. C., Hwang, E.S., & Lo, J. Y. (2019). Prediction of Upstaged Ductal Carcinoma in situ Using Forced Labeling and Domain Adaptation. *IEEE Transactions on Biomedical Engineering*. CiteScore=9.1, h5=73, citations=4  
*This work was carried out by the radiology team of our breast cancer (DCIS) grants. I provided feedback on the research as it was developing.*
73. Tollis, M., Robbins, J., Webb, A.E., Kuderna, L.F.K, **Caulin, A.F.**, Garcia, J.D., Bèrubè, M., Pourmand, N., Marques-Bonet, T., O'Connell, M.J., Palsbøll†, P.J., Maley†, C.C. (2019). Return to the sea, get huge, beat cancer: an analysis of cetacean genomes including an assembly for the humpback whale (*Megaptera novaeangliae*). *Molecular Biology and Evolution*. doi:10.1093/molbev/msz099. CiteScore=25.9, h5=75, citations=34  
*I initiated this project and oversaw its development. I teamed up with Dr. Palsboll, who is a humpback whale expert and co-supervised the project with him. Dr. Tollis led the genomics effort, that had been started by Dr. Caulin, and brought the project to fruition.*

#### 2018:

72. Leong, S.P., Aktipis, A., Maley, C.C. (2018). Cancer initiation and progression within the cancer microenvironment. *Clinical & Experimental Metastasis*, epub. doi:10.1007/s10585-018-9921-y. CiteScore=5.4 , h5=32, citations=11  
*The three co-authors shared equally in this publication which summarized our contributions to a symposium.*
71. Barry, P., Vatsiou, A., Spiteri, I., Nichol, D., Cresswell, G.D., Acar, A., Trahearn, N., Hrebien, S., Garcia-Murillas, I., Punta, M., Chkhaidze, K., Ermini, L., Huntingford, I.S., Cottom, H., Zabaglo, L., Koelble, K., Khaliq, S., MacNeill, F., Rusby, J., Muscara, F., Dowsett, M., Maley, C., Lise, S., Natrajan, R., Yuan, Y., Schiavon, G., Turner, N., Sottoriva, A. (2018). The spatio-temporal evolution of lymph node spread in early breast cancer. *Clinical Cancer Research*. doi: 10.1158/1078-0432.CCR-17-3374. CiteScore=16.1, h5=123, citations=17  
*I co-supervised with the senior author three of the postdocs on this project (Drs. Nichol, Acar and Ermini). I advised on the evolutionary analysis of primary tumors and metastases.*
70. Martinez, P., Mallo, D., Paulson, T.G., Li, X., Sanchez, C.A., Reid, B.J., Graham, T.A.†, Kuhner, M.K.†, Maley, C.C.† (2018). Evolution of Barrett's Esophagus through space and time at single-crypt and whole-biopsy levels. *Nature Communications*, 9:794. CiteScore=18.1, h5=201, citations=24

*This is a primary result from my R01 grant on Barrett's esophagus (fulfilling an aim). I designed the study and supervised the research that was carried out collaboratively between my lab and the Graham lab, co-supervised with Dr. Kuhner.*

69. Shi, B., Grimm, L. J., Mazurowski, M. A., Baker, J. A., Marks, J. R., King, L. M., Maley, C. C., Hwang, E. S., Lo, J. Y. (2018). Prediction of Occult Invasive Disease in Ductal Carcinoma *in Situ* Using Deep Learning Features. *Journal of the American College of Radiology*, 15:527-534. CiteScore=3.4, h5=31, citations=35

*This work was carried out by the radiology team of our breast cancer (DCIS) grants. I provided feedback on the research as it was developing.*

## 2017:

68. Aktipis, A., Maley, C.C. (2017). Cooperation and cheating as innovation: Insights from cellular societies. *Phil. Trans. R. Soc. B* 372:20160421. CiteScore=11.4, h5=91, citations=8  
*This work was shared equally between me and Prof. Aktipis.*
67. **Chowell, D.**, Napier, J., Gupta, R., Anderson, K.S., Maley, C.C. and Sayres, M.A.W., (2017). Modeling the subclonal evolution of cancer cell populations. *Cancer Research*, 78:830-839. CiteScore=13.5, h5=131, citations=23  
*I helped supervise this research to make sure the model accurately represented the dynamics of cancer.*
66. Tollis, M., Boddy, A.M., Maley, C.C. (2017). Peto's Paradox: How has evolution solved the problem of cancer prevention? *BMC Biology*, 15:60. CiteScore=9.5, h5=47, citations=32  
*This is a question-and-answer paper. I drafted the initial questions to address, Dr. Tollis wrote the manuscript and then all co-authors edited it.*
65. Maley, C.C., Aktipis, A., Graham, T.A., Sottoriva, A., Boddy, A.M., Janiszewska, M., Silva, A.S., Gerlinger, M., Yuan, Y., Pienta, K.J., Anderson, K.S., Gatenby, R., Swanton, C., Posada, D., Wu, C.-I., Schiffman, J.D., Hwang, E.S., Polyak, K., Anderson, A.R.A., Brown, J.S., Greaves, M., Shibata, D. (2017). Classifying the Evolutionary and Ecological Features of Neoplasms. *Nature Reviews Cancer*, 17:605-619. CiteScore=70.4, h5=125, citations=202  
*This is a consensus statement. I led the consensus meeting, wrote the manuscript, and coordinated all the edits and revisions. I am the corresponding author.*
64. Andor, N., Maley, C. C., Ji, H. P. (2017). Genomic Instability in Cancer: Teetering on the Limit of Tolerance. *Cancer Research*, 77:2179-2185. CiteScore=13.5, h5=131, citations=75  
*I was invited to provide this review and recruited my co-authors to do it. Since I was the senior author on our Nature Medicine paper that inspired this review, I offered that Dr. Ji could be the senior author on this one. I outlined the paper, Dr. Andor wrote it, and we all edited it.*
63. Shi, B., Grimm, L.J., Mazurowski, M.A., Baker, J.A., Marks, J.R., King, L.M., Maley, C.C., Hwang, E.S., Lo, J.Y. (2017). Can occult invasive disease in ductal carcinoma in situ be predicted using computer-extracted mammographic features? *Academic Radiology*, 24:1139-1147. CiteScore=3.9, h5=31, citations=15  
*I am the co-PI on the grant that funded this research. I provided feedback on the work as it was developing and edited the paper.*
62. Lote, H.\*, Spiteri, I.\*, Ermini, L.\*, Vatsiou, A., Roy, A., McDonald, A., Maka, N., Balsitis, M., Bose, N., Simbolo, M., Mafficini, A., Lampis, A., Hahne, J.C., Trevisani, F., Eltahir, Z., Mentrasti, G., Findlay, C., Kalkman, E.A.J., Punta, M., Werner, B., Lise, S., Aktipis, A., Maley, C. C., Greaves, M., Braconi, C., White, J., Fassan, M., Scarpa, A., Sottoriva, A., Valeri, N. (2017). Carbon dating cancer: defining the chronology of metastatic progression

in colorectal cancer. *Annals of Oncology*, 28:1243-1249. CiteScore=23.8, h5=116, citations=16

*I co-supervise Dr. Ermini, a co-first author on this paper, and provided feedback on his work.*

