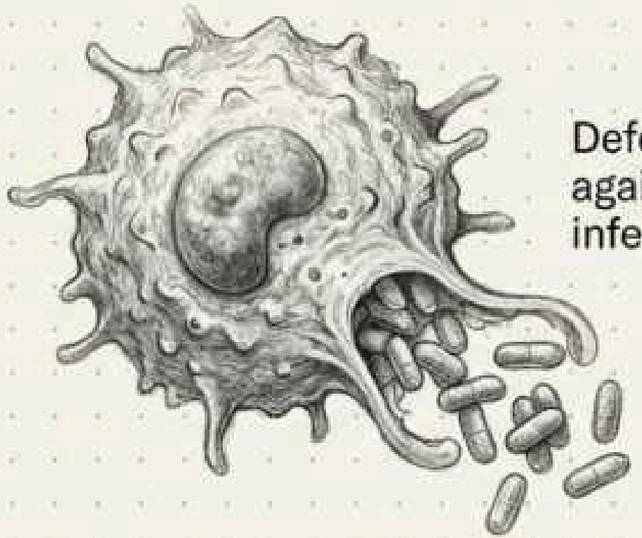
# Cellular & Molecular Immunology (MED 504 B)



*Modelled on the Harvard and MIT Health Sciences and Technology subject.*

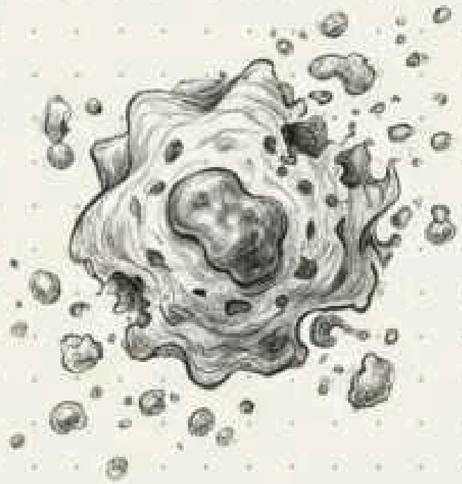
## Concept Map

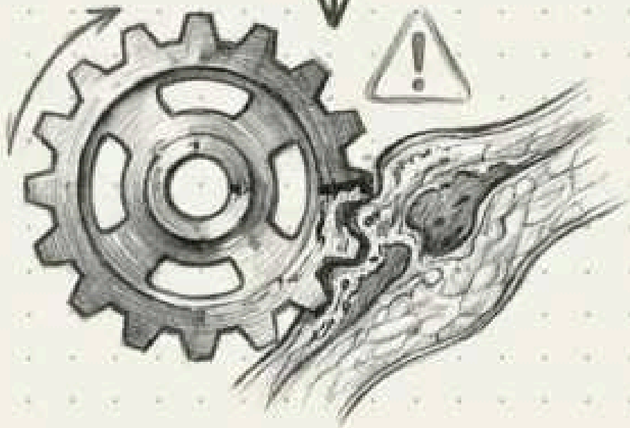


Defend against infection

The Immune System

Remove damaged cells





Pathology: Allergy, Autoimmunity, Rejection

# Contact & Feedback



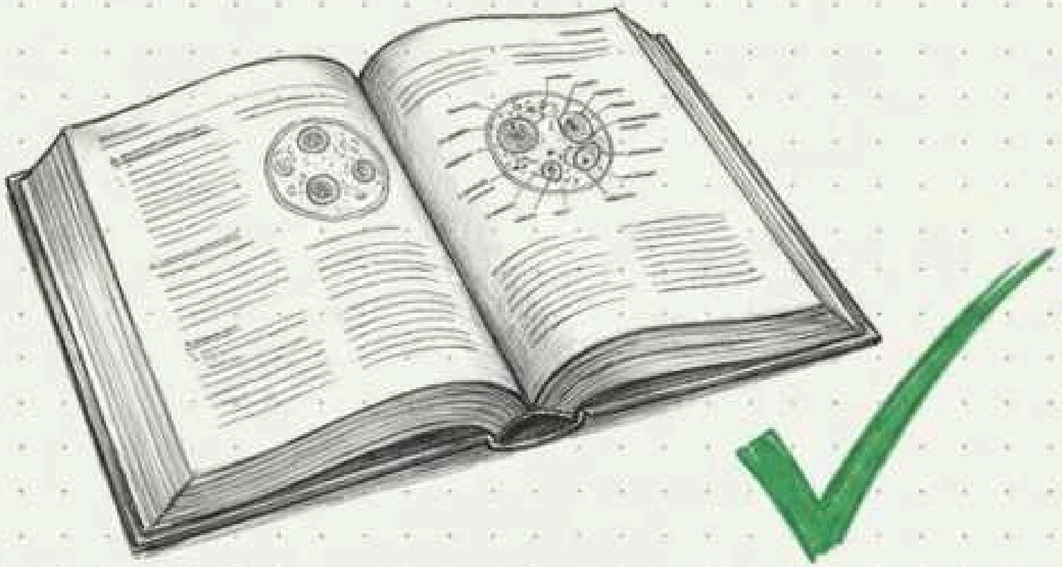
garyanderson@mail.grokbot.com



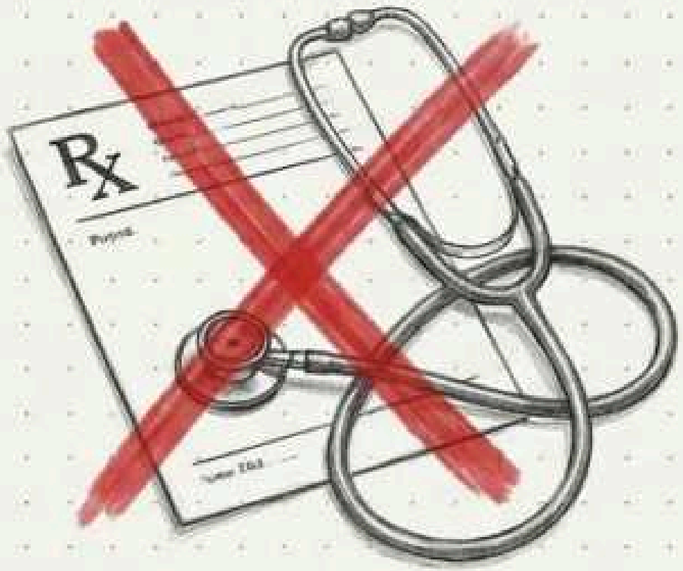
@garyanderson

*Questions or feedback are welcome.*

# Education, Not Practice



Teaches medical knowledge.



