Biometrics: the controversy on telomere length as biomarker of aging

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Abstract

In the spring of 2011, a variety of media platforms reported on the commercial release of tests to measure telomere length as a proxy of biological age, and on the related controversy opposing two winners of the 2009 Nobel Prize for Medicine - won for work on the function of telomeres - Professor Elizabeth Blackburn and her former student and assistant Dr. Carol Greider. Normally conceived as caps at the end of chromosomes that appear to regulate cell replication, telomeres have been associated, since the 1970s, with ageing processes in the cell, but their validation as a biomarker of ageing has been fraught with controversy. This paper is integrated in an on- going project concerned with the history of attempts to measure aging since the 1950s, and explores the 2011 controversy as a means to understand the dynamics of contemporary research on biological aging. Drawing on documentary data and interviews, the paper suggests the telomere controversy enacts wider tensions about knowledge making, and in particular, measurement in biology in the 'era of molecularisation'.

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