Abstract
Musculoskeletal Ageing—Dietary Modification of Longevity Mechanisms to Improve Skeletal Health †

James R. Edwards
Botnar Research Centre, University of Oxford, Nuffield Orthopaedic Centre, Oxford OX3 7HE, UK; jame.s.edwards@ndorms.ox.ac.uk; Tel.: +44-1865-227-305
Published: 24 May 2019

Abstract: Ageing is inextricably linked to a deterioration of the musculoskeletal system. This suggests factors governing lifespan might also impact the maintenance of skeletal integrity throughout life. The Oxford Musculoskeletal Ageing group studies the causes and consequences of skeletal ageing. Recent findings indicate dietary constituents (polyphenols, omega 3 fatty acids, polyamines) have the potential to activate longevity mechanisms in vitro and prevent the onset of age-related disorders in vivo. Alterations in RedOx mediators, autophagic flux, sirtuin enzymes and senescence all contribute to an inter-linked ageing nexus manipulated by diet, to maintain health throughout life.

Keywords: ageing; nutrition; skeleton; polyphenols; polyamines

Funding: This article is based upon work from COST Action NutRedOx-CA16112 supported by COST (European Cooperation in Science and Technology)

Conflicts of Interest: The author declares no conflict of interest.

© 2019 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (http://creativecommons.org/licenses/by/4.0/).