

REBECCA R. WILBANKS

The Johns Hopkins University, Program in Expository Writing
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EDUCATION

Stanford University, PhD in Modern Thought and Literature, June 2017

- Dissertation: “Synthetic Biology and Life’s Imagined Futures”
- Committee: Ramón Saldivar and Ursula Heise (co-advisors); Jessica Riskin; Mark McGurl
- Interdisciplinary concentration in Science and Technology Studies

Cornell University, BA in Biological Sciences and Comparative Literature, 2007

- *Summa cum laude*

POSITIONS

Lecturer, Program in Expository Writing, Johns Hopkins University, July 2019–Present

Postdoctoral Fellow, Berman Institute of Bioethics and Department of the History of Medicine, Johns Hopkins University, September 2017–June 2019

TEACHING AND RESEARCH INTERESTS

20th and 21st century American Literature; Speculative Fiction; Science and Technology Studies; Medical Humanities; Environmental Humanities; History and Philosophy of the Life Sciences; Bioethics

AWARDS, GRANTS, AND FELLOWSHIPS

Postdoctoral Fellow, BRIDGES (Bridging Infectious Disease, Genomics, and Society) CEER (Center for Excellence in ELSI [Ethical, Legal, Social Implications] Research), 2017-2019
Funded by National Human Genome Research Institute (NHGRI), Co-PIs Jeff Kahn and Gail Geller; Collaborated on renewal application as Faculty Investigator at 25% effort (submitted July 2019)

Hecht-Levi Postdoctoral Fellow, the Johns Hopkins Berman Institute for Bioethics, 2017-2019
Competitive fellowship intended to launch the careers of the next generation of bioethics scholars

Best Graduate Poster Award (2nd Place), 2017 NHGRI Research Training and Career Development Annual Meeting

Out of over 100 posters in all categories including genomic sciences and medicine

Pre-doctoral Training Fellowship, Center for Integration of Research on Genetics and Ethics, Stanford Center for Biomedical Ethics, 2016–2017
Funded by NHGRI T32 grant, PI Mildred Cho

Mellon Foundation Dissertation Fellowship, Stanford University, 2015–2016

Ric Weiland Graduate Fellowship in the Humanities and Sciences, Stanford University, 2013–2015

Awarded to “exceptional rising fourth year doctoral candidates in the humanities, social sciences, mathematics, and statistics”

Lane Research Grant, Stanford University, 2014

Awarded to fund pre-dissertation research in the history of science, medicine, and technology

Senior Essay Prize, Comparative Literature, Cornell University, 2007**MANUSCRIPT (in preparation)**

“Life’s Imagined Futures: The Speculative Science and Speculative Fiction of Synthetic Biology”

PEER REVIEWED ARTICLES

Real Vegan Cheese and the Artistic Critique of Biotechnology, *Engaging Science, Technology, and Society*, vol. 3, 2017, pp. 180-205.

Valuing practices, principles and products in DIY biology: the case of biological ink and vegan cheese (with Morgan Meyer), *Valuation Studies*, accepted.

Revise and Resubmit

Cyberpunk Fiction, Synthetic Biology, and the Invention of Biohacking, under revision for resubmission to *Science as Culture*, special issue on “Techno-optimism”

BOOK CHAPTERS, ESSAYS, AND REVIEWS

Review of *Synthetic: How Life Got Made* by Sophia Roosth, *Journal of the History of Biology*, 2019, URL: <https://doi.org/10.1007/s10739-019-9563-1>. [Invited]

Phylogénies de la biologie do-it-yourself, *Techniques & Culture*, 2019, URL: <http://journals.openedition.org/tc/9309>. (Review Essay) [Invited]

Orphan Black and Race: Omissions and a New Realism, *Science Fiction Film and Television*, vol. 11, no. 3, 2018, pp. 395-400. [Invited]

A Human Genome Synthesis Project: The Crazy Constructive Science of BBC America’s *Orphan Black*, *Occasion*, vol. 12, 2018.

Engineering the Liquid Posthuman. Review of *Biopunk Dystopias: Genetic Engineering, Science Fiction, and Society*, by Lars Schmeink. *Science Fiction Studies* vol. 45, no. 2, 2018, pp. 390-391.

Entre le garage, le public et le marché : valuations de la biologie do-it-yourself, (with Morgan Meyer) in *Savants, artistes, citoyens: tous créateurs?*, ed. Olivier Leclerc, Editions Sciences et biens communs, 2016.

