## Curriculum Vitae

# MICHELE SANTACATTERINA, PHD

180 Madison Avenue, Room 2-51 New York, NY, USA

Edu email: santam13@nyu.edu

Work email: michele.santacatterina@nyulangone.org

Work phone: 646-501-3642

## CURRENT ACADEMIC APPOINTMENTS

2021 - Present	Assistant Professor, Division of Biostatistics, Department of Population Health (DPH)
	New York University Grossman School of Medicine (NYUM)

2025 - Present Research Advisor, Google DeepMind

2023 - Present Adjunct Professor of Biostatistics, Rockefeller University

2024 - Present Affiliated Faculty, NYU Center for Data Science

## EDUCATION AND TRAINING

#### Education

Year	$\mathbf{Degree}$	Field	Institution
2009	B.S.	Statistics	University of Padua, Padua, Italy
2012	M.S.	Biostatistics	University of Milano-Bicocca, Milan, Italy
2018	Ph.D.	Biostatistics	Karolinska Institute, Stockholm, Sweden

#### Training

2012-2013 Research Assistant Karolinska Institute, Stockholm, Sweden

#### Postdoctoral Training

2018-2020 Data Science Dr. Nathan Kallus, Cornell University, New York, NY

#### Previous Appointments and Leadership Positions

2020-2021	Assistant Professor	George Washington University (GWU), Washington DC, DC
2022 2025	T71 1:1 TO 1	O 1 N X 1 NX 1

2022-2025 Visiting Researcher Google New York, NY

#### RESEARCH ACTIVITY

#### Personal statement

My research focuses on developing and applying causal inference, causal machine learning, and causal AI methods to enhance the rigor, interpretability, and clinical value of modern randomized clinical trials (RCTs). I build estimand-first frameworks that clarify treatment strategies and improve reliability in adaptive, platform, and data-integrative trial settings. A complementary line of work develops robust causal ML/AI methods for multimodal longitudinal data—including imaging, speech, and text—to strengthen inference in small, complex studies. Supported by NIH and NSF funding as PI and mPI, this work advances NYU-led trials in psychiatry and other clinical domains and has established my national reputation at the intersection of causal inference, machine learning, AI, and modern trial design.

# Active and pending grants

Principal	Funding	Role	e Effort	End	Project		
Investigator Agency		Ttole	Enort	Date	Title		
	Active						
Santacatterina, M.	NIH	MPI	1.20-1.08  PM	06/2029	SCH: Structural Causal Framework for Adaptive Experiments		
Santacatterina, M.	Cornell Univ.	PΙ	$1.20~\mathrm{PM}$	06/2026	Cornell NYU collaboration on novel AI methods		
Santacatterina, M.	NSF-NIH	PΙ	16%	07/2027	SCH: Interpretable survival analysis of complex longitudinal data		
Pomara, N.	NIA	Co-I	0.62 - 0.60  PM	07/2026	Depression Treatment and A $oldsymbol{eta}$ Dynamics: A Study of Alzheimer's Disease Risk		
Bunting, A.	NIDA	Co-I	$0.63~\mathrm{PM}$	09/2025	STAIR-NT Trauma Intervention for Polysubstance Populations		
Simon, N. / Milad, M.	NCCAM	Co-I	0.98-0.85  PM	04/2026	Neural Mechanisms and Sex Differences in Response to MBSR in GAD		
Loeb, S.	NIH	Co-I	$0.00-0.60~{\rm PM}$	01/2028	Addressing Misinformation in Prostate Cancer Care		
Neighbors, C.J.	NIDA	Co-I	$1.09-1.20~{ m PM}$	02/2028	Quality of Care for OUD among Transition-age Adults in Medicaid		
Cerdá / Marshall	NIDA	Co-I	1.22 – 1.20  PM	02/2027	Evaluation of Overdose Prevention Programs		
Johnson, A.	NIDCD	Co-I	0.42 – 0.60  PM	06/2028	Effect of Vocal Fold Injury on Laryngeal Muscle Dysfunction		
Saxe, G.	NICHD	Co-I	0.87 - 0.84  PM	08/2028	CHAMP Center: Prevention of Child and Adolescent Maltreatment		
Loeb, S.	DoD	Co-I	$0.57~\mathrm{PM}$	09/2026	Equity in Genetic Evaluation for Prostate Cancer		
Simon / Blessing	NIH	Co-I	$0.12~\mathrm{PM}$	08/2025	Cannabidiol for Social Anxiety Disorder		
Bogenschutz, M.	NIDA	Co-I	0.30 – 1.80  PM	08/2026	Psilocybin for OUD in Methadone-Maintained Patients		
Troxel, A. / Yu, C.	NINDS	Co-I	$0.65~\mathrm{PM}$	08/2025	EPPIC-NET DCC Supplement		
Girgis, R.	NIH (via NYPI)	Co-I	0.35 – 0.60  PM	06/2026	Clozapine for the Prevention of Violence in Schizophrenia		
Pending							
Santacatterina, M.	NIH	PΙ	6.84-6.00 PM	06/2029	Real-World Data for Replication Studies in Schizophrenia		
Goff, D.	NIH	Co-I	$2.40~\mathrm{PM}$	03/2030	Mitochondrial Function in Schizophrenia		
Ross, S.	NIH	Co-I	$0.60–1.20~{\rm PM}$	03/2030	Psilocybin-Assisted Psychotherapy for Breast Cancer		
Charytan, D.	NIH	Co-I	$1.20~\mathrm{PM}$	03/2029	RADAR-K Trial on Dialysate Potassium		
Bunting, A.	NIH	Co-I	$0.36~\mathrm{PM}$	03/2028	App-based PTSD Treatment in Methadone Maintenance Patients		
Goff, D.	NIH	Co-I	$1.20~\mathrm{PM}$	06/2030	Suvorexant for Paranoia		
Goff, D.	NIH	Co-I	$1.20~\mathrm{PM}$	06/2030	Transcranial Ultrasound for Psychosis		
Bunting, A.	NIH	Co-I	$0.60-1.20~{ m PM}$	06/2031	Community-Based Overdose Intervention		
Lattanzi, R.	Arthritis Fnd.	Co-I	$0.60~\mathrm{PM}$	06/2027	ML for Rapid Hip Osteoarthritis Progression		
Mazzoli, V.	NIH	Co-I	$0.48~\mathrm{PM}$	08/2027	Skeletal Muscle Biomarkers via MRI		
Walters, S.	NIH	Co-I	$0.60~\mathrm{PM}$	11/2030	Reducing MOUD Stigma with Photovoice		
Duwuri, U.	NIH	Co-I	$0.60~\mathrm{PM}$	11/2030	Lysosomal-Mitochondrial Synergy in Head and Neck Cancer		