## 2016:

61. Fortunato, A., Boddy, A., Mallo, D., Aktipis, A., Maley, C. C.†, & Pepper, J. W.† (2016). Natural Selection in Cancer Biology: From Molecular Snowflakes to Trait Hallmarks. *Cold Spring Harbor Perspectives in Medicine*, a029652. CiteScore=12.3, h5=77, citations=31  
*I was asked to contribute this paper to a special issue. I generated the idea and recruited Dr. Pepper who is also an expert in this field. I wrote about 40% of the paper, the rest was written by Drs. Fortunato and Pepper, with editing and minor contributions from the other authors. I edited the entire manuscript. I offered to Dr. Pepper that we share senior authorship, and because he is trying to re-enter academia, that he could be listed last.*
60. Martinez, P., M. R. Timmer, C. T. Lau, S. Calpe, M. del Carmen Sancho-Serra, D. Straub, A. Baker, S. L. Meijer, F. J. W. ten Kate, R. C. Mallant-Hent, A. H. J. Naber, A. H. A. M. van Oijen, L. C. Baak, P. Scholten, C. J. M. Böhmer, P. Fockens, J. J. G. H. M. Bergman, C. C. Maley†, T. A. Graham† and K. K. Krishnadath† (2016). Dynamic clonal equilibrium and predetermined risk in Barrett's esophagus. *Nature Communications*, 7:12158. CiteScore=18.1, h5=201, citations=60  
*The data for this study was collected by the Krishnadath lab. She approached me to carry out the evolutionary analyses. I enlisted my ex-postdoc, Dr. Graham whose postdoc, Dr. Martinez, carried out the analyses under our joint direction. The paper was written by Drs. Martinez and Timmer, with editing by me and the other senior co-authors.*
59. Andor, N., Graham, T.A., Jansen, M., Xia, L.C., Aktipis, C.A., Petritsch, C., Ji, H.P.†, Maley, C.C.† (2016). Pan-cancer analysis of the extent and consequences of intra-tumor heterogeneity. *Nature Medicine*, 22:105-13. CiteScore=45.9, h5=165, citations=472  
*This work was done by Dr. Andor. She, Dr. Graham, and I came up with the idea to apply Dr. Andor's methods to the cancer genome atlas. I directed the work of Dr. Andor who was also advised by Dr. Ji (her current postdoc mentor). Dr. Andor wrote the manuscript with substantial editing from me.*
58. **Kostadinov, R.**, Maley, C.C., Kuhner, M.K. (2016). Bulk genotyping of biopsies can create spurious evidence for heterogeneity in mutation content. *PLoS Computational Biology*, 12:e1004413. CiteScore=45.9, h5=75, citations=23  
*These results generated from the model that my student, Dr. Kostadinov, developed for his dissertation with me. The research was carried out in collaboration with Dr. Kuhner, with my advice. I edited the manuscript which was written by Drs. Kostadinov and Kuhner.*
57. Timmer\*, M.R., Martinez\*, P., Lau, C.T., Westra, W.M., Silvia Calpe1, Rygiel, A.M., Rosmolen, W.D., Meijer, S.L., ten Kate, F.J.W., Dijkgraaf, M.G.W., Mallant-Hent, R.C., Naber, A.H.J., van Oijen, A.H.A.M., Baak, L.C., Scholten, P., Böhmer, C.J.M., Fockens, P., Maley, C.C., Graham, T.A., Bergman, J.J.G.H.M., Krishnadath, K.K. (2016). Derivation of Genetic Biomarkers for Cancer Risk Stratification in Barrett's Oesophagus: A Prospective Cohort Study. *Gut*, 65:1602-1610 doi: 10.1136/gutjnl-2015-309642, CiteScore=32.2, h5=117, citations=40

## 2015:

56. Maley, C.C., Koelble, K., Natrajan, R., Aktipis, A., Yuan, Y. (2015). An ecological measure of immune-cancer colocalization as a prognostic factor for breast cancer. *Breast Cancer Research*, 17:1-13. CiteScore=8.5, h5=61, citations=48

*Dr. Yuan, the senior author performed the work. I contributed the ecological theory, suggested the appropriate statistics, and helped interpret the results. I co-wrote the manuscript with Dr. Yuan, and it was edited by the other co-authors.*

55. Abegglen, L.M., **Caulin, A.F.**, Chan, A., Lee, K., Robinson, R., Campbell, M.S., Kiso, W.K., Schmitt, D.L., Waddell, P.J., Bhaskara, S., Jensen, S.T., Maley, C.C.†, Schiffman, J. D.† (2015). Potential Mechanisms for Cancer Resistance in Elephants and Comparative Cellular Response to DNA Damage in Humans. *JAMA*, 314:1850-1860. CiteScore=26.3, h5=199, citations=274

*This was the primary result of my student's, Dr. Caulin's, dissertation. I generated the initial idea and directed the research program. Dr. Caulin made the original discovery of extra copies of p53 in the elephant genome. She did all of the bioinformatics and genomics work, including the wet lab work of cloning out the genes and quantifying the RNA expression, under my supervision. I recruited Dr. Schiffman to add the functional characterization of the elephant cells, which was done by Dr. Abegglen and made all the difference in getting a high impact publication. Dr. Schiffman and I agreed to share senior authorship. He took the lead in shopping the manuscript around to the journals and corresponding with JAMA.*

54. Li, X., Paulson, T.P., Galipeau, P.C., Sanchez, C.A., Liu, K., Kuhner, M.K., Maley, C.C., Self, S.G., Vaughan, T.L., Reid, B.J., Blount, P.L. (2015). Assessment of esophageal adenocarcinoma risk using somatic chromosome alterations in longitudinal samples in Barrett's esophagus. *Cancer Prevention Research*, 8:845-56. CiteScore=6.3, h5=50, citations=33

*This work was done in the Reid lab. I contributed and supervised the genetic diversity analyses that are one component of this paper. Thus I had a relatively minor role. The paper was written by Dr. Li and then edited by me and the other authors.*

53. Nunney, L., Maley, C.C., Breen, M., Hochberg, M.E., Schiffman, J.D. (2015). Peto's paradox and the promise of comparative oncology. *Philosophical Transactions of the Royal Society of London B*, 370 (1673):20140177. CiteScore= 11.4, h5=91, citations=39

*This was the introductory paper of a special issue, co-authored by the editors of the special issue. I wrote the outline and then we shared equally in the writing of the manuscript. Because Dr. Schiffman was trying to establish a leadership role in the field of comparative oncology, we offered him the senior author position.*

52. Aktipis, C.A., Boddy, A.M., Jansen, G., Hibner, U., Hochberg, M.E., Maley, C.C., Wilkinson, G.S. (2015). Cancer across the tree of life: Cooperation and cheating in multicellularity. *Philosophical Transactions of the Royal Society of London B*, 370 (1673):20140219. CiteScore=11.4, h5=91, citations=254

*The original idea and research for this paper was shared equally among the authors who were a working group at the Institute for Advanced Study in Berlin (we split up the tree of life and each reviewed a branch of it). The manuscript was written primarily by three of us: me, Drs. Aktipis, and Wilkinson, with Dr. Aktipis taking the lead. Dr. Aktipis contributed most of the theory, and I contributed most of the application of that theory.*

