



HUMANS: THE PLANET-ALTERING APES
Virtual Public Symposium · Friday, May 13, 2022

Co-chairs:

Ajit Varki, University of California, San Diego
Margaret Schoeninger, University of Cambridge

Sponsored by:

Center for Academic Research and Training in Anthropogeny (CARTA)

BIOGRAPHICAL SKETCHES: CO-CHAIRS



Ajit Varki is a Distinguished Professor of Medicine and Cellular & Molecular Medicine, UC San Diego, Adjunct Professor, Salk Institute, Co-Director, Center for Academic Research and Training in Anthropogeny (CARTA), Co-Director, Glycobiology Research and Training Center (GRTC), Executive Editor of *Essentials of Glycobiology* (Cold Spring Harbor, 2009), Co-author of *Denial* (Hachette, 2013), and Member of the National Academy of Medicine and the American Academy of Arts and Sciences. He served as President, Society for Glycobiology, Editor-in-Chief, *Journal of Clinical Investigation*, and President, American Society for Clinical Investigation. His research focuses on sialic acids in biology, evolution and disease - in relation to explaining human origins.



Margaret Schoeninger is a Distinguished Professor Emerita of Anthropology at UC San Diego, a Research Archaeologist in the Glenn Black Laboratory of Archaeology at Indiana University, and a co-director of CARTA. She has done fieldwork in North America, Mexico, Pakistan, India, Kenya, and Tanzania as well as laboratory research on carbon, nitrogen, and oxygen stable isotope ratio analysis in biological tissues and food component analysis of traditional foods. Her major interest is in the evolution of human diet particularly as it informs our understanding of the appearance and evolution of the human lineage.

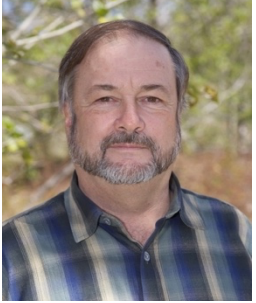
BIOGRAPHICAL SKETCHES: SPEAKERS



Gerardo Ceballos is a Senior Researcher and Professor at the Institute of Ecology, Universidad Nacional Autonoma de Mexico. As an ecologist and conservationist, he is very well-known for his theoretical and empirical work on animal ecology and conservation. He is particularly recognized by his influential work on global patterns of distribution of diversity, endemism, and extinction risk in vertebrates. Ceballos was the first scientist to publish the distribution of a complete group of organisms (mammals). He is also well known for his contribution to understanding the magnitude and impacts of the sixth mass extinction; he has shown that vertebrate species that became extinct in the last century would have taken more than 10 thousand years under the “normal” extinction rate. He was born in Toluca city, in the State of Mexico, in Mexico. He received a bachelor degree in biology at the Autonomous Metropolitan University in Mexico City (1975). He received a Master degree in ecology from the University of Wales (1981) and his Ph.D. in ecology and evolutionary ecology at the University of Arizona (1989). He has been the president of the Mexican Mammal Society and is a member of both the National Academy of Sciences and the National Academy of Arts and Sciences.



David Holway is a Professor of Ecology, Behavior and Evolution at UC San Diego. He received a B.A. in zoology from the UC Berkeley and a Ph.D. in biology from the University of Utah. He joined the UC San Diego faculty in 2001 and has served as campus director of the UC Natural Reserve System and chair of the section of Ecology, Behavior & Evolution.



Oliver A. Ryder is the Kleberg Endowed Director of Conservation Genetics at the San Diego Zoo Wildlife Alliance. He is an adjunct professor in the Section of Evolution, Behavior and Ecology of the Division of Biology at UC San Diego and in the Department of Biology at San Diego State University. For many years he directed the development of the Frozen Zoo®, a unique biological resource collection, founded by the late Kurt Benirschke. Ryder oversees conservation research and strategic initiatives in biodiversity characterization, conservation, and genetic rescue. His research interests include chromosomal evolution, comparative genomic studies, especially as they apply to conservation efforts, the genetic basis for mammalian adaptation, and strategic planning for conservation of biological diversity focused on intraspecific genetic variation, and genetic rescue using cellular technologies. Ryder serves on numerous consultative committees for conservation of a variety of animal taxa (including apes), conservation breeding efforts, genetic resource banking, and zoological systematics for national and international wildlife agencies and NGO's. He is an AAAS Fellow, past President and Executive Vice President of the American Genetic Association, and one of three co-founders of the Genome10K initiative. Ryder has contributed key studies relevant to conservation management efforts for gorillas, California condors, African rhinos, Przewalski's horses, Anegada iguanas, and numerous other species. He has been a leader in developing studies that link conservation efforts for small managed populations, such as are held in zoos, with larger landscape scale efforts for wild populations. His TEDx talk on YouTube introduced a major current project on genetic rescue of the northern white rhinoceros.



Jessica Thompson is an Assistant Professor of Anthropology at Yale University. She specializes in human evolution, especially those aspects that can be revealed through the analysis of ancient animal bones found at archaeological sites (zooarchaeology). Thompson leads the Malawi Ancient Lifeways and Peoples Project in Malawi, central Africa, where she has maintained a field site since 2009. This multidisciplinary work combines archaeological science, evolutionary theory, and hunter-gatherer ethnography to develop and interpret the first cultural and paleoenvironmental chronologies in the region that span the transition from the last Ice Age. Her other research, based on collaborative work in Ethiopia, targets the opposite end of the archaeological record, at its origin in the Pliocene. Thompson is the principal investigator of the Yale Paleoarchaeology Laboratory.



