

# MICHELLE N. MEYER

(as of 7/16/23)

Department of Bioethics and Decision Sciences  
Geisinger Health System  
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## EDUCATION

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### **Harvard Law School**, J.D., 2006

*Harvard Law Review*, Editor, 2004–2006

*Harvard Law Review Forum*, Founding Co-Editor, 2005–2006

*Civil Rights-Civil Liberties Law Review*, General Editor, 2003–2004

### **University of Virginia**, Ph.D., 2003, M.A., 1998, Religious Studies (Applied Ethics)

Louisville Institute Dissertation Fellowship, 2001–2002

Presidential and DuPont Fellowship, 1996–1999

DuPont Fellowship, 1996–1999

Dissertation: *Finitude, Transcendence, and Ethics: Sartrean-Niebuhr Resources for Understanding Difference and Dominance* (James F. Childress, chair; John D. Arras, outside reader (philosophy))

Zora Neale Hurston Prize, 1999 (best Studies in Women & Gender essay)

### **Dartmouth College**, A.B., *summa cum laude*, 1996

General honors: Phi Beta Kappa; Rufus Choate Scholar

Highest Honors for Religious Studies thesis (Ronald M. Green, advisor)

Charles Howard Dudley Prize in Religion

Moral Philosophy minor

## CURRENT APPOINTMENTS

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### **Geisinger Health System**, Danville, PA

*Chief Bioethics Officer* 2023–

*Faculty Co-Director*, Behavioral Insights Team, Steele Institute for Health Innovation 2018–

### **Geisinger College of Health Sciences**, Danville and Scranton, PA

*Chair*, Department of Bioethics and Decision Sciences, Research Institute 2023–

*Associate Professor*, Department of Bioethics and Decision Sciences, Research Institute 2023–

*Associate Professor of Bioethics*, Geisinger Commonwealth School of Medicine 2021–

## PAST ACADEMIC APPOINTMENTS

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### **Geisinger Health System**, Danville, PA

*Associate Professor*, Center for Translational Bioethics & Health Care Policy 2021–2022

*Co-Director*, Behavioral & Decision Sciences Program 2021–2022

*Associate Director*, *Research Ethics* 2016–2022

*Assistant Professor*, Center for Translational Bioethics and Health Care Policy 2016–2021

### **Geisinger Commonwealth School of Medicine**, Scranton, PA

*Assistant Professor of Bioethics*, Department of Medical Education 2019–2021

<b>Clarkson University*–Icahn School of Medicine at Mt. Sinai Bioethics Program</b> , Schenectady, NY <i>Assistant Professor and Director of Bioethics Policy</i> *In 2016, Union Graduate College merged with Clarkson University	2013–2016
<b>Albany Law School</b> , Albany, NY <i>Adjunct Faculty</i>	2015, 2013
<b>Institute of Advanced Study in Toulouse</b> , Toulouse, France <i>Visiting Scholar</i>	Dec. 2013
<b>Harvard Law School</b> , Cambridge, MA <i>Academic Fellow</i> , Petrie-Flom Center for Health Law Policy, Biotechnology & Bioethics <i>Lecturer on Law</i>	2010–2013 2011–2012
<b>Nelson A. Rockefeller Institute of Government</b> , Albany, NY <i>Institute Fellow</i>	2009–2011
<b>Union Graduate College–Mt. Sinai School of Medicine Bioethics Program</b> , Schenectady, NY <i>Visiting Assistant Professor</i>	2009–2010
<b>Johns Hopkins University</b> , Baltimore, MD <i>Greenwall Fellow in Bioethics and Health Policy</i> , Berman Institute of Bioethics	2007–2010
<b>U.S. Court of Appeals for the Eleventh Circuit</b> , Miami, FL <i>Law Clerk</i> to the Hon. Stanley Marcus	2006–2007
<b>John F. Kennedy School of Government, Harvard University</b> , Cambridge, MA <i>Research Fellow</i>	2002–2003

**PREPRINTS AND SUBMITTED ARTICLES** (§corresponding author; supervisee; \* contributed equally)

1. Rosenbaum, G., Goren, A., Shermohammed, M., Wolk, D.M., Tice, A.M., Doyle, J., **Meyer, M.N.**,\* Chabris, C.F.\* Algorithm aversion or appreciation? Four randomized field trials of personalized risk-communication nudges to encourage flu vaccination. [PsyArXiv preprint](#). Submitted.
2. Heydari, P., Meyer, M.N., Chabris, C.F. Medical rationing choice of laypeople and clinicians are often illogical and inconsistent with their own stated preferences. Submitted.
3. Vogt, R.L.,\* Heck, P.R.,\* Mestechkin, R.M., Heydari, P., Chabris, C.F.,\* **Meyer, M.N.**\*§ Experiment aversion among clinicians and the public—an obstacle to evidence-based medicine and public health. [medRxiv preprint](#). Under review.
4. Vogt, R.L., Mestechkin, R.M., Chabris, C.F.,\* **Meyer, M.N.**\*§ Objecting to consensual experiments even while approving of nonconsensual imposition of the policies they contain. [PsyArXiv preprint](#).
5. Turley, P., Martin, A.R., Goldman, G., Li H., Kanai, M., Walters, R. K., Jala, J.B., Lin, K., Millwood, I.Y., Carey, C.E., Palmer, D.S., Zacher, M., Atkinson, E. G., Chen, Z., Li, L., Akiyama, M., Okada, Y., Kamatani, Y., Walters, R. G., Callier, S., Laibson, D., **Meyer, M.N.**, Cesarini, D., Daly, M., Benjamin, D.J., Neale, B.M. Multi-Ancestry Meta-Analysis yields novel genetic discoveries and ancestry-specific associations. Revised and resubmitted. [bioRxiv preprint](#).
6. Shermohammed, M., Goren, A., Lanyado, A., Yesharim, R., Wolk, D. M., Doyle, J., **Meyer, M. N.**,\* Chabris, C. F. \* Informing patients that they are at high risk for serious infection increases vaccination rates. [medRxiv preprint](#).

**JOURNAL ARTICLES** (§corresponding author; supervisee; \*contributed equally)

1. **Meyer, M.N.**, Basl, J., Choffnes, D., Wilson, C., Lazer, D. (In press) Enhancing the ethics of user-sourced online data collection and sharing. *Nature Computational Science*.
2. Zhang, S., Heck, P., **Meyer, M.N.**, Chabris, C., Goldstein, D., Hofman, J. (In press) An illusion of predictability in scientific results: Even experts confuse inferential uncertainty and outcome variability. *PNAS*. [SocArXiv preprint](#).
3. **Meyer, M.N.**,\* Appelbaum, P.S., Benjamin, D.J., Callier, S.L., Comfort, N., Conley, D., Freese, J., Garrison, N.A., Hammonds, E.M., Harden, K.P., Lee, S.S-J., Martin, A.R., Martschenko, D.O., Neale, B.M., Palmer, R.H.C., Tabery, J., Turkheimer, E., Turley, P., Parens, E. \* (2023). [Wrestling with social and behavioral genomics: Risks, potential benefits, and ethical responsibility](#). *The Hastings Center Report*, 53(S1), S2-S49.
  - Covered by [Science](#), [GenomeWeb](#).
4. Martschenko, D.O., Callier, S.L., Garrison, N.A., Turley, P., Lee, S.S-J., **Meyer, M. N.**,\* & Parens, E. \* (2023). [Wrestling with public input on an ethical analysis of scientific research](#). *The Hastings Center Report*, 53(S1), S50-S65.
5. **Meyer, M. N.**§, Tan, T., Benjamin, D., Laibson, D., & Turley, P. (2023). [Public views on polygenic screening of embryos](#). *Science*, 379(6632), 541-543.
  - Covered by *MIT Technology Review*, *Prospect Magazine* (UK), *Forbes*, *Fast Company Magazine*, *Times Higher Education* (UK), and various outlets in France, Italy, Germany, Switzerland, Belgium.
6. Wagner, J. K., Tanniru, J., Chane, C. A., & **Meyer, M. N.** (2022). [Exploring access to genomic risk information and the contours of the HIPAA public health exception](#). *Journal of Law and the Biosciences*, 9(2), 1-23.
7. Patel, M. S., Milkman, K. L., Gandhi, L., Graci, H. N., Gromet, D. M., Ho, H., Kay, J.S., Lee, T. W., Rothschild, J., Akinola, M., Beshears, J., Bogard, J. E., Bутtenheim, A., Chabris, C. F., Chapman, G. B., Choi, J. J., Dai, H., Fox, C. R., Goren, A., Hilchey, M. D., Hmurovic, J., John, L. K., Karlan, D. S., Kim, M., Laibson, D., Lambertson, C., Madrian, B. C., **Meyer, M. N.**, Modanu, M., Nam, J., Rogers, T., Rondina, R., Saccardo, S., Shermohammed, M., Soman, D., Sparks, J., Warren, C., Weber, M., Berman, R., Evans, C. N., Lee, S. H., Snider, C. K., Tsukayama, E., Van den Bulte, C., Volpp, K. G., & Duckworth, A. L. (2022). [Effect of behavioral nudges delivered through text messages to increase influenza vaccination among patients with an upcoming primary care visit: A randomized clinical trial](#). *American Journal of Health Promotion*, 37(3), 324-332.
8. Lanyado, A., Wolk, D. M., Tice, A. M., Shermohammed, M., Kinar, Y., Goren, A., Chabris, C. F., **Meyer, M. N.**, Shoshan, A., & Abedi, V. (2022). [Prediction of influenza complications: Development and validation of a machine learning prediction model to improve and expand identification of vaccine-hesitant patients at risk for severe influenza complications](#). *Journal of Clinical Medicine*, 11(15), 4342.
9. Awad, E., Levine, S., Anderson, M., Anderson, S. L., Conitzer, V., Crockett, M. J., Everett, J. A. C., Evgeniou, T., Gopnik, A., Jamison, J. C., Kim, T. W., Liao, M., **Meyer, M. N.**, Mikhail, J., Opoku-Agyemang, K., Borg, J. S., Schroeder, J., Sinnott-Armstrong, W., Slavkovik, M., Tenenbaum, & J. B. (2022). [Computational ethics](#). *Trends in Cognitive Science*, 26(5), 388-405.
10. Milkman, K. L., Patel, M. S., Gandhi, L., Graci, H. N., Gromet, D. M., Ho, H., Kay, J. S., Lee, T. W., Bogard, J. E., Brody, I., Chabris, C. F., Chang, E., Chapman, G. B., Dannals, J. E., Goldstein, N., Goren, A., Hershfield, H., Hirsch, A., Hmurovic, J., Horn, S., Karlan, D. S., Kristal, A. S., Lambertson, C., **Meyer, M. N.**, Oakes, A. H., Schweitzer, M. E., Shermohammed, M., Talloen, J.,