51. **Caulin, A.F.**, Graham, T.A., Wang, L.-S., Maley, C.C. (2015). Solutions to Peto's Paradox Revealed by Mathematical Modeling and Cross-Species Cancer Gene Analysis. *Philosophical Transactions of the Royal Society of London B*, 370 (1673):20140222. CiteScore=11.4, h5=91, citations=54

*This paper is the combination of two chapters from my student's dissertation. As such, I generated the research program and supervised the work. Dr. Caulin wrote the paper and I edited it.*

50. Paguirigan, A.L., Smith, J., Meshinchi, S., Carroll, M., Maley, C.C., Radich, J.P. (2015). Single-cell genotyping demonstrates complex clonal diversity in acute myeloid leukemia. *Science Translational Medicine*, 7:281re2. doi:10.1126/scitranslmed.aaa0763  
CiteScore=18.8, h5=128, citations=124  
*This was the primary product from a grant that I developed with Drs. Carroll (PI), and Radich. The work was done in the Radich lab, with me as an advisor on how to interpret and analyze the data. I edited the paper.*
49. **Walther, V.**, Hiley, C.T., Shibata, D., Swanton, C., Turner, P.E., and Maley, C.C. (2015). Can oncology recapitulate paleontology? Lessons from species extinctions. *Nature Reviews Clinical Oncology*, 12:273-285. doi:10.1038/nrclinonc.2015.12, CiteScore=37.5, h5=72, citations=32

**2014:**

48. Alcock, J., Maley, C.C., Aktipis, C.A. (2014). Is eating behavior manipulated by the gastrointestinal microbiota? Evolutionary pressures and potential mechanisms. *Bioessays*, 36:940-949. doi: 10.1002/bies.201400071. citations=357
47. Li, X., Galipeau, P.C., Sanchez, C.A., Paulson, T.P., Arnaudo, J., Liu, K., Sather, C.L., Kostadinov, R.L., Odze, R.D., Kuhner, M.K., Maley, C.C., Self, S.G., Vaughan, T.L., Blount, P.L., Reid, B.J. (2014). Temporal and Spatial Evolution of Somatic Chromosomal Alterations: A Case-Cohort Study of Barrett's Esophagus. *Cancer Prevention Research*, 7:114-127. citations=118

**2013:**

46. Aktipis, C.A., *Boddy, A.M.*, Gatenby, R.A., Brown, J.S., Maley, C.C. (2013). Life history tradeoffs in cancer evolution. *Nature Reviews Cancer*, 13:883-892. citations=186
45. **Kostadinov, R.L.**, Kuhner, M.K., Li, X., Sanchez, C.A., Galipeau, P.C., Paulson, T.G., Sather, C.L., Srivastava, A., Odze, R.D., Blount, P.L., Vaughan, T.L., Reid, B.J., Maley, C.C. (2013). NSAIDs modulate clonal evolution in Barrett's esophagus. *PLoS Genetics*, 9:e1003553. PMID: PMC3681672, citations=59
44. *Datta, R.S.*, Gutteridge, A., Swanton, C., Maley, C.C., *Graham, T.A.* (2013). Modeling the evolution of genetic instability during tumour progression. *Evolutionary Applications* 6: 20-33. PMID: PMC3567468, citations=43
43. **Sprouffs, K.**, Aktipis, C.A., Radich, J.P., Carroll, M., Nedelcu, A.M., Maley, C.C. (2013). An evolutionary explanation for the presence of cancer non-stem cells in neoplasms. *Evolutionary Applications*, 6: 92-101. PMID: PMC3567474, citations=31

**2012:**

42. Roche, B., Hochberg, M.E., **Caulin, A.F.**, Maley, C.C., Gatenby, R.A., Misse, D., Thomas, F. (2012). Natural resistance to cancers: a Darwinian hypothesis to explain Peto's paradox. *BMC Cancer*. 12:387. PMID: PMC3488527, citations=42
41. **Sprouffs, K.**, *Merlo, L.M.F.*, Gerrish, P.J., Maley, C.C., Sniegowski, P.D. (2012). Cancer in light of experimental evolution. *Current Biology*, 22:R762-71. PMID: PMC3457634, citations=88
40. Greaves, M. & Maley, C.C. (2012). Clonal evolution in cancer. *Nature*. 481:306-31. PMID: PMC3367003, citations=2718
39. Kosoff, R.E., Gardiner, K.L., *Merlo, L.M.F.*, **Pavlov, K.**, Rustgi, A.K., Maley, C.C. (2012). Development and Characterization of an Organotypic Model of Barrett's Esophagus. *Journal of Cellular Physiology*. 227(6): p. 2654-2659. PMID: PMC3352665, citations=37

**2011:**

38. *Merlo, L.M.F.*, Kosoff, R.E., Gardiner, K.L., Maley, C.C. (2011). An in vitro co-culture model of esophageal cells identifies ascorbic acid as a modulator of cell competition. *BMC Cancer*, 11:461. PMID: PMC3213018, citations=21
37. Martens, E.A., **Kostadinov, R.**, Maley, C.C., Hallatschek, O. (2011). Spatial structure increases the waiting time for cancer. *New Journal of Physics*, Focus Issue "Physics of Cancer" 13:115014. PMID: PMC3375912, citations=89
36. Aktipis, C.A., Kwan, V.S.Y., Johnson, K.A., Neuberg, S.L., Maley, C.C. (2011). Overlooking evolution: A systematic analysis of cancer relapse and therapeutic resistance research. *PLoS ONE*, 6(11):e26100. citations=97
35. **Sprouffs, K.**, Pepper, J. W. & Maley, C.C. (2011). Accurate reconstruction of the temporal order of mutations in neoplastic progression. *Cancer Prevention Research* 4:1135-1144. PMID: 3131446, citations=69
34. Aktipis, C.A., Maley, C.C., Pepper, J.W. (2011). Dispersal evolution in neoplasms: The role of dysregulated metabolism in the evolution of cell motility. *Cancer Prevention Research* 5, 266-275. PMID: PMC3273626, citations=48
33. **Chen, J.**, **Sprouffs, K.**, Huang, Q., Maley, C.C. (2011). Solving the puzzle of metastasis: The evolution of cell migration in neoplasms. *PLoS ONE*, 6:e17933. PMID: PMC3083389, citations=65

**2010:**

32. Lai, L.A., **Kostadinov, R.**, Barrett, M.T., Peiffer, D.A., Pokholok, D., Odze, R.D., Sanchez, C.A., Maley, C.C., Reid, B.J., Gunderson, K., Rabinovitch, P.S. (2010). Deletion at fragile sites is a common and early event in Barrett's Esophagus. *Mol Cancer Res*. 8:1084-94. PMID: PMC3100793, citations=48
31. *Merlo, L.M.F.*, **Shah, N.A.**, Li, X., Blount, P., Vaughan, T.L., Reid, B.J., Maley, C.C. (2010). A comprehensive survey of clonal diversity measures in Barrett's esophagus as biomarkers of progression to esophageal adenocarcinoma. *Cancer Prevention Research* 3:1388-1397. PMID: PMC3004782, citations=156

