

# Santiago J. Molina

Department of Sociology, Northwestern University

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## Areas of Work

Sociology of science, technology and knowledge, bioethics, political sociology, sociology of racial and ethnic relations, the sociology of health and biomedicine, and disability studies.

## Academic Appointments

2023- Assistant Professor, Department of Sociology, Northwestern University  
2021-23 Mellon Postdoctoral Fellow, Science in Human Culture, Northwestern University

## Education

Aug 2021 Ph.D. Sociology, University of California, Berkeley,  
Committee: Michael Burawoy, Marion Fourcade (chair), Armando Lara-Millán, and  
Osagie Obasogie  
Dissertation: *How Scientists Produce Institutions: The Practice and Politics of Genome Editing*  
2016 M.A. Sociology, University of California, Berkeley  
Areas of examination: Social Theory, Sociology of Science/Knowledge, and Political  
Sociology of Race/Ethnicity, University of California-Berkeley,  
Thesis: *Categorical Heterogeneity in Latin American Human Biology*  
2012 B.A. History, Philosophy and Social Studies of Science and Medicine (HiPSS) and  
minor in Philosophy (General and Departmental Honors), University of Chicago

## Peer-reviewed Publications

2025 **Molina, S. J.** and Creary, M. “The racial politics of visibility and equity in genome-editing therapies for sickle cell disease,” in *Social Science and Medicine*, Vol. 383: 118452. <https://doi.org/10.1016/j.socscimed.2025.118452>  
  
Wood, W., Yogurtcu, O., Semmel, E., Hewitt, K., Neuberg, D.S., Witkowsky, L.B., Taymor, K., **Molina, S.J.**, Hankins, J.S., Thompson, A.A., Pappas, G. “Accelerating Novel Therapies for Sickle Cell Disease with RWE: ASH RC Data Hub as a Strategically Coordinated Registry Network,” *Blood Advances*.  
<https://doi.org/10.1182/bloodadvances.2024015532>  
  
2024 Yogurtcu, O.N., Gressler, L.E., Eldrup-Jorgensen, J., Marinac-Dabic, D., Haqqi, K., Shepard, C., Panagiotou, O., **Molina, S.J.**, Goodney, P.P., Abbasi, A.B., Anderson, B.S., Hadden, W.C., Tchong, J.E., Pappas, G. “Building Real-World Evidence Infrastructure to Improve Health and Healthcare in the United States: Part I—Coordinated Registry Networks and Systemic Coordinated Inter-Organizational

Networks,” *International Journal of Translational Medical Research and Public Health* (In press)

Yogurtcu, O.N., Gressler, L.E., Eldrup-Jorgensen, J., Marinac-Dabic, D., Haqqi, K., Shepard, C., Panagiotou, O., **Molina, S.J.**, Goodney, P.P., Abbasi, A.B., Anderson, B.S., Hadden, W.C., Tcheng, J.E., Pappas, G. “Building Real-World Evidence Infrastructure to Improve Health and Healthcare in the United States: Part II—How Coordinated Registry Networks Operate Like a Systemic Coordinated Inter-Organizational Network,” *International Journal of Translational Medical Research and Public Health* (In press)

Yogurtcu, O.N., Gressler, L.E., Eldrup-Jorgensen, J., Marinac-Dabic, D., Haqqi, K., Shepard, C., Panagiotou, O., **Molina, S.J.**, Goodney, P.P., Abbasi, A.B., Anderson, B.S., Hadden, W.C., Tcheng, J.E., Pappas, G. “Building Real-World Evidence Infrastructure to Improve Health and Healthcare in the United States: Part III—Questions for Translational Science and Action Theory,” *International Journal of Translational Medical Research and Public Health* (In press)

2023 Lewis, A. C., **Molina, S. J.**, Appelbaum, P. S., Dauda, B., Fuentes, A., Fullerton, S. M., Garrison, N., Ghosh, N., Green, R.C., Hammonds, E. M., Jeff, J., Jones, D. S., Kenney, E.E., Kraft, P., Mauro, M., Ori, A. P. S., Panofsky, A., Sohail, M., Neale, B. M., & Allen, D. S. “An Ethical Framework for Research Using Genetic Ancestry.” *Perspectives in Biology and Medicine*, 66(2), 225-248.

