

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

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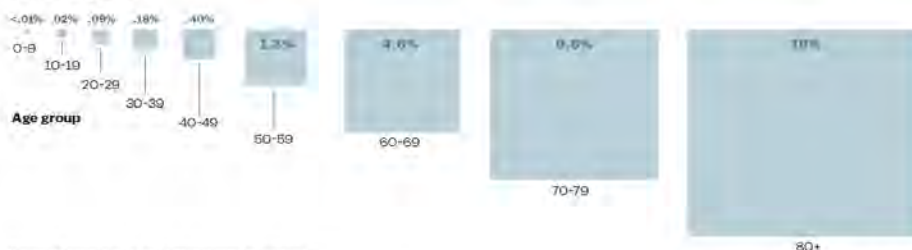
Disproportionate death in older adults with COVID-19

- Data from China, EU and US

Covid-19's case fatality rate increases with age, according to China's data

Estimated case fatality risk in Hubei, China, January-February 2020

Case fatality ratio*

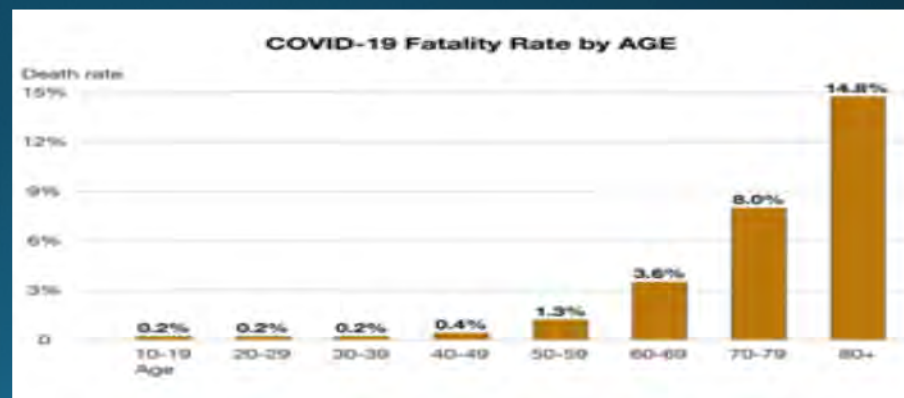
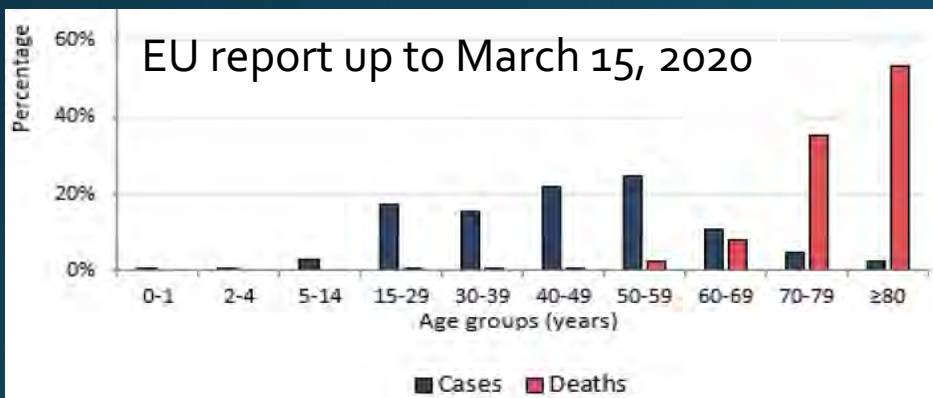
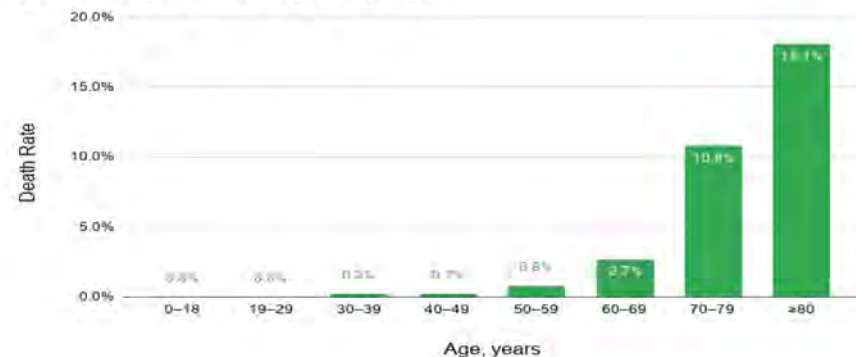


*Among all symptomatic and asymptomatic infections

Source: Adjusted age-specific case fatality ratio during the Covid-19 epidemic in Hubei, China, January and February 2020, medRxiv

Vox

COVID-19 Death Rate by Age (Italy)