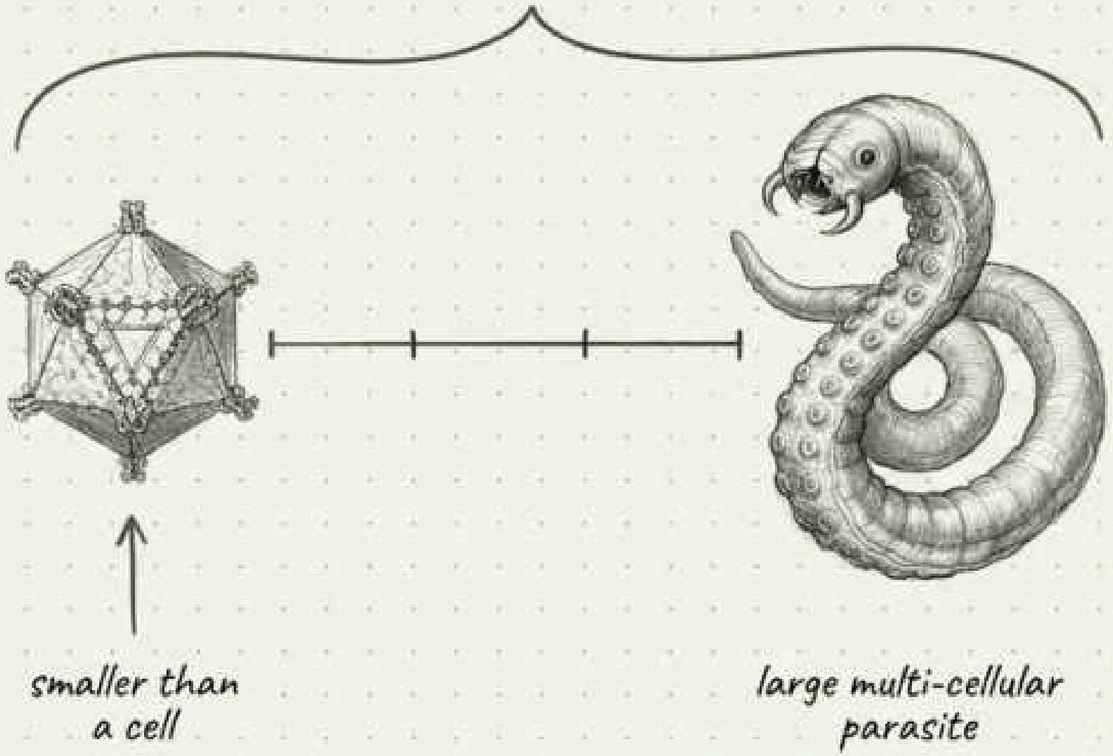

No clinical skills or licence.
Not medical advice.

Consult your doctor or pharmacist for personal health questions regarding vaccinations, allergies, or immune health.