<https://doi.org/10.1353/pbm.2023.0021>

Dauda, B., **Molina, S. J.**, Allen, D. S., Fuentes, A., Ghosh, N., Mauro, M., Neale, B. M., Panofsky, A., Sohail, M., Zhang, S., & Lewis, A. C. “Ancestry: How researchers use it and what they mean by it.” *Frontiers in Genetics*, 14, 1044555.

<https://doi.org/10.3389/fgene.2023.1044555>

Mukherjee, M., Posch, K., **Molina, S. J.**, Taymor, K., & Keller, A. (2023). “Comparing regulatory processes in genome editing and autonomous vehicles: How institutional environments shape sociotechnical imaginaries.” *Review of Policy Research*, 40(3), 433-457. <https://doi.org/10.1111/ropr.12532>

2022 Mauro, M., Lewis, A., **Molina, S.J.** Dauda, B., Allen, D., Neale, B. “A systematic review of guidelines for the use of race, ethnicity, and ancestry reveals widespread consensus but also points of ongoing disagreement,” *The American Journal of Human Genetics*, 109(12):2110-2125. <https://doi.org/10.1016/j.ajhg.2022.11.001>

**Molina S.J.** “Biological Citizenship and Surveillance in the COVID-19 Pandemic.” *Berkeley Journal of Sociology*, Vol. 63. (Available online:

<https://berkeleyjournal.org/2022/06/24/biological-citizenship-and-surveillance-in-the-covid-19-pandemic/>)

2022 Lewis, A., **Molina S.J.**, Dauda B., Ghosh N., Mauro M., Appelbaum, P., Di Rienzo, A., Fuentes A., Garrison, N., Hammonds, E., Jones, D., Kenny, E., Kraft P., Lee, S. S., Novembre, J., Panofsky A., Neale B., Allen D., “Getting Genetic Ancestry Right

for Science and Society.” *Science* Vol 376 (6590): pp. 250-252.  
<https://doi.org/10.1126/science.abm7530>

- 2020 Lucas, S.R, Molina, S.J., Towey, J.M. (2020) “Race/Ethnicity over Fifty Years of Structural Differentiation in K–12 Schooling: Period-Specific and Life-Course Perspectives,” *Annual Review of Sociology* 46: pp.355–378.  
<https://doi.org/10.1146/annurev-soc-073018-022441>
- 2017 **Molina, S.J.** “Categorical Heterogeneity in Latin American Human Biology: Amerindians, Europeans, Makiritare, Mestizos, Puerto Rican, and Quechua” *Perspectives on Science*, Vol. 25 (5), pp.655-679.  
[https://doi.org/10.1162/POSC\\_a\\_00258](https://doi.org/10.1162/POSC_a_00258)
- 2015 Merriman, B. and **Molina, S.J.** “Variable Conceptions of Population in Community Resource Genetic Projects: A Challenge for Governance,” *New Genetics and Society*, Vol. 34:3, p.294-318. <https://doi.org/10.1080/14636778.2015.1060115>

### Other Publications

- 2016 **Molina, S. J.** “La Construcción de Poblaciones Utilizando los Censos de Población en Latinoamérica. Reseña: National Colors: Racial Classification and the State in Latin America, Loveman.” *Revista Brasileira de Estudos de População*, Volume 33 (2).  
<https://doi.org/10.20947/S0102-30982016a0051>
- 2016 **Molina, S.J.** “Book Review: Mestizo Genomics: Race Mixture, Nation, and Science in Latin America.” *Ethnohistory*, 63(1), 193-194. <https://doi.org/10.1215/00141801-3135546>
- 2012 **Molina, S.J.** “The Evolution and Principles of Informed Consent in Population Genetics,” Published in the *Princeton Journal of Bioethics, Bioethics Conference Special Publication*

### Publications in Progress

- Molina, S.J.** “The Moral Economy of Technology: Academic-Industry Partnerships in Genome Editing”
- “Latinx Futurism: Developing Speculative Social Theory.”
- “Normative Boundaries at the Edge of Science: Positive Deviance in Human Genome Editing.”