- Warren, C., Whillans, A., Yadav, K. N., Zlatev, J. J., Berman, R., Evans, C. N., Snider, C. K., Tsukayama, E., Van den Bulte, C., Volpp, K. G., & Duckworth, A. L. (2022). [A 680,000-person megastudy of nudges to encourage vaccination in pharmacies](#). *PNAS*, 119(6), e2115126119.
11. Okbay, A., Wu, Y., Wang, N., Jayashankar, H., Bennett, M., Nehzati, S. M., Sidorenko, J., Kweon, H., Goldman, G., Gjorgjieva, T., Jiang, Y., Hicks, B., Chao, T., Hinds, D. A., Ahlskog, R., Magnusson, P. K. E., Oskarsson, S., Hayward, C., Campbell, A., Porteous, D. J., Freese, J., Herd, P., 23andMe Research Team, Social Science Genetic Association Consortium, Watson, C., Jala, J., Conley, D., Koellinger, P. D., Johannesson, M., Laibson, D., **Meyer, M. N.**, Lee, J. L., Kong, A., Yengo, L., Cesarini, D., Turley, P., Visscher, P. M., Beauchamp, J. P., Benjamin, D. J., & Young, A. I. (2022). [Polygenic prediction within and between families from a 3-million-person GWAS of educational attainment](#). *Nature Genetics*, 54, 437-449.
  12. Spector-Bagdady, K., Lynch, H. F., Bierer, B. E., Gelinas, L., Hull, S. C., Magnus, D., **Meyer, M. N.**, Sharp, R. R., Sugarman, J., Wilfond, B. S., Yearby, R., & Mohapatra, S. (2022). [Allocation of opportunities to participate in clinical trials during the COVID-19 pandemic and other exceptional circumstances](#). *Hastings Center Report*, Jan/Feb, 51-58.
  13. Polygenic Risk Score Task Force of the International Common Disease Alliance. (2021). [Towards responsible use of polygenic risk scores in the clinic: assessing the potential benefits, risks, and gaps](#). *Nature Medicine*, 27, 1876-1884 (one of 26 joint banner authors).
  14. **Santos, H. C.**, **Goren, A.**, Chabris, C. F.\* , & **Meyer, M. N.\*** (2021). [Effect of targeted behavioral science messages to encourage COVID-19 vaccination among employees of a large health system: A randomized trial](#). *JAMA Network Open*, 4(7), e2118702.
  15. Turley, P.\* , **Meyer, M. N.\***, Wang, N., Cesarini, D., Hammonds, E., Martin, A. R., Neale, B. M., Rehm, H. L., Wilkins-Haug, L., Benjamin, D. J., Hyman, S., Laibson, D., & Visscher, P. M. (2021). [Problems with using polygenic scores to select embryos](#). *New England Journal of Medicine*, 385(1), 78-86.
    - Covered by, e.g., *MIT Technology Review*, *Bloomberg*, *Scientific American*, *The Guardian*, *Times of London*, *US News & World Report*, *STAT News*, *Slate*, *Businessweek*.
  16. Lussier, M., **Meyer, M. N.**, & Wright, E. (2021). [Consequences of Rush to Emergency Use Authorization of Bamlanivimab](#). *American Journal of Health-System Pharmacy*, 78(22), 2086-2087.
  17. DiNucci, A., Henrikson, N. B., Jonas, M. C., Basra, S., Blasi, P., Brown, J., Esplin, E. D., Hassen, D., Hao, J., Hu, Y., Klinger, T., Ladd, I., Leppig, K., Lewis, M., **Meyer, M. N.**, Ney, S., Ramaprasan, A., Romagnoli, K., Salvati, Z., & Scrol, A. (2021). [Feasibility and Assessment of a Cascade Traceback Screening program \(FACTS\): protocol for a multisite study to implement and assess an ovarian cancer traceback cascade testing program](#). *Journal of Personalized Medicine*, 11(6), 543-554.
  18. Milkman, K. L., Patel, M. S., Gandhi, L., Graci, H. N., Gromet, D. M., Ho, H., Kay, J. S., Lee, T. W., Akinola, M., Beshears, J., Bogard, J. E., Bутtenheim, A., Chabris, C. F., Chapman, G. B., Choi, J. J., Dai, H., Fox, C. R., **Goren, A.**, Hilchey, M. D., Hmurovic, J., John, L. K., Karlan, D. S., Kim, M., Laibson, D., Lambertson, C., Madrian, B. C., **Meyer, M. N.**, Modanu, M., Nam, J., Rogers, T., Rondina, R., Saccardo, S., **Shermohammed, M.**, Soman, D., Sparks, J., Warren, C., Weber, M., Berman, R., Evans, C. N., Snider, C. K., Tsukayama, E., Van den Bulte, C., Volpp, K. G., and Duckworth, A. L. (2021). [A mega-study of text-based nudges encouraging patients to get vaccinated at an upcoming doctor's appointment](#). *Proceedings of the National Academy of Sciences*, 118(20), e2101165118.
    - Covered by, e.g., *Washington Post*, *Salon*, *USA Today*, *Health Affairs*, *Freakonomics*, *Daily Mail*, *The Guardian*, *CNN Philippines*, *Business Insider*, *WebMD*, *The Conversation*, *Quartz*, *Yahoo! News*, *Yahoo! Finance*, *MSN*.
    - Cited in policy documents by the WHO, the OECD, and Dutch government.

19. Wagner, J. K., & Meyer, M. N. (2021). Genomic medicine and the “loss of chance” medical malpractice doctrine. *Human Genetics and Genomic Advances*, 2(3), 100032.
20. Becker, J., Burik, C. A. P., Goldman, G., Wang, N., Jayashankar, H., Bennett, M., Belsky, D. W., Linnér, R. K., Ahlskog, R., Kleinman, A., Hinds, D. A., 23andMe Research Group, Caspi, A., Corcoran, D. L., Moffitt, T. E., Poulton, R., Sugden, K., Williams, B. S., Harris, K. M., Steptoe, A., Ajnakina, O., Milani, L., Esko, T., Iacono, W. G., McGue, M., Magnusson, P. K. E., Mallard, T. T., Harden, K. P., Tucker-Drob, E. M., Herd, P., Freese, J., Young, A., Beauchamp, J. P., Koellinger, P. D., Oskarsson, S., Johannesson, M., Visscher, P. M., Meyer, M. N., Laibson, D., Cesarini, D., Benjamin, D. J., Turley, P., & Okbay, A. (2021). [The Polygenic Index Repository: Resource profile and user guide](#). *Nature Human Behavior*, 5, 1744-1758.
21. Meyer, M. N., Gjorgjieva, T., & Rosica, D. (2021). [Trends in health care worker intentions to receive a COVID-19 vaccine and reasons for hesitancy](#). *JAMA Network Open*, 4(3), e215344.
  - Covered by, e.g., [The Economist](#), [US News & World Report](#), [UPI](#)
22. Meyer, M. N., Gelinias, L., Bierer, B., Hull, S. C., Joffe, S., Magnus, D., Mohapatra, S., Sharp, R., Spector-Bagdady, K., Sugarman, J., Wilfond, B., & Lynch, H. F. (2021). [An Ethics Framework for Consolidating and Prioritizing COVID-19 Clinical Trials](#). *Clinical Trials*, 18(2), 226-233.
23. Mozersky, J., Meyer, M. N., Rahm, A. K., O’Dell, & S., Buchanan, A. (2021). [Balancing external validity and concern for psychosocial harms in translational genetic research](#). *Ethics & Human Research*, 43(2), 43-48.
24. Guerrini, C. J., Sherkow, J. S., Meyer, M. N., & Zettler, P. J. (2020). [Transparency is key to ethical vaccine research—Response](#). *Science*, 370(6523), 1423.
25. Guerrini, C. J.,<sup>§</sup> Sherkow, J. S.,<sup>§</sup> Meyer, M. N.,<sup>§</sup> & Zettler, P. J.<sup>§</sup> (2020). [Self-experimentation, ethics, and regulation of vaccines](#). *Science*, 365(6511), 1570-1572.
  - Covered by, e.g., *STAT News*, *Gizmodo*, [ABC News](#); [Popular Mechanics](#); [IFL Science](#); [The Conversation](#) (Spanish); [Wiener Zeitung](#) (Austria); [El Pais](#) (Spain); [fanpage](#) (Italy); [Heti Világgazdaság](#) (Hungary); [CTV National News](#) (Canada).
26. Heck, P. R., Chabris, C. F., Watts, D. J., & Meyer, M. N. (2020). [Objecting to experiments even while approving of the policies or treatments they compare](#). *Proceedings of the National Academy of Sciences*, 117(32), 18948-18950.
27. Meyer, M. N. (2020). [There oughta be a law: When does\(n’t\) the U.S. Common Rule apply?](#) *Journal of Law, Medicine & Ethics*, 48(1-suppl), 60-73.
28. Byrd, J. B., Bello, N., & Meyer, M. N. (2020). [Pandemic pandemonium: Pausing clinical research during the COVID-19 outbreak](#). *Circulation*, 141, 2045-2047.
29. Savatt, J. M., Wagner, J. K., Joffe, S., Rahm, A. K., Williams, M. S., Davis, F. D., Hergenrath, J., Kelly, M. A., Kirchner, H. L., Meyer, M. N., Mozersky, J., O’Dell, S. M., Pervola, J., Sturm, A. C., & Buchanan, A. H. (2020). [Pediatric reporting of genomic results study \(PRoGRESS\): A mixed-methods, longitudinal, observational cohort study to explore disclosure of actionable adult- and pediatric-onset genomic variants to minors and their parents](#). *BMC Pediatrics*, 20, 222.
30. Bobe, J., Meyer, M. N., & Church, G. M. (2020). [Privacy and agency are critical to a flourishing biomedical research enterprise: misconceptions about the role of CLIA](#). *Florida Law Review Forum*, 71, 58-67.
31. Meyer, M. N.,<sup>§</sup> Heck, P. R., Holtzman, G. S., Anderson, S. M., Cai, W., Watts, D. J., & Chabris, C. F. (2019). [Reply to Mislavsky et al.: Sometimes people really are averse to experiments](#). *Proceedings of the National Academy of Sciences*, 116(48), 23885-23886.

32. Meyer, M. N.,<sup>§</sup> Heck, P. R., Holtzman, G. S., Anderson, S. M., Cai, W., Watts, D. J., & Chabris, C. F. (2019). [Objecting to experiments that compare two unobjectionable policies](#). *Proceedings of the National Academy of Sciences*, 116(22), 10723-10728.
- Select coverage: [Bloomberg](#) (Cass Sunstein), [Marginal Revolution](#), [Vox](#), [Mother Jones](#), [Harvard Business Review](#), [The Atlantic](#), [Nautilus](#), [UnHerd](#).
33. Heck, P. R. & Meyer, M. N. (2019). [Information avoidance in genetic health: Perceptions, norms, and preferences](#). *Social Cognition*, 37, 266-293.
34. Heck, P. R. & Meyer, M. N.<sup>§</sup> (2019). [Population whole exome screening: Primary care provider attitudes about preparedness, information avoidance, and nudging](#). *Medical Clinics*, 103(6), 1077-1092.
35. Linnér, R. K., Biroli, P., Kong, E., Meddens, S. F. W., Wedow, R., Fontana, M. A., Lebreton, M., Tino, S. P., Abdellaoui, A., Hammerschlag, A. R., Nivard, M. G., Okbay, A., Rietveld, C. A., Timshel, P. N., Trzaskowski, M., de Vlaming, R., Zünd, C. L., Bao, Y., Buzdugan, L., Caplin, A. H., Chen, C.-Y., Eibich, P., Fontanillas, P., Gonzalez, J. R., Joshi, P. K., Karhunen, V., Kleinman, A., Levin, R. Z., Lill, C. M., Meddens, G. A., Muntané, G., Sanchez-Roige, S., van Rooij, F. J., Taskesen, E., Wu, Y., Zhang, F., 23andMe Research Team, eQTLgen Consortium, International Cannabis Consortium, Social Science Genetic Association Consortium, Auton, A., Boardman, J. D., Clark, D. W., Conlin, A., Dolan, C. C., Fischbacher, U., Groenen, P. J. F., Harris, K. M., Hasler, G., Hofman, A., Ikram, M. A., Jain, S., Karlsson, R., Kessler, R. C., Kooyman, M., MacKillop, J., Männikkö, M., Morcillo-Suarez, C., McQueen, M. B., Schmidt, K. M., Smart, M. C., Sutter, M., Thurik, A. R., Uitterlinden, A. G., White, J., de Wit, H., Yang, J., Bertram, L., Boomsma, D. I., Esko, T., Fehr, E., Hinds, D. A., Johannesson, M., Kumari, M., Laibson, D., Magnusson, P. K. E., Meyer, M. N., Navarro, A., Palmer, A. A., Pers, T. H., Posthuma, D., Schunk, D., Stein, M. B., Svento, R., Tiemeier, H., Timmers, P. R. H. J., Turley, P., Ursano, R. J., Wagner, G. G., Wilson, J. F., Gratten, J., Lee, J. J., Cesarini, D., Benjamin, D. J., Koellinger, P. D., & Beauchamp, J. P. (2019). [Genome-wide association analyses of risk tolerance and risky behaviors in over 1 million individuals identify hundreds of loci and shared genetic influences](#). *Nature Genetics*, 51, 245-257.
36. Lynch, H. F., Nicholls, S., Meyer, M. N., & Taylor, H. A. (2018). [Of parachutes and participant protection: Advancing effective research ethics oversight](#). *Journal of Empirical Research on Human Research Ethics*, 14(3), 190-196.
37. Lee, J. L., Wedow, R., Okbay, A., Kong, E., Maghziyan, O., Zacher, M., Nguyen-Viet, T. A., Bowers, P., Sidorenko, J., Linnér, R. K., Fontana, M. A., Kundu, T., Lee, C., Li, H., Li, R., Royer, R., Timshel, P. N., Walters, R. K., Willoughby, E. A., Yengo, L., 23andMe Research Team, COGENT (Cognitive Genomics Consortium), Social Science Genetic Association Consortium, Alver, M., Bao, Y., Clark, D. W., Day, F. R., Furlotte, N. A., Joshi, P. K., Kemper, K. E., Kleinman, A., Langenberg, C., Mägi, R., Trampush, J. W., Verma, S. S., Wu, Y., Lam, M., Zhao, J. H., Zheng, Z., Boardman, J. D., Campbell, H., Freese, J., Harris, K. M., Hayward, C., Herd, P., Kumari, M., Lencz, T., Luan, J., Malhotra, A. K., Metspalu, A., Milani, L., Ong, K. K., Perry, J. R. B., Porteous, D. J., Ritchie, M. D., Smart, M. C., Smith, B. H., Tung, J. Y., Wareham, N. J., Wilson, J. F., Beauchamp, J. P., Conley, D. C., Esko, T., Lehrer, S. F., Magnusson, P. K. E., Oskarsson, S., Pers, T. H., Robinson, M. R., Thom, K., Watson, C., Chabris, C. F., Meyer, M. N., Laibson, D. I., Yang, J., Johannesson, M., Koellinger, P. D., Turley, P., Visscher, P. M., Benjamin, D. J., & Cesarini, D. (2018). [Gene discovery and polygenic prediction from a genome-wide association study of educational attainment in 1.1 million individuals](#). *Nature Genetics*, 50(8), 1112-1121.
38. Williams, M. S., Buchanan, A. H., Davis, F. D., Faucett, W. A., Hallquist, M. L. G., Leader, J. B., Martin, C. L., McCormick, C. Z., Meyer, M. N., Murray, M. F., Rahm, A. K., Schwartz, M. L. B., Sturm, A. C., Wagner, J. K., Williams, J. L., Willard, H. F., & Ledbetter, D. H. (2018).

