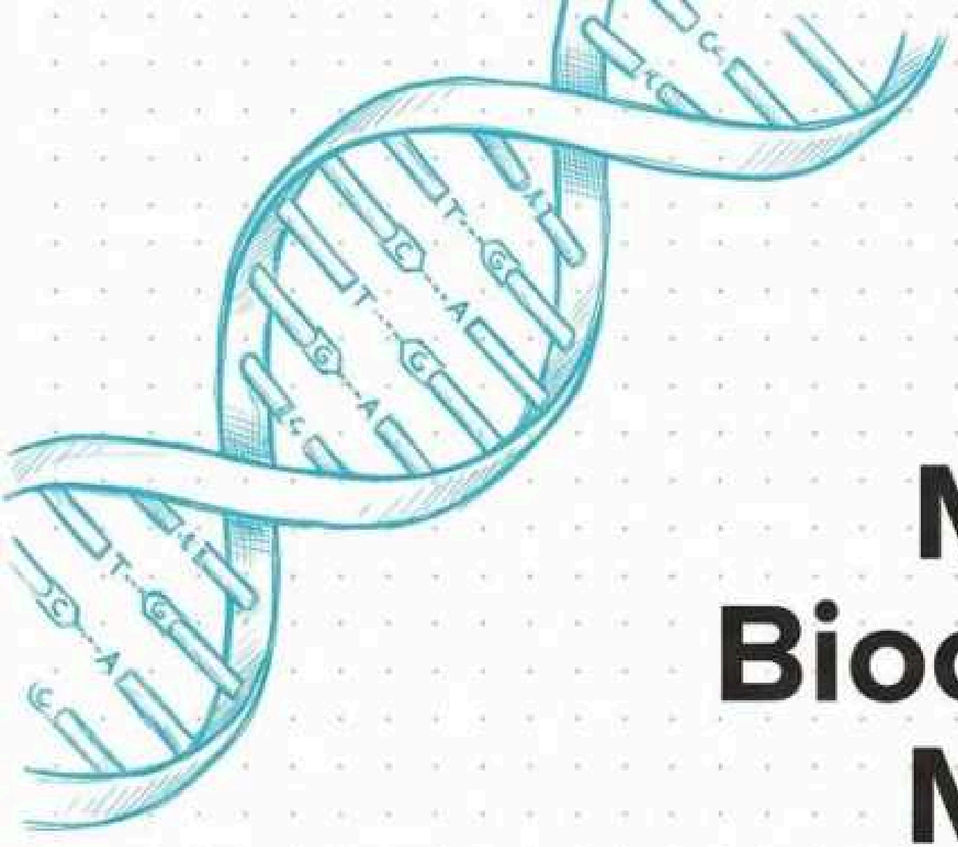


MED 502 B: Biochemistry and Metabolism

Lecture 0: Course Overview



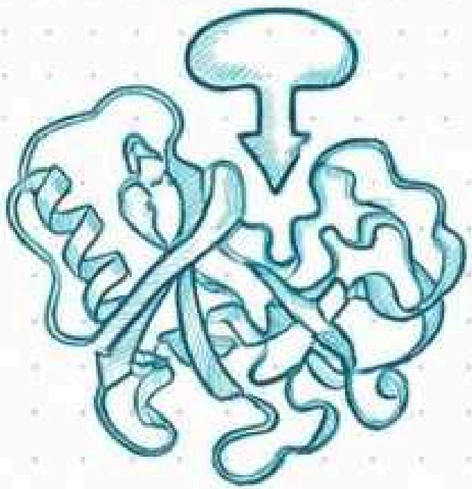
Anderson Academy | Medical School

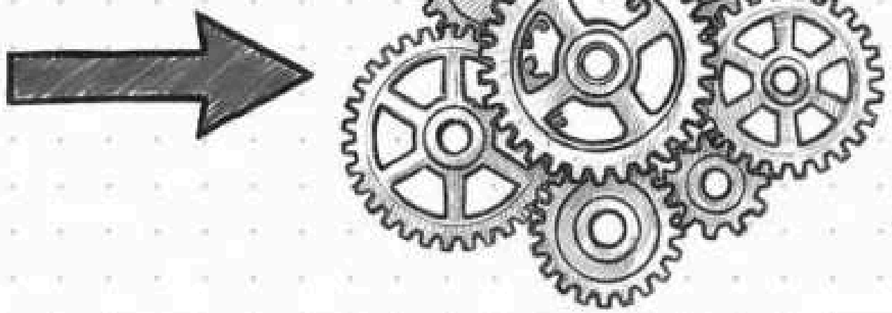
Welcome to Anderson Academy: Medicine 502 B