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?**

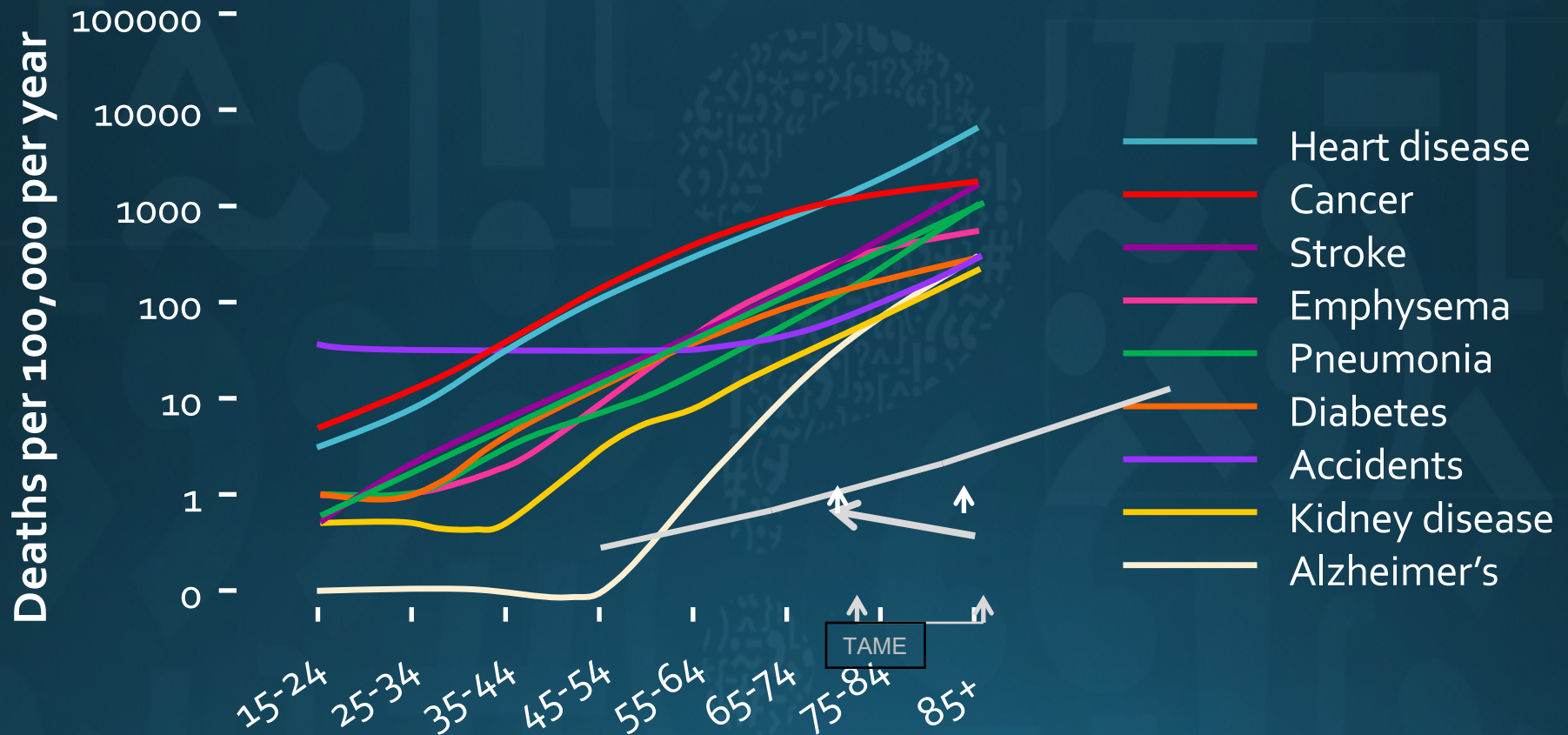
**Aging has a biology that
can be targeted!
(Geroscience)**

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

How do we defend the older adults?