- [Implementation of patient-centered precision health in a learning healthcare system: the Geisinger experience with genomic medicine.](#) *Health Affairs*, 37(5), 757-764.
39. Meyer, M. N. (2018). [Practical tips for ethical data sharing.](#) *Advances in Methods and Practices in Psychological Science*, 1(1), 1-14.
  40. Buchanan, A. H., Kandamurugu, M., Meyer, M. N., Wagner, J. K., Hallquist, M. L. G., Williams, J. L., Rahm, A. K., Williams, M. S., Chen, Z.-M. E., Shah, C. K., Garg, T. K., Lazzeri, A. L., Schwartz, M. L. B., Lindbuchler, D. M., Fan, A. L., Leeming, R., Servano, P. O., Smith, A. L., Vogel, V. G., Abul-Husn, N. S., Dewey, F. E., Lebo, M. S., Mason-Suares, H. M., Ritchie, M. D., Davis, F. D., Carey, D. J., Feinberg, D. T., Faucett, W. A., Ledbetter, D. H., & Murray, M. F. (2018). [Early cancer diagnoses through BRCA1/2 screening of unselected adult biobank participants.](#) *Genetics in Medicine*, 20(5), 554-558.
  41. Lynch, H. F., & Meyer, M. N. (2017). [Regulating research with biospecimens under the revised Common Rule.](#) *Hastings Center Report*, 47(3), 3-4.
  42. Meyer, M. N. (2016). [Pregnancy Exclusions, Posthumous Pregnancy, and the Constitution.](#) *Lahey Health Journal of Medical Ethics*, Spring, 6-7.
  43. Okbay, A., et al. (2016). [Genome-wide association study identifies 74 loci associated with educational attainment.](#) *Nature*, 533(7604), 539-542.
  44. Okbay, A., et al. (2016). [Genetic variants associated with subjective well-being, depressive symptoms and neuroticism identified through genome-wide analyses.](#) *Nature Genetics*, 48(6), 624-633.
  45. Meyer, M. N. (2015). [Above the \(public health\) law?: Healthcare worker deception & disobedience in a time of distrust.](#) *Journal of Law*, 5(1), 121-136.
  46. Meyer, M. N. (2015). [Two cheers for corporate experimentation: The A/B illusion and the virtues of data-driven innovation.](#) *Colorado Technology Law Journal*, 13(2), 273-331.
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  48. Meyer, M. N. (2013). [Regulating the production of knowledge: Research risk-benefit analysis and the heterogeneity problem.](#) *Administrative Law Review*, 65(2), 237-298.
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  49. Meyer, M. N. (2013). [Are you ready for some...research? Uncertain diagnoses, research data privacy, & preference heterogeneity.](#) *Journal of Law*, 3(1), 99-110.
  50. Rietveld, N. A., et al. (2013). [GWAS of 126,559 Individuals Identifies Genetic Variants Associated with Educational Attainment.](#) *Science*, 340(6139), 1467-1471.
  51. Meyer, M. N. (2013). [From evidence-based medicine to evidence-based practice.](#) *Hastings Center Report*, 43(2), 11-12.
  52. Meyer, M. N. (2011). [The Subject-Researcher Relationship: In Defense of Contracting Around Default Rules.](#) *American Journal of Bioethics*, 11(4), 27-30.
  53. Meyer, M. N. (2010). [Against one-size-fits-all research ethics.](#) *Hastings Center Report*, 40(5), 10-11.
  54. Meyer, M. N., & Fossett, J. W. (2009). [The more things change: The new NIH guidelines on human stem cell research.](#) *Kennedy Institute of Ethics Journal*, 19(3), 289-307.

55. Meyer, M. N. (2008). [The kindness of strangers: The donative contract between subjects and researchers and the non-obligation to return individual results of genetic research](#). *American Journal of Bioethics*, 8(11), 44-50.
56. Meyer, M. N. (2006). [The plaintiff as person: Cause lawyering, human subject research, and the secret agent problem](#). *Harvard Law Review*, 119(5), 1510-1531.
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57. Meyer, M. N. (2004). [Icelandic Supreme Court holds that inclusion of an individual's genetic information in a national database infringes on the privacy interests of his child: \*Guomundsdottir v. Iceland\*](#). *Harvard Law Review*, 118, 810-817.
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### BOOK CHAPTERS AND COMMITTEE REPORTS

1. Santos, H. C., Meyer, M. N., & Chabris, C. F. (2022). [Reports of the death of expertise may be exaggerated: Limits on knowledge resistance in health and medicine](#). In J. Stromback, Å. Wikforss, H. Oscarsson, T. Lindholm, & K. Glüer (Eds.). *Knowledge Resistance in High-Choice Information Environments*. London: Routledge.
2. Goren, A., Meyer, M. N., Patel, M., and Chabris, C. F. (2021). Crowdsourcing nudges: Insights and experiences from two healthcare systems. [Behavioral Economics Guide](#) (A. Samson, ed.).
3. Whicher, D., Ahmed, M., Siddiqi, S., Adams, I., Grossmann, C., & Carman, K. Editors. (2020). [Health Data Sharing to Support Better Outcomes: Building a Foundation of Stakeholder Trust](#). NAM Special Publication. Washington, DC: National Academy of Medicine.
4. National Academies of Sciences, Engineering, and Medicine. (2020). [Life Cycle Decisions for Biomedical Data: The Challenge of Forecasting Costs](#). Washington, DC: The National Academies Press. <https://doi.org/10.17226/25639> (consensus study report).
5. Meyer, M. N. (2019). [Research ethics issues raised in collecting and maintaining large scale, sensitive online data](#), 1-23. (Commissioned white paper for Sloan Foundation-funded workshop.)
6. Meyer, M. N. (2018). [Ethical considerations when companies study—and fail to study—their customers](#). In J. Polonetsky, O. Tene & E. Selinger (Eds.), *Cambridge handbook of consumer privacy* (pp. 207-231). Cambridge, UK: Cambridge University Press. [SSRN proof](#).
7. Meyer, M. N. (2014). Three challenges for risk-proportionate (research) regulation: Heterogeneity among regulated entities, regulator bias, and stakeholder heterogeneity. In I.G. Cohen & H.F. Lynch (Eds.), *Human Subjects Research Regulation: Perspectives on the Future* (pp. 313-326). Cambridge, MA: MIT Press. [SSRN draft](#).
8. Lazer, D., & Meyer, M. N. (2004). DNA and the criminal justice system: Consensus and debate. In D. Lazer (Ed.), *DNA and the criminal justice system: The technology of justice* (pp. 357-390). Cambridge, MA: MIT Press.
9. Meyer, M. N. (1999). Summary of presentations on religious perspectives relating to research involving human stem cells, May 7, 1999. In National Bioethics Advisory Commission, *Ethical issues in human stem cell research: Report and recommendations* (pp. 99-104). Rockville, MD.
10. Fletcher, J. C., Meyer, M. N., & Wispelwey, B. (1999). AIDS and ethics: Clinical, social, and global. In T. C. Merigan, J. G. Bartlett, & D. Bolognesi (Eds.), *Textbook of AIDS medicine—2d edition* (pp. 951+). Baltimore, MD: Lippincott Williams & Wilkins.



11. Fletcher, J. C., **Meyer, M. N.**, & Gutgesell, H. P. (1998). Ethical issues in diagnosis and treatment of fetal and neonatal cardiac disease. In D. B. Hess & L. W. Hess (Eds.), *Fetal echocardiography* (pp. 375-386). Stamford, CT: Appleton & Lange.

## SELECT SHORTER WORKS

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1. **Meyer, M. N.**, Turley, P. & Benjamin, D. J. (2020, February 3). [Genetic scoring presents opportunity, peril](#) (Letter to the Editor), *Wall Street Journal*. ([Full version](#) available at Medium.)
  - Cited in the *New York Times* and the *Times Literary Supplement*.
2. **Meyer, M. N.** (2015, December 31). [No, donating your tissue to research isn't like letting someone rifle through your phone](#). Forbes.com.
3. **Meyer, M. N.** (2015, Aug. 15). [Carly Fiorina Says Her Views On Vaccinations Are Unremarkable; For Better Or Worse, She's Right](#), Forbes.com.
4. **Meyer, M. N.** & Chabris, C. F. (2015, June 19). [Please, corporations, experiment on us](#). *New York Times*.
5. **Meyer, M. N.** & Chabris, C. F. (2014, July 31). [Why psychology's food fight matters](#). *Slate*.
  - Translated and reprinted as [Les chercheurs en psychologie s'écharpent, et nous ne devrions pas nous en laver les mains](#), *Slate.Fr*, Oct. 1, 2014.
6. **Meyer, M. N.** (2014, June 30). [Everything You Need to Know About Facebook's Controversial Emotion Experiment](#), *Wired*.
7. **Meyer, M. N.** & Chabris, C. F. (2013, September 29). [Government: When push comes to nudge](#). *L.A. Times*.
  - [Reprinted](#) in *Dallas Morning News*.
8. Fossett, J. W., & **Meyer, M. N.** (2011, August). Stem cell policy as bar room brawl: A round in the courts. The Nelson A. Rockefeller Institute of Government. ([Reprint](#) at SSRN.)
9. Fossett, J. W., & **Meyer, M. N.** (2009, July). Bioethics panel's role may be small on policy, big on issues. The Nelson A. Rockefeller Institute of Government, <http://goo.gl/4i9Gta>
10. **Meyer, M. N.** (2009, July). *States' Regulation of Assisted Reproductive Technologies: What Does the U.S. Constitution Allow?*, The Nelson A. Rockefeller Institute of Government. ([Reprint](#) at SSRN.)
11. **Meyer, M. N.**, & Fossett, J. W. (2009, June 24). The next President's Council on Bioethics: Who cares what it does? *The Hastings Center Bioethics Forum*, <http://goo.gl/msplhN>.
12. **Meyer, M. N.** (2009, May 5). [Throwing the baby out with the amniotic fluid](#). *Science Progress*.
  - ["Top Science Progress Features of 2009."](#)

## PUBLIC COMMENTS ON DRAFT POLICIES AND REGULATIONS

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1. Wagner, J. K. & **Meyer, M. N.** (2020, Jan. 10). Re: Draft NIH Policy for Data Management and Sharing and Supplemental Draft Guidance, 84 FR 60398-60402 (Nov. 8, 2019).
2. **Meyer, M. N.**, on behalf of PersonalGenomes.org (2016, Jan. 6). Re: Docket Number HHS-OPHS-2015-0008, Federal Policy for the Protection of Human Subjects Notice of Proposed Rulemaking, published in the September 8, 2015 Federal Register (80 FR 53933). Available [here](#).

