



Dr. Amy Boddy

University of California Santa Barbara

I am a human biologist and evolutionary theorist with an interest in applying evolutionary and ecological theory to human health and disease. My work is multidisciplinary and uses a combination of genomics, comparative biology, and evolutionary theory to understand life history trade-offs between survival and reproduction across different levels of biological organization. Active research topics include (1) Comparative oncology and the evolution of cancer defenses across the tree of life; (2) Life history trade-offs in cancer, with a focus on early life adversity and cancer outcomes, and (3) Maternal-fetal conflict in maternal health, including studies on microchimerism and maternal tolerance during pregnancy, the immunology of breastfeeding, and maternal health and behavior postpartum.



Dr Kit Curtius

University of California, San Diego

I am an Assistant Professor at University of California, San Diego (UCSD) and a member of UCSD Moores Cancer Center.



Dr. Carlo Maley

Arizona State University

Prof. Maley received his Ph.D. from MIT in computer science (computational biology) in 1998 working with Rodney Brooks and Michael Donoghue (at Harvard at the time), his M.Sc. Zoology (evolutionary theory) from University of Oxford in 1993 working with W.D. Hamilton, and his B.A. in computer science and psychology from Oberlin College in 1991. He completed postdoctoral fellowships at the University of New Mexico (1998-2000) working with Stephanie Forrest, and the Fred Hutchinson Cancer Research Center (2000-2005) where he was a staff scientist working with Brian Reid. He went on to hold faculty positions at the Wistar Institute (2005-2010) and the University of California San Francisco (2010-2015) before joining Arizona State University in 2015.

Prof. Maley is a cancer biologist, evolutionary biologist and computational biologist, working at the intersection of those fields at Arizona State University. His team applies evolutionary and ecological theory to three problems in cancer: (1) Neoplastic progression: the evolutionary dynamics among cells of a tumor that drive progression from normal tissue to malignant cancers, (2) Acquired therapeutic resistance: the evolutionary dynamics by which our therapies select for resistance and we fail to cure cancer, and (3) the evolution of cancer suppression mechanisms in large, long-lived animals like elephants and whales (a problem called Peto's Paradox). They use genomic data mining, phylogenetics, computational modeling, as well as wet lab techniques to solve these problems. In all of this work, their goals are to develop better methods to prevent cancer and improve cancer management.