**2009:**

30. Pepper, J.W., Findlay, C.S., Kassen, R., Spencer, S.L., and Maley, C.C. (2009). Synthesis: cancer research meets evolutionary biology. *Evolutionary Applications* 2:62-70. citations=119
29. Paulson, T.G., Maley, C.C., Chao, D., Li, X., Li, X., Zhang, G., Sanchez, C.A. Odze, R., Vaughan, T., Blount, P., Ayub, K., Reid, B.J. (2009). Chromosomal instability and copy number alterations in Barrett's esophagus and esophageal adenocarcinoma. *Clinical Cancer Research* 15:3305-14, 2009. PMID: PMC2684570, citations=95

**2008:**

28. **Liu, Z.**, Venkatesh, S.S., Maley, C.C. (2008). Sequence space coverage, entropy of genomes and the potential to detect non-human DNA in human samples. *BMC Genomics*, 9:509. PMID: PMC2628393, citations=26
27. Li X., Galipeau, P.C., Sanchez, C.A., Blount, P.L., Maley, C.C., Arnaudo, J., Peiffer, D.A., Pokholok, D., Gunderson, K.L., Reid, B.J. (2008). Single nucleotide polymorphism-based Genome-wide Chromosome Copy Change, LOH, and Aneuploidy in Barrett's Esophagus Neoplastic Progression. *Cancer Prevention Research* 1:413-423. PMID: PMC2882787, citations=73

26. Chao, D.L., Eck, T., Brash, D., Maley, C.C., Luebeck, E.G. (2008). Pre-neoplastic lesion growth driven by the death of adjacent normal stem cells. PNAS 105:15034-15039. PMID: PMC2567488, citations=38

**2007:**

25. Pepper, J., **Sprouffske, K.**, Maley, C.C. (2007). Animal cell differentiation patterns suppress somatic evolution. PLoS Computational Biology, 3:e250. Highlighted in Nature Online (<http://www.nature.com/news/2007/070917/full/news070917-11.html>) PMID: PMC2134960, citations=73
24. Lai, L.A., Paulson T.G., Li X., Sanchez C.A., Maley C., Odze R.D., Reid B.J., Rabinovitch, P.S. (2007). Increasing genomic instability during premalignant neoplastic progression revealed through high resolution array-CGH. Genes, Chromosomes and Cancer. 46:532-542. citations=90
23. Srivastava, A., Hornick, J.L., Li, X., Blount, P.L., Sanchez, C.A., Cowan, D.S., Ayub, K., Maley, C.C., Reid, B.J., and Odze R.D. (2007). Extent of low-grade dysplasia Is a risk factor for the development of esophageal adenocarcinoma in Barrett's esophagus. Am. J. Gastro. 102:483-493. citations=110
22. Galipeau, P.C., Li X., Blount, P.L., Maley, C.C., Sanchez, C.A., Odze, R.D., Ayub, K., Rabinovitch, P.S., Vaughan, T.V., Reid, B.J. (2007). NSAIDs modulate CDKN2A, TP53, and DNA content risk for progression to esophageal adenocarcinoma. PLoS Medicine. 4(2):e67. PMID: PMC1808095, citations=264

**2006:**

21. *Merlo, L.*, Pepper, J., Reid, B.J., Maley, C.C. (2006). Cancer as an evolutionary and ecological process. Nature Reviews Cancer, 6:924-35. citations=1670
20. Chao, D.L., Maley, C.C., Wu, X., Farrow, D.C., Galipeau, P.C., Sanchez, C.A., Paulson, T.G., Rabinovitch, P.S., Reid, B.J., Spitz, M.R., and Vaughan, T.L. (2006). Mutagen sensitivity and neoplastic progression in patients with Barrett's esophagus: A prospective analysis. Cancer Epidemiology, Biomarkers and Prevention, 15:1935-40. PMID: PMC2567488, citations=35
19. Maley, C.C., Galipeau, P.C., Finley, J.C., Wongsurawat, V.J., Li, X., Sanchez, C.A., Paulson, T.G., Blount, P.L., Risques, R., Rabinovitch, P.S. and Reid, B.J. (2006). Genetic clonal diversity predicts progression to esophageal adenocarcinoma. Nature Genetics, 38:468-473. citations=692
18. Wongsurawat, V.J., Finley, J.C., Galipeau, P.C., Sanchez, C.A., Maley, C.C., Li, X., Blount, P.L., Odze, R.D., Rabinovitch, P.S. and Reid, B.J. (2006). Genetic mechanisms of TP53 loss of heterozygosity in Barrett's esophagus: Implications for biomarker validation. Cancer Epidemiology, Biomarkers and Prevention, 15:509-516. citations=48

**2005:**

17. Hornick, J.L., Blount, P.L., Sanchez, C.A., Cowan, D.S., Ayub, K., Maley, C.C., Reid, B.J., Odze, R.D. (2005). Biologic properties of columnar epithelium underneath reepithelialized squamous mucosa in Barrett's esophagus. Am J Surg Pathol 29:372-380. citations=85

**2004:**

16. Maley, C.C., Galipeau, P.C., Li, X., Sanchez, C.A., Paulson, T.G., Blount, P.L., Reid, B.J. (2004). The combination of genetic instability and clonal expansion predicts progression to esophageal adenocarcinoma. Cancer Res 64:7629-7633. citations=189

15. Maley, C.C., Galipeau, P.C., Li, X., Sanchez, C.A., Paulson, T.G., Reid, B.J. (2004). Selectively advantageous mutations and hitchhikers in neoplasms: p16 lesions are selected in Barrett's esophagus. *Cancer Res* 64:3414-3427. citations=235
14. Maley, C.C., Reid, B. J., Forrest, S. (2004). Cancer prevention strategies that address the evolution of neoplastic cells: Simulating benign cell boosters and selection for chemosensitivity. *Cancer Epidemiology, Biomarkers and Prevention*, 13:1375-84. citations=87

**2003:**

13. Maley, C.C., Tapscott, S.J. (2003). Selective instability: maternal effort and the evolution of gene activation and deactivation rates. *Artif Life* 9:317-326. citations=2

**2000:**

12. Robeck, H.E., Maley, C.C., Donoghue, M.J. (2000). Taxonomy and temporal diversity patterns. *Paleobiology* 26:171-187. citations=67
11. Maley, C.C., Forrest, S. (2000). Exploring the relationship between neutral and selective mutations in cancer. *Artif Life* 6:325-345. citations=37
10. Maley, C.C., Forrest, S. (2000). Modeling the role of neutral and selective mutations in cancer in Bedau, M., McCaskill, J., Packard, N., Rasmussen, S. (Eds.) *Artificial Life 7*, MIT Press, Cambridge, MA, pp. 395-404. citations=5
9. Maley, C.C. (2000). Comparing causal factors in the diversification of species. *InterJournal of Complex Systems BArticle*, p. 241. citations=4

**1999:**

8. Maley, C.C. (1999). Four steps toward open-ended evolution. In Banzhaf, W., Daida, J., Eiben, A. E., Garzon, M. H., Honavar, V., Jakiela, M., Smith, R. E. (Eds.) *Genetic and Evolutionary Computation*, Morgan Kaufmann Publishers, San Francisco, CA, pp. 1336-1343. citations=60

**1998:**

7. Maley, C.C. (1998) Models of evolutionary ecology and the validation problem. In Adami, C., Belew, R. K., Kitano, H., Taylor, C. E. (Eds.) *Artificial Life VI*, MIT Press, Cambridge, MA, pp. 423-427. citations=6
6. Maley, C.C. (1998) DNA computation: theory, practice, and prospects. *Evol Comput* 6:201-229. citations=83