**EXTERNAL SERVICE**


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<b>Family Health Centers of San Diego (FQHC) IRB</b> <i>Member</i>	2022–
<b>Bioethics Open Research</b> <i>Advisory Board Member</i>	2022–
<b>OpenNeuro</b> <i>External Advisory Board</i>	2022–
<b>NBER Center for Aging and Health Affiliate</b>	2021–
<b>International Common Disease Alliance</b> <i>Member, Polygenic Risk Score Task Force</i>	2021–
<b>Wharton Behavior Change for Good Initiative</b> <i>Team Scientist</i>	2020–
<b>Clinical Genome Resource (ClinGen)</b> <i>Working Group, Complex Diseases and Polygenic Scores</i>	2018–
<b><i>Advances in Methods and Practices in Psychological Science</i></b> <i>Editorial Board</i>	2017–
<b>Social Science Genetic Association Consortium (SSGAC)</b> <i>Chair, Ethics and Communication Working Group, 2021–</i> <i>Advisory Board, 2011–2021</i>	2011–
<b>National Academies of Sciences, Engineering, and Medicine</b> <i>Study Committee, Study and Recommendations on the HIMS, FADAP, and Other</i> <i>Drug and Alcohol Programs within the USDOT</i>	2022–2023
<b>Gilead Sciences, Inc.</b> <i>Ad hoc international ethics advisory board (advised on equitable distribution</i> <i>of remdesivir; pro bono)</i>	2020
<b>National Academies of Sciences, Engineering, and Medicine</b> <i>Study Committee, Forecasting Costs for Preserving, Archiving, and Promoting</i> <i>Access to Biomedical Data</i>	2019–2020
<b>National Academy of Medicine/Patient-Centered Outcomes Research Institute</b> <i>Working Group, Generating Stakeholder Support and Demand for Health Data</i> <i>Sharing, Linkage, and Use</i>	2018–2019
<b>PatientsLikeMe</b> <i>Ethics &amp; Compliance Advisory Board (paid)</i>	2018–2019
<b>Consortium to Advance Effective Research Ethics Oversight (AEREO)</b> <i>Member of consortium to empirically evaluate IRB effectiveness</i>	2018–2020
<b>American Psychological Association Commission on Ethics Processes</b> <i>Commissioner; Chair, Committee on Adjudication and Education</i>	2016–2017
<b>Union College Institutional Review Board</b> <i>Member</i>	2015–2016
<b>Open Humans Foundation</b> (formerly PersonalGenomes.org) <i>Director and Secretary</i>	2014–2019
<b>Making Science Less WEIRD</b> <i>Scientific Advisory Board</i>	2013–2014

**GEISINGER SERVICE**


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<i>Co-Chair</i> , Geisinger Ethics and Data Sharing Steering Committee	2023–
<i>Member</i> , Data Sharing Policies Subcommittee	2022–
MyCode Community Health Initiative (biobank)	
<i>Member</i> , MyCode Governing Board	2023–
<i>Member</i> , MyCode/Precision Health Executive Team	2023–
<i>Liaison</i> , external MyCode Ethics Advisory Committee	2023–
<i>Member</i> , Data Management and Sharing Policy Task Force	2022–
<i>Member</i> , Patient Blood Management Committee	2021–
<i>Member</i> , AI Governance Committee	2019–
<i>Chair</i> , Geisinger IRB Leadership Committee	2017–
<i>Member (ex officio)</i> , Geisinger IRB	2017–
<i>Director</i> , Geisinger Research Ethics Advice and Consultation Service	2017–
<i>Member</i> , Immunization Strategy Workgroup	2020–2021
<i>Member</i> , COVID-19 Inpatient Protocol Committee	2020–2021
<i>Member</i> , COVID-19 Outpatient Protocol Committee	2020–2020
<i>Member</i> , Mail Order Pharmacy Steering Committee	2020–2021
<i>Member</i> , COVID-19 Vaccine Preparation Committee	2020–2020
<i>Member</i> , COVID-19 Surveillance Testing Committee	2020–2020
<i>Co-Chair</i> , COVID-19 Research Oversight Group	2020–2021
<i>Co-chair</i> , Participant Interaction & Behavioral Studies Workgroup	
<i>Member</i> , Clinical Trials Workgroup	
<i>Member</i> , Recruitment Strategies for Competing Clinical Trials Workgroup	
<i>Member</i> , Patient Engagement in Research Committee	2016–2019
<i>Member</i> , Learning Health Care System Committee	2016–2019
NIH Precision Medicine Initiative–All of Us Research Program	2016–2017
<i>Member</i> , Data Privacy and Security Working Group	
<i>Member</i> , Consent Working Group	
<i>Member</i> , Publications, Access & Guidelines Working Group	
<i>Member</i> , Data Access Joint Subcommittee	
<i>Member</i> , Resource Access Task Force	

**INVITED PRESENTATIONS AND WORKSHOP PARTICIPATION**

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1. “Polygenic risk scoring—the genetic testing industry’s next big product in IVF?,” 2023 Foundation for Reproductive Medicine Conference, New York, NY, Dec. 1–3, 2023
  2. “Scatter versus decile bar plots: What do different ways of visualizing the same polygenic index-phenotype relationship convey to lay audiences?” Social Science Genetics Seminar/Journal Club Series, Center for Economic and Social Research, University of Southern California, May 4, 2023 (virtual) (R.L. Vogt presenting on behalf of C.F. Chabris, R.M. Mestechkin, M.N. Meyer, and P. Turley (alphabetical))
  3. Co-moderator, “Wrestling with Social and Behavioral Genomics,” ELSI Friday Forum (NHGRI-funded online seminar series), Jan. 13, 2023
  4. “Informed Consent When Considering Returning Genetic Results to Survey Participants: The Informed Consent Process,” National Academies Workshop on Considerations for Returning Individual Genomic Results from Population-Based Surveys: Focus on the National Health and Nutrition Examination Survey, Dec. 7, 2022
  5. Panel speaker, “Why Ethics Supports a Default Rule for Data Sharing and How to Ethically Share Data: Very Brief Thoughts,” Session 3, “Reproducibility and ethics—IRBs and beyond,” in NSF-

- funded Conference on Reproducibility and Replicability in Economics and the Social Sciences, Oct. 25, 2022
6. Plenary paper, Zhang, S., Heck, P., Meyer, M. N., Chabris, C. F., Goldstein, D., Hofman, J. “An illusion of predictability in scientific results,” 2022 Conference on Digital Experimentation @ MIT (CoDE@MIT), Cambridge, MA, Oct. 20–21, 2022 (JH presenting)
  7. “What Trial Should Proceed, When Not All Can? An Ethics Framework for Prioritizing Trials During the Pandemic and Beyond,” OHRP/Northwell Research Community Forum, May 12, 2022
  8. Participants in “Data Ownership, Reciprocity, and Research” virtual meeting, The Multi-Regional Clinical Trials Center of Brigham and Women’s Hospital and Harvard Bioethics Collaborative, April 5, 2022
  9. “Collecting and Managing Your Data: Ethical Considerations,” Workshop: Pathways to Open Science: From proposal to publication. Royal Holloway, University of London, London, UK, July 14, 2021
  10. “Experiment Aversion and Expanded Access to Investigational Drugs.” Working Group on Compassionate Use and Preapproval Access (CUPA), Division of Medical Ethics, NYU Grossman School of Medicine, New York, NY (virtual), May 13, 2021
  11. “Promoting Uptake of COVID-19 Vaccines Among Health Care Personnel and High-Risk Patients,” Behavioral Science & COVID-19 Vaccine Acceptance convening, U. Penn, Dec. 16, 2020
  12. Invited participant, “Learning from COVID-19 to Achieve Equitable, High-Value Care: Promoting Health System/Research Partnerships and Collaborations”, virtual convening, Oct. 21, 2020
  13. Plenary speaker, “Studying Genes and Social/Behavioral Phenotypes Under Broad Consent: Participant Perspectives from Two Biobanks,” 5<sup>th</sup> International ELSI Congress, Columbia University, New York, NY, June 15-17, 2020
  14. Plenary speaker and panelist, “Sharing Data Responsibly with Researchers, Citizen Scientists & Participants,” conference on “The Power and Perils of Research Data: Generating, Storing & Sharing Data Responsibly,” University of Minnesota, Minneapolis, MN, March 4, 2020
  15. Plenary, “Objecting to Experiments that Compare Two Unobjectionable Policies or Treatments,” Conference on Digital Experimentation (CODE), MIT, Cambridge, MA, Nov. 1-2, 2019
  16. “Objecting to Experiments that Compare Two Unobjectionable Policies or Treatments: Implications for Comparative Effectiveness and Other Pragmatic Clinical Trials,” NIH Collaboratory Grand Rounds, webinar, Oct. 11, 2019
  17. “Conducting Potentially ‘Sensitive’ Research Using Biobank Data Collected Under Broad or Blanket Consent: Participant Perspectives and Responsible Communication,” ELSI Seminar Series, Center for Research on Ethical, Legal & Social Implications of Psychiatric, Neurologic & Behavioral Genetics, Columbia University, New York, NY, Jan. 14, 2019
  18. Panel Organizer and Speaker, Panel on “Responsible Communication of Social Science Genomic Research,” Polygenic Prediction and its Application in Social Science Conference, University of Southern California, Los Angeles, CA, Nov. 30–Dec. 1, 2018
  19. “Research Using Social Media Data,” Public Responsibility in Medicine and Research (PRIM&R) annual Advancing Ethical Research Conference, San Diego, CA, Nov. 14–17, 2018
  20. “Objecting to Experiments that Compare Two Unobjectionable Policies: Experimental Evidence and Implications for Learning Healthcare Systems,” Ethical, Legal and Social Implications of Learning Health Systems (ELSI-LHS) Symposium, University of Michigan, Ann Arbor, MI, Nov. 9, 2018
  21. “Research Ethics Issues Raised in Collecting and Maintaining Large-Scale, Sensitive Online Data” (presentation of commissioned white paper), Sloan Foundation-funded planning conference to critically evaluate plans for developing a new data sharing institute, Boston, MA, Nov. 8, 2018
  22. “Why Do People Object to Unobjectionable Experiments? Ethics, Human Research, and A/B Testing,” College of Liberal Arts Symposium (guest of Philosophy Department), Bloomsburg University, Bloomsburg, PA, Oct. 5, 2018
  23. “Ethical Data Sharing,” Special Symposium, Open Science: From Pre-Registration to Replication to Data Sharing, Society for Psychophysiological Research, Quebec City, Canada, Oct. 3, 2018