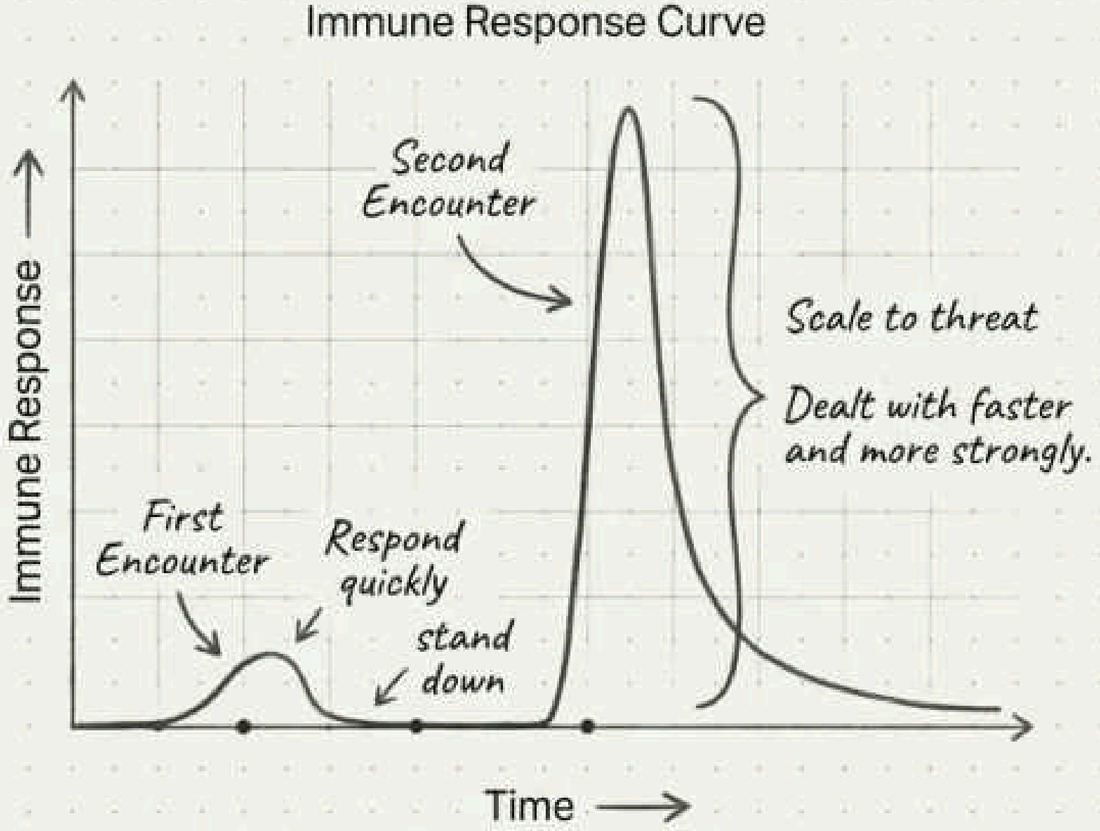
# The Capabilities of the Immune System



## Scale & Specificity

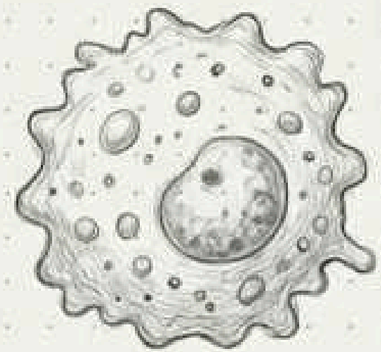



