



SYMPOSIUM

HUMAN GERMLINE EDITING — PERSPECTIVES OF GLOBAL REGULATION

THE SYMPOSIUM IS PART OF THE MARSILIUS WINTER SCHOOL 2018

Wednesday,
November 14th, 2018

MARSILIUS-KOLLEG,
LECTURE HALL,
IM NEUENHEIMER FELD 130.1,
69120 HEIDELBERG

SPONSORED BY THE



Federal Ministry
of Education
and Research



HEIDELBERGER AKADEMIE
DER WISSENSCHAFTEN
Akademie der Wissenschaften
des Landes Baden-Württemberg

dkfz.

PROGRAMME

- 09.00 **Opening**
Thomas Rausch, *Director Marsilius-Kolleg, Heidelberg University*
Michael Boutros, *German Cancer Research Center and Heidelberg University*
Fruzsina Molnár-Gábor, *Heidelberg Academy of Sciences and Humanities*
- 09.15 **Designer Babies: Facts and Fiction**
Jochen Wittbrodt, *Heidelberg University*
- 09.55 **May we Design People? CRISPR/Cas and Genome Surgery
as Promise or Nightmare?**
Philipp Stoellger, *Heidelberg University*
- 10.35 Coffee Break
- 11.00 **Anticipating Emerging Biotechnology Threats:
A Case Study of CRISPR/Cas**
Kathleen M. Vogel, *University of Maryland*
- 11.40 **Working towards an Opinion Paper on Human Gene Editing**
Ursula Klingmüller, *Systems Biology, German Cancer Research Center*
- 12.20 Lunch Break
- 13.30 **Policy and Ethical Issues in Human Genome Editing,
Health and the Human Future**
Jennifer Merchant, *University Paris 2 Panthéon-Assas*
- 14.10 **The Debate on Human Germline Genome Editing in the Context
of Evidence and Opinion**
Steffi Friedrichs, *AcumenIST, Brussels*
- 14.50 Coffee Break
- 15.20 **The Place of Ethical Aspects of Human Germline Editing
at the Various Levels of Governance**
Anne Cambon-Thomsen, *University Toulouse III*
- 16:00 **Regulating Human Genes and Editing Norms:
Analyzing Policy Approaches Governing Human Genome Editing**
Rosario Isasi, *Comparative Law and Bioethics, University of Miami*
- 16.40 **Final Remarks**
Michael Boutros, *German Cancer Research Center and Heidelberg University*
Fruzsina Molnár-Gábor, *Heidelberg Academy of Sciences and Humanities*
- 17.00 Reception

SYMPOSIUM

HUMAN GERMLINE EDITING — PERSPECTIVES OF GLOBAL REGULATION

Recently, various organizations have called for an international regulation of human genome editing, particularly of interventions into the human germline with the tool CRISPR/Cas. In the last two years, several national and international organizations have adopted their own ethical standards that, in an increasingly comprehensive manner, set the stage for what should and should not be allowed through this technology. However, there is still no internationally harmonized approach to the application of genome editing in humans. The symposium will therefore focus on the benefits and limitations of international regulation. Moreover, it aims to approach human germline editing from an interdisciplinary perspective, bringing together experts and researchers from the life sciences and biomedicine, the social sciences, law and the humanities. The symposium is part of the Marsilius Winter School 2018 “Global Governance of Human Germline Editing” (12-17 November 2018).

Dr. Anne Cambon-Thomsen

Immunogenetics, Epidemiology and Health Ethics
Faculty of Medicine, University Toulouse III Paul Sabatier

Professor Anne Cambon-Thomsen, MD, an immunogeneticist specialized in human biology and health ethics, is Emeritus Research Director at the National Center for Scientific Research (CNRS) in a joint unit on epidemiology and public health of the National Institute of Health and Medical Research (Inserm) and the University of Toulouse, France. She is a member of the European Group on Ethics of Science and New Technologies (EGE) and co-pilots the working group “Ethics, regulation, society” of the French plan “Genomic medicine 2025”. Previously she worked on human genetic variation in populations and diseases, transplantation immunogenetics, then on societal and policy aspects of genomics and biotechnologies.

Steffi Friedrichs D.Phil.

Chemistry, Public Policy
AcumenIST, Brussels

Dr. Steffi Friedrichs has been an expert, policy advisor and business representative for emerging technological innovation for nearly 20 years. She is currently the Founder and Director of AcumenIST, an internationally active consultancy that drives the advancement of science- and technology-based innovations through proactive initiatives in the public and private sectors. Before joining AcumenIST, she worked for the OECD, where she developed its definition, indicators and impact assessment of biotechnology and nanotechnology and led two international workshops on genome editing.

SPEAKERS

Rosario Isasi J.D., M.P.H.

Comparative Law, Bioethics
Miller School of Medicine, University of Miami

Professor Rosario Isasi, J.D., M.P.H., is a Research Assistant Professor at the Dr. John T. Macdonald Foundation Department of Human Genetics at the University of Miami Miller School of Medicine. She holds multiple appointments, including at the Institute for Bioethics and Health Policy, the John P. Hussman Institute for Human Genomics and the Interdisciplinary Stem Cell Institute. In addition, she serves as the Ethics/Policy Advisor of the European Commission’s European Human Pluripotent Stem Cell Registry (hPSCREG), is a member of the American Society for Human Genetics (ASHG) Task Force on “Gene Editing” and the Ethics & Policy Committee of the International Society for Stem Cell Research (ISSCR).