Modeled on Harvard & MIT Health Sciences and Technology.

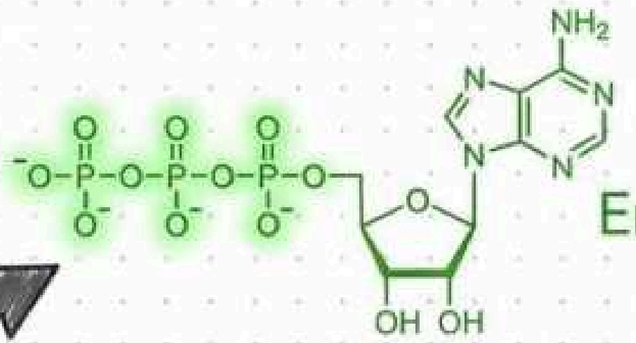
¶ 0.1

Food

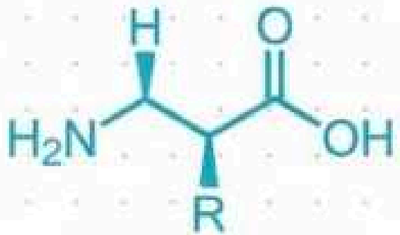




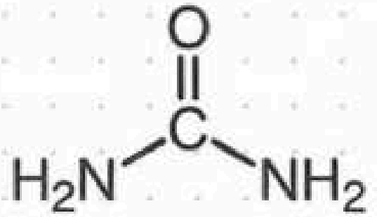
Metabolism:
The chemistry of life



Energy



Building Materials



Waste

Open Channels for Questions & Feedback

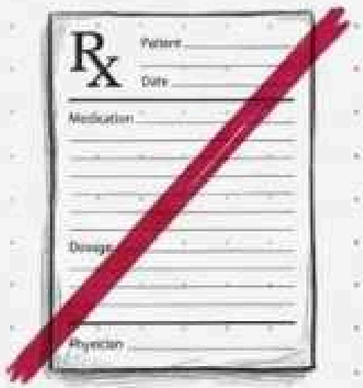

garyanderson@mail.grokbot.com


@garyanderson

¶ 0.3

Medical Knowledge.
Academic Course.

Not Medical Training.
No Clinical Skills. No Licence.
Not Medical Advice.

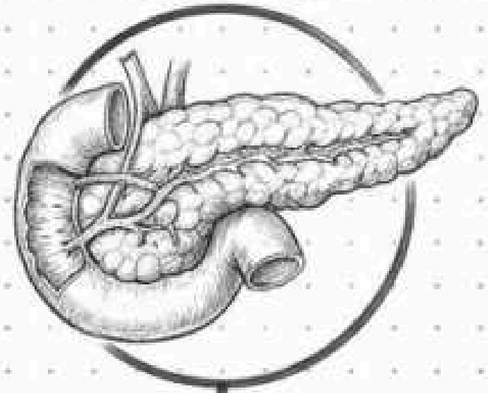


Nothing here is a guide to diet, supplements,
or medicines for any person.

Note: Medicine 500 B explains this boundary in full.