## EDUCATION ACTIVITY

# Teaching Activities

Fall 2022 — Statistical Learning, Graduate Level Course for PhD students in Biostatistics, Course Co-Director, NYUM

Spring 2023 — Statistical Inference II, Graduate Level Course for PhD students in Biostatistics, Course Co-Director, NYUM

03/2023 — Applied Causal Inference for Real-World Observational Studies, half-day course,  $Course\ Director$ , ENAR

06/2023 — Causal Inference in Epidemiology, week-long course, *Course Director*, Summer School on Modern Methods in Biostatistics and Epidemiology

Fall 2023 — Modern Causal Inference Methods, Graduate Level Course for PhD students in Biostatistics, Course Co-Director, NYUM

03/2024 — Applied Causal Inference for Real-World Observational Studies, 1-day course, *Course Director*, Harvard Catalyst

Spring 2024 — Statistical Inference II, Graduate Level Course for PhD students in Biostatistics, Course Co-Director, NYUM

Spring 2025 — Statistical Inference II, Graduate Level Course for PhD students in Biostatistics, Course Co-Director, NYUM

06/2025 — Causal Inference in Epidemiology, week-long course, *Course Director*, Summer School on Modern Methods in Biostatistics and Epidemiology

### Invited Talks and Teaching of Peers

#### Internal

Sponsored by NYU Langone Health

- 09/2021 Invited Talk, Real-World SARS-CoV-2 Vaccine Effectiveness in North Carolina: The COVID-19 Community Research Partnership., Division of Biostatistics Seminar, DPH, NYUM
- 09/2022 Invited Talk, Deep Survival Analysis with Longitudinal X-rays for COVID-19., DPH seminar series, NYUM
- 10/2024 Invited Lecture, Introduction to causal inference, NYUM Biomedical Informatics Masters Training Program, NYUM
- 10/2025 Invited Lecture, Introduction to causal inference, NYUM Biomedical Informatics Masters Training Program, NYUM

## External to NYU

- 09/2014 Poster, Antiretroviral therapy among HIV-infected people who inject drugs in Sweden: access and treatment response. HIV Nordic conference.
- 09/2015 Invited Talk, Weight watchers: How to optimize your weight. Nordic and Baltic Stata Users Group meeting.
- 09/2016 Talk, Optimal probability weights for inference with constrained precision. Royal Statistical Society International Conference.
- 04/2017 Poster, Estimating treatment effects with optimal inverse probability weighting. UK Causal Inference Meeting.
- 09/2017 Talk, Estimating treatment effects with optimal inverse probability weighting. Royal Statistical Society International Conference.
- 10/2017 Invited Talk, Optimal probability weights for inference with constrained precision. MELODEM Selection Group Meeting.
- 04/2018 Talk, Optimal balancing of time-dependent confounders for marginal structural models Second. EUROCIM Causal Inference 2018.
- 09/2018 Invited Talk, Optimal Weighting for Causal Inference. Cornell AI Seminar.
- 10/2018 Talk, Optimal balancing of time-dependent confounders for marginal structural models Second. TRIPODS PI meeting.
- 05/2019 Talk and poster, Optimal estimation of generalized average treatment effects using Kernel Optimal Matching. Atlantic Causal Inference Conference 2019.
- 09/2019 Invited Talk, Kernel optimal orthogonality weighting: a balancing approach to estimating effects of continuous treatments. Cornell Machine Learning in Medicine.
- 01/2020 Invited Talk, Kernel optimal orthogonality weighting: a balancing approach to estimating effects of continuous treatments. McGill Department of Biostatistics Biostatistics Seminar.
- 03/2020 Invited Talk, IMS invited session on challenges for precision medicine. ENAR 2020
- 08/2020 Invited Talk, Optimal estimation of generalized average treatment effects using Kernel Optimal Matching., JSM 2020 Health policy statistics section.

