

**In Vitro Derived Human Gametes as a Reproductive Technology: Scientific,
Ethical, and Regulatory Implications— A Workshop**

Speaker Biographies



PAULA AMATO, MD, is Professor of Obstetrics & Gynecology and Director of the Division of Reproductive Endocrinology & Infertility at Oregon Health & Science University. Dr. Amato received her medical degree from the University of Toronto in Canada, where she also completed her residency in obstetrics & gynecology, followed by a fellowship in reproductive endocrinology & infertility at the University of California, San Diego. Dr. Amato is president-elect of the American Society for Reproductive Medicine. Her research focuses on innovative assisted reproductive technologies for the treatment of age-related infertility.



ANDREA BRAVERMAN, PhD, MS, MA, is a Clinical Professor with a joint appointment in the Department of Obstetrics and Gynecology and Psychiatry and Behavioral Medicine at Thomas Jefferson University. Dr. Braverman is the Associate Director for the Educational Core for OBGYN. She is a health psychologist with a specialty in medical health management, infertility counseling, and third party reproduction issues. She received her M.A., M.S. and Ph.D. in psychology from the University of Pennsylvania. Dr. Braverman has lectured internationally on treatment issues and reproductive medicine before medical and patient audiences. Dr. Braverman has published in medical journals about the psychological aspects of infertility, issues involved in the decision to end treatment, and psychological issues involved in using third-party donors. Dr. Braverman received the Timothy Jeffries Memorial award in 2011 for outstanding contributions as a health psychologist from the American Psychological Association. Dr. Braverman is a Board member of Resolve.



ALI BRIVANLOU, PhD, uses in vitro attached human embryos and genome-edited "synthetic embryos" derived from human embryonic stem cells to unveil the molecular, cellular, and embryological basis of early human development. His studies employ high-resolution quantitative approaches, and span both theoretical physics and molecular embryology. The lab is particularly interested in the emergence of the human brain and modeling neurodegenerative diseases. The Brivanlou lab has helped establish a groundbreaking system to study the molecular and cellular processes that occur during human embryo implantation, a critical stage of development when the

forming embryo attaches to the uterus. The technique vastly expands scientists' ability to answer basic questions about human development and understand early pregnancy loss.



ALANA CATTAPAN, PhD, MA, is the Canada Research Chair in the Politics of Reproduction and an Assistant Professor in the Department of Political Science at the University of Waterloo. She studies gendered inclusion in policy making, identifying links between the state, the commercialization of the body, and reproductive labour. She has published articles in *Studies in Political Economy*, the *Canadian Medical Association Journal*, and the *Journal of Medical Ethics*, among others. She also directs the Politics of Reproduction Research Group at the University of Waterloo.



ALTA CHARO, JD, is the Professor Emerita of Law and Bioethics at the University of Wisconsin, and now works as an independent consultant to industry and government on biotechnology ethics, policy, and regulation. During her career, Professor Charo worked as a policy analyst for the congressional Office of Technology Assessment, the US Agency for International Development, and the US Food & Drug Administration, as well as served as a member of President Clinton's National Bioethics Advisory Commission. Professor Charo is a foreign member of the German Leopoldina, and an elected member of the AAAS; the American Academy of Arts & Sciences and the U.S. National

Academy of Medicine, for which she co-chaired its seminal reports on stem cell research and human genome editing.



PAULA COHEN, PhD, obtained her PhD in reproductive physiology in 1992 at the University of London, England, where she studied the endocrine regulation of implantation. In 1993, she took a Postdoctoral position at the Albert Einstein College of Medicine, New York, where she focused on regulation of gonadal function in males and females, and in maturation of the hypothalamic-pituitary-gonadal axis. During this time, she became interested in germ cell biology and genome integrity, and transitioned into this area to study the roles of DNA repair proteins in mammalian meiosis. She joined the faculty of the Department of Genetics at Albert Einstein College in 2000, and then in 2004 was recruited to Cornell University, within the Department of Biomedical Sciences.