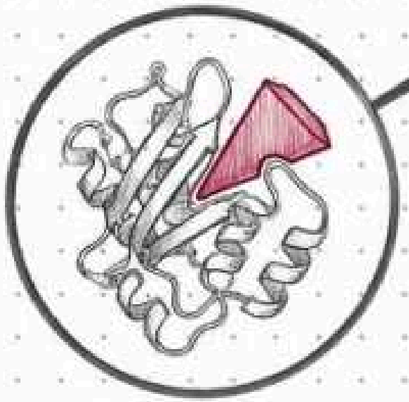
The Language of Modern Medicine

¶ 0.4

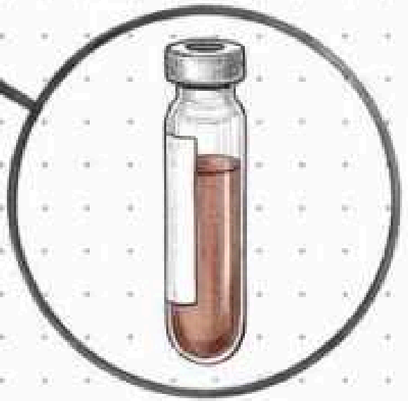


Disease: Diabetes is a disorder of fuel metabolism.

Chemical Explanation



Drugs & Poisons: Many work by jamming a single enzyme.

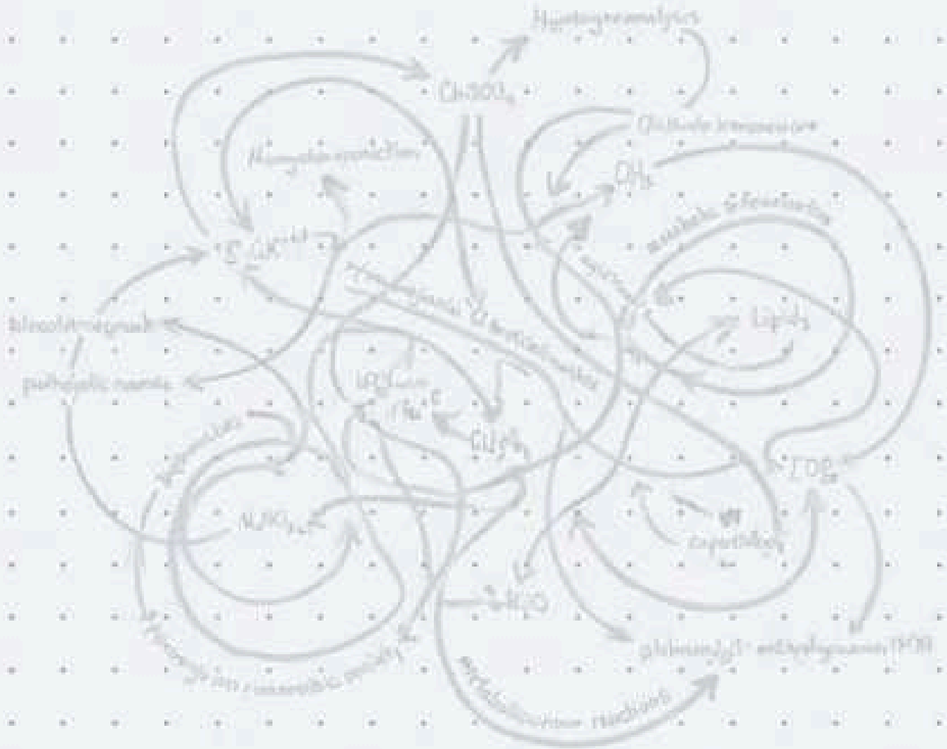


Laboratory Tests: Blood chemicals tell the story of an organ.

Our Approach: Ideas Over Endless Names

The Reputation

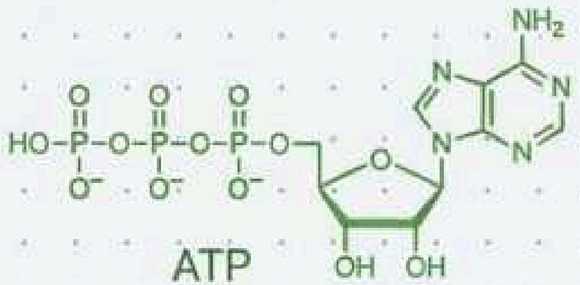
Long pathways, endless names.



The Big Ideas

Understand the core ideas first.
Learn the details when needed.