- 12/2020 Talk, Optimal Weighting for Estimating Generalized Average Treat- ment Effects, Harvard Machine Learning and Causal Inference Reading group.
- 02/2021 Invited Talk, Optimal Weighting for Estimating Generalized Average Treatment Effects, GWU Statistics Seminar Series.
- 03/2021 Talk, Robust Weights that Optimally Balance Confounders for Estimating the Effect of Binary and Continuous Treatments with Time-to-event Data., ENAR 2021.
- 08/2021 Talk, Optimal Weighting for Estimating Generalized Average Treatment Effects, JSM 2021.
- 04/2022 Invited Talk, Optimal Weighting for Causal Inference, Columbia Causal Inference Learning Seminar 2022.
- 05/2022 Poster, A double machine learning estimator to generalize survival curves from trials to real-world target populations, American Causal Inference Conference 2022.
- 05/2022 Poster, Scalable Bootstrap Algorithms for Causal Inference with Large Real-World Data, American Causal Inference Conference 2022.
- 12/2022 Invited Talk, Optimal Weighting for Causal Inference, 14th International Conference of the ERCIM WG on Computational and Methodological Statistics.
- 04/2023 Invited Talk, Applied Causal Inference for Observational Studies, Seminar Series, Center for Biostatistics, Mount Sinai.
- 02/2024 Invited Talk, Exploring the role of AI in medical research: a causal perspective,  $R^3/AI$  talk, Rockefeller University, New York.
- 05/2024 Invited Talk, Identification and estimation of causal effects using non-concurrent controls in platform trials, SCT 2024, Boston.
- 05/2024 Invited Talk, Identification and estimation of causal effects using non-concurrent controls in platform trials, ACIC 2024, Seattle.
- 08/2024 Invited Talk, Identification and estimation of causal effects using non-concurrent controls in platform trials, JSM 2024, Portland.
- 11/2024 Invited Talk, Identification and estimation of causal effects using non-concurrent controls in platform trials, J & J Statistical seminar, online.
- 02/2025 Invited Talk, Causal inference for small and large data: efficient data integration and scalable estimation, Purdue University Department of Statistics, La Fayette.
- 08/2025 Invited Talk, Identification and estimation of causal effects using non-concurrent controls in platform trials, EcoStat 2025, Tokyo.
- 11/2025 Invited Talk, Causal inference for small and large data: efficient data integration and scalable estimation, UCLA Department of Biostatistics, Los Angeles.
- TBD Invited Talk, Identification and estimation of causal effects using non-concurrent controls in platform trials, Basel Biometric Society (BBS) Statistical seminar, online.

# Mentoring and Advising

Predoctoral students supervised and/or mentored Master students

07/2015 - 11/2017 Chiara Chiavenna Biostatistics Karolinska Institutet Mentor 08/2017 - 12/2017 Claudia Carlucci Biostatistics Karolinska Institutet Mentor

10/2019 - 06/2020	Yaniv Ravid	ORIE	Cornell	Research advisor
10/2020 - 08/2021	Nolan Kuenster	Epidemiology	GWU	Research advisor

### Doctoral students

01/2022 - 04/2022	Axel Martin*	Biostatistics	NYUM	Rotation advisor
05/2022 - Present	Axel Martin	Biostatistics	NYUM	Research advisor
01/2023 - 04/2023	Federico Macchiavelli*	Biostatistics	NYUM	Rotation advisor
05/2023 - 08/2023	Antonio D'Alessandro*	Biostatistics	NYUM	Rotation advisor
09/2023 - Present	Antonio D'Alessandro	Biostatistics	NYUM	Research advisor
08/2023 - 12/2023	Xinyi Zhang*	Biostatistics	NYUM	Rotation advisor
08/2024 - Present	Xinyi Zhang	Biostatistics	NYUM	Research advisor
08/2023 - 12/2023	Jiacheng Ge	Biostatistics	NYUM	Rotation advisor
10/2024 - Present	Matas Griskaitis	Epidemiology	NYUM	Rotation advisor
10/2024 - 01/2025	Richard Liu	Biostatistics	NYUM	Rotation advisor
08/2023 - 12/2023	Jiacheng Ge	Biostatistics	NYUM	Rotation advisor
04/2025 - Present	Anushree Iyengar	Biostatistics	NYUM	Rotation advisor