24. Participant, DARPA-funded Technical Exchange on Complex Social Systems (TECSS), Center for Open Science, Charlottesville, VA, Aug. 28, 2018
25. “The A/B Effect and Big Data Ethics,” 4th Annual International Conference on Computational Social Science (IC<sup>2</sup>S<sup>2</sup>), Evanston, IL, Kellogg School of Management at Northwestern University, Evanston, IL, July 13–15, 2018
26. “Empirically investigating IRB Quality,” First meeting of Promoting Effective Ethical Review of Research (PEERR): A Consortium to Empirically Evaluate IRB Effectiveness, University of Pennsylvania Perelman School of Medicine, Philadelphia, PA, May 21, 2018
27. “The Common Rule and Research with Mobile Devices,” Working Group Meeting: Thought Leader Input and Regulatory Framework, April 24, 2018, Chicago, IL (NIH R01-funded working group, John Wilbanks and Mark Rothstein, co-PIs)
28. Michelle N. Meyer, Patrick R. Heck, Geoffrey S. Holtzman, Stephen M. Anderson, William Cai, Duncan J. Watts, & Christopher F. Chabris, “The A/B illusion: objecting to experimentally comparing two unobjectionable policies,” Decision Processes Colloquium, Wharton, University of Pennsylvania, March 19, 2018 (presented by C.F.C.)
29. Geoffrey S. Holtzman & Michelle N. Meyer, “IRB Risk Aversion and Prospective Participant Welfare,” Eastern Division Meeting of the American Philosophical Association, Savannah, GA, Jan. 3, 2018 (presented by G.S.H.)
30. Panelist, “Ethics and Privacy in the Era of Big Data,” Technology in Psychiatry Summit, Harvard Medical School, Boston, MA, Nov. 7, 2017
31. Patrick R. Heck & Michelle N. Meyer, “Social Perceptions of Genomics-Related Information Avoidance,” Moral Psychology Research Group conference, Pennsylvania State University, State College, PA, Oct. 4, 2017 (presented by P.R.H.)
32. Invited participant, Illumina convening at Cold Spring Harbor Laboratory, May 11, 2017, Cold Spring Harbor, NY
33. Keynote, “Reproducibility in Science: What’s Research Ethics Got to Do With It?,” Canadian Association of Research Ethics Boards (CAREB) National Conference, Halifax, Nova Scotia, Canada, April 27-29, 2017
34. Invited Session, “How Meaningful Is ‘Choice’ Without Education?: Mandated Choice Over Participation in Biospecimens Research in a Time of Mistrust and Regulatory Confusion,” American Society of Human Genetics (ASHG) Annual Meeting, Vancouver, Canada, Oct. 19, 2016
35. “Ethical issues in funding and conducting social science research incorporating biological measures and mechanisms,” Biology and Social Science (BioSS) Working Group meeting, Russell Sage Foundation, Chicago, IL, Oct. 7, 2016
36. “Privacy Risk and Big Data: The Promise and Peril of Re-Identification Research,” Human Subject Protection Conference, Covington, KY, Oct. 6, 2016
37. Responder to Tom Beauchamp on “The Future of Bioethics: Methods, Principles, Practices,” The Public Face of Ethics Conference (symposium in honor of James F. Childress), Charlottesville, VA, Sept. 10, 2016
38. “Rethinking Research Ethics and Governance in an Era of Learning Healthcare Systems,” Northwell Health (formerly North Shore-LIJ), Manhasset, NY, July 27, 2016
39. Participant, Inaugural meeting of the Society for the Improvement of Psychological Science (SIPS), Center for Open Science, Charlottesville, VA, June 6-8, 2016
40. Keynote, “Bioethics in the Context of Innovation,” NPS MedicineWise biannual National Medicines Symposium, Canberra, Australia, May 20, 2016
41. Debate participant, “Risk Avoidance Is the Enemy of Innovation,” NPS MedicineWise biannual National Medicines Symposium, Canberra, Australia, May 19, 2016
42. Workshop participant, Protecting People and Sharing Data, Qualitative Data Repository, New York City, NY, May 12, 2016
43. Speaker, HHS Privacy Summit, Washington, D.C., May 12, 2016 (cancelled due to event rescheduling and prior speaking commitment)

44. Panelist, "Law and Bioethics" panel, Petrie-Flom Center 10<sup>th</sup> Century Anniversary Celebration, Harvard Law School, Cambridge, MA, March 29, 2016
45. Participant, Open Data and Privacy Roundtable, White House Office of Science and Technology Policy (OSTP), Washington, D.C., March 24, 2016
46. "Rethinking Research Ethics and Governance in an Era of Learning Healthcare Systems," Geisinger Health System, Danville, PA, March 1, 2016
47. Panelist, "Ethical Principles and Review Processes," Workshop on the Ethics of Online Experimentation, 9<sup>th</sup> ACM International Conference on Web Search and Data Mining, San Francisco, CA, Feb. 22, 2016
48. Participant, "Beyond IRBs: Designing Ethical Review Processes for Big Data," NSF-supported workshop organized by the Future of Privacy Forum, Washington, D.C., Dec. 10, 2015
49. Invited plenary, "Picked Out of a Crowd: Privacy and Re-Identification Research," Public Responsibility in Medicine and Research (PRIM&R) Advancing Ethical Research Annual Conference, Boston, MA, Nov. 14, 2015
50. Invited delegate and speaker, "Digital phenotypes—Health research in the digital age?," Wellcome Trust Frontiers Meeting, London, UK, Nov. 5–6, 2015
51. Invited panelist, "Big Data Out of Context: Building a Privacy Review Board," International Association of Privacy Professionals (IAPP) Privacy. Security. Risk. Conference, Las Vegas, NV, Sept. 30, 2015
52. "Did Facebook Have an Ethical Obligation to Conduct Its 'Mood Contagion' Experiment?: Corporate Responsibility for Rigorously Establishing the Safety and Efficacy of Products and Services," Legal Studies and Business Ethics Speaker Series, Wharton, Philadelphia, PA, April 13, 2015
53. "Two Cheers for (Some) Nonconsensual Corporate Experimentation," Department of Philosophy, Carnegie Mellon University, Pittsburgh, PA, March 2, 2015
54. Invited speaker, Session on "Manipulating Emotions on the Internet: The Cases of Facebook and OkCupid," Public Responsibility in Medicine and Research (PRIM&R) Annual Conference, Baltimore, MD, Dec. 6, 2014
55. Invited panelist, "Human Subjects Research Regulation: Perspectives on the Future," Research Ethics Book Group Lunch and Meet the Authors session, Public Responsibility in Medicine and Research (PRIM&R) Advancing Ethical Research Annual Conference, Baltimore, MD, Dec. 5, 2014
56. Invited speaker, Conference on "When Companies Study Their Customers: The Changing Face of Science, Research, and Ethics," sponsored by the Silicon Flatirons Center for Law, Technology, and Entrepreneurship and the Tech Policy Lab at the University of Washington, Boulder, CO, Dec. 4, 2014
57. Invited speaker, Health Law Society panel on Ebola, Albany Law School, Albany, NY, Nov. 20, 2014
58. Invited panelist, "Human Subjects Research Regulation: Perspectives on the Future," Harvard Law School, Cambridge, MA, Oct. 22, 2014
59. Invited panelist, Ethics session, Conference on Digital Experimentation (CODE), MIT, Cambridge, MA, Oct. 10, 2014
60. Invited Session, "Neither Duty Nor Prohibition: Using Private Ordering to Transcend 'One-Size-Fits-All' in Large-Scale Sequencing of Human Beings," American Society of Human Genetics (ASHG) Annual Meeting, Boston, MA, Oct. 23, 2013 (unable to present due to illness)
61. "The Ethics of IRB Risk-Benefit Analysis," Harvard Medical School, Cambridge, MA, April 4, 2013
62. "Ethical Issues in the Genetics of Social Science," Workshop to Extend the Social Science Genetic Association Consortium (SSGAC) to New Phenotypes, Los Angeles, CA, Oct. 29, 2011
63. "Regulating the Production of Knowledge: The Heterogeneity Problem in Human Subject Research and Its Private Ordering Solution," Health Law Scholars Workshop, Center for Health Law Studies, Saint Louis University School of Law, St. Louis, MO, Sept. 15–17, 2011

64. Commenter, Ethics Consortium, Harvard Medical School, January 7, 2011 (invited commenter before members of ethics committees of Harvard-affiliated hospitals on legal and ethical aspects of case involving presymptomatic genetic testing of a minor)

### REFEREED PLATFORM PRESENTATIONS AT ACADEMIC CONFERENCES

(presentation of solo-authored work, unless otherwise specified; supervisee; \* contributed equally)

1. Invited Session: “Wrestling with social and behavioral genomics: Risks, potential benefits, and ethical responsibility,” ASHG Annual Meeting, Washington, D.C., Nov. 4, 2023 (moderator; with E. Parens, S. S.-J. Lee, K. P. Harden, P. Turley)
2. Wagner, J. K., Tanniru, J., Chane, C. A., **Meyer, M. N.** “Assessing a legal pathway to implement a cascade traceback screening program for ovarian cancer,” ASHG Annual Meeting, Los Angeles, CA, Oct. 28, 2022 (JKW presenting)
3. Speaker, panel on “The Ethics of Trial Prioritization,” American Society for Bioethics and Humanities (ASBH) 2023 Annual Meeting, Baltimore, MD, Oct. 12, 2023 (with H.F. Lynch)
4. Zhang, S., Heck, P., **Meyer, M. N.**, Chabris, C. F., Goldstein, D., Hofman, J. “The illusion of predictability in common scientific visualizations,” 8th International Conference on Computational Social Science (IC<sup>2</sup>S<sup>2</sup>), Chicago, IL, July 19–22, 2022
5. **Meyer, M. N.**, Gjorgjieva, T., Chabris, C. F., “Laypeople overestimate the predictive power of polygenic scores but do not view them as any more anxiety-producing than other scores for the same trait,” 2022 Behavior Genetics Association (BGA) Annual Meeting, Los Angeles, CA, June 22–25, 2022
6. Benjamin, D., Laibson, D., **Meyer, M. N.**, Tan, T., Turley, P. (alphabetical), “Intention among Americans to use genetic reproductive technologies to increase offspring educational attainment even modestly is substantial, higher among those who already have higher educational attainment, and subject to a modest bandwagon effect,” 2022 Behavior Genetics Association (BGA) Annual Meeting, Los Angeles, CA, June 22–25, 2022 (Tan presenting)
7. Augusto de Araujo, F., Chabris, C. F., **Meyer, M. N.**, “The effect of experience and repeated exposure on base-rate neglect: A study with medical professionals,” 2022 World Economic Science Association (ESA) Conference, MIT, Cambridge, MA, June 13–16, 2022 (Augusto de Araujo presenting)
8. Zhang, S., Heck, P., **Meyer, M. N.**, Chabris, C. F., Goldstein, D., Hofman, J. “The illusion of predictability in common scientific visualizations,” 1st annual International Conference on the Science of Science & Innovation, National Academy of Sciences, Washington, D.C., June 7–9, 2022 (Hofman presenting)
9. **Meyer, M. N.**, Gjorgjieva, T., Chabris, C. F., “Laypeople overestimate the predictive power of polygenic scores but do not view them as any more anxiety-producing than other scores for the same trait,” 6<sup>th</sup> International ELSI Congress (virtual), May 31, 2022
10. Rosenbaum, G., Shermohammed, M., Goren, A., Lanyado, A., Yesharim, R., Wolk, D. M., Doyle, J., **Meyer, M. N.**,\* Chabris, C. F.,\* “Informing patients that they are at high risk for serious complications of viral infection increases vaccination rates,” 2021 Society for Judgment and Decision Making (SJDM) Annual Meeting, University of California, San Diego, San Diego, CA, Feb. 10–12, 2022 (Rosenbaum presenting)
11. Rosenbaum, G., Shermohammed, M., Goren, A., Lanyado, A., Yesharim, R., Wolk, D. M., Doyle, J., **Meyer, M. N.**,\* Chabris, C. F.,\* “Effect of AI-determined high-risk warnings on flu vaccination rates: Two field experiments,” 2021 Behavioral Science and Health Symposium, University of Pennsylvania, Dec. 1, 2021 (Chabris presenting)
12. “Ethical Challenges in Trial Prioritization and Participant Allocation During COVID-19 and Beyond,” American Society for Bioethics and Humanities (ASBH) 2021 Annual Meeting, virtual, Oct. 15, 2021

