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

Presentation Slides: Nir Barzilai, MD
Disproportionate death in older adults with COVID-19 - Data from China, EU and US

Fight the virus, defend the host!
Not only for COVID-19 but future viruses
Anything hopeful about aging that is relevant to defending the host against COVID-19?

Aging has a biology that can be targeted! *(Geroscience)*

**Gero-protectors** can revert the decline in immunity and increase the resiliency to sickness in older adults.

How do we defend the older adults?
Aging is the strongest risk factor for all age related diseases...

Aging drives diseases

Deaths per 100,000 per year

Geroscience

Hallmarks of Aging

- Decrease in chromosome maintenance (DNA repair efficiency) (Telomere erosion)
- Epigenetic Changes
- Metabolic Dysregulation
- Immune Dysfunction
- Proteostasis failure
- Accumulation of senescence cells
- Decrease in quality and quantity of Mitochondria

Bedside problems:

- Sleep
- Immunity
- Circulation
- Skin
- Thermoregulation
- Cognition
- Mobility
- Strength
- Weight
- Balance

1) Increase immunity
2) Increase the body ability to sustain serious illness!
• Healthspan & lifespan has been extended in numerous animal models.
• Relevant drugs have been used in humans. (Metformin, Rapamycin,....)

Dietary restriction extends lifespan (rats)

Rapamycin + metformin (ITP)