Webinar:
Maintaining Immune Health in the Face of COVID-19 and Future Viruses

Presentation Slides: George Kuchel, MD, FRCP, AGSF
What is it about immune aging that makes older adults so vulnerable to COVID-19?

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Vulnerability of Older Adults to COVID-19: Nearly all aspects of immune response and host defense are impacted by aging.

Sungnak et al. Nature Med 2020
Vulnerability of Older Adults to COVID-19: Impact of Immune Aging on Ability to Handle Familiar and Unfamiliar Pathogens

Nikolich-Zugich, Nature Imm 2018

Acknowledgements to G Hargis & C Bonin, UConn
Vulnerability of Older Adults: Must consider dynamic processes involving resilience mechanisms needed to maintain homeostasis in the face of a stressor (pathogen)
Potential Role of Another Geroprotector (Metformin) in Reducing Onset and Progression of Multiple Chronic Diseases

*TAME Trial (Targeting Aging with Metformin)*

Inclusion Criteria: Age 65-80, nondiabetic, some comorbidities allowed; n = 3,000

Double blind placebo-controlled trial

- Primary Outcome: TIME TO MAJOR DISEASES (FDA)
- Secondary Outcome: FUNCTIONAL AGING
- Tertiary Outcomes: BIOMARKERS (NIA)

Impact of Metformin on Flu Vaccine Responses (VEME-AFAR/NIA, Jenna Bartley, PhD - UConn)
Potential Role of One Geroprotector (RTB101) in Reducing Respiratory Infections

Phase 2b: RTB101 reduces the incidence of respiratory tract infections caused by multiple viruses including coronavirus.

![Graph showing the reduction in laboratory-confirmed RTIs due to different pathogens with RTB101 compared to placebo.](graph.png)