**1997:**

5. Maley, C. (1997). Mutation rates as adaptations. *J Theor Biol* 186:339-348. citations=16

**1995:**

4. Maley, C.C. (1995). The coevolution of mutation rates. In Moran, M., Merelo, C. (Eds.) *Advances in Artificial Life*, Springer-Verlag, Berlin, pp. 219-233. citations=10

**1994:**

3. Maley, C.C. (1994). The computational completeness of Ray's Tierran assembly language. In Langton, C. G. (Ed.) *Artificial Life III*, Addison-Wesley, Reading, MA, pp. 503-514. citations=17

2. Maley, C.C. (1994). A model of the effects of dispersal distance on the evolution of virulence in parasites. In Brooks, R., Maes, P. (Eds.) *Artificial Life IV*, MIT Press, Cambridge, MA, pp. 152-159. citations=3

**1993:**

1. Maley, C.C., Caswell, H. (1993). Implementing i-state configuration models for population-dynamics - an object-oriented programming approach. *Ecological Modelling* 68:75-89. citations=58

NON-PEER REVIEWED:**2025:**

32. **Compton, Z. T., Vincze, O., Mellon, W., Tollis, M., Abegglen, L., Schiffman, J. D., Giraudeau, M., Boddy, A. M., & Maley, C. C. (2025).** Paradoxical indeed. *Proceedings of the National Academy of Sciences of the United States of America*, 122(19), e2504512122.

**2023:**

31. **Compton, Z. T., Mallo, D., & Maley, C. C. (2023).** Stronger Together: Cancer Clones Cooperate to Alleviate Growth Barriers in Critical Cancer Progression Transitions. *Cancer Research*, 83(24), 4013–4014.

**2020:**

30. Boddy, A. M., Abegglen, L. M., Schiffman, J. D., Maley, C. C., & Witte, C. (2020). Does placental invasiveness lead to higher rates of malignant transformation in mammals? Response to: “Available data suggests positive relationship between placental invasion and malignancy.” *Evolution, Medicine, and Public Health*.  
<https://doi.org/10.1093/emph/eoaa025>  
*I helped write and edit this response to our paper Boddy et al. publication #87 above.*
29. Maley, C. C. (2020). Into the Wildhood. *Evolution, Medicine, and Public Health*.  
<https://doi.org/10.1093/emph/eoaa001>  
*I wrote this book review of the book Wildhood.*

**2019:**

28. Maley, C.C. & Shibata, D. (2019). Cancer cell evolution through the ages. *Science* 365:440-441. Citations=2  
*Dr. Shibata and I co-authored this discussion of a science paper on a canine transmissible cancer that has been evolving for 6,000 years.*

**2016:**

27. Maley, C. C. (2016). The Evolutionary Foundations of Cancer Research. In: C. C. Maley, M. Greaves (eds.), *Frontiers in Cancer Research*. Springer-Verlag, New York. pp. 1-16.  
 citations=0
26. **Chowell, D., Boddy, A. M., Mallo, D., Tollis, M. & Maley, C. C. (2016)** When (distant) relatives stay too long: implications for cancer medicine. *Genome Biology* 17:34.  
[doi:10.1186/s13059-016-0906-3](https://doi.org/10.1186/s13059-016-0906-3), citations=4  
*I performed the review of the manuscript that led to a request for us to write this commentary. I then outlined the paper which was co-written by me and Dr. Chowell. I edited the full manuscript.*
25. Schiffman, J. D., Schmitt, D. L. & Maley, C. C. (2016). TP53 Gene and Cancer Resistance in Elephants--Reply. *JAMA*, 315:1790-1791. doi:10.1001/jama.2016.0457, citations=1  
*Dr. Schiffman and I wrote and edited this response to the letters in JAMA addressing our elephant paper. It was also edited by Dr. Schmitt.*

**2011:**

24. Maley, C.C., E. Szabo, and B.J. Reid (2011). Somatic Evolution in Neoplastic Progression and Cancer Prevention, in *Pre-Invasive Disease: Pathogenesis and Clinical Management*, R.C. Fitzgerald, Editor, p. 111-127. citations=5
23. Aktipis, C. A. & Maley, C.C. (2011) The Self-ish Cell: Cancer's emerging evolutionary paradigm. *Evolution and Medicine Review*, 764. citations=0

22. Reid, B.J., **Kostadinov, R.** and Maley, C.C. (2011). New Strategies in Barrett's Esophagus: Integrating clonal evolutionary theory with clinical management. *Clin Can Res*, 17:3512-9. PMID: PMC3119197, citations=35
21. **Caulin, A.F.** and Maley, C.C. (2011). Peto's Paradox: Evolution's Prescription for Cancer Prevention. *Trends in Evolution and Ecology*, 26:175-82. PMID: PMC3060950, citations=254

**2010:**

20. Maley, C.C., Lewis, W., and Reid, B.J. (2010). Has cancer sculpted the genome? Modeling linkage and the role of tetraploidy in neoplastic progression. In Diesboeck, T. and Stamatakis, G., eds. *Multiscale Cancer Modeling*. Chapman & Hall, pp. 45-66. citations=3
19. **Sprouffs, K.** and Maley, C.C. (2010). Cooperation and Cancer. In: *Cancer Genome and Tumor Microenvironment*. Thomas-Tikhonenko, A. (Ed.), pp. 471-85. citations=3
18. *Merlo, L.M.F.*, Wang, L., Pepper J.W., Rabinovitch, P.S., Maley, C.C. (2010) Polyploidy, Aneuploidy and the Evolution of Cancer. In: Poon, R.Y.C., ed. *Polyploidization and Cancer*. Austin/New York: Landes Bioscience, Inc. and Springer Science+Business Media, pp. 1-13. citations=38
17. Odze, R.D. and Maley, C.C. (2010) Neoplasia without dysplasia: lessons from Barrett esophagus and other tubal gut neoplasms. *Arch Pathol Lab Med* 134 (6), 896-906. citations=25
16. **Pavlov, K.** and Maley, C.C. (2010) New models of neoplastic progression in Barrett's oesophagus. *Biochem Soc Trans* 38, 331-6. PMID: PMC2866622, citations=10
15. Cairo, M.S., Jordan, C., Maley, C.C., Chao, C., Melnick, A., Armstrong, S.A., Shlomchik, W., Molldrem, J., Ferrone, S., Tycko, B., Mackall, C., Zitvogel, L., June, C.H. (2010). NCI 1st International Workshop on The Biology, Prevention, and Treatment of Relapse After Allogeneic Hematopoietic Stem Cell Transplantation: Report from the Committee on the Biological Considerations of Hematological Relapse Following Allogeneic Stem Cell Transplantation Unrelated to Graft Versus Tumor Effects: State of the Science. *Biology of Blood and Marrow Transplantation* 16, 709-728. citations=38
14. Aktipis, C.A., Maley, C.C., and Neuberg, S.L. (2010). Psychological barriers to evolutionary thinking in medicine. *Evolution and Medicine Review* (February 24, 2010). <http://evmedreview.com/?p=231>, citations=13
13. *Merlo, L.M.F.* and Maley, C.C. (2010). The role of genetic diversity in cancer. *J Clin Invest* 120, 401-3. PMID: PMC2810093, citations=71