### Awards, Fellowships, and Grants

2021	Hacker-Mullins Graduate Student Paper Award honorable mention, Section on Science, Knowledge and Technology for “Academic Capitalism and the Moral Ordering of Genome Editing”
2019-21	Graduate Fellow, Institute for the Study of Societal Issues, University of California, Berkeley
2019-21	Berkeley Connect Fellow, Division of Undergraduate Education, University of California, Berkeley
2019-20	Dissertation Completion Fellowship, University of California, Berkeley
2019-20	National Science Foundation Dissertation Improvement Grant, Sociology Program: <i>Institutionalizing Standards in Clinical Genome Editing</i> , NSF#1904321
2018	Center for Technology, Society and Policy Fellowship, University of California, Berkeley
2017-18	Leo Lowenthal Dissertation Fellowship, University of California, Berkeley
2017	Summer Research Grant, University of California, Berkeley
	Travel Award, Graduate Assembly, University of California, Berkeley
2016	Summer Research Grant, University of California, Berkeley
2014	Travel Award, Graduate Assembly, University of California, Berkeley
2012	Oliver Cromwell Cox–Ernest Just Prize awarded by the Deputy Provost for Research and Minority Issues, University of Chicago

### Select Conference and Invited Presentations

2025	“The Production and Entrenchment of Normative Standards in Genome Editing,” Society for the Social Studies of Science (Seattle, WA)
	“Latinx Futurism: Towards Speculative Social Theory,” American Sociological Association (Chicago, IL)
2024	“The Racial Politics of Visibility and Equity in Genome-Editing Therapies,” Co-authored with Melissa Creary (University of Michigan), American Sociological Association (Montreal, Canada)
	“The Racial Politics of Visibility and Equity in Genome-Editing Therapies,” presented by Melissa Creary, ELSIcon (New York, NY)
2023	“The Moral Economy of Genome Editing,” Social Science History Association (Washington, DC)
	“Technology, Media, and Just Futures,” Panelist, American Sociological Association (Philadelphia, PA)

“Social Control at the Edge of Science: Positive Deviance in Human Genome Editing,” Science in Human Culture Klopsteg Lecture Series, Northwestern University (Evanston, IL)

“Ancestry: How researchers use it and what they mean by it.” Medical and Population Genetics Seminar, Broad Institute (Cambridge, MA)

2022 “How Scientists Produce Institutions: The Practice and Politics of Genome Editing.” Center for Precision Medicine and Society, Columbia University (New York, NY)

“Social Control at the Edge of Science: Positive Deviance in Human Genome Editing.” Committee on Conceptual and Historical Studies of Science, University of Chicago (Chicago, IL)

“Social Control at the Edge of Science: How Positive Deviance in the Field of Human Genome Editing Contributes to its Normalization.” Science and Democracy Network, Harvard University, July 28th (Cambridge, MA)

“How Scientists Produce Institutions: The Practice and Politics of Genome Editing.” Science in Human Culture Klopsteg Lecture Series, Northwestern University, (Virtual meeting)

“How Scientists Produce Institutions: The Practice and Politics of Genome Editing.” Center for Genetics and Society, University of California, Los Angeles (Virtual meeting)

2020 “Academic Capitalism and the Normalization of Genome Editing,” Governing Reproductive Bio-economies: Policy Frameworks, Ethics and Economics, European Association for the Study of Science and Technology/Society for the Social Studies of Science (Virtual meeting)

“Academic Capitalism and the Normalization of Genome Editing,” Sociology of Science II: Making Knowledge, Molding Practice, American Sociological Association (Virtual meeting)

“Academic Capitalism and the Normalization of Genome Editing,” Society for the Advancement of Socio-Economics (Virtual meeting)