13. Santos, H. C., Goren, A., Chabris, C. F.\* & Meyer, M. N.\*; “Reminders designed with behavioral science features increase COVID-19 vaccination,” 2021 Nudges in Health Care Symposium, University of Pennsylvania, Philadelphia, PA, May 2021 (Santos presenting)
14. “COVID-19 experiment aversion,” 2020 Behavioral Science & Health Symposium, University of Pennsylvania, Nov. 4, 2020
15. “Managing Mental Models of Research(ers): Lessons from Geisinger’s Behavioral Insights Team,” in panel session on “HSR in Health Systems: Strategies for Managing the Conflicts Between Research and Operational Priorities and Needs,” AcademyHealth Annual Research Meeting, Boston, MA, July 30, 2020
16. “The A/B Effect: Objecting to Experiments that Compare Two Unobjectionable Policies or Treatments,” 2019 Behavioral Science & Health Symposium, University of Pennsylvania, Nov. 22, 2019
17. “Starting a Nudge Unit: Lessons Learned from the First Year of Geisinger’s Behavioral Insights Team,” 2019 Nudges in Health Care Symposium, University of Pennsylvania, Philadelphia, PA, Sept. 16, 2019
18. “Patient-Participant Perspectives on Potentially ‘Sensitive’ Genetics Research Conducted Under Broad Consent to an Unselected Biobank: A Mixed Methods Study,” 20<sup>th</sup> Annual Meeting of the American Society of Bioethics & Humanities (ASBH), Anaheim, CA, Oct. 21, 2018
19. Meyer, M. N., Heck, P. R., Holtzman, G. S., Anderson, S. M., Cai, W., Watts, D. J., & Chabris, C. F. “The A/B illusion: objecting to experimentally comparing two unobjectionable policies,” Behavioral Decision Research in Management conference, Harvard Business School, Boston, MA, June 8, 2018 (presented by C.F.C.)
20. “(Still) Waiting to Exhale: Why the Future of Biospecimens Research Remains Unclear After the Final Rule,” part of panel on “Developments in Human Subjects Research Regulation,” 40<sup>th</sup> Annual Health Law Professors Conference (ASLME), Atlanta, GA, June 9, 2017
21. “The Learning Health Care System approach to implementing genomics in the clinic,” 4<sup>th</sup> International ELSI Congress, Farmington, CT, June 5, 2017
22. “Pregnancy Exclusions: Marlise Munoz and Limits on the Health Care Decision Making of Pregnant Women,” American Society for Bioethics and Humanities (ASBH) 2015 Annual Meeting, Houston, TX, Oct. 22, 2015
23. Organizer, moderator and panelist, “Defining and Measuring IRB Effectiveness,” American Society of Law, Medicine, and Ethics (ASLME), Seton Hall Law School, Newark, NJ, June 7, 2013
24. “Risk-Proportionate Regulation and the Challenge from Participant Heterogeneity,” conference on The Future of Human Subjects Research Regulation, Harvard Law School, Cambridge, MA, May 18, 2012
25. “The Researcher-Subject Relationship as Governed By Donative Contract: A Middle Position in the Debate Over Returning Individual Research Results,” American Society for Bioethics and the Humanities (ASBH) Annual Meeting, Washington, D.C., October 16, 2009
26. “Our Posthuman Future and the Future of Substantive Due Process Jurisprudence: Prenatal Genetic Enhancement, Procreative Liberty, and Parental Liberty,” American Society for Bioethics and the Humanities (ASBH) Annual Meeting, Cleveland, OH, October 24, 2008
27. “A Sartrean Correction of Reinhold Niebuhr’s Doctrines of Sin and Evil: Towards a Broader Understanding of the Oppressor and the Oppressed,” Southeast Commission for the Study of Religion (SECSOR), Charlotte, NC, March 18, 2001

## POSTER PRESENTATIONS AND ABSTRACTS AT ACADEMIC CONFERENCES

(§corresponding author; supervisee; \* contributed equally)

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1. Goren A., Shermohammed, M., Rosenbaum, G., Meyer, M.N.\*, & Chabris, C.F.\* (2022). “A well-timed reminder can increase patient portal enrollment by 200%,” poster presented at 2021 Society for Judgment and Decision Making (SJDM) Annual Meeting, University of California, San Diego, San



- Diego, CA, Nov. 19–21, 2021 (Goren presenting; conference delayed and held online due to COVID-19)
2. Santos, H., Goren, A., Meyer, M.N.,\* & Chabris, C.F.\* (2022). “Loss framing and social norms nudges to encourage enrollment in an employee wellness program: A pragmatic trial,” poster presented at 2021 Society for Judgment and Decision Making (SJDM) Annual Meeting, University of California, San Diego, San Diego, CA, Nov. 19–21, 2021 (Santos presenting; conference delayed and held online due to COVID-19)
  3. Shermohammed, M., Goren, A., Lanyado, A., Yesharim, R., Wolk, D. M., Doyle, J., Meyer, M. N.,\* & Chabris, C. F.,\* “Informing patients that they are at high risk for serious complications of viral infection increases vaccination rates,” abstract posted at 2021 Nudges in Health Care Symposium, University of Pennsylvania, Philadelphia, PA, May 2021, <https://nudgeunit.upenn.edu/2021-nudges-health-care-symposium-abstracts>
  4. Shermohammed, M., Goren, A., Chabris, C. F.,\* & Meyer, M. N.,\* “A well-timed reminder can increase patient portal enrollment by 200%,” abstract posted at 2021 Nudges in Health Care Symposium, University of Pennsylvania, Philadelphia, PA, May 2021, <https://nudgeunit.upenn.edu/2021-nudges-health-care-symposium-abstracts>

## INTERNAL SEMINARS AND GRAND ROUNDS

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- “Wedding Announcement: Bioethics and Decision Sciences,” Clinical Research Grand Rounds, Geisinger Health System, July 24, 2023
- “Using Behavioral Science to Make Better Health Easier,” Clinical Research Grand Rounds, Geisinger Health System, August 23, 2021 (with Christopher Chabris)
- “The A/B Effect: A Threat to Evidence-Based Medicine?,” Geisinger Medicine Grand Rounds, Danville, PA (March 13, 2020; postponed due to COVID-19)
- “What’s Really Wrong with IRBs? Their Surprising Flaw and the Even More Surprising Solution to It,” Union Graduate College, Schenectady, NY, April 12, 2011
- “Regulating the Production of Knowledge,” Harvard Law School Health Law Policy Workshop, Cambridge, MA, April 4, 2011
- “The Constitution and the Mythical Right to Procreate,” Johns Hopkins Berman Institute of Bioethics Research Retreat, Baltimore, MD, April 24, 2009

## FUNDED GRANTS: INVESTIGATOR ROLES

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1. NBER Roybal Center for Behavior Change in Health P30AG034532-15                      6/1/2023 – 5/31/2024  
 Role: Co-PI (with C. Chabris)  
*Nudging Patients to Increase Shingles Vaccination*  
 We will run a randomized controlled trial with approximately 70,000 patients with upcoming appointments to evaluate several different shingles vaccination nudges. We may also vary the number of messages that patients are sent as a way to assess the boundaries of reminder effectiveness and “nudge fatigue.”
2. Geisinger–Lehigh Joint Investment Fund    6/13/2023 – 5/31/2025  
 Role: Co-PI (with C. Chabris, Geisinger, F. de Araujo, Lehigh, M. Singh, Carnegie Mellon)  
*Guideline Adherence and the Psychology of Clinician Decision-Making*  
 In this project, we propose to study clinicians’ guideline-adherence behavior in light of the psychology and behavioral economics of decision making. Study 1 is a retrospective, EHR-based analysis of patterns of clinician guideline recommendation deviations, combined with data on patient outcomes to estimate the consequences of such deviations. Study 2 will assess the extent to which

decision-making biases explain the observed patterns using online survey experiments with clinicians to both better understand their motivations and guideline awareness, and to elicit measures of behavioral biases that we hypothesize are related to guideline (non)adherence.

3. NBER Roybal Center for Behavior Change in Health P30AG034532-14 6/1/2022 – 5/31/2023  
Role: Co-PI (with C. Chabris)

*Patient- and Clinician-Facing Nudges to Increase Influenza Vaccine Uptake*

This project involves pragmatic RCTs of multiple patient-facing nudges (e.g., patient portal messages inviting them to self-schedule flu shots; messages via several modalities informing them they are at increased risk for flu-related complications that can be mitigated by vaccination; pre-appointment questionnaires inviting them to indicate they want to receive a flu shot or want to discuss the flu shot with their clinician) and clinician-facing nudges (electronic health record best practice alerts informing clinicians that their patient wants a flu shot, wants to discuss a flu shot, or is at increased risk for flu-related complications) to increase uptake of flu vaccination.

4. NSF 2131929 (Mid-scale Research Infrastructure) 10/1/2021 – 9/30/2026  
Role: Senior Personnel/subaward PI; D. Lazer, PI, C. Wilson & D. Choffnes, Co-PIs, all Northeastern  
*Observatory for Online Human and Platform Behavior*

Online behavior is eminently worthy of a major infrastructure investment for research. The Internet is a transformational phenomenon, akin to the rise of the printing press centuries ago. It is a fundamental, and global, reorganization of humanity. This means that it is pervasive to almost all human phenomena. It is reorienting markets. It is transforming society. It is disrupting politics. And much as the printing press left a detailed record of history that did not have a parallel before, the Internet enables a detailed, real time instrumentation of human behavior at a scale and granularity that would have seemed like science fiction just a generation ago. This instrumentation, we note, is now largely done by private companies, for private purposes, is generally not scientifically validated, and occurs with minimal informed consent or oversight. There is thus a huge need to build a secure, privacy-protecting, ethically robust, scientifically valid online behavioral research observatory.

5. NIH/NCATS UL1TR001878-06S1 8/13/2021 – 5/31/2022  
Role: Co-I/subaward PI; H.F. Lynch, Penn Med, Study Lead; G. FitzGerald, Penn Med, parent PI  
*Extending Lessons from COVID-19 Trial Prioritization Beyond the Pandemic: A Qualitative Study of Site-Level Prioritization Approaches and a New Ethical Framework*

Allowing trials to compete for limited human and material resources at the sites where they are conducted is an ethical challenge that risks delayed research results and failure to meet the most important patient needs. Understanding how Clinical and Translational Science Award Program Hubs and Health Care Systems Research Network sites have prioritized COVID-19 trials, the challenges they have faced, and their perspectives on trial prioritization beyond the pandemic will help inform a new ethical framework for site-level trial prioritization within and across disease areas. Overall, this project will advance the goal of extending pandemic research lessons in order to foster the highest priority research for the benefit of patients.

6. NIA/FDA P30AG034532-13 8/13/2021 – 5/31/2022  
Role: Study Co-Lead (with C. Chabris); J. Doyle, MIT, D. Laibson, Harvard, parent award PIs  
*Understanding and Ameliorating Aversion to Pragmatic Healthcare Experiments*

Experiments to determine whether “nudges” and other behavioral interventions can improve people’s health are sometimes controversial, and people often object to being included in experiments they did not know about. This project will conduct studies with online participants and healthcare providers to determine what specific features or types of experiments explain people’s objections, and test ways of

describing experiments and their value for improving public health that might ameliorate aversion to experimentation. The project will publish the scientific results of these studies, as well as a practical guide for policymakers and leaders in healthcare to help them better communicate their decisions to carry out experiments and minimize misunderstanding and mistrust among patients, employees, and other stakeholders.