# Dissertation committee

10/2021 - Present,	Juan Gago	Epidemiology	NYUM	Dissertation Committee Member
01/2023 - Present,	Danni Wu	Biostatistics	NYUM	Dissertation Committee Member
08/2025 - Present,	Federico Macchiavelli	Biostatistics	NYUM	Dissertation Committee Member
08/2025 - Present,	Richard Liu	Biostatistics	NYUM	Dissertation Committee Member

# Post-Doctoral students

11/2025 - Present, Raphael Kim NYUM/Cornell Scientific Mentor

# NIH K award

11/2024 - Present, Soumik Mandal NYUM K Award Mentor

# INSTITUTIONAL, LOCAL/NATIONAL SERVICE AND RELATED ACTIVITY

# <u>Institutional Service</u>

2022 - 2024	NYUM Faculty Senator, NYUM
2021 - Present	DPH Anti Racism Town Hall Member, NYUM
2023 - Present	Working group development and symposium development, Co-Champion, DPH,
	NYUM
2023 - Present	PhD program review and curriculum development, Co-Champion, NYU
2023 - 2024	Symposium in advances in causal inference methods, Co-Champion, NYU
2024 - 2025	Symposium in design and analysis of modern randomized clinical trials, Chair, NYU

# Professional Service for Professional Organizations

2024-Present	Invited scientific reviewer for PCORI's Improving Methods for Conducting Patient-
	Centered Comparative Clinical Effectiveness Research
2024	Invited scientific reviewer for PCORI's Cycle 1, 2024 Broad Pragmatic Studies
2024	Invited reviewer for an NSF-NIH panel on Smart and Connected Health
2023	Chair of an abstract parallel session on generalizability, Society for Causal Inference

2018 - Present Committee Member of the European Causal Inference Society (EUROCIM)

# Peer Review Groups, Grant Application Review Groups, and Study Sections

2024 - Present DSMB chair for the study Targeting Dopamine-Mediated Social Reward Sensitivity to Remediate Social Disconnection (NIH-R61 Project)

# Advisory Boards and Consultant Positions

2022 - Present Data and Safety Monitoring Board (DSMB) for multiple studies funded by NIMH/NIH (role: statistician)

#### Organizing Roles in Scientific Meetings

- 2019 Organizer of the symposium: Optimization methods for causal inference Atlantic Causal Inference Conference 2019
- 2019 Organizer of the workshop: "Do the right thing": machine learning and causal inference for improved decision making,
  NeurIPS, 2019
- 2021 Organizer and chair of the invited paper session: Leveraging real-world data for improved medical decision-making: challenges, opportunities, and recent developments ENAR 2021
- 2023 Program chair of the Generalization and Transportability session at ACIC 2023
- 2023 Member of the organizing committee for the Symposium in advances in causal inference methods, NYII
- 2024 Local organizing committee member LiDS 2025
- 2025 Member of the organizing committee for the Symposium in design and analysis of modern randomized clinical trials, NYU

#### Editorial and Journal Positions

Ad Hoc Reviewer: Journal of the American Statistical Association; Annals of Applied Statistics; Journal of the Royal Statistical Society - Series A; Biometrical Journal; Computational Statistics and Data Analysis; NeurIPS; ICML; AISTAT; Nature Machine Intelligence; BMC Medical Research Methodology; Epidemiological methods; Statistics in Biopharmaceutical Research; Clinical Infectious Diseases

#### **BIBLIOGRAPHY**

## Peer-reviewed Publications - Statistical and AI Methodology

- 1. **Santacatterina**, M. and Bottai, M. (2016), 'Inferences and conjectures in clinical trials: a systematic review of generalizability of study findings', *Journal of Internal Medicine* **279**(1), 123–126.
- 2. **Santacatterina**, M. and Bottai, M. (2018), 'Optimal probability weights for inference with constrained precision', *Journal of the American Statistical Association* **113**(523), 983–991.
- 3. Su, Y., Wang, L., **Santacatterina**, M. and Joachims, T. (2019), Cab: Continuous adaptive blending for policy evaluation and learning, *in* 'International Conference on Machine Learning', PMLR, pp. 6005–6014.
- 4. **Santacatterina**, M. et al. (2019), 'Optimal probability weights for estimating causal effects of time-varying treatments with marginal structural cox models', *Statistics in medicine* **38**(10), 1891–1902.
- 5. Kallus, N., Pennicooke, B. and **Santacatterina**, M. (2021), 'More robust estimation of average treatment effects using kernel optimal matching in an observational study of spine surgical interventions', *Statistics in medicine* **40**(10), 2305–2320. *Authors listed alphabetically*; **Santacatterina** served as first and corresponding author.