Metabolic Switching



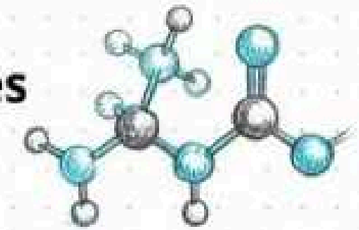
Nitrogen Disposal



The Course Map

¶ 0.6

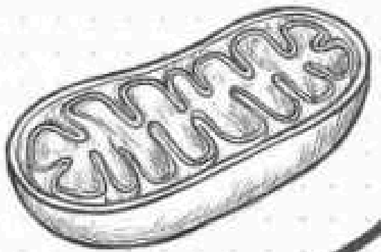
Lecture 1: Molecules & Enzymes
Making chemistry happen fast enough for life



Lecture 2: Glycolysis
Extracting energy



Lecture 3: Inside Mitochondria
Citric acid cycle & electron transport chain



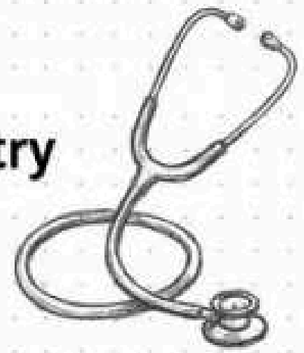
Lecture 4: Fats & Ketones
Fed vs. fasting states



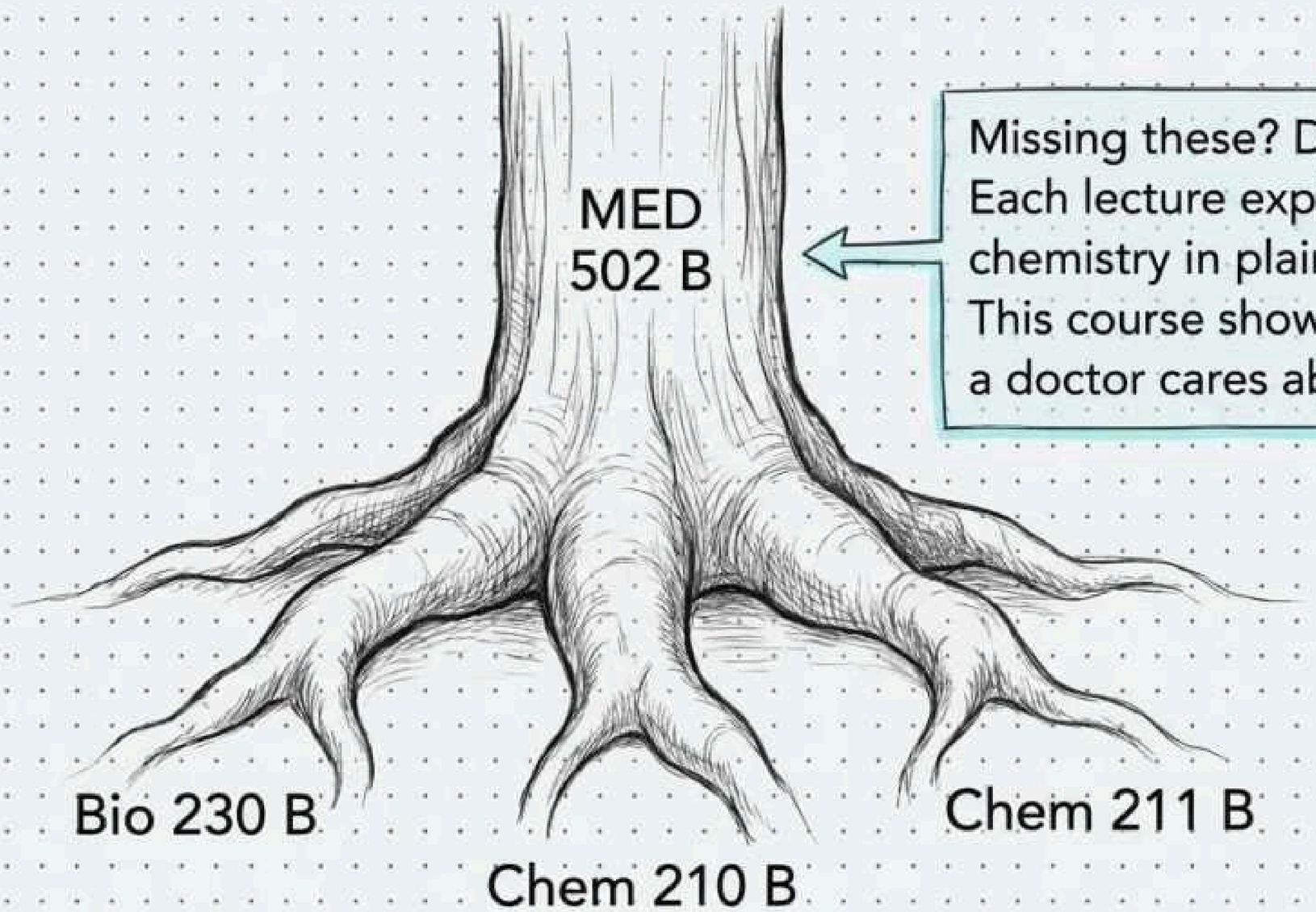
Lecture 5: Proteins & Amino Acids
Disposal of nitrogen