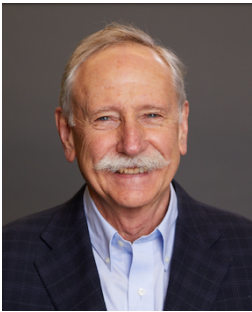
Asher Rosinger is the Ann Atherton Hertzler Early Career Professor in Global Health at the Pennsylvania State University where he founded and directs the Water, Health, and Nutrition Laboratory. His overall research program is designed to understand the range of human variation in water intake and how this relates to adaptation, environmental changes, water insecurity, and health, hydration, and disease risk. He examines how humans respond to changing nutritional and economic environments through water and dietary intake and the significance of mismatches in these relationships for short- and long-term health, nutrition, and disease. In particular, he examines these issues in the Bolivian Amazon among indigenous Tsimane' forager-horticulturalists, in Kenya among Daasanach agro-pastoralists, and in the US using complex survey data from the National Health and Nutrition Examination Surveys (NHANES). He has published more than 60 peer-review articles and book chapters, as well as the July 2021 *Scientific American* cover story on the evolution of human water needs.



Rob Knight is the Director of the Center for Microbiome Innovation at UC San Diego, where he is a Professor of Pediatrics, Bioengineering, and Computer Science & Engineering. He co-founded the Earth Microbiome Project, and the American Gut Project, which is among the largest crowd-funded science projects of any kind to date. He has spoken at TED, written three books and over 700 scientific articles, and in 2017 he won the Massry Prize, often considered a predictor of the Nobel. He was honored with the 2019 NIH Director's Pioneer Award for his microbiome research. His work combines microbiology, DNA sequencing, ecology and computer science to understand the vast numbers of microbes that inhabit our bodies and our planet.



George David Tilman is the Regents Professor and McKnight Presidential Chair in Ecology at the University of Minnesota, as well as an instructor in Conservation Biology, Ecology, Evolution and Behavior, and Microbial Ecology. He is director of the Cedar Creek Ecosystem Science Reserve long-term ecological research station. Tilman is also a Professor at UC Santa Barbara's Bren School of Environmental Science and Management.



Walter Willett is a physician and epidemiologist and Professor of Epidemiology and Nutrition at the Harvard T.H. Chan School of Public Health. He served as Chair of the Department of Nutrition at Harvard for 25 years. Much of Willett's work has been on the development of methods, using both questionnaire and biochemical approaches, to study the effects of diet on the occurrence of major diseases. He has applied these methods starting in 1980 in the Nurses' Health Studies I and II and the Health Professionals Follow-up Study. Together, these cohorts that include nearly 300,000 men and women with repeated dietary assessments are providing the most detailed information on the long-term health consequences of food choices. Willett has published over 2,000 research papers, primarily on lifestyle risk factors for heart disease and cancer, and has written the textbook, *Nutritional Epidemiology* (Oxford University Press, 2012). He also has four books for the general public. Willett is the most internationally cited nutritional scientist. He is a member of the National Academy of Medicine and the recipient of many national and international awards for his research.

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Patricia Hunt is a Regents Professor in the School of Molecular Biosciences at Washington State University. Her research focuses on understanding the high incidence of chromosomally abnormal eggs produced by human females and why the incidence is so strongly impacted by advancing maternal age. She remains fascinated by this complex problem, but the accidental exposure of her mice to bisphenol A (BPA) in 1998 diverted her attention to the effects of endocrine disrupting chemicals. These chemicals have become common environmental contaminants that not only represent a threat to our fertility but also a growing concern to the health of the planet and the species it supports. Hunt is particularly interested in science communication and is dedicated to ensuring that future trainees not only will be outstanding scientists but easily able to communicate their findings to the general public.



Alice Gorman is an Associate Professor in the College of Humanities, Arts, and Social Sciences at Flinders University, Australia. She is an internationally recognized leader in the field of space archaeology. Her research on space exploration has been featured in *National Geographic*, *New Scientist*, and *Archaeology* magazine. She is a faculty member of the International Space University's Southern Hemisphere Space Program in Adelaide, Australia. Her book, *Dr Space Junk vs the Universe: Archaeology and the Future* (NewSouth Publishing, MIT Press, 2019) won the NIB Award People's Choice and the John Mulvaney Book Award, as well as being shortlisted for the NSW and Queensland Premier's Awards and the Adelaide Festival Awards. She has worked extensively in Indigenous heritage management, providing advice for mining industry, urban development, government departments, local councils and Native Title groups in New South Wales, Western Australia, South Australia, and Queensland. She is also a specialist in stone tool analysis, and the Aboriginal use of bottle glass after European settlement. Gorman is a member of the Advisory Council of the Space Industry Association of Australia, a member of the Australian Institute of Aboriginal and Torres Strait Islander Studies, and President of the Anthropological Society of South Australia.

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