



Universität
Basel

Research Project

HealthAge

Third-party funded project

Project title HealthAge

Principal Investigator(s) [Hall, Michael N.](#) ;

Organisation / Research unit

Departement Biozentrum / Biochemistry (Hall)

Department

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Aging is an inexorable homeostatic failure of complex but largely unknown aetiology that leads to increased vulnerability to disease with enormous consequences on the quality of individual lives and the overall cost to society. Although, aging is driven by limitations in somatic maintenance, it is also subject to regulation by evolutionarily highly conserved molecular pathways. Indeed, macromolecular damage may drive the functional decline with aging; however, a battery of conserved, longevity assurance mechanisms may set the pace on how rapidly damage builds up and function is lost over time. Human efforts over the last centuries have succeeded in substantially lengthening lifespan, allowing aging to become a common feature of western societies. However, The discouraging complexity of the aging process, the noticeable lack of tools to study it, and a shortage of experimentally tractable model systems have made it significantly challenging to unravel the

molecular basis of the processes that cause loss of bodily functions and degeneration of cells and tissues with advancing age. HealthAge was carefully designed to create a joint European program of excellence in training and research with a core intellectual focus on the functional role of "Lifespan Regulation Mechanisms in Health and Disease". To tackle this, HealthAge combines top-level, state-of-the-art and interdisciplinary research skills that range from basic molecular mechanisms and 'omics' level understanding to translational research and clinical applications. This interdisciplinary strategy will allow us to gain functional insight into the fundamental mechanisms regulating longevity as well as to develop a series of rationalized intervention strategies aimed at counteracting age-related diseases.

Keywords Progeria, Mitophagy, Autophagy, Neurodegeneration

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Add publication

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Specify cooperation partners