Submitted

Incantatory Fictions and Golden Age Nostalgia: Futurist Practices in Contemporary Science Fiction, *Palgrave Handbook of Literature and Science, 20th and 21st Century*, ed. Priscilla Wald et al. [Invited]

POPULAR WRITING

If we made life in a lab, would we understand it differently? *Aeon*, August 17, 2018.

-Republished by *The Week* and *Real Clear Science*

Rebecca Wilbanks, PhD on Synthetic Biology and Biology as a Technology Platform, Interview with Rick Leibling, *The Adjacent Possible*, May 10, 2018.

INVITED TALKS

[Title TBD], co-sponsored by the Center for Science and the Imagination, School for the Future of Innovation in Society, and Center for Biology and Society, Arizona State University, October 2019 (scheduled)

Vaccines, Sciences, and Values, Bioethics Breakfast Club, Center for Biology and Society, October 2019 (scheduled)

Biotech Futures: Speculative Science and Speculative Fiction in the Birth of Synthetic Biology, “Narratives as Navigation Tools,” co-sponsored by the Narrative Science Project (Principle Investigator: Mary Morgan, London School of Economics) and The Royal Institution, London, March 2019

Atomic Age Insects: Genetically altered mosquitos in the Cold War and implications for public health projects today, Robert H. Levi Symposium on Containment: Exploring the History, Politics, and Ethics of Infectious Disease Response in a Postgenomic World, Johns Hopkins, March 2019

Why Bioethics Should Embrace Science Fiction, WebEx presentation at the monthly CEER (NIH-funded Centers of Excellence in ELSI [Ethical, Legal, Social Implications] Research) conference call, September 2018

Biology is Technology: Synthetic Biology, Artificial Life, and the Emergence of Synthetic Biology, History of Science, Technology, and Medicine Colloquium, Johns Hopkins University, March 2018

From ‘Natural State’ to *Wetware*: A Literary History of American Biohacking, Stanford Environmental Humanities Group, March 2017

Biopunk: Sociotechnical Imaginaries in George Church’s *Regenesis* and Kim Stanley Robinson’s *2312*, Stanford Working Group on Speculative Fiction, October 2015

Biohackers et la biologie de garage dans l’imaginaire de la biologie synthétique, co-organized by the Pépinière Interdisciplinaire at the Centre National de la Recherche Scientifique – Paris Sciences et Lettres and La Paillasse, Paris, June 2015

Science in Context, Guest lecture for Fundamentals of Laboratory Research, Department of Molecular and Cellular Biology, UC Berkeley, June 2015; invited back 2016; also delivered at UC Berkeley’s Advanced Talent Development Program for international high school students, August 2015

Biohacking, Citizen Science, or DIYbio? The Real Vegan Cheese Project, Guest lecture for STS I, Stanford University, February 2015

Complexity and Aesthetics, Guest lecture for Complex Systems Laboratory class, Stanford University, December 2013

INVITED WORKSHOP AND PANEL PARTICIPATION

Public Deliberation on Gene Editing in the Wild (Invited Workshop Participant) NSF-funded workshop organized by The Hastings Center, New York University, February 2019

The End of Synthetic Biology? What Futures? (Invited Workshop Participant), University of Edinburgh, December 2017

Imagined Futures: Exploring how speculation about the future shapes what actually comes to pass (Invited Panelist), Program on Science, Technology, and Society, Tufts University, March 2016

Redesigning Synthetic Biology: Towards a Constructive Critique of a Technoscience (Invited Workshop Participant), Co-organized by the Department of Philosophy, Université Paris I, and the Department of Medical Ethics and the History of Medicine, University of Freiburg, July 2015

CONFERENCE PRESENTATIONS

How to (ethically) do things with fiction (Lightning talk), National Human Genome Research Institute Research Training and Career Development Annual Meeting, April 2019

From Emergent Strategy to Creative Destruction: Octavia Butler and the Onto-Ethics of Change, Modern Language Association, January 2019

Modified Mosquitoes in my Backyard? Historical Precedents and Contemporary Approaches to Public Engagement in the Release of GMOs for Public Health Purposes, American Society for Bioethics and Humanities, October 2018

Science Fiction, Gene Editing, and the Future of Nature, American Society for Bioethics and Humanities, October 2018

Shaping Life and Sharing Life in Joan Slonczewski's *Door Into Ocean*: An Alternate History of Synthetic Biology (Association for the Study of Literature and the Environment Panel), Society for Literature, Science, and the Arts, November 2017

Playing With Life: How Science Fiction Helped Shape the Moral Economy of Synthetic Biology, Society for Social Studies of Science, August 2017