7. NBER Roybal Center for Behavior Change in Health P30AG034532-13 6/1/2021 – 5/31/2022  
 Role: Co-PI (with C. Chabris)  
*Using Explainable AI Risk Predictions to Nudge Influenza Vaccine Uptake*  
 This pilot project will extend our Year 12 pilot in which we found that informing patients identified by a machine learning algorithm that they are at high risk of flu-related complications increases their uptake of the flu vaccination. This year, we will test whether providing each patient brief explanation of the factors that put them at high risk increases the patient's chance of obtaining the flu vaccine (relative to more generic statements about their risk status, or to two control conditions).
8. NBER Roybal Center for Behavior Change in Health P30AG034532-13 6/1/2021 – 5/31/2022  
 Role: Co-PI (with C. Chabris)  
*Lottery Incentive Nudges to Increase Influenza Vaccinations*  
 This pilot project will investigate which, if any, of several small incentives (including scratch-off Lotto tickets with a \$1 face value, a guaranteed \$1 payout, or sweepstakes entries with various expected payouts) increase uptake of flu vaccination among patients with upcoming doctor appointments.
9. NHGRI R01HG011051-01A1 04/01/2021 – 03/31/2023  
 Role: Co-I/subaward PI; J. Wagner, Geinger/PSU, PI  
*Consumer Protections for Genomics & Precision Health*  
 The parallel aims of this exploratory study are to characterize the federal and state consumer protections available in the United States for personal genomics and precision health. Legal and policy research will be conducted to identify and critically examine the activities undertaken by the Federal Trade Commission and state Attorneys General offices on matters of (1) DTC personal genomics tests, services, and products; (2) mobile health apps; and (3) data broker services.
10. NIH/NCI U01CA240747 06/01/2020 – 03/31/2024  
 Role: Co-I (A. Rahm, Geisinger, N. Henrikson, KP-Washington, C. Jonas, KP-Mid-Atlantic, Co-PIs)  
*Feasibility and assessment of a cascade traceback screening program (FACTS)*  
 This study will determine how to communicate to ovarian cancer patients about the availability of genetic testing and how to facilitate testing with at risk relatives. Legal aim: survey of the privacy laws across all 50 states and analysis of whether these laws facilitate or hinder the notification and testing of at-risk relatives.
11. NBER Roybal Center for Behavior Change in Health 5 P30 AG034532-12 6/1/2020 – 5/31/2021  
 Role: Co-PI (with C. Chabris)  
*Encouraging Flu Vaccination Among High-Risk Patients Identified by a Machine-Learning Model of Flu Complication Risk*  
 This pilot project investigates the optimal way to inform patients identified by a machine learning algorithm to be a very high risk for flu-related complications.

12. NBER Roybal Center for Behavior Change in Health 5 P30 AG034532-12 6/1/2020 – 5/31/2021  
 Role: Co-I; K. Milkman, U. Penn Wharton, M. Patel, U. Penn Med., Co-PIs  
*Testing Multiple Behavioral Science Strategies to Increase Flu-Shot Rates*  
 This pilot project will experimentally test a variety of nudges in ~160,000 Penn Med and Geisinger patients to determine which are most effective in encouraging flu vaccination in the general population.
13. Robert Wood Johnson Foundation 76565 8/15/2019 – 8/14/2022  
 Role: Co-PI (with Erik Parens, Hastings Center)  
*Wrestling with Social/Behavioral Genomics: Risks, Potential Benefits, and Ethical Responsibility*  
 The purpose of this project (co-funded by RSF, RWJF, and the JPB Foundation) is to facilitate a frank and rigorous conversation among people who are hopeful about the benefits of social/behavioral genomic research and those who have concerns about it. Even if we cannot reach consensus regarding the line between ethically acceptable and unacceptable forms of such research, we will develop advice about how to conduct it and disseminate its results in ways that minimize its harms and maximize its benefits.
14. NIH/NCI R01CA211723-03S1 08/1/2019 – 7/31/2020  
 Role: Study Lead; Alanna Rahm, Geisinger, parent award PI  
*Assessing Non-Inferiority of Scalable eConsent for Genomics*  
 This randomized, controlled, non-inferiority trial will compare electronic consent (eConsent) to traditional consent to participation in Geisinger's MyCode biobank. It will determine whether scalable eConsent is appropriate to use for genomic sequencing and will also help identify aspects of genomic screening that are difficult for patients to understand or that they express a preference to learn more about, which will inform both eConsent (including the eConsent used in the NIH *All of Us* Research Program) and traditional consent processes.
15. Russell Sage Foundation and JPB Foundation 1903-13498 7/1/2019 – 06/30/2021  
 Role: Co-PI (with Erik Parens, Hastings Center)  
*Wrestling with Social/Behavioral Genomics: Risks, Potential Benefits, and Ethical Responsibility*  
 The purpose of this project (co-funded by RSF, RWJF, and the JPB Foundation) is to facilitate a frank and rigorous conversation among people who are hopeful about the benefits of social/behavioral genomic research and those who have concerns about it. Even if we cannot reach consensus regarding the line between ethically acceptable and unacceptable forms of such research, we will develop advice about how to conduct it and disseminate its results in ways that minimize its harms and maximize its benefits.
16. NIH/NIA P30AG034532 7/1/2019 – 6/30/2024  
 Role: Subaward Co-PI (with C. Chabris); J. Doyle, MIT, D. Laibson, Harvard, Co-PIs  
*NBER Roybal Center for Behavior Change in Health*  
 The NBER Roybal Center for Behavior Change in Health intends to initiate 3 pilot projects each year; of these, we anticipate 1 or 2 each year will be designed for and implemented within the Geisinger Health System. An internal Geisinger committee will be responsible for identifying the most promising Geisinger pilot projects and presenting them to the Roybal Center's co-PIs and advisory committee for further consideration and approval. Additional funds from the parent grant will be disbursed to Geisinger to fund pilot projects as needed.

17. Open Philanthropy 010623-00001 01/01/2019 – 12/31/2021  
 Role: ELSI Subaward PI; Daniel J. Benjamin, USC/UCLA, parent PI  
*Ethical, Legal and Social Implications of Social/Behavioral Genomics and Polygenic Scores*  
 The aims of this subaward are to conduct empirical, policy, and normative work related to the Ethical, Legal, and Social Implications of behavioral genomics research and/or polygenic indexes.
18. NIH/NHGRI R01HG009671 9/01/2018 – 6/30/2023  
 Role: Co-Investigator; Adam Buchanan, Geisinger, PI  
*Returning Adult-Onset Incidental Genomic Findings to Pediatric Biobank Participants*  
 The goals of this project are to assess the psychosocial, behavioral and legal impact of disclosing adult-onset genomic findings to children and their parents, thereby providing much-needed guidance to national and international groups performing genome-scale testing of children, as well as other groups considering population screening for genomic conditions. The legal aim will investigate implications of the loss of chance doctrine for policies regarding pediatric return of results.

### FUNDED GRANTS: CONSULTANT AND ADVISOR ROLES

1. NIH/NIMH R01MH132138-S1 9/1/23 – 8/31/24  
 Role: Consultant; L. Barnes & B. Teachman, Study Co-Leads; L. Barnes, parent award PI  
*A Mixed-Methods Study of the Ethical Issues Surrounding Mobile Sensing in Digital Mental Health Interventions*  
 There is a crucial need for scalable, accessible mental health treatments that are delivered outside of clinics and can be integrated into daily life. Just-in-Time Adaptive Interventions (JITAI) delivered via smartphones and wearables represent a promising method to not only increase access to cost-effective and acceptable mental health care, but also to tailor in-the-moment interventions to best match the specific context of the individual and their personal stressors, and determine when the individual is most likely to benefit from the intervention. However, these more scalable, personalized, context-sensitive interventions raise ethical questions tied to patient consent and acceptability, privacy and data security tied to both the collection of sensitive data using mobile sensing (via Smartphones and wearables), and the associated computational methods applied.
2. NIH/NIA R01AG081518-01 4/2023 – 5/2026  
 Role: Consultant; P. Turley, PI  
*Studying the Genetics of Aging, Behavioral, and Social Phenotypes in Diverse Populations*  
 This project aims to develop tools to promote genetic research of aging, behavioral, and social phenotypes in diverse populations. Existing comparable tools require that researchers omit some data when those data come from diverse populations, whereas our proposed tools account for population differences in a way that allows researchers to use much more data in more diverse samples. Using these tools, we will be able to make scientific discoveries that are more representative of the global population, which will reduce the potential for unequal benefits from genetic research. While polygenic prediction is always subject to misinterpretation, polygenic prediction across ancestry groups is particularly fraught. In all three Aims, we will pursue several strategies to prevent misunderstanding and misuse of multi-ancestry PGSs.
3. European Commission HORIZON Marie Skłodowska-Curie Actions 101073237 3/2023–2/2027  
 Role: Advisory Board member; T. Galama & S. von Hinke, Co-PIs  
*Integrating genetics into social-sciences to better understand the origins of inequality*

This project brings together an interdisciplinary group of academic experts and non-academic partners to train the next generation of social scientists in the responsible use of genetic data. The aim is to answer a key research question: to what extent do inequalities in life chances arise from genetic variation, environmental factors, and their interplay? The project will exploit Europe's comprehensive multigenerational databases for the separation of direct genetic effects from parental genetic and socioeconomic factors that influence the rearing environment. The trainees will employ causal inference methods used in econometrics and statistics to estimate the extent to which environments cushion or exacerbate genetic differences. Member, external advisory board (EAB).

4. NIH/OD R01EB027650-03S1 10/2022 – 9/2023  
 Role: Consultant; L. Cabrera, S. Gerke, D. Susser, Study Co-Leads; A. Bui, parent PI  
*Advancing the Ethical Development and Use of AI/ML in Biomedical and Behavioral Sciences*

This supplement to “PREMIERE: A PREDictive Model Index and Exchange Repository” will explore the ethics of synthetic data and the utility of ELSI-focused computational checklists for biomedical AI/ML.

5. NCATS R01TR004244 8/2022 – 5/2026  
 Role: Advisory Committee member; K. Spector-Bagdady, PI  
*Hospitals Sharing Patient Data and Biospecimens with Commercial Entities: Evidence-Based Translation to Improved Practice*

The aims of this R01 include (1) interviews with hospital representatives to explore the components of their existing data sharing policies as well as priorities, (2) a survey of hospital representatives to generalize our interview results and assess whether hospital characteristics are associated with certain policy components, and (3) a survey with a diverse sample of patients to measure patient preferences and responses to specific components of hospital policies.

6. NIH/NIA R01AG042568-04A1 9/2020 – 5/2022  
 Role: Consultant; D. Benjamin, PI  
*Genome-Wide Analyses of Health and Well-Being Phenotypes*

This project aims to conduct large-scale genomic studies of health and aging-relevant behaviors and outcomes. The results will be broadly useful for research in social-science genetics, medical genetics, and epidemiology, and may enable more accurate prediction of Alzheimer's disease risk and understanding of its mechanisms.

7. NIH/NIA R24AG065184 9/2019 – 5/2024  
 Role: Consultant; D. Benjamin, PI  
*Infrastructure and Core Activities of the Social Science Genetic Association*

This research network, the Social Science Genetic Association Consortium, aims to conduct large-scale genomic studies of health and aging-relevant behaviors. The Consortium will continue to broadly disseminate the results and any associated software to the research community, thereby producing resources that will help advance the field of behavioral genomics in general, and the behavioral genomics of aging in particular.

## MENTORING

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Patrick Heck, PhD (social psychology), Postdoctoral Fellow, 2017–2019; Staff Scientist, 2019–2021

Geoff Holtzman, PhD (philosophy), Postdoctoral Fellow, 2017–2018

Stephen Anderson, BS, Predoctoral Fellow, 2017–2018

Henri Carlo Santos, PhD (social psychology), Postdoctoral Fellow, 2018–2019; Staff Scientist, 2019–

Pedram Heydari, PhD (behavioral economics), Postdoctoral Fellow, 2018–2020  
 Anh Huynh, BS, Predoctoral Fellow, 2018–2020  
 Amir Goren, PhD (social psychology), Program Director, Behavioral Insights Team, 2018–  
 Maheen Shermohammed, PhD (cognitive psychology), Staff Scientist, 2019–2021  
 Daniel Rosica, BS, Predoctoral Fellow, 2020–2021  
 Tami Gjorgjieva, BS, Predoctoral Fellow, 2020–2022  
 Gail Rosenbaum, PhD, Staff Scientist (psychology and neuroscience), 2021–  
 Randi Vogt, PhD, Postdoctoral Fellow (social & personality psychology), 2022–  
 Rebecca Mestechkin, BS, Predoctoral Fellow, 2022–  
 Tessa A. Thomas, DO, MBE, Assistant Professor, 2022–  
 Gretchen Saunders, PhD (psychology), Research Scientist, Dept. of Psychology, University of Minnesota  
 (K award mentor)

## TEACHING EXPERIENCE

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### **Geisinger Health System and Geisinger Commonwealth School of Medicine** Danville, PA