In 2007, she was promoted to the rank of Associate Professor with indefinite tenure, and then was promoted to full Professor in 2013. In 2018, she became Associate Vice Provost for Life Sciences, a role that she continues to this day. While at Cornell, she has received numerous merit awards for her research contributions, the Cornell Provost's award for Distinguished Scholarship (2009), and the SUNY Chancellor's award for Academic Excellence (2017). Most recently, in January 2022, she was elected as a fellow of the American Association for the Advancement of Science.



MICHELE GOODWIN, LL.M, JD, is a Chancellor's Professor at the University of California, Irvine and founding director of the Center for Biotechnology and Global Health Policy. She is the 2022 recipient of the American Bar Association's Margaret Brent Award as well as the 2022 Trailblazer Award from the Black Women Lawyers Association of Los Angeles. In 2020-21, she received the Distinguished Senior Faculty Award for Research, the highest honor bestowed by the University of California. She is also the first law professor at the University of California, Irvine to receive this award. In 2021-22, she was named the Provost's Distinguished Visiting

Faculty Fellow at the University of Pennsylvania. She is an elected member of the American Law Institute as well as an elected Fellow of the American Bar Foundation and the Hastings Center (the organization central to the founding of bioethics).



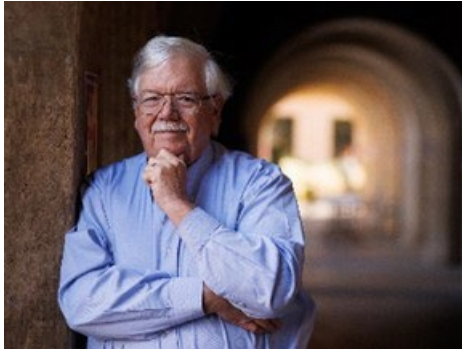
ANNE GORIELY, PhD, obtained a PhD studying the development of the nervous system of the *Drosophila* embryo, after an undergraduate degree in Engineering (Agronomy) at the Université Libre de Bruxelles (Belgium). She spent 4 years in New York at Cornell Medical School and Rockefeller University, before moving to the UK to work on the nervous system development of the chick embryo. In 2000 she joined the MRC Weatherall Institute of Molecular Medicine (University of Oxford) to study the origin of rare human developmental disorders. She is currently Professor of Human Genetics and co-heads the Clinical Genetics Laboratory at the MRC Weatherall Institute of Molecular Medicine in Oxford.

Using a human genetics approach, her group's main interests lie in elucidating the mechanisms by which we acquire new mutations and the implications of such processes in health, disease and for human evolution.



TANIKA GRAY VALBRUN, is an award-winning Journalist, Educator and non-profit founder with a passion for women's health. After her personal struggles with uterine fibroids including two myomectomies, Tanika's passion for women's health inspired her to create The White Dress Project, a non-profit organization dedicated to providing support for women suffering from fibroids and to, raise awareness and for fibroid education. As the founder of, The White Dress Project, Tanika has successfully worked with doctors, health advocates and elected officials across the country to get legislation passed

declaring July as "Fibroids Awareness Month". Recognized as a thought leader and patient advocate for uterine health, she has also spoken around the world encouraging women to be their own best health advocate. Many women with symptomatic fibroids never dream of wearing white, because of their heavy menstrual bleeding or bloating. The white dress is a "symbol of hope" that women with fibroids can feel supported and know that they do not have to suffer in silence. In addition to encouraging women to be their own health advocates, Tanika works as a Senior Content Producer for a global news organization where she has been awarded three coveted Peabody Awards for her contributions in journalism.