Lecture 6: Clinical Biochemistry
Diabetes, cholesterol, vitamins, and inherited metabolic diseases



Foundations & Prerequisites



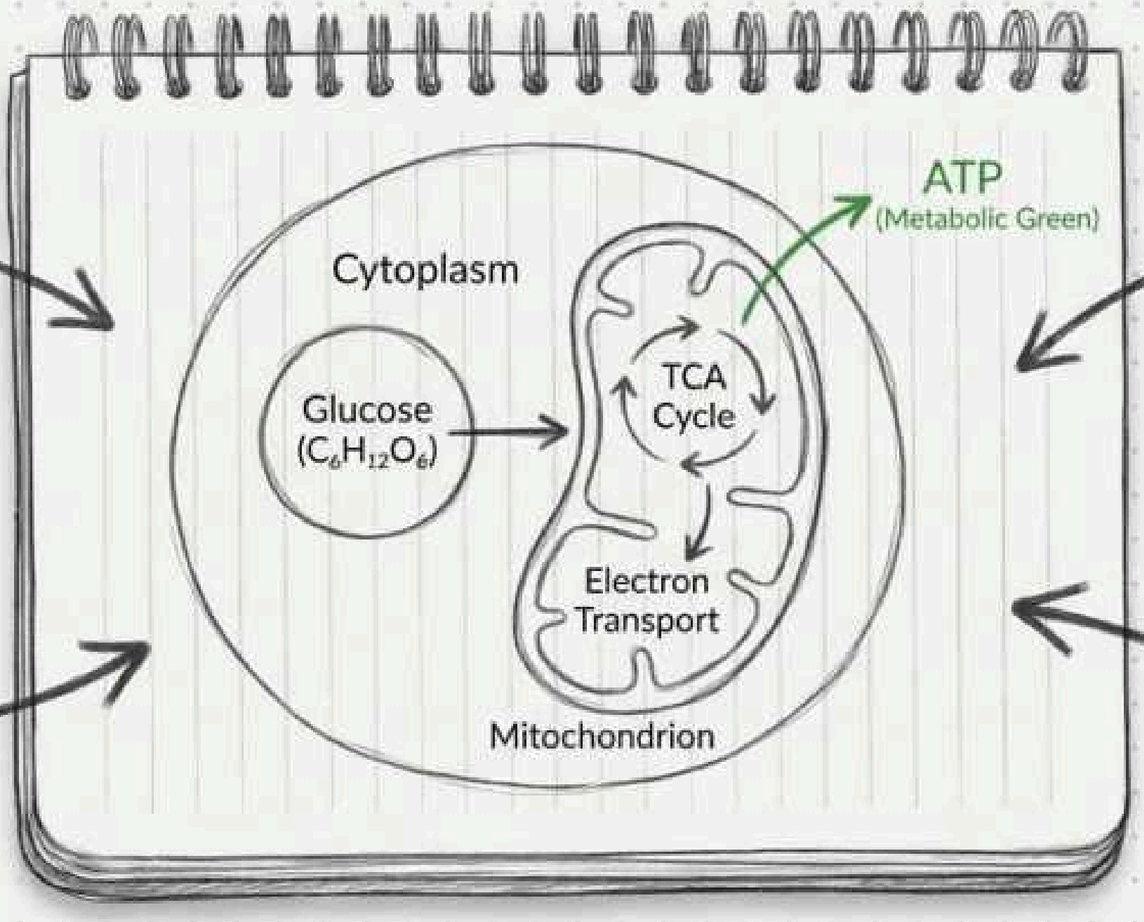
Missing these? Don't worry. Each lecture explains the chemistry in plain words. This course shows you *why* a doctor cares about them.