- Clinical ethics, OBGYN residency program, August & September, 2023
- Clinical ethics, Addiction medicine fellowship program, August 2023
- “Using Behavioral Science to Make Better Health Easier,” Master of Biomedical Sciences program, Geisinger Commonwealth School of Medicine, 2021-22
- “Research During a Pandemic,” Master of Biomedical Sciences program, Geisinger Commonwealth School of Medicine, 2020-21
- “Oversight in a Learning Health System,” Learning to Engage and Be Engaged (PCORI-funded curriculum), March 25, 2020
- “Ethics of Health Nudges,” Clinical Informatics Fellowship, May 22, 2019
- “Ethics of Big Data Experimentation,” Clinical Informatics Fellowship, Feb. 14, 2019; April 5, 2017
- “Ethical and Regulatory Issues in e-Consent to Research,” May 3, 2017

### **Clarkson University-Icahn School of Medicine at Mount Sinai** New York City & Schenectady, NY **Bioethics Program**

- Capstone in Bioethics Policy (Summer 2015)
- Practicum in Bioethics Policy (Spring 2015, 2016)
- Advanced Bioethics Policy: Philosophical, Economic, & Psychological Foundations (Fall 2014, 2015)
- Public Health Ethics (co-taught Winter 2014)
- Health and Human Values Proseminar (collaboratively taught Summer 2013, 2014, 2015)
- Bioethics and the Law (Spring 2010\*, 2013\*, 2014\*, 2015, 2016) (\*co-taught)
- Advanced Bioethics (co-taught Fall 2009)

### **Albany Law School** Albany, NY

- Law and Bioethics (Fall 2013, 2015)

### **Harvard Law School** Cambridge, MA

- Regulating the Production of Knowledge: The Law and Ethics of Research (Spring 2012)

### **University of Virginia** Charlottesville, VA

*Instructor*

- Moral Status in Bioethics Depts. of Philosophy & Religious Studies, Spring 2002  
 Designed and taught upper-level seminar for undergraduate majors.
- Religious Ethics and Moral Problems Dept. of Religious Studies, Spring 2001

Designed and taught large lecture course in contemporary applied ethics. Supervised four Teaching Assistants. Topics included capital punishment, affirmative action, pornography, same-sex marriage, war, environmental ethics, animal welfare.

- **Business Ethics** McIntire School of Commerce, Fall 1999  
Designed and taught introductory course to honors students at UVA's undergraduate commerce school.
- **Introduction to Medical Ethics** UVA Medical School, Spring 1999  
Co-taught introduction to clinical ethics to first-year medical students.
- **Theology, Ethics, and Health Care** Dept. of Religious Studies, Summer 1998  
Co-designed and -taught introductory course in bioethics to undergraduates.

*Teaching Assistant* Dept. of Religious Studies, 1997–1999

- The Human Body and Its Parts as Property (Prof. James Childress)
- Theology, Ethics and Health Care (2x) (Prof. James Childress)
- Religious Ethics and Moral Problems (Prof. Charles Mathewes)

**Dartmouth Ethics Institute**, Dartmouth College Hanover, NH  
*Teaching and Research Assistant* 1995–1996

- Assisted Reproduction: The Scientific, Ethical, and Social Challenges of a New Biomedical Technology (Prof. Ronald Green)

**Woodstock Community Correctional Center** (medium security prison) Woodstock, VT  
*Volunteer Instructor* (Moral Reasoning; Creative Writing; French) 1992–1994

**World Relief** (serving political and religious refugees) Chicago, IL  
*Volunteer Instructor* (English as a Second Language) 1990–1992

#### **Guest Lectures**

- “Ethical Issues in Precision Health,” guest lecture in “Precision Healthcare” MBA class (Prof. Daniel Benjamin), UCLA Anderson School of Management, Jan. 19, 2023 (virtual)
- Guest lecture in “Communicating Care” class (Prof. Kelley Wagers), Department of English, Pennsylvania State University–Scranton, Oct./Nov. 2022
- “Privacy, Patient Communication, Bioethics, and Business Ethics,” guest lecture in “Precision Healthcare” MBA class (Prof. Daniel Benjamin), UCLA Anderson School of Management, May 2 & 5, 2022 (virtual)
- “Responsible Conduct of Research and the COVID-19 Pandemic: Beyond the Common Rule,” Research Ethics and Conduct (Clinical Research Training Program), Duke University, Feb. 28, 2022
- “Two barriers to learning health systems: experiment aversion and the research-practice distinction,” course on Biomedical Engineering, Law, & Policy, College of Engineering, Pennsylvania State University, Feb. 9, 2022
- “Why and How to Responsibly Communicate Social Science Genomics Research,” Russell Sage Foundation Summer Institute in Social Science Genomics, Stowe, VT, August 12, 2021
- “Including Genomics in Social Science Research: Ethical Issues,” Russell Sage Foundation Summer Institute in Social Science Genomics, Santa Barbara, CA, June 12, 2019
- “Conducting Potentially “Sensitive” Research Using Biobank Data Collected Under Broad or Blanket Consent: Participant Perspectives and Responsible Communication,” Russell Sage Foundation-funded Summer Institute in Social-Science Genomics, Santa Barbara, CA, June 13, 2019
- “Ethical Considerations in Behavioral Genetics Research,” Russell Sage Foundation-funded Summer Institute in Social-Science Genomics, Santa Barbara, CA, June 12, 2017
- “Why the Debate about Corporate Research Matters for the Future of Learning Healthcare Systems” for Law, Research and Bioethics, Master of Arts in Bioethics and Science Policy Program, Duke University, Nov. 15, 2016



- “Ethical Considerations in Behavioral Genetics Research,” Russell Sage Foundation-funded Summer Institute in Social-Science Genomics, New Brunswick, NJ, June 20, 2016
- “Why the Debate about Corporate Research Matters for the Future of Learning Healthcare Systems” for Law, Research and Bioethics, Master of Arts in Bioethics and Science Policy Program, Duke University, Nov. 3, 2015
- “Research Risk-Benefit Analysis and the Heterogeneity Problem” for Advocacy and Activism among Patients and Research Participants, Master of Arts in Bioethics and Science Policy Program, Duke University, April 1, 2015
- “Abortion and the Law” for second-year medical students at Albany Medical School, Albany, NY, April 17, 2014
- “Research Participation: Is There a Better Way?” Guest lecturer in Prof. Misha Angrist’s class, Genome Sciences and Society, Duke University, March 27, 2013
- “The Role of Rationality in Regulation and Public Policy” for Logic, Rationality, and Life (interdisciplinary undergraduate course), Union College, Schenectady, NY, April 30, 2012

## OTHER PROFESSIONAL EXPERIENCE

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<b>Icahn Institute for Genomics and Multiscale Biology at Mount Sinai</b> , New York, NY <i>Consultant</i> (paid)	2015–2016
Advised on ethical and legal issues related to Resilience Project (ResearchKit-based genomics study)	
<b>Kellogg, Huber, Hansen, Todd, Evans &amp; Figel, PLLC</b> , Washington, DC <i>Summer Associate</i>	Summer 2005
<b>Harris, Wiltshire &amp; Grannis, LLP</b> , Washington, DC <i>Summer Associate</i>	Summer 2005
<b>Lawyers’ Committee for Civil Rights Under Law</b> , Boston, MA <i>Intern</i>	Spring 2005
<b>Professor Christine Jolls</b> , Cambridge, MA <i>Research Assistant</i>	2005–2006
<b>Criminal Appellate Section, United States Department of Justice</b> , Washington, DC <i>Summer Intern</i>	Summer 2004
<b>Professor John C. Fletcher</b> , Center for Biomedical Ethics, UVA Medical Center, Charlottesville, VA <i>Research Assistant</i>	1997–1998

## REFEREE SERVICE

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### Journals:

*Advances in Methods and Practices in Psychological Science*  
*American Journal of Bioethics*  
*American Journal of Public Health*  
*Annals of Internal Medicine*  
*Behavioral Science & Policy*  
*Bioethics*  
*Biopreservation and Biobanking*  
*BioSocieties*  
*Clinical Trials*  
*Ethics & Behavior*

*Genetics in Medicine*  
*Hastings Center Report*  
*Infection Disease & Health*  
*JAMA Network Open*  
*Journal of Behavioral and Experimental Economics*  
*Journal of Business Ethics*  
*Journal of Empirical Research on Human Research Ethics*  
*Journal of Genetic Counseling*  
*Journal of Law and the Biosciences*  
*Journal of Law, Medicine, & Ethics*  
*Mayo Clinic Proceedings*  
*Nature Biotechnology*  
*Nature Communications*  
*Nature Human Behavior*  
*New Media and Society*  
*Perspectives on Psychological Science*  
*Proceedings of the National Academy of Sciences*  
*SAGE Open Medicine*  
*Science*  
*Social Psychological and Personality Science*

Guest editing:

*Proceedings of the National Academy of Sciences* (2020)

Grants:

Science of Science & Innovation Policy (SciSIP), National Science Foundation  
 Russell Sage Foundation

**SELECT MEDIA MENTIONS AND APPEARANCES**

Work covered by U.S. news outlets: ABC News, *The Atlantic*, *Bloomberg News*, *Business Insider*, *Chronicle of Higher Education*, CNN, *The Daily Dot*, *Daily Mail*, *Detroit Free Press*, *The Economist*, *Financial Times*, *Forbes.com*, Freakonomics podcast, *Gizmodo*, *Harvard Business Review*, *i09*, *Marginal Revolution*, *Medscape*, *Mother Jones*, *MSN*, *Nature*, *Nautilus*, *NBC News*, *New York Times*, *PBS*, *Popular Mechanics*, *Psychology Today*, *Scientific American*, *Slate*, *STAT*, *UPI*, *USA Today*, *U.S. News & World Report*, *Vox*, *The Washington Post*, *Wired*, *Yahoo!*, *Yahoo! Finance*

Work covered by international news outlets: Amed Post (Turkey), CNN Philippines, CTV National News (Canada), *Wiener Zeitung* (national paper of Austria), *El Pais* (Spain), *Todo Noticias* (Spain), *Times Literary Supplement* (UK), *Olhar Digital* (Brazil), *HVG* (formerly *Heti Világgazdaság*; Hungary's leading economic and political weekly), *RT Actualidad* (Russia), *Fanpage* (Italy), *Die Welt* (German daily newspaper), *Orf* (Austria), *Augsburger Allgemeine* (German daily newspaper), *Handelsblatt* (German business newspaper), *Reutlinger General-Anzeiger* (German daily newspaper), *Todo Noticias* (Argentina), *Montreal Gazette*

Quoted in: *ABA Journal*, *Bloomberg News*, *Bloomberg Law*, *Buzzfeed*, *Chicago Tribune*, *Chronicle of Higher Education*, *Forbes.com*, *Fusion*, *Genome Magazine*, *GenomeWeb*, *Huffington Post*, *International Business Times*, *Mashable*, *MedCity News*, *Medical Ethics Advisor*, *MIT Technology Review*, *Motherboard*, *Nature News & Comment*, *Reporting on Health*, *Report on Research Compliance*, *STAT*, *The Timmerman Report*, *Torque*, *University World News*, *U.S. News & World Report*, *VentureBeat*, *Wall Street Journal*, *Wired*

Appearances on: American Public Media's *Marketplace Tech*, BBC Radio 4's *The Digital Human*, *Genome Magazine* podcast, *Oral Argument* podcast, Public Radio International's *Innovation Hub*, Public Radio International's *To the Point*, STAT's *Signal* podcast, *Tech Tonics* podcast, *This Week in Health Law* podcast, *The Tommy Schnurmacher Show* (Montreal radio), *Viewpoints* (Montreal radio), WNEP (Scranton/Wilkes-Barre ABC affiliate), WNYT Nightly News (Albany NBC affiliate)

## **BLOGGING**

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Regular contributor, *Forbes*, 2015–2016

Regular contributor, *The Faculty Lounge* (legal academic group blog), 2013-2016; guest blogger, 2012-13

Regular contributor, *Bill of Health* (Harvard Law School-hosted group blog covering health law policy, biotechnology, and bioethics), 2012-2016

Organizer and contributor, "Online Symposium on the Law, Ethics & Science of Re-identification Demonstrations," *Bill of Health*, May 2013 (cited by White House report, *Big Data: Seizing Opportunities, Preserving Values*, May 2014).

Organizer and contributor, "Online Symposium on the Munoz and McMath Cases," *The Bioethics Program Blog*, Jan.–Feb. 2014.