- 6. Kallus, N. and **Santacatterina**, M. (2021), 'Optimal balancing of time-dependent confounders for marginal structural models', *Journal of Causal Inference* **9**(1), 345–369. *Authors listed alphabetically*; **Santacatterina** served as first and corresponding author.
- 7. Shu, M., Bowen, R. S., Herrmann, C., Qi, G., **Santacatterina**, M. and Zabih, R. (2021), Deep survival analysis with longitudinal x-rays for covid-19, *in* 'Proceedings of the IEEE/CVF International Conference on Computer Vision', pp. 4046–4055.
- 8. Kallus, N. and **Santacatterina**, M. (2022), 'Optimal weighting for estimating generalized average treatment effects', *Journal of Causal Inference* **10**(1), 123–140. *Authors listed alphabetically*; **Santacatterina** served as first and corresponding author.
- 9. **Santacatterina**, M. (2023), 'Robust weights that optimally balance confounders for estimating marginal hazard ratios', *Statistical methods in medical research* **32**(3), 524–538.
- 10. **Santacatterina**, M. et al. (2023), 'Using repeated antibody testing to minimize bias in estimates of prevalence and incidence of sars-cov-2 infection', *Epidemiologic Methods* **12**(1), 20230012.
- 11. Behrouz, A., **Santacatterina**, M. and Zabih, R. (2024), 'Chimera: Effectively modeling multivariate time series with 2-dimensional state space models', *Advances in Neural Information Processing Systems* **37**, 119886–119918.
- 12. Kosko, M., Wang, L. and **Santacatterina**, M. (2024), 'A fast bootstrap algorithm for causal inference with large data', *Statistics in Medicine* **43**(15), 2894–2927.
- 13. Behrouz, A., Cao, D. Y., Parviz, A., **Santacatterina**, M. and Zabih, R. (2025), Leto: Modeling multivariate time series with memorizing at test time, *in* 'Second Workshop on Test-Time Adaptation: Putting Updates to the Test! at ICML 2025'.
- 14. Cao, D. Y., Behrouz, A., Parviz, A., Karami, M., **Santacatterina**, M. and Zabih, R. (2025), Effectively designing 2-dimensional sequence models for multivariate time series, *in* 'ICLR 2025 Workshop on World Models: Understanding, Modelling and Scaling'.
- 15. Matthay, E. C., Neill, D. B., Titus, A. R., Desai, S., Troxel, A. B., Cerdá, M., Díaz, I., **Santacatterina**, M. and Thorpe, L. E. (2025), 'Integrating artificial intelligence into causal research in epidemiology', *Current Epidemiology Reports* **12**(1), 6.
- 16. **Santacatterina**, M. et al. (2025), 'Identification and estimation of causal effects using non-concurrent controls in platform trials', *Statistics in Medicine* **44**(6), e70017.

## Peer-reviewed Publications - Medical and Population Health research

- 17. Cuong, D. D., Agneskog, E., Chuc, N. T. K., **Santacatterina**, M., Sönnerborg, A. and Larsson, M. (2012), 'Monitoring the efficacy of antiretroviral therapy by a simple reverse transcriptase assay in hiv-infected adults in rural vietnam', *Future Virology* **7**(9), 923–931.
- 18. Sharma, M., Sanneving, L., Mahadik, K., **Santacatterina**, M. et al. (2013), 'Antibiotic prescribing in women during and after delivery in a non-teaching, tertiary care hospital in ujjain, india: a prospective cross-sectional study', *Journal of pharmaceutical policy and practice* **6**, 1–7.
- 19. De Costa, A., Vora, K. S., Ryan, K., Sankara Raman, P., **Santacatterina**, M. and Mavalankar, D. (2014), 'The state-led large scale public private partnership 'chiranjeevi program'to increase access to institutional delivery among poor women in gujarat, india: How has it done? what can we learn?', *PLoS One* **9**(5), e95704.
- 20. Longinetti, E., **Santacatterina**, M. and El-Khatib, Z. (2014), 'Gender perspective of risk factors associated with disclosure of hiv status, a cross-sectional study in soweto, south africa', *PloS one* **9**(4), e95440.