HENRY GREELY, JD, is the Deane F. and Kate Edelman Johnson Professor of Law; Professor, by courtesy, of Genetics; and Director of the Center for Law and the Biosciences at Stanford University. He specializes in ethical, legal, and social issues arising from biosciences, particularly genetics, neuroscience, stem cell research, and assisted reproduction. He is a founder and a past President of the International Neuroethics Society; chairs the California Advisory

Committee on Human Stem Cell Research; and chairs the Ethical, Legal, and Social Issues Committee of the Earth BioGenome Project. For six years, until August 2022, he served on the NIH BRAIN Initiative's Multi-Council Working Group while co-chairing the Initiative's Neuroethics Work Group. He is the author of 'The End of Sex and the Future of Human Reproduction' (Harv. Univ. Press 2016) and 'CRISPR People: The Science and Ethics of Editing Humans' (MIT Press 2021). Greely graduated from Stanford in 1974 and Yale Law School in 1977. He clerked for Judge John Minor Wisdom of the Fifth Circuit Court of Appeals and Justice Potter Stewart, then served in the Departments of Defense and Energy in the Carter Administration. He was a litigator at the Los Angeles firm of Tuttle & Taylor before joining the Stanford faculty in 1985.



PETRA HAJKOVA, is a Professor of Developmental Epigenetics at Imperial College London, Institute of Clinical Sciences. She is also the Chair of the Epigenetic Section at the MRC LMS. She earned her doctoral degree at the Max Planck Institute for Molecular Genetics in Berlin. Prior to that, she attended Charles University in Prague for her undergraduate degree. Professor Hajkova joined Azim Surani's laboratory at the Gurdon Institute in Cambridge to investigate the process of epigenetic reprogramming *in vivo*. Following this position, she established her own laboratory at the MRC LMS in 2009. Her group has been

using genetic and biochemical approaches to understand the basis of epigenetic reprogramming and germ cell development, unraveling how epigenetic information is transmitted, erased and re-instated during mammalian lifecycles. She was appointed a young investigator for the European Molecular Biology Organisation (EMBO) in 2013, awarded the prestigious Mary Lyon medal by the Genetics Society in 2017, and selected to become an EMBO member in 2018. More recently, Professor Hajkova was elected to the Fellowship of the Academy of Medical Sciences in 2022.



LORIAN HARDCASTLE, SJD, is an Associate Professor in the Faculty of Law at the University of Calgary, with a joint appointment to the Department of Community Health Sciences in the Cumming School of Medicine. She is also a member of the One Health Consortium, O'Brien Institute for Public Health, and Conjoint Health Research Ethics Board at the University of Calgary. Ms. Hardcastle obtained her JD with Health Law and Policy Specialization Certificate from Dalhousie University, and her LLM and SJD from the University of Toronto. She also completed a fellowship at the O'Neill Institute for National and Global Health Law at Georgetown University Law Center. Ms. Hardcastle is currently involved in research on antimicrobial resistance (funded by Alberta's Major Innovation Fund), artificial intelligence and health (funded by the CIHR), regulation of long-term care, and legal and policy issues arising from COVID-19. Ms. Hardcastle's work has been published in numerous legal and health policy journals including the Canadian Medical Association Journal, University of Pennsylvania Law Review, Healthcare Policy, Alberta Law Review, Queen's Law Journal, and Journal of Law, Medicine & Ethics. Ms. Hardcastle is a frequent contributor to health policy debates in the media. Her writing has appeared in several Canadian newspapers including the Globe and Mail, Toronto Star, Calgary Herald, Edmonton Journal, and Ottawa Citizen.



KATSUHIKO HAYASHI, is a Professor of Stem Cell Biology and Medicine at the National University Corporation Kyushu University. Professor Hayashi's research interests focus on understanding of molecular mechanisms underlying primordial germ cell specification, understanding of functional interaction between germ cells and gonadal somatic cells, and reconstitution of germ cell development in vitro. Professor Hayashi is a member of the Japanese Society of Developmental Biologists, The Molecular Biology Society of Japan, and The Society of Reproduction and Development.