¶ 0.8

Practical Tip: Draw As You Go

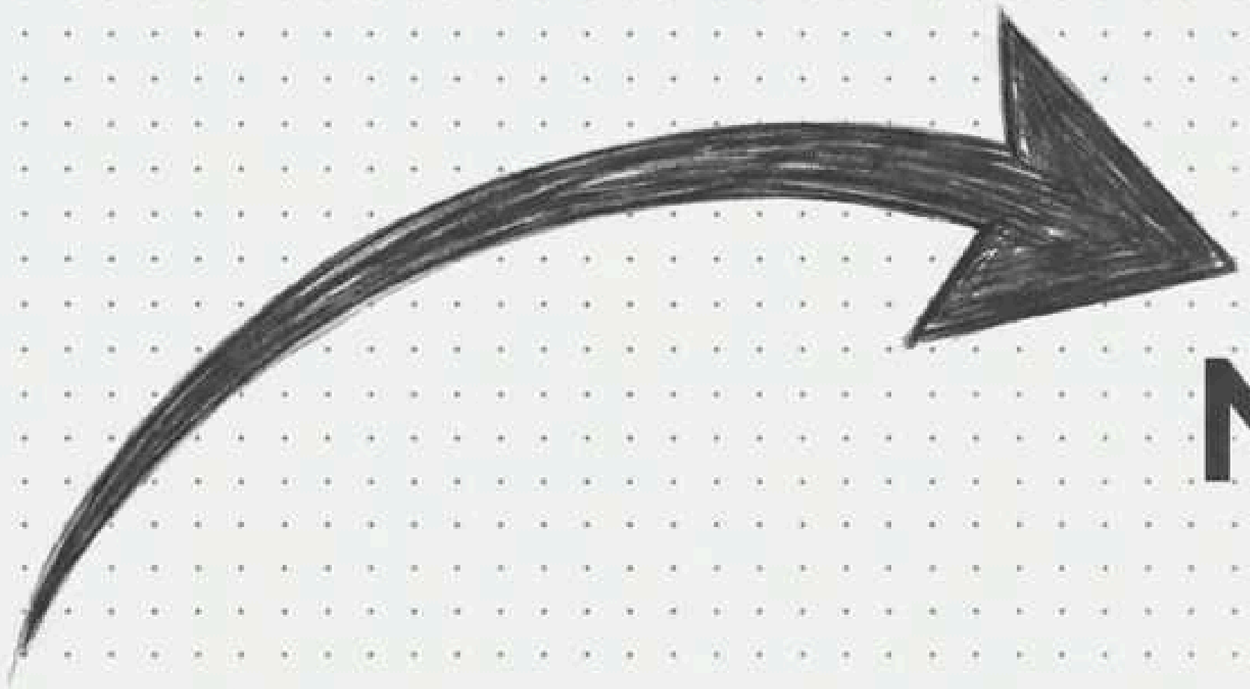
Keep a single page: a map of metabolism.

Add to it lecture by lecture.



Focus on *where* it happens in the cell, *what* goes in, and *what* comes out.

This is worth more than memorising every step.



Next: Lecture 1

Meet the molecules of life.

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