- 21. Neogi, U., Häggblom, A., **Santacatterina**, M., Bratt, G., Gisslen, M., Albert, J. and Sonnerborg, A. (2014), 'Temporal trends in the swedish hiv-1 epidemic: increase in non-b subtypes and recombinant forms over three decades', *PloS one* **9**(6), e99390.
- 22. Madhvani, N., Longinetti, E., **Santacatterina**, M., Forsberg, B. C. and El-Khatib, Z. (2015), 'Correlates of mobile phone use in hiv care: Results from a cross-sectional study in south africa', *Preventive medicine reports* 2, 512–516.
- 23. Cuong, D. D., Sönnerborg, A., Van Tam, V., El-Khatib, Z., **Santacatterina**, M., Marrone, G., Chuc, N. T. K., Diwan, V., Thorson, A., Le, N. K. et al. (2016), 'Impact of peer support on virologic failure in hivinfected patients on antiretroviral therapy-a cluster randomized controlled trial in vietnam', *BMC infectious diseases* 16, 1–14.
- 24. Häggblom, A., Santacatterina, M., Neogi, U., Gisslen, M., Hejdeman, B., Flamholc, L. and Sönnerborg, A. (2017), 'Effect of therapy switch on time to second-line antiretroviral treatment failure in hiv-infected patients', *Plos one* 12(7), e0180140.
- 25. Karlsson, N., Santacatterina, M., Käll, K., Hägerstrand, M., Wallin, S., Berglund, T. and Ekström, A. M. (2017), 'Risk behaviour determinants among people who inject drugs in stockholm, sweden over a 10-year period, from 2002 to 2012', *Harm Reduction Journal* 14, 1–11.
- 26. Chan, A. K., **Santacatterina** et al. (2020), 'Does state malpractice environment affect outcomes following spinal fusions? a robust statistical and machine learning analysis of 549,775 discharges following spinal fusion surgery in the united states', *Neurosurgical focus* **49**(5), E18.
- 27. Duration of SARS-CoV-2 sero-positivity in a large longitudinal sero-surveillance cohort: the COVID-19 Community Research Partnership (2021), BMC Infectious Diseases 21, 1–11.
- 28. Pennicooke, B., **Santacatterina**, M. et al. (2021), 'The effect of patient age on discharge destination and complications after lumbar spinal fusion', *Journal of Clinical Neuroscience* **91**, 319–326. **Santacatterina** et al.
- 29. **Santacatterina**, M., Sanders, W., J. and Weintraub, S., W. (2021), 'Prevention of covid-19 with the bnt162b2 and mrna-1273 vaccines', *New England Journal of Medicine* **385**(19), 1817–1821.
- 30. Calamari, L. E., Tjaden, A. H., Edelstein, S. L., Weintraub, W. S., Santos, R., Gibbs, M., Ward, J., Santacatterina, M. et al. (2022), 'Self-reported mask use among persons with or without sars cov-2 vaccination—united states, december 2020–august 2021', Preventive medicine reports 28, 101857.
- 31. Friedman-Klabanoff, D. J., Tjaden, A. H., **Santacatterina**, M., Munawar, I., Sanders, J. W., Herrington, D. M., Wierzba, T. F., Berry, A. A. et al. (2022), 'Vaccine-induced seroconversion in participants in the north carolina covid-19 community research partnership', *Vaccine* **40**(42), 6133–6140.
- 32. Frontera, J. A., Tamborska, A. A., Doheim, M. F., Garcia-Azorin, D., Gezegen, H., Guekht, A., Yusof Khan, A. H. K., **Santacatterina**, M., Sejvar, J., Thakur, K. T. et al. (2022), 'Neurological events reported after covid-19 vaccines: an analysis of vaccine adverse event reporting system', *Annals of neurology* **91**(6), 756–771.
- 33. Frontera, J., Tamborska, A., Doheim, M., Garcia-Azorin, D., Gezegen, H., Guekht, A., Khan, Y., Santa-catterina, M., Sejvar, J., Thakur, K. et al. (2022), 'contributors from the global covid-19 neuro research coalition. neurological events reported after covid-19 vaccines: an analysis of vaers', *Ann Neurol* 91(6), 756–771.
- 34. Garcia-Azorin, D., Baykan, B., Beghi, E., Doheim, M. F., Fernandez-de Las-Penas, C., Gezegen, H., Guekht, A., Hoo, F. K., **Santacatterina**, M., Sejvar, J. et al. (2022), 'Timing of headache after covid-19 vaccines and its association with cerebrovascular events: An analysis of 41,700 vaers reports', *Cephalalgia* 42(11-12), 1207–1217.

