

Polygenic Risk and the Pace of Aging

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Model-organism research suggests aging can be slowed. Interventions to slow human aging need to be applied to still-young individuals. Most human aging research examines older adults, many with chronic disease. Little is known about aging in young humans. We studied aging in 954 young humans, the Dunedin Study birth-cohort, tracking multiple biomarkers across three time points spanning their third and fourth decades of life. Young individuals of the same chronological age varied in their “biological aging” (declining integrity of multiple organ systems). Already before midlife, individuals who were aging more rapidly were less physically able, showed cognitive decline and brain aging, self reported worse health, and looked older. Measured biological aging in young adults can be used to identify causes of aging and evaluate rejuvenation-therapies.

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