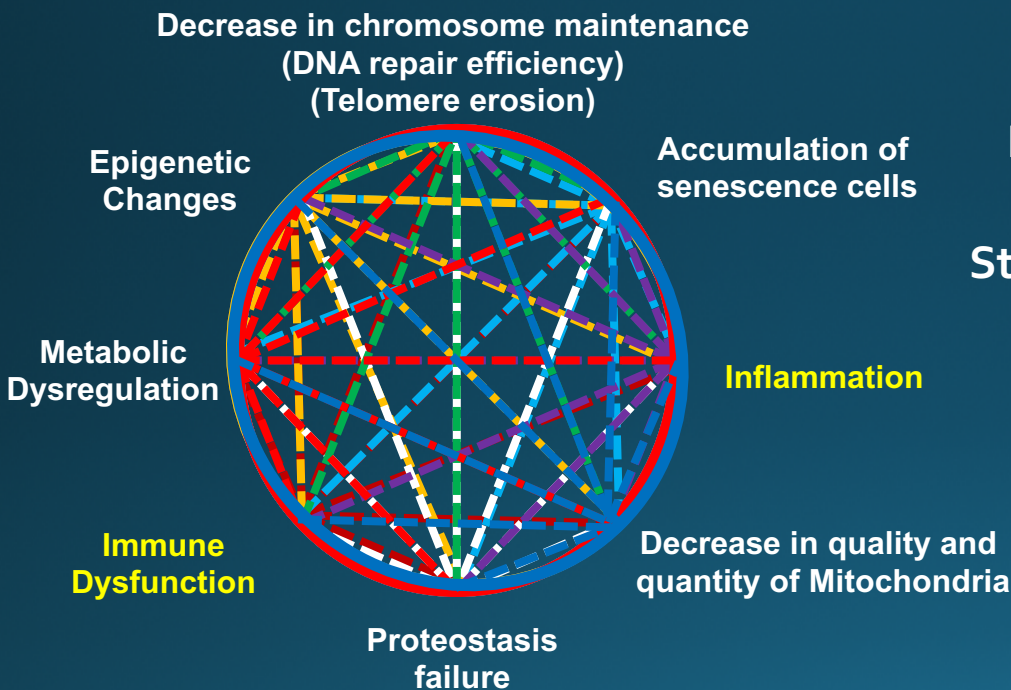
Aging is the strongest risk factor for all age related diseases...

Aging drives diseases

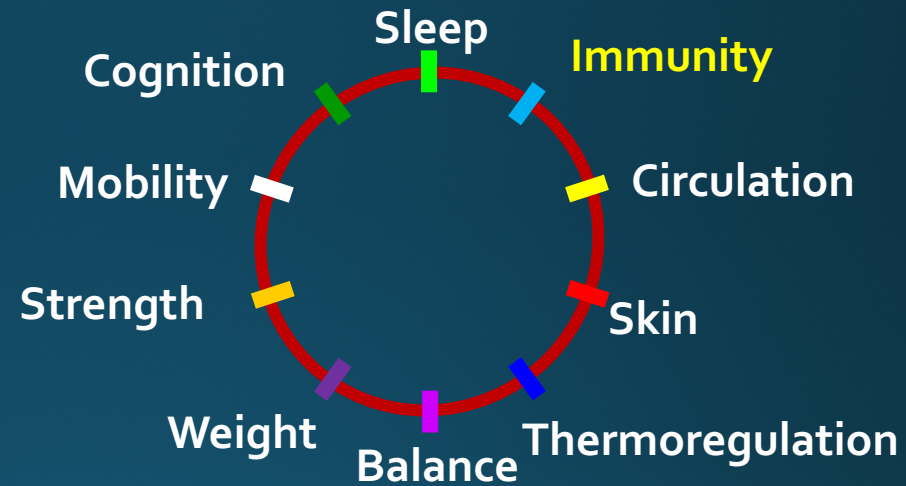


Geroscience

Hallmarks of Aging



Bedside problems:

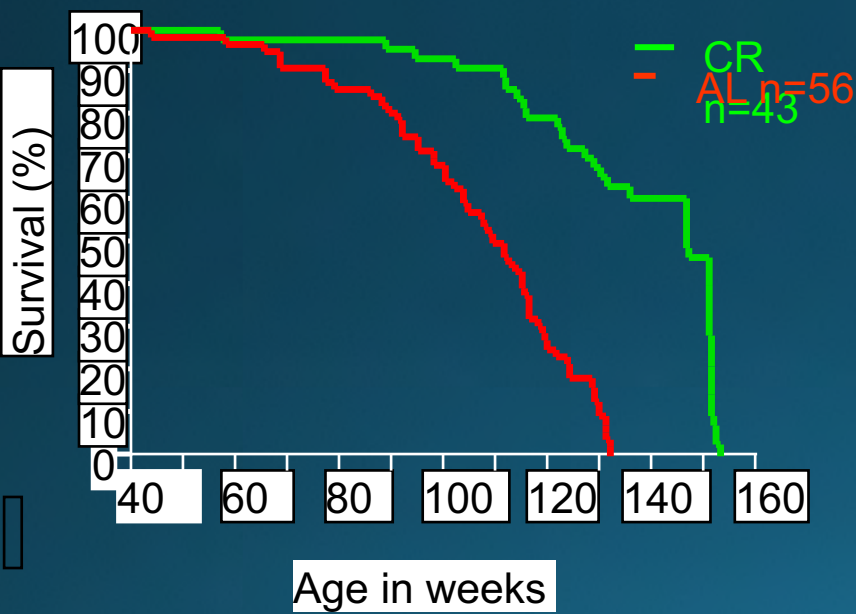


1) Increase immunity

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)

