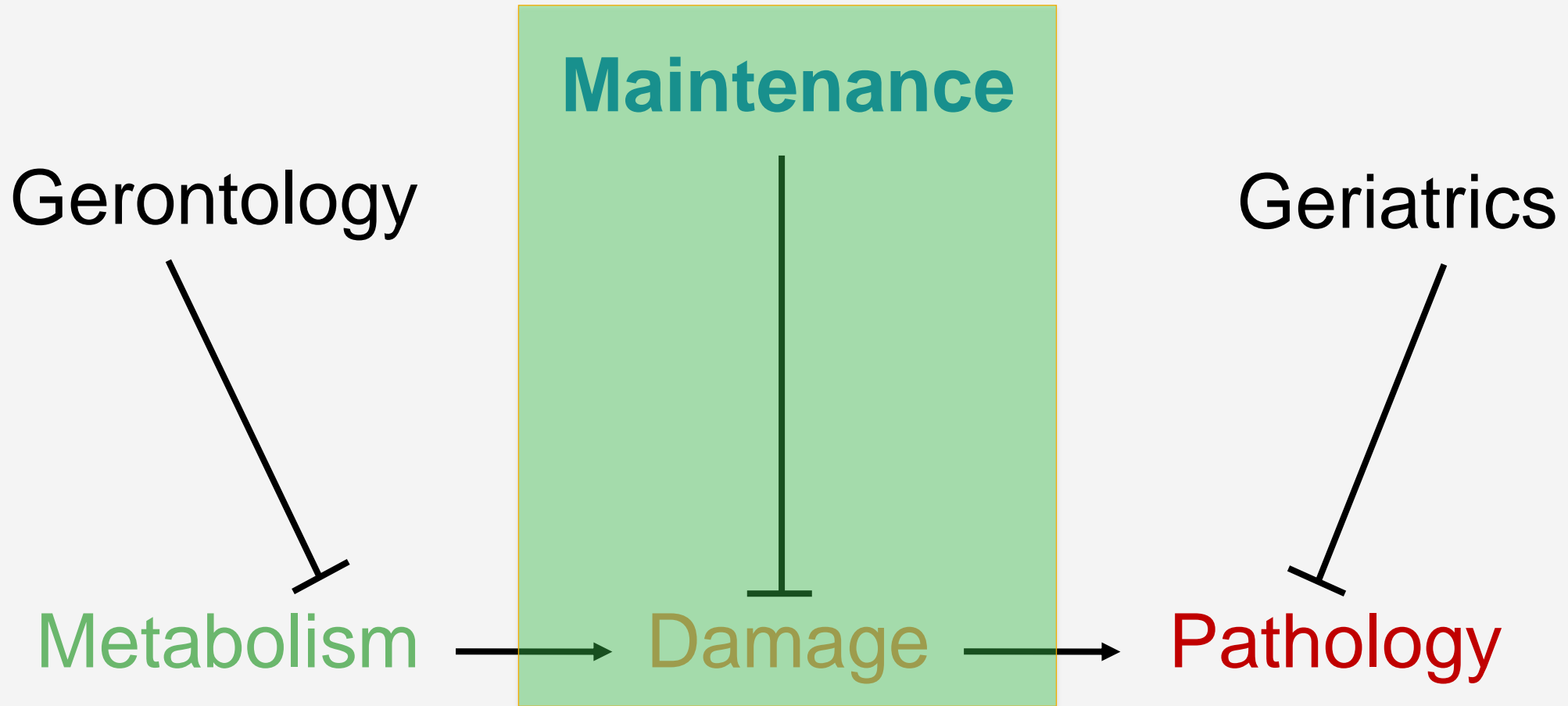


# Rejuvenation biotechnology:

When the days of aging are clearly numbered, how will humanity react?

*Aubrey D.N.J. de Grey, Ph.D.*  
*Chief Science Officer*  
*SENS Research Foundation*  
[aubrey@sens.org](mailto:aubrey@sens.org)  
<http://www.sens.org/>

# Maintenance: targeting damage



**Claim:** unlike the others, the maintenance approach can deliver a big extension of human healthy lifespan quite soon

# Key SENS goal: human aging near-term

- “Robust Human Rejuvenation” (RHR)
- Treat people aged >60
- Add 30 years of healthy life
- Do it by repairing damage

# Interim goal: mouse aging near-term

- “Robust Mouse Rejuvenation” (RMR)
- Treat mice aged 2
- Add 2 years of healthy life
- Convinces people RHR is imminent

# Long-term goal: human aging bootstrap

- “Longevity Escape Velocity” (LEV)
- Make therapies more&more thorough
- Re-rejuvenate people periodically
- Stay one step ahead of the problem

# My biggest advocacy surprise

- To me, RHR virtually ensures LEV
- HUGE resistance to this conclusion
- “Not scientific” (so won’t happen??)
- Preference for modest goals (why??)

# Might we be in for another surprise?

- Does RMR ensure RHR fairly soon?
- **No**: far less certain than  $RHR \Rightarrow LEV$
- Best case: sub-RMR gives tipping point
- Worst case: resistance persists

# Why is this already really important?

- RMR is probably 6-8 years away
- If RMR would very heavily enhance public enthusiasm, we should prioritise it over what the science recommends
- Educating the world is a glacial process



# Three huge facets of this issue

- Culture
- Risk
- Economics

# Culture

- Eastern cultures supposedly have a greater “respect for the elderly”
- But...
- It’s the wrong sort of respect! – it heightens resistance to “medicalising” of aging

# Risk

- Preventative medicine is a really, really hard sell
- Combinatorial med is a hard sell too: doctors like to keep things simple

# Economics

- Visionaries need to make others envious, in order to make change popular
- Preferably quickly, by making money
- That needs a critical mass of early adopters
- It also needs them to make others envious
- **How can we ensure that they exist in time?**



sens research foundation

reimagine aging

[www.sens.org](http://www.sens.org)

[aubrey@sens.org](mailto:aubrey@sens.org)