RESEARCH CENTERS COLLABORATIVE NETWORK
of the National Institute on Aging, NIH

WORKSHOP SUMMARY
Measuring Biologic Age (2022)

The RCCN conducted a workshop on January 19-20, 2022, to discuss emerging concepts in the field of measuring biologic age and identify opportunities to move the science forward. Below is a summary of research needs, priorities, and recommendations for measuring biologic age identified through the workshop proceedings. The highest priorities identified were the need for more robust measures, longitudinal studies, multidisciplinary collaborations, and translational approaches.

- **Clarify what each measure of biologic age actually reflects (e.g., inflammation, metabolic function, DNA damage)**
  - Elucidate the biologic processes and mechanisms that occur alongside changes in measures of biologic age
  - Establish causal impacts rather than associations
  - Evaluate the information conveyed by each "level" or type of biomarker to identify the best measure of biologic age
- **Clarify the utility of biologic aging clocks**
  - Consider that each clock represents a different profile of biologic determinant
- **Enhance methodological rigor**
  - Seek to capitalize on recent technological advancements in multiomic approaches
  - Move beyond blood to incorporate a diverse array of relevant cells, tissues, and other biospecimens
- **Increase the number of longitudinal studies**
  - Utilize robust approaches to account for changes and differences in lifetime exposures across different groups and life course stages
- **Identify outcomes for geroscience-focused clinical trials**
  - Consider measures of biologic age that can be used for population stratification
  - Inclusion into intervention/clinical trials, and patient selection (e.g., identifying those who may benefit most from an effective geroscience intervention)
- **Encourage multidisciplinary collaborations**
  - Engage existing NIA networks and center programs such as the Translational Geroscience Network and the Predictive Biomarker Network
  - Develop standardized measures and methods across research teams, allowing the pooling of study populations and results
- **Incorporate social determinants of health**
  - Examine how sociocultural and structural measures "get under the skin" over the life course and impact biologic aging
- **Integrate measures of resilience**
  - Incorporate accurate and predictive measurements of resilience
  - Elucidate how these measures can be adapted to benefit biologic age
- **Utilize a translational approach**

Workshop Publication
https://bit.ly/3VBfoUm

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