WELCOME TO Biochemistry II 2026

BB 422/622

Introductions

Registration – you must sign sheet to stay registered

Texts and Websites

Syllabus and Policies

Pre-requisites

- Biochemistry I (421/621)
- Orgo 2

Grading

- homework & quizzes

Transition to Biochemistry II

- from A1 and A2

WELCOME TO
Biochemistry II (BI/CH 422 & BI/CH 622)

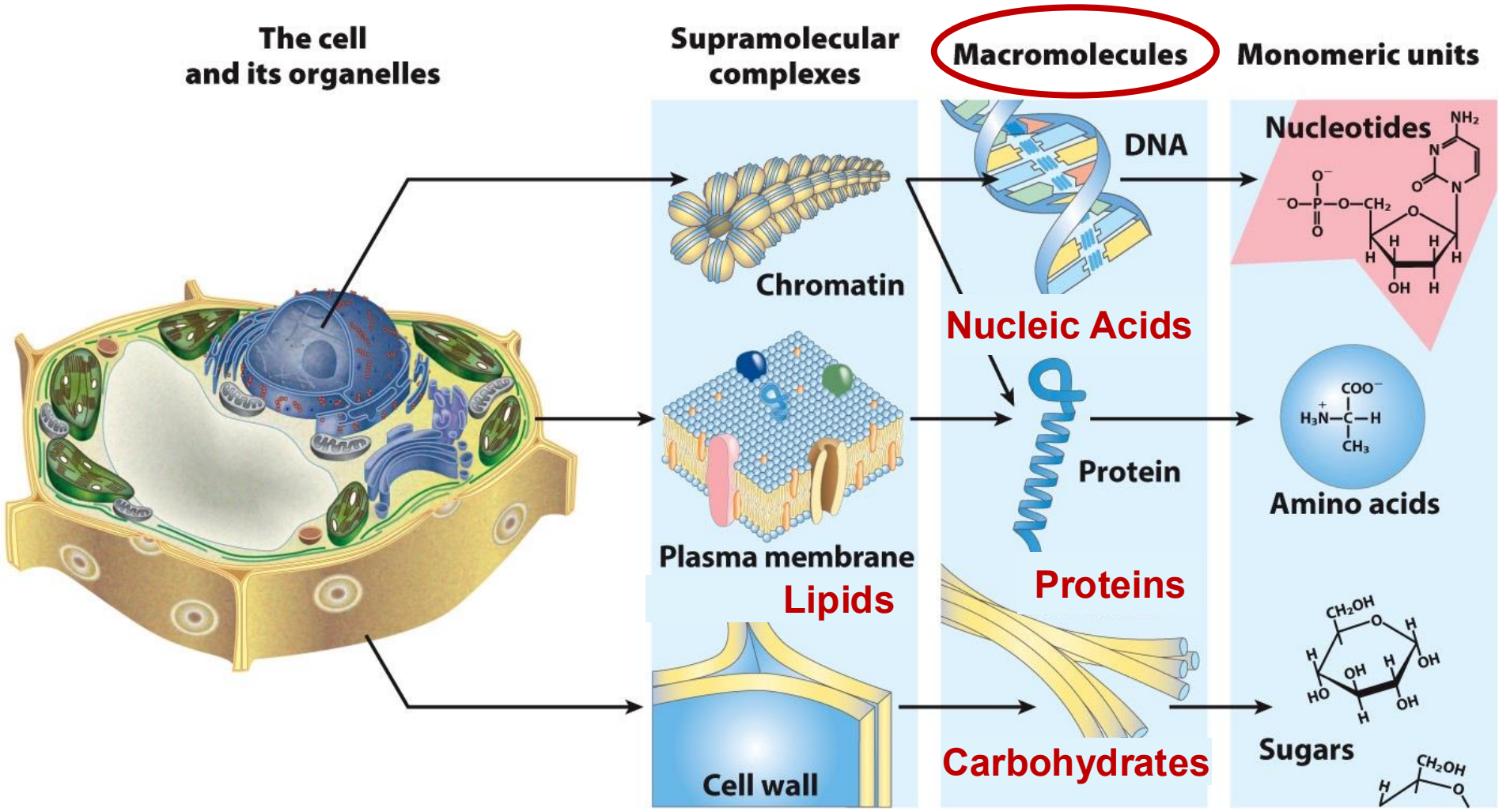
This course is Dedicated to the memory of Sir Hans Kornberg

January 14, 1928 ~ December 16, 2019

Review of 421
Goals of 422
Review of chemical principles
- Thermo
- C/O cycles
- Overview of Metabolism
- ATP cycles

Energy Coupling
Chemical Reactivity
Bioenergetics

Macromolecules are Key to Cellular Structures



Problem: A simple *E. coli* cell need only salts and a simple carbon source like acetic acid for growth. How is that possible?