## Speed & Memory

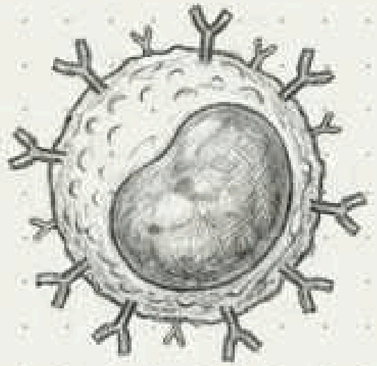


# The Two Arms of Immunity





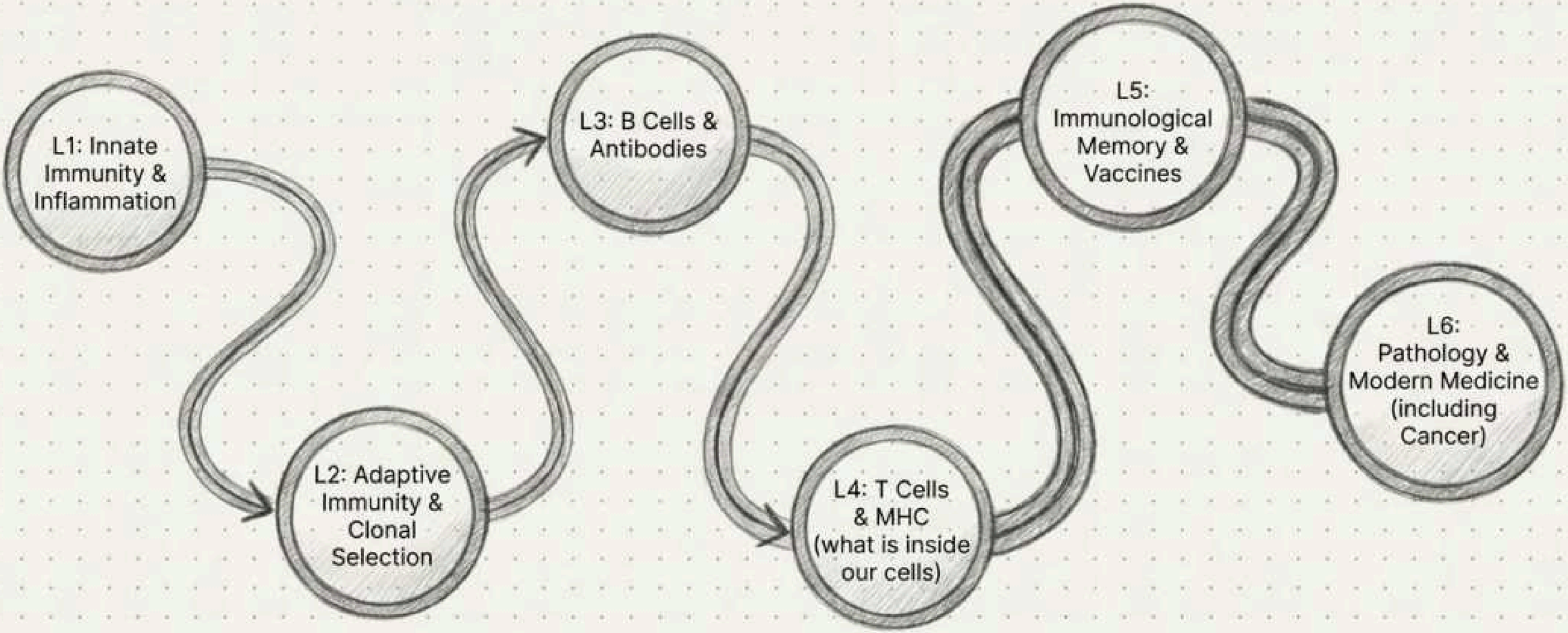
*Partners that constantly signal each other.*



