# Article information:

Aging immunity may exacerbate COVID-19 | Science
<https://www.science.org/doi/10.1126/science.abb0762>

# Article summary:

1. Aging is associated with increased baseline inflammation, called inflammaging, which inhibits immunity and affects responses to infections.

2. The presence of excessive inflammation can inhibit immunity in both animals and humans, and reducing inflammation may be a therapeutic strategy for enhancing immunity in older people infected with pathogens such as SARS-CoV-2.

3. Senescent cells, which no longer divide, accumulate in every organ during aging and contribute to increased baseline inflammation, and eliminating these cells may be a way to enhance immunity and reduce the inflammatory burden.

# Article rating:

Appears moderately imbalanced: The article provides some useful information, but is missing several important points or pieces of evidence that would be required to present the discussed topics in a balanced and reliable way. You are encouraged to seek a more balanced perspective on the presented issues by exploring the provided research topics and looking at different information sources.

# Article analysis:

The article "Aging immunity may exacerbate COVID-19" discusses the impact of aging on immunity and how it can affect responses to infections, particularly in the case of COVID-19. The article highlights that aging is associated with increased baseline inflammation, called inflammaging, which inhibits immunity and affects responses to infections. The presence of excessive inflammation can inhibit immunity in both animals and humans, and this can be prevented by blocking inflammatory processes. This finding has important implications for the immunity of older individuals who are infected with pathogens such as SARS-CoV-2.

The article provides evidence that reducing inflammation may be a therapeutic strategy for enhancing immunity in older people. It suggests that reducing inflammaging with a short-term course of mTOR or p38 MAPK inhibitors and possibly other anti-inflammatory agents (e.g., steroidal drugs such as dexamethasone) may be a strategy for immune enhancement in older people. However, the article does not provide any evidence to support these claims.

The article also discusses the role of senescent cells in increasing baseline inflammation during aging. Senescent cells secrete proinflammatory mediators and accumulate in every organ during aging, contributing to increased baseline inflammation. The article suggests that eliminating these cells may be another way to enhance immunity and reduce the inflammatory burden.

However, the article does not explore potential risks associated with eliminating senescent cells or blocking inflammation directly. It also does not present counterarguments or alternative perspectives on these issues.

Furthermore, while the article acknowledges that high amounts of inflammation alone do not explain the devastating tissue destruction observed in COVID-19 patients' lungs, it does not explore other factors that may contribute to severe disease outcomes in older individuals infected with SARS-CoV-2.

Overall, while the article provides valuable insights into how aging impacts immunity and responses to infections like COVID-19, it presents some unsupported claims without exploring potential risks or alternative perspectives. It also does not provide a comprehensive analysis of all factors that may contribute to severe disease outcomes in older individuals infected with SARS-CoV-2.

# Topics for further research:

* Factors contributing to severe COVID-19 outcomes in older individuals
* Risks associated with eliminating senescent cells
* Alternative perspectives on blocking inflammation for immune enhancement
* Long-term effects of mTOR or p38 MAPK inhibitors on immunity
* Role of other immune cells in COVID-19 pathology
* Impact of COVID-19 vaccines on aging immunity

# Report location:

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