Goals for Biochemistry II:

Problem: A simple *E. coli* cell need only salts and a simple carbon source like acetic acid for growth. How is that possible?

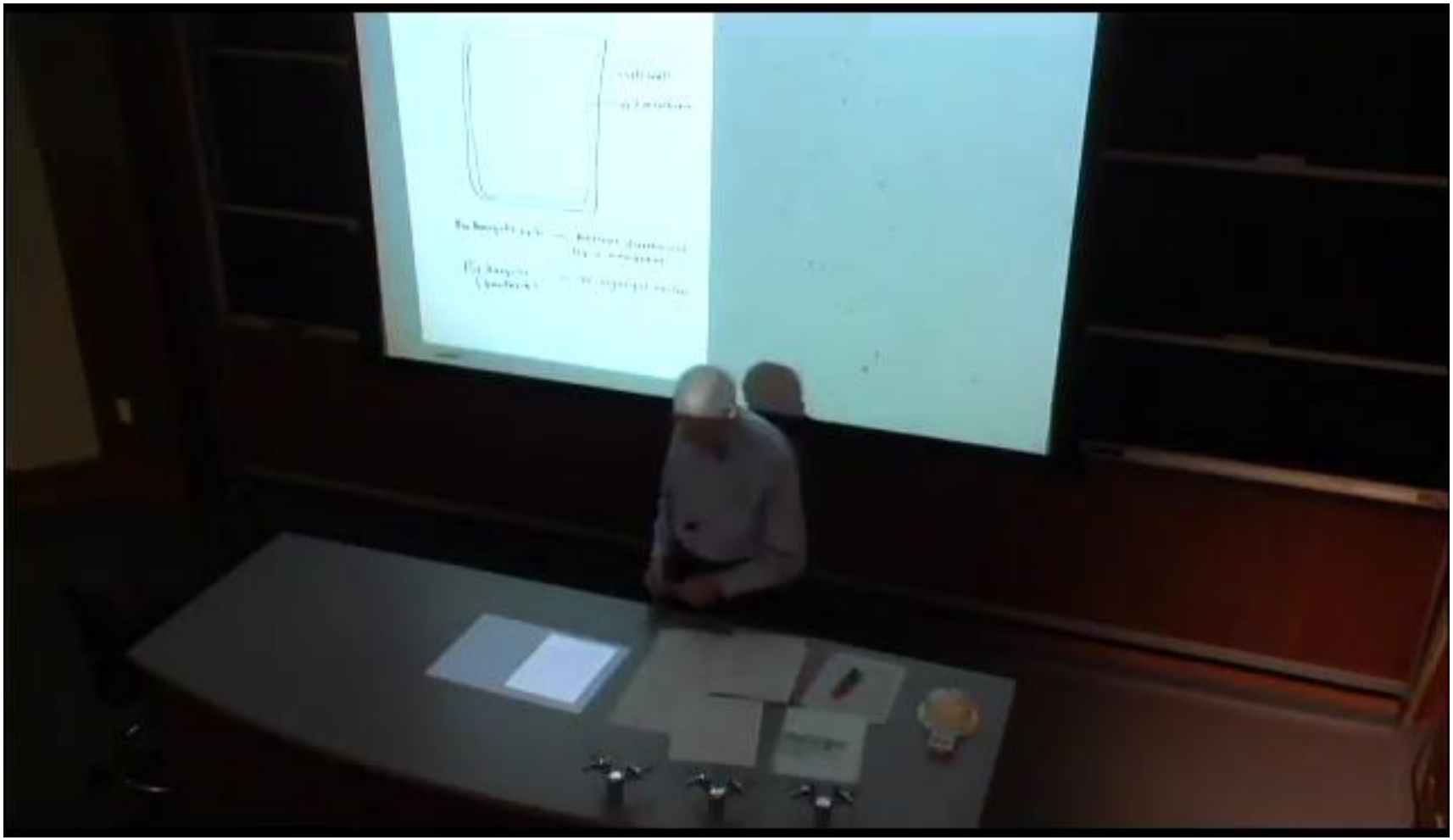
This semester we will answer this question, which relates all these macromolecular components, and in the process answer these questions:

- How are these macromolecules interrelated?
- How are they synthesized from each other?
- What are the common chemical reactions and unique enzyme mechanisms?
- How is all this accomplished without breaking any of the rules of thermodynamics and organic chemistry?
- What are the clinical consequences if this intricate web of reactions is perturbed?

We will find the answers to all these questions, which makes **LIFE** possible, by what is termed **INTERMEDIARY METABOLISM**

Let's hear from Professor Sir Hans Kornberg:

Professor Sir Hans Kornberg introduces the course:



See website for a copy of this video