Biohackers in science and fiction: A literary pre-history of synthetic biology (poster presentation), National Human Genome Research Institute Research Training and Career Development Annual Meeting, April 2017

Orphan Black and Biotech, Society for Literature, Science, and the Arts, November 2016 (Roundtable with Priscilla Wald, Nathaniel Comfort, Sherryl Vint, Everett Hamner, and Cosima Herter)

Biopunk: Evolving biotechnologies in speculative fiction and speculative nonfiction, Modern Language Association, January 2016

Real Vegan Cheese, International Genetically Engineered Machine Competition (iGEM), Boston, MA, October 2014 (with Patrik D'haeseleer, Advait Patel, and Eri Gentry)

Designing the Future: Bioengineering and Margaret Atwood's *MadAddam* Trilogy, Stanford-Berkeley Graduate Forum on the Novel: Sciences and Fictions, December 2013

The Nature of Life, Society for Literature, Science, and the Arts, September 2012

The Research Literacy Course at Bronx Science, National Consortium for Specialised Secondary Schools of Math, Science, and Technology, March 2008 (with Zachary Lynn)

INSTRUCTOR POSITIONS

Vaccines, Science, and Values, Program in Expository Writing, Johns Hopkins University, Fall 2019

Science Fiction and the Ethics of Technology, Medicine, Science, and the Humanities, Johns Hopkins University, Winter Intersession 2019

The Critique of Technology, Program in Science and Technology Studies, Stanford University, Winter 2017 (with Héctor Hoyos)

The Rhetoric of Life Itself: Biotechnology and Emerging Life, Program in Writing and Rhetoric, Stanford University, Winter and Spring 2012

Topics in Complexity, Department of Biology, Stanford University, Fall 2011 (with Mark Longo and Diamantis Sellis)

Pre-GED Instructor, Literacy Partners, New York, 2010

Biology Teacher and Research Literacy Teacher, The Bronx High School of Science, 2007 – 2009

TEACHING ASSISTANTSHIPS

The Public Life of Science and Technology, Program in Science and Technology Studies, Stanford University, Winter 2015 (Profs. John Willinsky, Tom Mullaney, and Sandra Soo-Jin Lee)

Gendered Innovations in Science, Medicine, and Engineering, Department of History, Stanford University, Winter 2013 and Spring 2014 (Served as class writing specialist; Prof. Londa Schiebinger)

Literature of the Americas, Department of English, Stanford University, Spring 2011 (Profs. Roland Greene and Ramón Saldivar)

PROFESSIONAL SERVICE

Organizer, Robert H. Levi Leadership Symposium and Public Event on Containment: Exploring the History, Culture, and Ethics of Infectious Disease Response in a Post-Genomic World (with Graham Mooney), Johns Hopkins University, March 2019

Department Liaison for Stanford's Vice Provost of Teaching and Learning, 2015-2016

Admissions Committee, Program in Modern Thought and Literature (MTL), 2014

Graduate Student Representative, MTL Steering Committee, 2013-2014

Co-founder of Stanford Complexity Group, 2010-2017

Organized a well-attended speaker series showcasing how scholars in various fields approach complex systems; led seminar discussions on specific texts relating to the tools, methods, and philosophical and cultural implications of complexity theory that attracted participation from scientists and humanists

Faculty advisor to the Bronx Science Journal of Biology, 2008-2009**RELEVANT WORK EXPERIENCE****Research Assistant, Triple Helix Association, 2015**

Reviewed and synthesized literature on the entrepreneurial university and the changing landscape of higher education and scientific knowledge production as a research assistant to sociologist Henry Etzkowitz

Research Assistant, Harrison Lab, Cornell University, 2004-2007

Investigated candidate genes for signs of sexual selection in two cricket species using molecular techniques such as PCR, cloning, and DNA sequencing

OTHER STUDIES

“Oral History Training Institute,” Science History Institute, Philadelphia, PA, June 2018

“Learning by Design: Designing Courses for Effective Student Learning,” Stanford Graduate Summer Institute, Summer 2016

“Media Between Data and Experience,” with Mark Hansen, The School of Criticism and Theory at Cornell University, Summer 2014

“The Human Animal,” European Molecular Biology Organization (EMBO) Summer School organized by Sheila Jasanoff, Giuseppe Testa, and Haldor Steffanson, Heidelberg, Germany, 2011

University of Paris IV (Sorbonne) and VII (Jussieu), 2006, Coursework in French literature