“Genome Editing in Crisis: Scientific Misconduct and Boundary Repair” SASE-Miniconference: Crisis, Temporality, and Governance (Virtual meeting)

- “The Banality of Scientific Progress: An Etiology of the #CRISPRbabies Controversy,” Reproductive Technologies, Reproductive Justice conference, Harvey Mudd College (Claremont, CA)
- 2019 “The Banality of Scientific Progress: An Etiology of the #CRISPRbabies Controversy,” American Sociological Association, (New York, NY)
- “Democratizing Biotechnology: Institutional Constraints on Participatory Governance in Genetic Engineering,” with Gordon Pherribo, Society for the Social Studies of Science (New Orleans, LA)
- “Remembering Histories of Biotechnology,” with Gordon Pherribo, Plant Genome Engineering Symposium (Berkeley, CA)
- 2017 “The Development of Standards of Practice in Genetic Engineering: Collaboration/Communication,” Society for the Social Studies of Science (Boston, MA)
- “Categorical Heterogeneity in Latin American Human Biology: Amerindians, Europeans, Makiritare, Mestizos, Puerto Rican, and Quechua,” American Sociological Association (Montreal, Canada)
- 2015 “Origins of ‘Populationist’ Human Biology: Scientific Collaboration, Sampling, and Standards,” Populations of Cognition: Interconnected Histories of Human Variation in Latin America, UNAM (Mexico City, Mexico)
- 2015 “The Instrumentalist Construction of Human Genetic Diversity,” American Sociological Association (Chicago, IL)
- 2014 “The Entrenchment of Ethnic Populations in Genomics and Epidemiology” presented at the joint meeting of the Society for Social Studies of Science (4S) and the Sociedad Latinoamericana de Estudios Sociales de la Ciencia y la Tecnología (Buenos Aires, Argentina)
- “The Social and Ethical Consequences of Ambiguous Definitions of ‘Population’ in Community Resource Projects” 12th World Congress of Bioethics, International Association of Bioethics (Mexico City, Mexico)
- 2013 “The Dilemma of Openness: Risk to Populations in the International HapMap and 1000 Genomes Projects,” with Benjamin Merriman, American Sociological Association (New York, NY)

“A Framework for Understanding the Use of a Plurality of Population Categories in Epidemiology,” Society for the Philosophy of Scientific Practice (Toronto, Canada)

“The Dilemma of Openness: Risk to populations in the International HapMap and 1000 Genomes Projects,” with Benjamin Merriman, Midwest Sociological Society (New York, NY)

## Conference and Panel Organizing

- 2026 “Decolonial Knowledge,” Session Organizer, American Sociological Association (New York, NY)
- 2024 “Theory and Sociology: The Politics and Labor of Publishing Sociological Journals,” Panel Organizer and Chair, NU Department of Sociology
- 2023 “The Dynamics of Scientific Institutions,” Session Organizer and Presider, American Sociological Association (Philadelphia, PA)
- 2021 “Emergent Orders in the Governance, Institutions and Knowledge Economies of Genome Editing Technologies,” Society for the Social Studies of Science, 3-part panel co-chair and co-organizer with Daniel Santos (Virtual meeting)

## Research

### *Research Assistant*

- 2020-22 Understanding Variation: Normative and Analytical Implications of Using “Population” and “Ancestry” for Generalization and Comparison, Edmond J. Safra Center for Ethics, Harvard University (PI: Anna Lewis and Danielle Allen)
- 2019 Therapeutic Misestimation in Translational Genome Editing, UC Berkeley School of Public Health (PI: Jodi Halpern)
- 2018 The Capacity Challenge: Governing in an Era of Rapid Scientific, Technological, and Economic Change, NSF award #1735661, UC Berkeley School of Public Health (PI: Ann Keller)
- 2016-17 Dynamics of High School Enrollment, NSF award #1628813, UC Berkeley Sociology (PI: Samuel R. Lucas)
- 2015 Discriminatory Design, Princeton University (PI: Ruha Benjamin)

