







Paralympic Science in the Genomic and Post-Genomic Era: A Historical and Critical Literature Review

Luca Puce¹, Kayvan Khoramipour², Nicola Luigi Bragazzi^{1,3*}

¹ Department of Neuroscience, Rehabilitation, Ophthalmology, Genetics, Maternal and Child Health (DINOGMI), University of Genoa, Genoa, Italy
² Health Strategic Research Group, Department of Health Sciences, Miguel de Cervantes European University (UEMC), Valladolid, Spain
³ Laboratory for Industrial and Applied Mathematics (LIAM), Department of Mathematics and Statistics, York University, Toronto, Canada

* Corresponding author email address: robertobragazzi@gmail.com

E d i t o r	R e v i e w e r s
Luis Felipe Reynoso-Sánchez  Department of Social Sciences and Humanities, Autonomous University of Occident, Los Mochis, Sinaloa, Mexico felipe.reynoso@uadeo.mx	Reviewer 1: Azade Abooei  Department of Counseling, Faculty of Humanities, University of Science and Art, Yazd, Iran. Email: a.aboei@tea.sau.ac.ir Reviewer 2: Mohammad Reza Khodabakhsh  Department of Psychology, Neyshabour Branch, Islamic Azad University, Neyshabour, Iran. Email :hodabakhsh@ut.ac.ir

1. Round 1

1.1 Reviewer 1

Reviewer:

While historically accurate, consider adding a reference to more recent foundational works that have expanded Booth’s framework to align it with current genomic and post-genomic research trends.

The paragraph clearly introduces this framework, but the transition from historical sports genetics to critical disability studies feels abrupt. Consider adding a bridging sentence to connect these two domains more fluidly.

It might strengthen the argument to cite meta-analyses or systematic reviews quantifying replicability issues in sports genomics.

Consider briefly discussing whether microbiomic variability has been studied in athletes with disabilities, to tie this section back to the paper’s central equity theme.

This is a central claim; however, adding a citation to empirical studies or reviews quantifying this exclusion would make it more robust.

The text relies heavily on Scully here; consider integrating additional sources to provide a more diverse scholarly foundation.

This assertion is important; however, you may want to include a brief example from sports genomics literature to illustrate the homogenization process.

Authors revised the manuscript and uploaded the updated document.

1.2 Reviewer 2

Reviewer:

This definition could be strengthened by briefly contrasting it with the medical model, which is done later in the paper. Moving some of that contrast here may enhance conceptual clarity early on.

The methods section lacks details on inclusion and exclusion criteria for the literature search. Adding these would improve transparency and replicability.

This definition is thorough but could benefit from briefly distinguishing “genomics” from “post-genomics” for readers less familiar with the nuances.

The list of benefits is strong but reads densely. Breaking it into a numbered or bulleted format may improve readability without losing academic rigor.

This metaphor is compelling, but the discussion could acknowledge debates around over-medicalization of exercise to maintain balance.

Consider expanding on specific structural or policy changes that could facilitate this inclusion, offering concrete recommendations.

Authors revised the manuscript and uploaded the updated document.

2. Revised

Editor’s decision after revisions: Accepted.

Editor in Chief’s decision: Accepted.