**2007:**

12. Kelloff, G.J., Sullivan, D.C., Baker, H., Clarke, L.P., Nordstrom, R., Tatum, J.L., Dorfman, G.S., Jacobs, P., Berg, C.D., Pomper, M.G., Birrer, M.J., Tempero, M., Higley, H.R., Petty, B.G., Sigman, C.C., Maley, C., Sharma, P., Wax, A., Ginsberg, G.G., Dannenberg, A.J., Hawk, E.T., Messing, E.M., Grossman, H.B., Harisinghani, M., Bigio, I.J., Griebel, D., Henson, D.E., Fabian, C.J., Ferrara, K., Fantini, S., Schnall, M.D., Zujewski, J.A., Hayes, W., Klein, E.A., DeMarzo, A., Ocak, I., Ketterling, J.A., Tempany, C., Shtern, F., Parnes, H.L., Gomez, J., Srivastava, S., Szabo, E., Lam, S., Seibel, E.J., Massion, P., McLennan, G., Cleary, K., Suh, R., Burt, R.W., Pfeiffer, R.M., Hoffman, J.M., Roy, H.K., Wang, T., Limburg, P.J., El-Deiry, W.S., Papadimitrakopoulou, V., Hittelman, W.N., MacAulay, C., Veltri, R.W., Solomon, D., Jeronimo, J., Richards-Kortum, R., Johnson, K.A., Viner, J.L., Stratton, S.P., Rajadhyaksha, M. and Dhawan, A. (2007). Workshop on imaging science development for cancer prevention and preemption. *Cancer Biomark* 3: 1-33. citations=24

11. Maley, C.C. (2007). Open questions in esophageal adenocarcinogenesis. *Gut*, 56:897-8. PMID: PMC1994388, citations=7
10. Maley, C.C. (2007). Multistage carcinogenesis in Barrett's esophagus. *Cancer Letters*, 245:22-32. citations=68

**2006:**

9. Kelloff G.J., Lippman S.M., Dannenberg A.J., Sigman C.C., Pearce H.L., Reid B.J., Szabo E., Jordan V.C., Spitz M.R., Mills G.B., Papadimitrakopoulou V.A., Lotan R., Aggarwal B.B., Bresalier R.S., Kim J., Arun B., Lu K.H., Thomas M.E., Rhodes H.E., Brewer M.A., Follen M., Shin D.M., Parnes H.L., Siegfried J.M., Evans A.A., Blot W.J., Chow W.H., Blount P.L., Maley, C.C., Wang K.K., Lam S., Lee J.J., Dubinett S.M., Engstrom P.F., Meyskens F.L. Jr., O'Shaughnessy J., Hawk E.T., Levin B., Nelson W.G., Hong W.K. (2006). Progress in chemoprevention drug development: the promise of molecular biomarkers for prevention of intraepithelial neoplasia and cancer-a plan to move forward. *Clinical Cancer Research*, 12:3661-3697. citations=289
8. Maley, C.C., Rustgi, A.K. (2006). Barrett's esophagus and its progression to adenocarcinoma. *J Natl Compr Canc Netw*. 4:367-74. citations=26

**2005:**

7. Maley, C.C. (2005) Biological computation: From DNA to cells. In Morkoc, H. (Ed.) *Advanced Semiconductor and Organic Nano-techniques III*. Academic Press, New York, NY, pp. 371-405. citations=0
6. Maley, C.C. and Reid B.J. (2005). Natural selection in neoplastic progression of Barrett's esophagus. *Semin. Cancer Biol*. 15:474-83. citations=59

**2003:**

5. Maley, C.C. (2003) DNA computing and its frontiers in Sienko, T., Rambidi, N., Conrad, M. (Eds.) *Molecular Computing*, MIT Press, Cambridge, MA, pp. 153-189. Citations=4
4. Maley, C.C. (2003) Evolutionary computation for evolutionary theory in Ghosh, A., Tsutsui, S. (Eds.) *Theory and Application of Evolutionary Computation: Recent Trends*, Springer-Verlag, Berlin, pp. 441-460. citations=0
3. Maley, C.C., Reid, B.J. (2003). Barrett's esophagus in Cooper, N.D. (Ed.) *Nature Encyclopedia of the Human Genome*, Nature Publishing Group, London, UK 1:253-257. citations=0

**2002:**

2. Maley, C.C. (2002). *Cancer: The Evolutionary Legacy* by M. Greaves. *Heredity*. 88:219. citations=2

**1995:**

1. Maley, C.C. (1995). *Artificial Biology: Computer as Petri Dish* in Enrado, P., Keppler, K. (Ed.) *Explorations in Artificial Life*, AI Expert Presents, San Francisco, CA, pp. 36-39. citations=0

**BOOKS**

1. Maley, C. C. & Greaves, M. (eds.), *Frontiers in Cancer Research*. Springer-Verlag, New York. 2016.

**OTHER CREATIVE ACTIVITIES**

Led the committee that wrote the Wikipedia page on “Somatic Evolution.”

**MENTORING (\* indicates one or more publications resulted from the mentorship)****UNDERGRUATE STUDENTS SUPERVISED OR MENTORED:**

Dates	Name	Program or School	Role	Current Position
2015-2017	William Walker	ASU	Research mentor	ASU student
2015-2017	Mylan Blomquist	ASU	Thesis supervisor	Mayo MD/PhD program
2015-2017	Michelle Culbertson	ASU	Thesis supervisor	U. Utah MD/PhD program
2015-2016	Rachel Geiser	ASU	Research mentor	Graduated
2015-2016	Tamara Stojilkovic	ASU	Research mentor	Graduated
2016-2017	Casandra Balsley	ASU	Thesis supervisor	Colorado State Vet School
2016-2017	Abbey Colorafi	ASU	Research mentor	Graduated
2016-2017	Emily Ayoub	ASU	Research mentor	Graduated
2016-2017	Saba Bolbolan	ASU	Research mentor	Graduated
2016-2018	Ruby Martinez	ASU	Research mentor	Graduated
2016-2020	Aika Schneider-Utaka	ASU	Thesis supervisor	Graduated
2017-2019	Ricky Gonzalez	ASU	Research mentor	Graduated
2017-2019	Ji Li	ASU	Research mentor	Graduated
2017-2018	Jessica Kuna	ASU	Research mentor	Graduated
2017-2018	Bryce Cypert	ASU	Research mentor	Graduated
2017-2019	Adam Smith	ASU	Research mentor	Graduated
2017-2021	Tim Chen	ASU	Thesis supervisor	Graduated
2017-2018	Sahel Kargar-Javahersaz	ASU	Research mentor	Graduated
2017-2019	Arathi Kulkarni	ASU	Research mentor	Graduated
2017-2018	Lisa Vannaheuang	ASU	Research mentor	Graduated
2017-2018	Jacinda Garcia	ASU	Research mentor	Graduated
2017-2019	Joseph Mamola	ASU	Research mentor	Graduated
2018-2019	Zachary Compton	ASU	Research mentor	Graduated
2018-2019	Olu David Gbadebo	ASU	Research mentor	Graduated
2018-2019	Jordyn Dolan	ASU	Thesis supervisor	Medical School, Reno
2018-2019	Lindsay Bucklin	ASU	Research mentor	Graduated
2018-2020	Avalon Yi	ASU	Research mentor	Graduated
2018-2020	Nobuhira (Alex) Wada	ASU	Research mentor	Graduated
2018-2021	Shannon Austin	ASU	Research mentor	Graduated
2019-2020	Christian Raahauge	ASU	Research mentor	ASU student
2019-2020	Tim Buyer	ASU	Research mentor	ASU student
2019-2020	Elia Elachkar	ASU	Research mentor	ASU student

