

ASHLEY M. POLHEMUS

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EDUCATION

University of Zürich (UZH), Zürich, Switzerland – July 2019-2022 (Expected)

PhD Candidate in Epidemiology

Epidemiology, Biostatistics, and Prevention Institute

Johns Hopkins University (JHU), Baltimore, MD, USA - May 2014

Master's in Bioengineering Innovation and Design

Richard A. and Rachel M. Swirnow Fellow

The College of New Jersey (TCNJ), Ewing, NJ, USA - May 2013

Bachelor's in Biomedical Engineering, Mechanical Engineering Specialization & Honors Program

EXPERIENCE

PhD Candidate, Epidemiology, Biostatistics, and Prevention Institute, UZH

July 2019-present, Zürich, Switzerland

- Generate qualitative and quantitative clinical evidence to support the regulatory qualification of real-world walking speed and other digital mobility outcomes as endpoints in interventional clinical trials.

Research Project Manager, MSD Merck Sharp & Dohme AG

July 2019-present, Zürich, Switzerland

- Manage MSD's contribution to the RADAR-CNS project, an international public-private partnership studying the potential of mobile technologies to monitor central nervous disease progression.

Patient Technology Team Lead, TransCelerate Biopharma, Inc.

Sept 2016-May 2019, International Team Conduct

- Led a team of 16 representatives from 13 pharmaceutical companies in research to characterize major barriers to the adoption of digital health technology in clinical trials and develop tools to address these barriers.

Innovation Specialist, MSD IT Global Innovation Center

January 2016-May 2019, Prague, Czech Republic

- Established MSD's Remote Patient Monitoring Center of Excellence, creating a 'sandbox' for rapidly testing and de-risking digital health technologies for use in clinical programs.

Research Scientist, CelloXess Biotechnology

May 2014-November 2015, Princeton, NJ, USA

- In a start-up setting, conducted wet lab research and literature reviews studying the impact of nutrition on reproductive health.

Project/Research Engineer, JHU Center for Bioengineering Innovation and Design, JHU

2013-2014, Baltimore, MD, USA

- Developed a non-invasive device and mHealth platform for anemia screening in developing countries. Designed and conducted a 350-patient calibration study in West Bengal, India, to develop an algorithm that identifies women with prenatal anemia.

PUBLICATIONS

- Polhemus AM**, Milota N, Kadhim H, et al. Patient Technology Implementation Framework. 2019. *TransCelerate Biopharma, Inc.* <https://transceleratebiopharmainc.com/patient-technology-implementation-framework/patient-technology-assets/>
- Simblett SK, Bruno E, Siddi S, Matcham F, Giuliano L, López JH, Biondi A, Curtis H, Ferrão J, **Polhemus A**, Zappia M, Callen A, Gamble P, Wykes T and the RADAR-CNS Consortium. Patient perspectives on the acceptability of mHealth technology for remote measurement and management of epilepsy: A qualitative analysis. *Epilepsy and Behavior*, 2019. 97:123-129 DOI: <https://doi.org/10.1016/j.yebeh.2019.05.035>
- Simblett SK, Evans J, Greer B, Curtis H, Matcham F, Radaelli M, Mulero P, Arévalo MJ, **Polhemus A**, Ferrao J, Gamble P, Comi G, Wykes T, and the RADAR-CNS consortium. Engaging across dimensions of diversity: A cross-national perspective on mHealth tools for managing relapsing remitting and progressive multiple sclerosis. *Multiple Sclerosis & Related Disorders*, 2019. 32: 123-132. DOI: <https://doi.org/10.1016/j.msard.2019.04.020>
- Simblett SK, Matcham F, Siddi S, Bulgari V, Barattieri C, Hortas López J, Ferrao J, **Polhemus A**, et al. Barriers and facilitators to engagement with mHealth technology for remote measurement and management of depression: a qualitative analysis. *JMIR mHealth uHealth*, 2019. 7(1):e11325. DOI: <https://doi.org/10.2196/11325>
- Polhemus AM**, Kadhim H, Barnes S, et al. Accelerating Adoption of Patient-Facing Technologies in Clinical Trials: A Pharmaceutical Industry Perspective on Opportunities and Challenges. *Therapeutic Innovation and Regulatory Science*, 2018. 53(1): 8-24. DOI: <https://doi.org/10.1177/2168479018801566>
- Simblett SK, Matcham F, Siddi S, Bulgari V, Barattieri C, Hortas López J, **Polhemus A**, et al. Barriers to and facilitators of engagement with remote measurement technology for managing health: a systematic review and content analysis of findings. *Journal of Medical Internet Research*. 2018. 20(7):e10480. DOI: <http://doi.org/10.2196/10480>
- Polhemus AM** and Grigoreas, GE. GR20170100548. Provisional patent, filed Dec. 2017.
- Gharagozloo P, Gutiérrez-Adán A, Champroux A, Noblanc A, Kocer A, Calle A, Pérez-Cerezales S, Pericuesta E, **Polhemus AM**, Moazamian A, Drevet JR, Aitken RJ. A novel antioxidant formulation designed to treat male infertility associated with oxidative stress: promising preclinical evidence from animal models. *Human Reproduction*, 2016. 31(2):252-262. DOI: <https://doi.org/10.1093/humrep/dev302>
- Moazamian R, **Polhemus AM**, Connaughton H, et al. Oxidative stress and human spermatozoa: diagnostic and functional significance of aldehydes generated as a result of lipid peroxidation. *Molecular Human Reproduction*, 2015. 21(6):502-15. DOI: <http://doi.org/10.1093/molehr/gav014>