- 35. Ojo, T., Ruan, C., others, **Santacatterina**, M. et al. (2022), 'Hiv, tuberculosis, and food insecurity in africa—a syndemics-based scoping review', *International journal of environmental research and public health* **19**(3), 1101.
- 36. Peacock Jr, J. E., Herrington, D. M., Edelstein, others, **Santacatterina**, M. et al. (2022), 'Survey of adherence with covid-19 prevention behaviors during the 2020 thanksgiving and winter holidays among members of the covid-19 community research partnership', *Journal of Community Health* 47(1), 71–78.
- 37. Schlacter, J. A., Kay-Rivest, E., Nicholson, J., **Santacatterina**, M. et al. (2022), 'Cochlear implantation outcomes in patients with retrocochlear pathology: a systematic review and pooled analysis', *Otology & Neurotology* **43**(9), 980–986.
- 38. The COVID-19 Community Research Partnership: a multistate surveillance platform for characterizing the epidemiology of the SARS-CoV-2 pandemic (2022), Biology Methods and Protocols 7(1), bpac033.
- 39. Uschner, D., Bott, M., Lagarde, W. H., Keating, J., Tapp, H., Berry, A. A., Seals, A. L., Munawar, I., Schieffelin, J., Yukich, J., Santacatterina, M. et al. (2022), 'Breakthrough sars-cov-2 infections after vaccination in north carolina', *Vaccines* 10(11), 1922.
- 40. Goff, D. C., **Santacatterina**, M., Capichioni, G., Ando, F., Hart, K., Convit, A. and Rusinek, H. (2023), 'Levetiracetam effects on hippocampal blood flow and symptoms in medication-free individuals with non-affective first episode psychosis', *Schizophrenia research* **260**, 140–142.
- 41. Pun, P. H., **Santacatterina**, M., Ways, J., Redd, C., Al-Khatib, S. M., Smyth-Melsky, J., Chinitz, L. and Charytan, D. M. (2023), 'Point-of-care chemistry-guided dialysate adjustment to reduce arrhythmias: a pilot trial', *Kidney International Reports* 8(11), 2385–2394.
- 42. Spitzer, E. R., Kay-Rivest, E., Waltzman, S. B., O'Brien-Russo, C. A., Santacatterina, M. et al. (2023), 'Acceptance and benefit of electroacoustic stimulation in children', Otology & Neurotology 44(5), 453–461.
- 43. Bhatt, N., Yang, J., DeBaere, L., Wang, R. S., Most, A., Zhang, Y., Dayanov, E., Yang, W., Santacatterina, M., Kamberi, M. et al. (2024), 'Reducing length of stay in reconstructive head and neck surgery patients: A quality improvement initiative', Otolaryngology-Head and Neck Surgery 171(6), 1938–1948.
- 44. Lee, J., Ruiz-Cardozo, M. A., others, **Santacatterina**, M. et al. (2024), 'Clinical prediction for surgical versus nonsurgical interventions in patients with vertebral osteomyelitis and discitis', *Journal of Spine Surgery* 10(2), 204.
- 45. Morrissette, M., Ben-Dov, T., **Santacatterina**, M., Catháin, É. Ó. and April, M. M. (2024), 'Comparison of four ventilation tubes commonly used in the pediatric population: A retrospective cohort study', *Laryngoscope Investigative Otolaryngology* **9**(4), e1306.
- 46. Nemani, K., De Picker, L., Dickerson, F., Leboyer, M., **Santacatterina**, M. et al. (2024), 'Anti-spike antibody responses to sars-cov-2 mrna vaccines in people with schizophrenia and schizoaffective disorder', *Brain*, behavior, & immunity-health 38, 100802.
- 47. Renn, T., Griffin, B., Kumaravelu, V., Ventuneac, A., **Santacatterina**, M. and Bunting, A. M. (2024), 'Study protocol for a randomized controlled trial to adapt a posttraumatic stress disorder intervention of patients with opioid-stimulant polysubstance use receiving methadone maintenance treatment', *BMC psychiatry* **24**(1), 1–10.
- 48. Wang, R. S., Asfour, L., Yang, W., Zhang, Y., **Santacatterina**, M. and Jethanamest, D. (2024), 'Patient characteristics impacting adherence to serial observation for vestibular schwannomas', *Otolaryngology–Head and Neck Surgery* **171**(2), 511–516.
- 49. Wang, R. S., Chow, M. S., Gordon, A. J., **Santacatterina**, M. et al. (2024), 'Adjuvant radiotherapy in moderately advanced (t3) oral cavity cancers', *The Laryngoscope* **134**(5), 2236–2242.

- 50. Cerdá, M., Allen, B. L., Collins, A. B., Behrends, C. N., **Santacatterina**, M. et al. (2025), 'Study assessing the effectiveness of overdose prevention centers through evaluation research (safer): an overview of the study protocol', *Harm Reduction Journal* **22**(Suppl 1), 76.
- 51. Gartling, G., Sayce, L., Zimmerman, Z., Slater, A., Hary, L., Yang, W., Santacatterina, M., Rousseau, B. and Branski, R. C. (2025), 'Acute effects of steroids on vocal fold epithelium post-injury in a preclinical model', *The Laryngoscope* 135(1), 206–212.
- 52. Generotti, C. J., Von Sneidern, M., Hatley, M. G., Wang, R. S., DeSimone, J., Perillo, L., Yang, W., Santacatterina, M. and Lee, J. W. (2025), 'Evaluating the efficacy of virtual versus in-person neuromuscular retraining in treating facial palsy', Facial Plastic Surgery & Aesthetic Medicine.
- 53. Hatley, M., O'Connor, M., Lebowitz, J., Connors, J., Yang, W., Santacatterina, M. et al. (2025), 'Comparing the effects of absorbable versus nonabsorbable nasal packing on postoperative outcomes following endoscopic ventral skull base surgery', *Journal of Neurological Surgery Part B: Skull Base*.
- 54. Qi, W., Santacatterina, M. et al. (2025), '557. transcranial ultrasound stimulation of the right globus pallidus in schizophrenia: A randomized sham-controlled pilot study', *Biological Psychiatry* **97**(9), S328.
- 55. Saunders, J., Giri, V. N., Vadaparampil, S. T., Rivera, A., Sanchez Nolasco, T., Rangel Camacho, M., Byrne, N., Santacatterina, M. and Loeb, S. (2025), 'Knowledge and attitudes toward prostate cancer germline genetic testing among hispanic males', *Prostate cancer and prostatic diseases* pp. 1–8.
- 56. Winchester, A., Santacatterina, M., Yang, W., Taufique, Z. and Eytan, D. F. (2025), 'Microtia reconstruction practices among otolaryngologists in the united states', *Otolaryngology–Head and Neck Surgery*