2019-2021	Komal Majhail	ASU	Thesis supervisor	Graduated
2019-2020	Natalie Bell	ASU	Research mentor	ASU student
2019-2021	Andrew Lovell	ASU	Research mentor	Graduated
2019-2020	Ariel Deaner	ASU	Research mentor	ASU student
2019-2021	Morgan Fox	ASU	Thesis supervisor	U of Colorado, Medical School
2019-2021	Maribel Garcia	ASU	Research mentor	Graduated
2019-2021	Daniyal Naini	ASU	Research mentor	ASU student
2019-2020	Sejal Shanbhag	ASU	Research mentor	ASU student
2019-2020	Matthew Laff	ASU	Research mentor	Graduated
2018-2021	Aviona Conti	ASU	Thesis supervisor	Graduated
2019-now	Savannah White	ASU	Research mentor	ASU student
2019-now	Jonathan Scirono	ASU	Thesis supervisor	ASU student
2020-2021	Kayla Raymond	ASU	Research mentor	PhD Cancer Biology U of Arizona
2020-now	Zaid Nour	ASU	Research mentor	ASU student
2020-now	Lucia Ramirez	ASU	Research mentor	ASU student
2020-now	Sijad Aslam	ASU	Research mentor	ASU student
2020-now	Akshith Mehta	ASU	Research mentor	ASU student
2020-now	Aleks Miller	ASU	Research mentor	ASU student
2020-now	Dafna Danesh	ASU	Thesis supervisor	ASU student
2020-now	Trystan Damico	ASU	Research mentor	ASU student
2019-now	Mae Fydenkevez	ASU	Research mentor	ASU student
2020-now	Jaela Spears	ASU	Research mentor	ASU student
2020-now	Ruthanne Teo	ASU	Research mentor	ASU student
2021-now	Luke Forest	ASU	Research mentor	ASU student
2021-now	Leila Iturbe Rodriguez	ASU	Research mentor	ASU student
2021-now	Tarini Sahay	ASU	Research mentor	ASU student
2021-now	Syed Ahmad	ASU	Research mentor	ASU student
2021-now	Clarissa Chang	ASU	Research mentor	ASU student
2021-2021	Gabriel Araya	ASU	Research mentor	ASU student
2021-now	Shiv Sarkar	ASU	Research mentor	ASU student
2021-now	Manasa Lyer	ASU	Research mentor	ASU student
2021-now	Nellisabel Coira	ASU	Research mentor	ASU student
2021-now	Nilofar Kolbedhari	ASU	Research mentor	ASU student
2021-now	Yasmin Silva	ASU	Research mentor	ASU student
2021-now	Harshini Harapu	ASU	Thesis supervisor	ASU student
2021-now	Aditya Lankapalalli	ASU	Thesis supervisor	ASU student
2021-now	Mohammad Kattan	ASU	Research mentor	ASU student
2021-now	Jiana Song	ASU	Research mentor	ASU student
2021-now	Sheba Philip	ASU	Research mentor	ASU student
2021-now	Ashley Peraza	ASU	Research mentor	ASU student

## GRADUATE STUDENTS SUPERVISED OR MENTORED:

Dates	Name	Program or School	Role	Current Position
*2006-2010	Kathleen Sprouffske	GCB, graduate student	PhD Advisor	Scientist, Novartis Institutes for BioMedical Research
*2006-2012	Rumen Kostadinov	GCB, graduate student	PhD Advisor	Computational biologist at GlaxoSmithKlein
*2009	Kirill Pavlov	U. Groningen Med School	Research Advisor	U. Groningen Med School
2009	Judith Honing	U. Groningen Med School	Research Advisor	U. Groningen Med School
*2009-2013	Aleah Caulin	GCB, graduate student	PhD Advisor	Director of Preclinical Studies, Peel Therapeutics
*2013-2014	Viola Walther	Erasmus Mundus Master Programme in Evolutionary Biology	Semester project advisor	Ph.D. candidate at Barts Cancer Inst., London
*2013-2014	Noemi Andor	Munich, graduate student	Informal advisor	Assist. Prof. Moffitt Cancer Center
*2015-2016	Diego Chowell	ASU, graduate student	Committee member	MSKCC postdoc
*2016-2022	Valerie Harris	ASU, Biodesign grad student	PhD Advisor	Director, Knowledge Enterprise Core Facilities Finance, ASU
2017-2020	Peaches Ulrich	ASU, graduate student	Committee member	Senior Scientist at PathogenDx
*2018-2019	Navid Ahmadinejad	ASU, BMI graduate student	Committee member	Data Scientist at Illumina
2018-2019	Anasuya Pal	ASU	Committee member	St. Jude's postdoc
2018-now	Stephen Baehr	ASU, MCB graduate student	Committee member	ASU student
*2018-2023	Sareh Seyedi	ASU, MCB graduate student	PhD Advisor	Scientist at Antharis Therapeutics
*2018-2023	Daniel Saha	ASU, Bio graduate student	PhD Advisor	Postdoc at Kansas St.
*2019-2023	Zachary Compton	ASU, Evo graduate student	PhD Advisor	Postdoc at Moffitt Cancer Center
2021-now	Jingmin Shu	ASU, Bioinformatics grad student	Committee member	ASU student
*2021-now	Gissel Marquez	ASU, Evo graduate student	PhD Advisor	ASU student
2021-now	Rezvan Yousefi	ASU, Human Sys Eng	PhD Advisor	ASU student
2022-2024	Hunter Garner	ASU, Bio graduate student	PhD Advisor	Caris
*2023-now	Harley Richker	ASU, MCB graduate student	PhD Advisor	ASU student

## POSTDOCTORAL FELLOWS AND RESIDENTS DIRECTLY SUPERVISED OR MENTORED:

Dates	Name	Faculty Role	Current Position
*2005-2011	Lauren M.F. Merlo PhD	Research Supervision	Research Scientist, Lankenau Inst. for Medical Research

2010-2012	Natalie Lui, MD	Research Supervision	Assistant Professor of Cardiothoracic Surgery at Stanford University Medical Center
*2011-2013	Trevor Graham, PhD	Research Supervision	Professor at Barts Cancer Inst.
*2011-2013	Ruchira Datta, PhD	Research Supervision	Senior Data Scientist at CAS
*2013-2017	Amy Boddy, PhD	Co-supervisor	Assoc. Prof. at UC Santa Barbara
*2015-2018	Marc Tollis, PhD	Research Supervision	Assist. Prof. Northern Arizona U.
*2015-2021	Angelo Fortunato, PhD	Co-supervisor	Research Assistant Prof at ASU
*2015-now	Diego Mallo, PhD	Research Supervision	Research Scientist at ASU
2016-2018	Violet Kovacheva, PhD	Co-supervisor	Data Scientist at Wealth Wizards
*2016-2019	Ahmet Acar, PhD	Co-supervisor	Assistant Prof. at Middle Technical U. Turkey
*2016-2019	Daniel Nichol, PhD	Co-supervisor	Lead Club Consultant at Analytics FC
2017-2019	Christian Cuba, PhD	Co-supervisor	MIT postdoc
*2019-now	Luis Cisneros, PhD	Research Supervision	Research Scientist at Mayo Clinic
*2019-2022	Stephanie Kapsetaki, PhD	Co-supervisor	Postdoc at Tufts U.
2021-2023	Daniel Chavez	Co-supervisor	Assist. Prof. Pontificia Universidad Católica del Ecuador