Racial and Ethnic Categories in Latin American Censuses (PI: Mara Loveman)

2014 Emergence of 'Hispanic' as a Category in the U.S. (PI: Cristina Mora)

## Teaching

### Northwestern University

#### *Primary Instructor of Record*

2025-F SOCIOL 313: Technology and Society  
SOCIOL 576-0 Ethnography Workshop  
2025-W SOCIOL 576-0 Ethnography Workshop  
2024-F SOCIOL 220 Health, Biomedicine, Culture and Society  
SOCIOL 576-0 Ethnography Workshop  
2024-Sp SOCIOL 220 Health, Biomedicine, Culture and Society  
2024-W SOCIOL 376-0-21 Sociology of Technology  
2024-W SOCIOL 101-8 First-Year Writing Seminar: Latinx Futurism  
2023-Sp SOCIOL 220 Health, Biomedicine, Culture and Society  
2023-W SOCIOL 376-0-22 Sociology of Technology  
2022-Sp SOCIOL 376-0-22 Sociology of Technology  
2022-W SOCIOL 376-0-3 Sociology of Illness: The Normal and Pathological Through the Lens of Genetics

### University of California-Berkeley

#### *Primary Instructor of Record*

2018-F SOC190: Sociology of Illness: The Normal and Pathological Through the Lens of Genetics

#### *Graduate Student Instructor*

2017-Sum SOCN1H: Introduction to Sociology for Pre-Health Majors, with Professor L. Katherine Thompson  
2016-Sp STS100/HIST182C/ISFC100G: Science, Technology and Society, with Professor Massimo Mazzotti  
2015-F SOC5: Research Methods; Evaluating Evidence, with Professor Irene Bloemraad  
2015-Sp SOC01: Introduction to Sociology, with Professor Thomas B. Gold  
2014-F SOC5: Research Methods, Evaluating Evidence with Professor Samuel R. Lucas



### *Mentorship*

2024	Honors Thesis Mentor: Kalliope Kobotis, “Advertising for Mental Help Platforms: Better Help” Sierra Scott, “Understanding the Process of Self-Identification as Disabled”
2023	Weinberg Summer Grant: Sean Dukes, “Black Women and Maternal Health in the United States.” (Awarded Departmental Honors) Undergraduate Research Assistant Program award, Darelle Menendie
2021-22	Honors Thesis Mentor: Lucas Bezerra, “Brewing for a new market: the effects of shifting consumer preferences on specialty producers in third-wave coffee” Department of Sociology
2019-20	Berkeley Connect Mentor
2016-18	Senior Thesis Mentoring Program

### *Invited Lecturer and Panelist*

2024	“Studying Scientists and Observing Technology,” Sociological Research Methods, Pomona College, Claremont CA (Luis Tenorio)
2023	“ChatGPT and the Future of Academia: Sociologists talk about Generative AI,” Departmental Salon NU  “Race, Ancestry and Human Difference in Biomedicine,” Broad Institute, Cambridge, MA
2021	“A Sociological Introduction to Genome Editing,” Medical Anthropology - ANTHRO 315, Northwestern University, November 3 <sup>rd</sup>  “A Sociological Introduction to Genome Editing,” SOC166 Sociology of Health and Medicine. UC Berkeley
2020	“Applying to Graduate School,” Berkeley Sociology Summer Research Program on Race “De-mystifying Graduate School,” Sociology Mentorship Program
2019	“A Sociological Introduction to Genome Editing,” ENG350R: Experimental Futures, University of Texas, Austin
2019-Sp	“A Sociological Introduction to Genome Editing,” SOC115 Sociology of Health and Medicine
2018-F	“The Politics of Genetic Engineering” with Gordon Pherribo; HIST 180: The Life Sciences since 1750