LISA IKEMOTO, is a Martin Luther King, Jr. Professor of Law at UC Davis School of Law. Her research areas include science, technology and the law, bioethics, reproductive rights and justice, and health care disparities.. More specifically, she focuses on the ways that race, gender, disability, and wealth mediate access to and impacts of biomedical technology use and health care. Her recent work addresses reprogenetic technology markets, reproductive justice, the role of provider religious exemptions in health care inequality, eugenics, and fertility tourism. She teaches Bioethics, Reproductive Rights & Justice, and Health Care Law. Ikemoto has faculty affiliations with the Aoki Center for Race and Nation Studies, the Center for Health Policy Research, the Feminist Research Institute, and the Religious Studies Department.



JEFFREY KAHN, PhD, MPH, is the Andreas C. Dracopoulos Director of the Johns Hopkins Berman Institute of Bioethics, and the Levi Professor of Bioethics and Public Policy. He is also Professor in the Department of Health Policy and Management in the Johns Hopkins University Bloomberg School of Public Health. His research interests include the ethics of research, ethics and public health, and ethics and emerging biomedical technologies. He speaks widely both in the US and abroad, and has published six books and over 140 articles, and is currently Co-Principal

Investigator for the Oxford-Johns Hopkins Global Infectious Disease Ethics Collaborative (Wellcome Trust). He is an elected member of the National Academy of Medicine (US) and Fellow of the Hastings Center (US), and has chaired or served on committees and panels for the National Institutes of Health (US), Centers for Disease Control (US), National Academy of Medicine (US), Wellcome Trust (UK) and Royal Society (UK). His education includes a BA in microbiology (UCLA, 1983), MPH (Johns Hopkins, 1988), and PhD in philosophy (Georgetown, 1989).



KATHERINE KRASCHEL, JD, is a Lecturer in Law and the outgoing Executive Director of the Solomon Center for Health Law and Policy at Yale Law School, where she co-teaches the Reproductive Rights and Justice Project Clinic. In July 2023, Kraschel will be joining the faculty at Northeastern University as Assistant Professor of Law and Health Sciences. Katie's scholarship focuses on the intersection of reproduction, gender, bioethics, and health policy with a particular concentration on reproductive technologies. Her work has appeared in prominent journals including the Journal of the American Medical Association; the Harvard Journal of Law and Gender; American Journal of Obstetrics and Gynecology; and the Journal of Law,

Medicine and Ethics. She is also a member of the Board of Directors and Officer of Planned Parenthood of Southern New England. Previously, Kraschel was Associate Counsel at Yale New Haven Health. She holds a bachelor's degree in biochemistry from Mount Holyoke College and a law degree from Harvard Law School. In 2016, the National LGBT Bar Association named Kraschel one of the Best LGBT Lawyers Under 40, and in 2018 she was named one of the top 40 Lawyers under 40 by the American Bar Association.



MATT KRISLOFF, is CEO and Co-Founder of Conception Biosciences, a research company working on developing a protocol to turn human iPSCs into mature egg cells. Conception Biosciences is based in Berkeley California, and has close to 40 full-time scientists working on this goal. He is also a Partner and Co-Founder of SciFounders, was previously director of Y Combinator Research, and was a founding team member of OpenAI. He received his degree from the University of Chicago.



HANNAH LANDECKER, is a historian and sociologist of the life sciences. She holds a joint appointment in the Life and Social Sciences at UCLA, where she is a Professor in the Sociology Department, and the Institute for Society and Genetics, an interdisciplinary unit at UCLA committed to cultivating research and pedagogy at the interface of the life and human sciences. Landecker is the author of *Culturing Life: How Cells Became Technologies* (Harvard UP, 2007), and has written widely on biotechnology and society in work funded by the National Institutes of Health, the National Science Foundation,

The American Council of Learned Societies, and the National Endowment for the Humanities. She is co-director of the Center for Reproductive Science, Health and Education at UCLA, and Senior Editor of the social science journal, *BioSocieties*. At this meeting, Landecker is representing a team of researchers who working to understand views and questions about IVG amongst members of the interested public, including the LGBTQ community and groups impacted by infertility.



