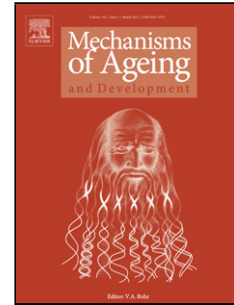


Accepted Manuscript

Title: INFLAMMAGING AND OMICS IN HUMAN LONGEVITY

Author: Daniela Monti Rita Ostan Vincenzo Borelli Gastone Castellani Claudio Franceschi



PII: S0047-6374(16)30261-5
DOI: <http://dx.doi.org/doi:10.1016/j.mad.2016.12.008>
Reference: MAD 10906

To appear in: *Mechanisms of Ageing and Development*

Received date: 10-11-2016
Accepted date: 21-12-2016

Please cite this article as: Monti, Daniela, Ostan, Rita, Borelli, Vincenzo, Castellani, Gastone, Franceschi, Claudio, INFLAMMAGING AND OMICS IN HUMAN LONGEVITY. *Mechanisms of Ageing and Development* <http://dx.doi.org/10.1016/j.mad.2016.12.008>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

INFLAMMAGING AND OMICS IN HUMAN LONGEVITY

Daniela Monti^{1*}, Rita Ostan^{2*}, Vincenzo Borelli², Gastone Castellani^{3#}, Claudio Franceschi^{4#}

¹Department of Clinical and Experimental Biomedical Sciences, University of Florence, Viale Morgagni 50, 50134 Florence, Italy

²Interdepartmental Centre “L. Galvani” (CIG) and Department of Experimental, Diagnostic and Specialty Medicine (DIMES), University of Bologna, Via San Giacomo 12, 40126 Bologna, Italy

³Department of Physics and Astronomy DIFA, University of Bologna, Bologna, Italy

⁴IRCCS, Institute of Neurological Sciences of Bologna, 40139 Bologna, Italy

*Joint first authors

§Denotes co-senior authorship

Highlights

- Inflammaging is a comprehensive and informative theory of aging and longevity
- Inflammaging is a systemic and dynamic lifelong process
- Several organs, tissues and cells produce inflammatory molecular garbage
- Centenarians have an optimal balance between pro- and anti-inflammaging
- Omics and Systems Medicine are needed to grasp the molecular core of inflammaging

Abstract

Inflammaging is a recent theory of aging originally proposed in 2000 where data and conceptualizations regarding the aging of the immune system (immunosenescence) and the evolution of immune responses from invertebrates to mammals converged. This theory has received an increasing number of citations and experimental confirmations. Here we present an updated version of inflammaging focused on omic data – particularly on glycomics - collected on centenarians, supercentenarians and their offspring. Accordingly, we arrived to the following conclusions: i) inflammaging has a structure where specific combinations of pro- and anti-

Download English Version:

<https://daneshyari.com/en/article/5503620>

Download Persian Version:

<https://daneshyari.com/article/5503620>

[Daneshyari.com](https://daneshyari.com)