| | Innate Immunity | Adaptive Immunity |
|---|---|---|
| Evolutionary Age | Ancient | Newer |
| Speed | Minutes to hours | Slower to start |
| Specificity | General, responds the same way | Exquisitely specific, recognizes particular molecular shapes |
| Memory | None | Learns and keeps a memory |

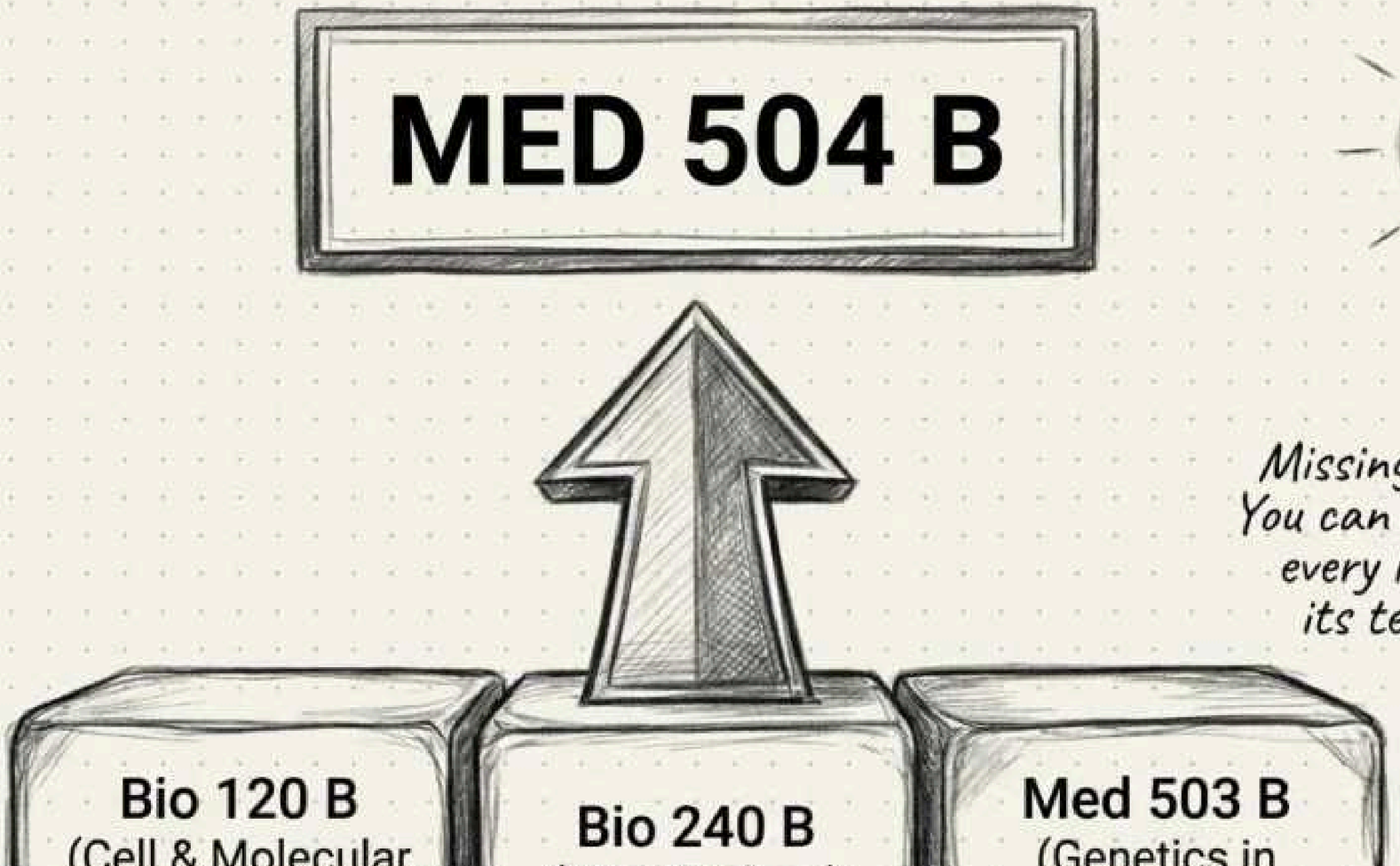
# Course Map (Lectures 1-6)