Prof. Dr. Ursula Klingmüller

Systems Biology
German Cancer Research Center, Heidelberg

Professor Klingmüller is an expert in the field of systems biology of signal transduction and group leader at the German Cancer Research Center, where she is the co-coordinator of the Disease Area Lung Cancer and also a member of the Board of Trustees. She is the coordinator of the ERASysAPP “IMOMESIC - Integrative Modeling of Metabolism and Signal Transduction for the Application in Liver Cancer.” and a member of the German Ethics Council — the leading advisory body of the German Federal Government and the German Parliament (Bundestag) for ethical questions.

Jennifer Merchant

Public Policy, Bioethics
University Paris 2 Panthéon-Assas

Professor Merchant teaches at the University Paris 2 Panthéon-Assas. Her research privileges a pluridisciplinary approach at the crossroads of political science, law, gender studies and bioethics. She is currently working on a project concerning comparative public policy analyses of the framing of human genome editing and their impact on the future of human reproduction. She is a member of the Inserm Ethics Committee and the Institut universitaire de France. She was a member of the U.S. National Academy of Sciences Study Committee on Human Genome Editing (2015–2017) and is now a member of the Organizing Committee for the Second Global Summit on Human Genome Editing to be held in November 2018 in Hong Kong.

Philipp Stoellger

Theology
Faculty of Theology, Heidelberg University

Professor Stoellger holds a chair for systematic theology and philosophy of religion at Heidelberg University. As a fellow of the Marsilius Kolleg (2016–18), he was involved in discussions about the ethical implications of genome editing. His research interests include the analysis of interpretative authority, phenomenology, hermeneutics as well as law and religion. He was a fellow at the Käte-Hamburger-Kolleg “Law as Culture” in Bonn, specifically on the topic “Law and Religion”. Furthermore, he is the founding spokesperson of the DFG-Graduate College 1887 “Interpretative authority. Religion and belief systems in conflicts of interpretative authority” and the founder of the “Institute for Iconicity”, both at Rostock University.

Kathleen M. Vogel

Biochemistry, Science Policy
School of Public Policy, University of Maryland

Professor Vogel is a biochemist and an expert in the nonproliferation of biological weapons. The goal of her research is the search for and discovery of alternative theoretical tools to understand bioweapons threats, with the hopes of creating a new and generative intellectual conversation between academia and policymakers. More recently, she has worked on CRISPR/Cas9 and the regulation of this technology worldwide. She has served as a Jefferson Science Fellow in the U.S. Department of State since 2016.

Jochen Wittbrodt

Developmental Biology
Centre for Organismal Studies, Heidelberg University

Professor Wittbrodt is an expert in developmental biology. Since 2007, he is professor at the Centre of Organismal Research at Heidelberg University. His team has recently developed and validated a new approach that enables highly efficient, precise genetic repair. He is a member of the executive committee of the SFB 873 “Maintenance and differentiation of stem cells in development and disease” and also a founding member of the Executive Committee of the Medaka Genome Initiative.

COORDINATORS

Michael Boutros

Genome Research
German Cancer Research Center and
Heidelberg University

Michael Boutros is a professor at Heidelberg University and Head of Division at the German Cancer Research Center. He is the coordinator of the Functional and Structural Genomics Research Program and an elected member of the European Molecular Biology Organization (EMBO). He has previously been a member of the Junge Akademie of the Berlin-Brandenburg Academy of Sciences and Humanities and the German National Academy of Sciences Leopoldina and a Fellow of the Marsilius Kolleg at Heidelberg University. His research interest lies in functional genome analysis and the modifications of genomes by CRISPR/Cas9 to systematically understand and re-engineer gene function.

Fruzsina Molnár-Gábor

Heidelberg Academy of Science and Humanities

Dr. Molnár-Gábor is a member of the WIN-Kolleg of the Heidelberg Academy of Sciences and Humanities and Group Leader at the Bioquant Center of Heidelberg University. She is a lecturer at the Law Faculty and the Marsilius Kolleg of Heidelberg University. Since 2018, she has also been a member of the Junge Akademie of the Berlin-Brandenburg Academy of Sciences and Humanities and the German National Academy of Sciences Leopoldina. The main focus of her research interests is the regulation of biotechnology, in particular with regard to European Union Law, Public International Law, Medical and Data Protection Law.

SPONSORED BY THE



Federal Ministry
of Education
and Research

Marsilius-Kolleg Marsilius-Arkaden

Im Neuenheimer Feld 130.1
69120 Heidelberg

Tel.: 06221 54 3980
geschaeftsstelle@mk.uni-heidelberg.de

[www.marsilius-kolleg.uni-heidelberg.de/
marsilius-academy2018-2/](http://www.marsilius-kolleg.uni-heidelberg.de/marsilius-academy2018-2/)

www.facebook.com/CrisprGov/