## TEACHING

Course	Title	Term	Student Hours	# Students
BIO345	Evolution	F-2024	3	185
BIO494/591	The Evolution and Ecology of Cancer	S-2024	3	11
BIO345	Evolution	F-2023	3	122
BIO494/591	The Evolution and Ecology of Cancer	S-2023	3	5
BIO345	Evolution	F-2022	3	200
BIO494/591	The Evolution and Ecology of Cancer	S-2021	3	4
BIO345	Evolution	F-2020	3	268
BIO494/591	The Evolution and Ecology of Cancer	S-2020	3	18
BIO345	Evolution	F-2019	3	260
BIO494/591	The Evolution and Ecology of Cancer	S-2019	3	14
BIO345	Evolution	F-2018	3	285
BIO345	Evolution – Cogbooks development	S-2018	NA	NA
BIO345	Evolution	F-2017	3	258
BIO189	Life Sciences Career Paths	F-2017	1	19
BIO394	Why Medicines Fail to Cure Cancer and Infections	F-2016	3	26
BIO494/591	The Evolution and Ecology of Cancer	S-2016	3	10

## SERVICE

### ASU

2025-now	Lead, Managing Evolving Systems Faculty Innovation Group, School of Life Sciences
2025-now	Mentoring Committee, School of Life Sciences
2024-2024	Co-chair, Presidential Postdoc Search Committee, School of Life Sciences
2024-now	Research Initiatives Committee for the School of Life Sciences
2023-2024	Associate Director of Research Initiatives for the School of Life Sciences
2023-2024	SOLS Academic Program Review Committee

2022-now	Bioscience Governance Board
2021-now	SOLS Presidential Postdoctoral Fellowship Program Oversight Committee
2019-now	Biodesign Personnel Committee
2018-2022	Biospine Curriculum Committee
2018-now	Direct the Arizona Cancer Evolution Center (collaboration of 11 institutions)
2018-2020	Arizona Wellbeing Commons Leads
2017-now	Evolution Graduate Program Committee
2016-2020	ASU Moneyball Recruitment Committee
2015-18	SOLS & Biodesign Postdoc Committee

### **GOVERNMENT and OTHER PROFESSIONAL SERVICE:**

2025	National Institutes of Health	Cancer Prevention Study Section
2024	National Institutes of Health	Physical Sciences Oncology Study Section
2022	National Institutes of Health	Cancer Systems Biology Study Section
2021	National Institutes of Health	Ad hoc reviewer for Aging and Cancer Study Section
2021	National Institutes of Health	Ad hoc reviewer for Genetic Variation and Evolution Study Section
2020	AACR & Mark Foundation	Grant Scientific Review Committee
2019	National Institutes of Health	Ad hoc reviewer for Modeling and Analysis of Biological Systems study section
2017	National Cancer Institute	Special Emphasis Panel reviewer of the Cancer Drug Resistance and Sensitivity Center (U54) applications
2017	National Cancer Institute	Think Tank to develop a Pre-Cancer Atlas
2016	National Cancer Institute	Ad Hoc reviewer for the Physical Sciences Oncology Centers U01 study section
2015	Center for Evolution and Cancer	Organized the Third International Biannual Evolution and Cancer Conference
2015	National Cancer Institute	Ad hoc reviewer for Cancer Systems Biology Consortium (U54) study section
2013	Center for Evolution and Cancer	Organized the Second International Biannual Evolution and Cancer Conference
2011	Center for Evolution and Cancer	Organized the First International Biannual Evolution and Cancer Conference
2010	National Cancer Institute	Think Tank: Rethinking the Role of Infectious Agents in Cancer
2010	National Cancer Institute	Reviewer of the NCI's Division of Cancer Prevention's Chemoprevention Agent Development Research Program (CADRG)
2009-10	National Cancer Institute	NCI-F Review Committee (K99/R00 & T32's)
2009	National Cancer Institute	Presented to the NCI Executive Committee Retreat
2008	National Cancer Institute	Barrett's Esophagus Translational Research (BETR) Working Group

2008	Santa Fe Institute	Working group for integrating evolutionary theory into cancer biology
2008	National Cancer Institute	Think Tank: Physical Sciences-Based Frontiers in Oncology: Evolution and Evolutionary Theory and Cancer
2008	National Cancer Institute	Thank Tank: Physical Sciences-Based Frontiers in Oncology: The Coding, Decoding, Transfer, and Translation of Information in Cancer
2006	National Cancer Institute	Translational Research Working Group Roundtables I & II
2006	National Institutes of Health	National Commission on Digestive Diseases

## PROFESSIONAL ORGANIZATIONS

### Memberships

2020-now	American Association for the Advancement of Science
2017-now	International Society for Evolution, Ecology and Cancer
2002-now	American Association for Cancer Research
2001-now	Society for the Study of Evolution

### Service to Professional Organizations

2024-	AACR Cancer Evolution Working Group	Communications Subcommittee
2024-25	AACR Annual Meeting	Co-chair Educational Committee
2024-25	AACR Annual Meeting	Program Committee
2023-24	Int'l Society for Evolution, Ecology and Cancer	Organized Conference
2022	Int'l Society for Evolution, Ecology and Cancer	Ran Summer School
2021-25	Inaugural AACR Cancer Evolution Working Group	Steering Committee
2019	Int'l Society for Evolution, Ecology and Cancer	Organized Conference
2018	Zombie Apocalypse Medicine Meeting	Organized Conference
2018	Int'l Society for Evolution, Ecology and Cancer	Ran Summer School
2018-2020	Int'l Society for Evolution, Ecology and Cancer	President
2017	Int'l Society for Evolution, Ecology and Cancer	Organized Conference
2016	Int'l Society for Evolution, Ecology and Cancer	Ran Summer School
2011-2015	National Evolutionary Synthesis Center	Advisory Board
2011	National Breast Cancer Coalition	Summit on Metastasis Prevention
2010	AACR Annual Meeting	Session Chair
2010	AACR Frontiers of Cancer Prevention Research	Program Committee
2009	AACR Annual Meeting	Session Chair
2008	AACR Frontiers of Cancer Prevention Research	Session Chair
2007	AACR Frontiers of Cancer Prevention Research	Session Chair
2005-2006	American Association for Cancer Research	Task Force on Cancer Prevention

## SERVICE TO PROFESSIONAL PUBLICATIONS:

2013-2025	Editorial Board, Cancer Research (CiteScore=13.5)
-----------	---

2011-2024 Senior Editor, Evolution, Medicine and Public Health (CiteScore=6.4)  
2011-now Editorial Board, Journal of Evolutionary Medicine (CiteScore N/A)  
2011-now Review Editor, Frontiers in Computational Physiology and Medicine (CiteScore=5.6)  
2021-now Editorial Board, Genes (CiteScore=4.4)