# Recommended Background



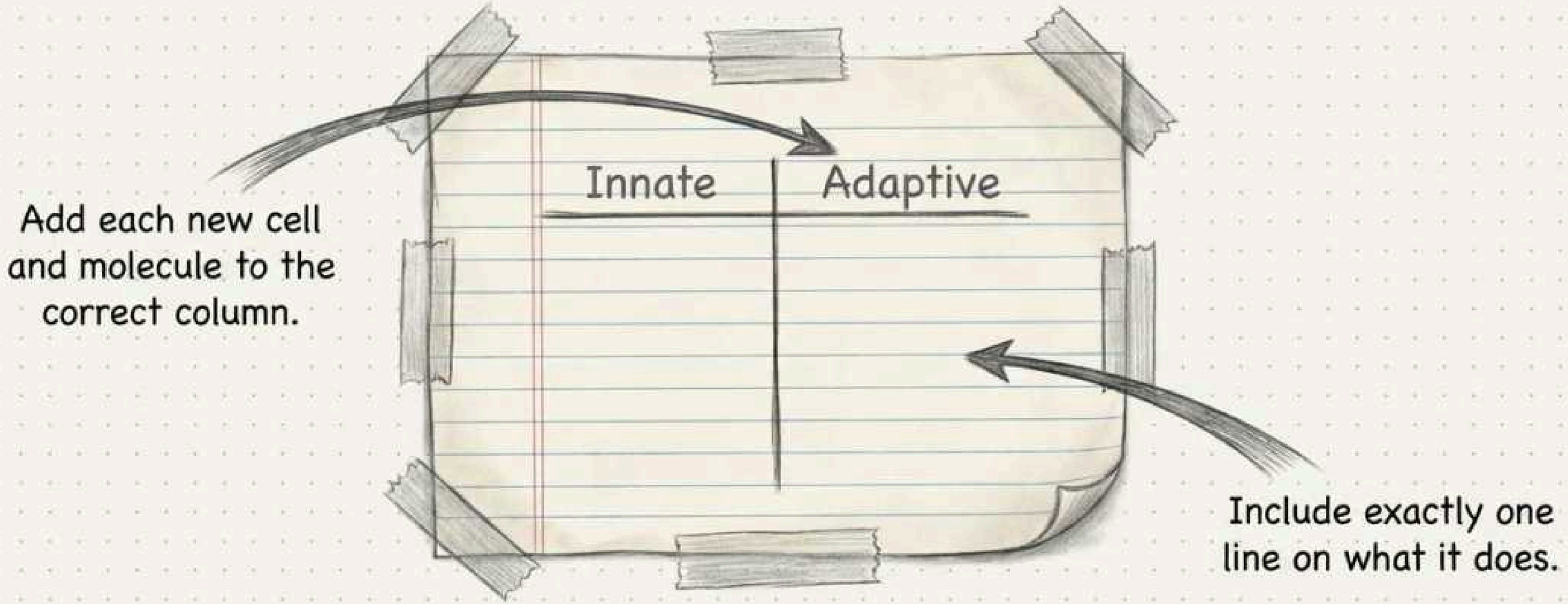





*Missing a prerequisite? You can still follow along— every lecture explains its terms as we go.*