PETER MARKS, PhD, MD, is the Director of the Center for Biologics Evaluation and Research (CBER) for the Food and Drug Administration. The center is responsible for assuring the safety and effectiveness of biological products, including vaccines, allergenic products, blood and blood products, and cellular, tissue, and gene therapies. Dr. Marks and center staff are committed to facilitating the development of biological products and providing oversight throughout the product life cycle. Examples of these activities include: reviewing and providing advice during product development, evaluating applications and making approval

decisions based on safety and effectiveness data, monitoring the safety of biological products, conducting research that supports product development and characterization. Dr. Marks received his graduate degree in cell and molecular biology and his medical degree at New York University. Following this, he completed an Internal Medicine residency and Hematology/Medical Oncology fellowship at Brigham and Women's Hospital in Boston, where he subsequently joined the attending staff as a clinician-scientist and eventually served as Clinical Director of Hematology. He joined the FDA in 2012 as Deputy Center Director for CBER and became Center Director in 2016. Dr. Marks is board certified in internal medicine, hematology and medical oncology, and is a Fellow of the American College of Physicians. In 2022, he became a Member of the National Academy of Medicine.



ERICA MARSH, MD, MSCI, FACOG, is the University Diversity and Social Transformation Professor and the S Jan Behrman Collegiate Professor of Reproductive Medicine in the Department of Obstetrics and Gynecology at the University of Michigan Medical School and Chief of the Division of Reproductive Endocrinology and Infertility in the Department of OBGYN. She also serves as the Associate Director of the Michigan Institute of Clinical and Health Research (MICHR) and she is the founder and director of Health and Reproductive Disparities (onWHARD!) Collaborative. Dr. Marsh attended Harvard College from which she graduated magna cum laude, and Harvard Medical School where she graduated cum laude. She then completed her residency at the Integrated OBGYN Residency at the Brigham and Women's

Hospital, and Massachusetts General Hospital followed by a Reproductive Endocrinology and Infertility fellowship at the Feinberg School of Medicine at Northwestern University. After completing fellowship in 2008, Dr. Marsh joined the Faculty at Feinberg. In 2016, Dr. Marsh joined the University of Michigan. Dr. Marsh has received millions of dollars in funding to support her research which focuses on health disparities in reproductive medicine. She takes a 360° approach to her research with a focus on leveraging the strengths and expertise of community and community engagement to investigate research questions. Dr. Marsh has published significantly in the areas of fibroids, abnormal uterine bleeding, infertility, and most recently COVID-19. Her work is currently funded by the NICHD, NIMHD, and the Chan Zuckerberg Foundation.



KYLE ORWIG, PhD, is a Professor of Obstetrics, Gynecology and Reproductive Sciences at the University of Pittsburgh School of Medicine. He is also the director of the Fertility Preservation Program and the Center for Reproduction and Transplantation at Magee-Women's Hospital of UPMC. Research in the Orwig laboratory focuses on stem cells, germ lineage development, fertility and infertility. Our progress investigating reproductive function in fertile individuals provides a basis for understanding

the mechanisms of infertility caused by disease, medical treatments, genetic defects or aging. Infertility impacts one in seven couples in the United States and can have a devastating impact on relationships, emotional well-being and overall health. The Orwig lab is ideally located in Magee-Women's Research Institute and Magee-Women's Hospital of the University of Pittsburgh and is committed to translating lab bench discoveries to the clinic for diagnosis, prevention and treatment of infertility.



AMRITA PANDE, is Professor in Sociology at University of Cape Town, South Africa. Her research focuses on the intersection of globalization and the intimate. Her work has appeared in many international journals and in numerous edited volumes. Her most recent books include *Birth Controlled: Selective Reproduction and Neo Eugenics in India and South Africa* (Manchester Univ Press, 2022), and *Wombs in Labor: Transnational Surrogacy in India* (Columbia University Press and Primus Press, 2019). Over the past two decades she has conducted multi-sited research on fertility clinics, traveling egg provision and cross-border surrogacy in India, Cambodia, Ghana and South Africa. She is also an educator-performer touring the world with a performance lecture series, *Made in India* (Global Studies Production, Denmark) based on her ethnographic work on surrogacy.