# Pre-prints and Non peer-reviewed publications

- 57. Kallus, N. and **Santacatterina**, M. (2019), 'Kernel optimal orthogonality weighting: A balancing approach to estimating effects of continuous treatments', arXiv preprint arXiv:1910.11972.
- 58. Calamari, L. E., Tjaden, A. H., Edelstein, S. L., Weintraub, W. S., Santos, R., Gibbs, M., Ward, J., Santacatterina, M., Bertoni, A. G., Ward, L. M. et al. (2022), 'Self-reported mask use in sars-cov-2 vaccinated and unvaccinated populations', medRxiv pp. 2022–04.
- 59. Pham, K., Hirshberg, D. A., Huynh-Pham, P.-M., **Santacatterina**, M., Lim, S.-N. and Zabih, R. (2023), 'A stable and efficient covariate-balancing estimator for causal survival effects', arXiv preprint arXiv:2310.02278.
- 60. Behrouz, A., **Santacatterina**, M. and Zabih, R. (2024), 'Mambamixer: Efficient selective state space models with dual token and channel selection', *arXiv* preprint *arXiv*:2403.19888.
- 61. Martin, A., **Santacatterina**, M. and Díaz, I. (2024), 'Non-parametric efficient estimation of marginal structural models with multi-valued time-varying treatments', arXiv preprint arXiv:2409.18782.
- 62. D'Alessandro, A., Kim, J., Adhikari, S., Goff, D., Stoffi, F. J. B. and **Santacatterina**, M. (2025), 'Modern causal inference approaches to improve power for subgroup analysis in randomized controlled trials', *arXiv* preprint arXiv:2505.08960.
- 63. Stockton, B., Santacatterina, M., Mandal, S., Cleland, C. M., Hade, E. M., Illenberger, N., Meropol, S., Troxel, A. B., Petkova, E., Yu, C. and Tarpey, T. (2025), 'Clarifying identification and estimation of treatment effects in the sequential parallel comparison design'.

  URL: https://arxiv.org/abs/2511.19677

#### Abstracts

1. Saevarsdottir, S., **Santacatterina**, M., Stawiarz, L., Turesson, C., Forsblad, H., Jacobsson, L. T. and Lindblad, S. (2013), Drug survival in patients receiving golimumab treatment 2010-2013. results from the swedish rheumatology quality register, *in* 'Arthritis and Rheumatism', Vol. 65, Wiley-blackwell 111 River St, Hoboken 07030-5774, Nj Usa, pp. S641–S642.

- 2. Saevarsdottir, S., **Santacatterina**, M., Stawiarz, L., Turesson, C., Forsblad-d'Elia, H., Jacobsson, L. and Lindblad, S. (2014), Drug survival in patients receiving golimumab treatment 2010-2013: results from the swedish rheumatology quality register, *in* 'Scandinavian Journal of Rheumatology', Vol. 43, Informa Healthcare Telephone House, 69-77 Paul Street, London Ec2a 4lq, England, pp. 64–64.
- 3. Carrasquilla, G. D., Chiavenna, C., Bottai, M., Magnusson, P. K., Santacatterina, M., Wolk, A., Hallmans, G., Jansson, J.-H., Engstrom, G., Borgfeldt, C. et al. (2015), The association between menopausal hormone therapy and coronary heart disease depends on timing of initiation in relation to menopause onset. results based on pooled individual participant data from the combined cohorts of menopausal women-studies of register based health outcomes in relation to hormonal drugs (comprehend) study, in 'Menopause: The Journal of the North American Menopause', Vol. 22, pp. 1373–1373.
- 4. Friedman-Klabanoff, D. J., Tjaden, A., **Santacatterina**, M., Munawar, I., Sanders, J. W., Herrington, D. M., Wierzba, T. F. and Berry, A. (2021), 588. seroconversion among adults after receiving at least one dose of a covid-19 vaccine: Covid-19 community research partnership, mid-atlantic, southeast and southern united states, december 2020-may 2021, *in* 'Open Forum Infectious Diseases', Vol. 8, Oxford University Press US, pp. S396–S397.
- 5. Qi, W., Santacatterina, M., Brinker, S., Gilad, A., Capichioni, G., Ando, F., Castellanos, F., Shoham, S. and Goff, D. C. (2025), '557. transcranial ultrasound stimulation of the right globus pallidus in schizophrenia: A randomized sham-controlled pilot study', *Biological Psychiatry* 97(9, Supplement), S328. Abstract Supplement.

New York, November 28, 2025