2018-F	“A Sociological Introduction to Genome Editing,” SOC115 Sociology of Health and Medicine
2016-Sp	“Boxes: How Categories and Tools Construct Science and Society” SOC166: <i>Society and Technology</i>
2015-Sum	“Bioethics and the Cultivation of the Scientific Self,” QB3 Lab Fundamentals Bootcamp
2015-Sp	“A Brief History of Science,” MCB15: Public Understanding of Science
<i>Reader</i>	
2019-Sp	SOC115: Sociology of Health and Medicine (with Professor Armando Lara-Millán)
2014-Sp	SOC175: Society and Technology (with Professor Linus Huang)
2014-F	SOC120 Organizational Strategy and Design (with Professor Sylvia Flatt)

## Public Sociology

2023	<i>GATTACA</i> (1997). Post-film panel organized by the Carl R. Woese Institute for Genomic Biology at the University of Illinois Urbana Champaign. Wayfarer Theaters (Highland Park, IL)
2022	“Race and the Future of Genomics: More Equity or Less?” panelist, Washington University in St. Louis, Center for the Study of Race, Ethnicity and Equity  “Public Workshop on Use of Population Descriptors in Genomics,” invited speaker, Committee on Use of Race, Ethnicity, and Ancestry as Population Descriptors in Genomics Research, National Academies of Science, Engineering, and Medicine
2021	“Backstage Decisions Front-stage Experts,” six-part series published Free Radicals. Coauthored with Gordon Pherribo. (Accessible online: <a href="https://freerads.org/tag/backstage-decisions-front-stage-experts/">https://freerads.org/tag/backstage-decisions-front-stage-experts/</a> )

## Media

2022	UC Berkeley Social Science Matrix. “How CRISPR Became Routine,” visual interview, (Accessible online: <a href="https://matrix.berkeley.edu/research-article/how-crispr-became-routine/">https://matrix.berkeley.edu/research-article/how-crispr-became-routine/</a> )
2021	Dissertation Spotlight: Santiago Molina, <i>Perspectives</i> , ASA Theory Section. July 12 <sup>th</sup> . (Accessible online: <a href="http://www.asatheory.org/current-newsletter-online/dissertation-spotlight-santiago-molina">http://www.asatheory.org/current-newsletter-online/dissertation-spotlight-santiago-molina</a> )

## **Professional Service and Affiliations** (\*Current)

### **American Sociological Association (ASA)**

Member, Science, Knowledge, and Technology Section (SKAT)

2023-24      Anti-Racist Organizing Committee

2021          Elected Council Member and Liaison Committee

2020          Ad-Hoc Anti-Racist Organizing Committee

2019          Section Membership Committee

2018          Star-Nelkin Award Committee

Member, Section on Racial and Ethnic Minorities

2023          Oliver Cromwell Cox Book Award Committee

Member, Disability in Society Section

Member, Social Theory Section

### **Social Science History Association**

2023-\*

### **Society for the Social Studies of Science (4S)**

2013-\*      Member

### **Society for the Advancement of Socio-Economics (SASE)**

2020-\*      Member

### **Regional**

2020          Member, Southern Sociological Society (SSS)

2018          Member, Pacific Sociological Association (PSA)

2013          Member, Midwest Sociological Society (MSS)

### **Center for Science, Technology, Medicine and Society (CSTMS), UC Berkeley**

2014-17      Organizer, Science and Technology Studies Working Group

### **Department of Sociology, Northwestern University**

2024-25      Hiring Committee

2023-24      Graduate Admission Admissions Committee

### **Science in Human Culture Program, Northwestern University**

2023-\*      Faculty Advisory Board Member

### **Department of Sociology, UC Berkeley**

2018-19      Graduate Admissions Committee

2016-21	Member, Students of Color and Allies Working Group; Non-Black POC Anti-Racism Working Group
2015-19	Organizer, Methods and Epistemology of Social Sciences (MESS) Working Group
2014-15	Member, Graduate Students de la Raza

## Technical Skills

Software:	NVivo, MAXQDA, R (including R Studio), Descript, Ligre, Gephi
Qualitative:	Comparative historical analysis, archival identification and analysis, semi-structured and structured interviewing, focus group coordination and facilitation, participant observation
Languages:	English, Spanish, Portuguese
Other:	Human subjects protocol review and study design