JOEL MICHAEL REYNOLDS, PhD, MA, is an Assistant Professor of Philosophy and Disability Studies at Georgetown University, Senior Research Scholar in the Kennedy Institute of Ethics, Senior Bioethics Advisor to and Fellow of The Hastings Center, and Faculty Scholar of The Greenwall Foundation. Professor Reynolds is the author or co-author of over fifty journal articles, book chapters, and scholarly commentaries as well as five books, including *The Life Worth Living: Disability, Pain, and Morality* (University of Minnesota Press, 2022), *The Disability Bioethics Reader* (Routledge, 2022), *The Art of Flourishing: Conversations on Disability, Technology, and Belonging* (Oxford University Press, 2024), *The Meaning of Disability* (Oxford University Press, 2024), and *Philosophy of Disability: An Introduction* (Polity, 2024). Their article-length work appears in leading journals across multiple fields including *The New England Journal of Medicine*, *Nature Biotechnology*, *Episteme*, *Biological Psychiatry*, and *Journal of Medical Ethics*. They are the founder of *The Journal of Philosophy of Disability* and co-founder of *Oxford Studies in Disability, Ethics, and Society* from Oxford University Press, both of which they co-edit. Their public scholarship includes pieces in *TIME*, *AEON*, *The Conversation*, *Health Progress*, *The Bioethics Forum*, *The Philosopher*, and a Tedx talk.



MITINORI SAITOU, PhD, MD, is a Professor in the Department of Life Sciences Frontiers at Kyoto University. He also serves as the Director for the Institute for the Advanced Study of Human Biology. Dr. Saitou earned his MD and PhD from Kyoto University. His research focuses on understanding the mechanisms that regulate germ development with a focus on reconstituting this process in vitro.



GAMAL SEROUR, is professor of obstetrics and gynecology and director of the international Islamic center for population studies and research at Al Azhar University in Cairo. He is the former dean of faculty of medicine at Al Zohar University. Prof. Serour is the past president of the international federation of obstetrics and gynecology (FIGO). He is also a past member of IGBC and IBC of UNESCO and former chair of FIGO bioethics committee. He is currently the cochair of EMRO/ WHO HREC (health research ethics committee). He is the former member and chair of WHO STAG / HRP, RHR, Geneva. He is currently

member of Islamic Research Council, Al Azhar. He is also the President of the Board of Directors of the IVF Center, Maadi, Cairo, and President of the Egyptian Fertility and Sterility Society (EFSS), and the president of the African Federation of Fertility Society (AFFS).



AZIM SURANI, PhD, CBE, FRS, FMedSci, is the Director of Germline and Epigenetics at the Gurdon Institute at the University of Cambridge. Professor Surani received his PhD at Cambridge University in 1975 and was elected as Marshall- Walton Professor in 1992, and then as Director of Germline and Epigenetics Research in 2013 at the Gurdon Institute. He is a Fellow of the Royal Society and the Academy of Sciences. His awards include the William Bates Hardy Prize, a Royal Medal for mammalian development, Rosenstiel Award for epigenetic regulation of gene expression in mammalian embryos, ISSCR McEwen Award for Innovation, and the Canada Gairdner International Award for genomic imprinting and epigenetics.



SONIA SUTER, JD, MS, is the Kahan Family Research Professor of Law, the Henry St. George Tucker III Dean's Research Professor of Law, and the Founding Director of the Health Law Initiative at The George Washington University School Law School. A former genetic counselor, she has published widely in law reviews, peer-reviewed interdisciplinary journals, and science journals. Her research addresses issues at the intersection of law, medicine, and bioethics, with a particular focus on reproductive rights and justice, emerging reproductive technologies, and ethical and legal issues in genetics. She is co-author of two leading textbooks in these

fields: Genetics: Ethics, Law and Policy and Reproductive Technologies and the Law. In addition, she participates in national working groups and advisory boards and as a consultant to policymakers on issues in her field of expertise. She earned an MS and PhD candidacy in human genetics and a JD from the University of Michigan.