# Practical Tip for Success

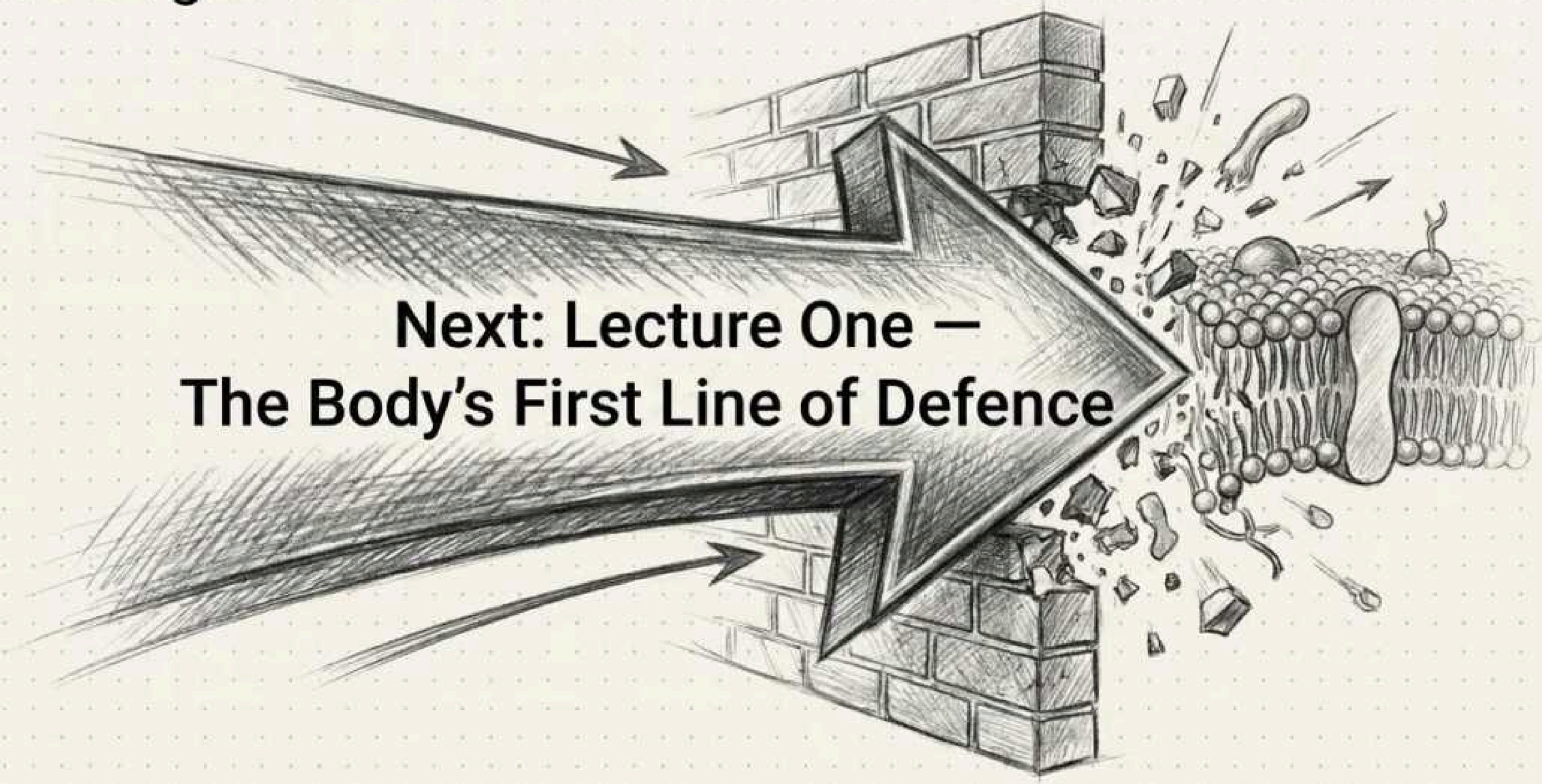





**The Goal: Avoid drowning in names and abbreviations.**
**Build a map of the whole system by the end of the course.**

# Let Us Begin





**Next: Lecture One — The Body’s First Line of Defence**

Gary Anderson | garyanderson@mail.grokbot.com | X: @garyanderson