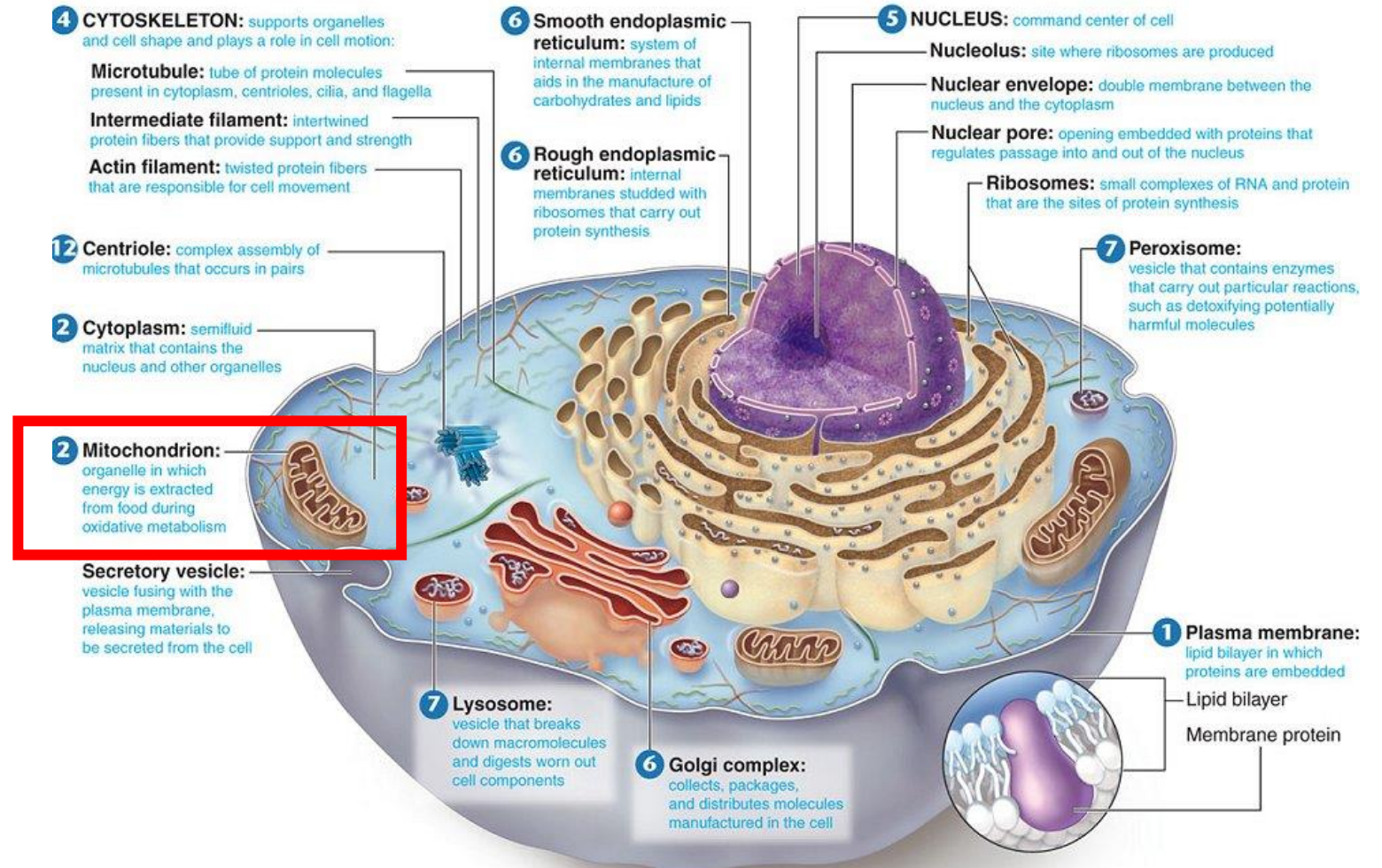
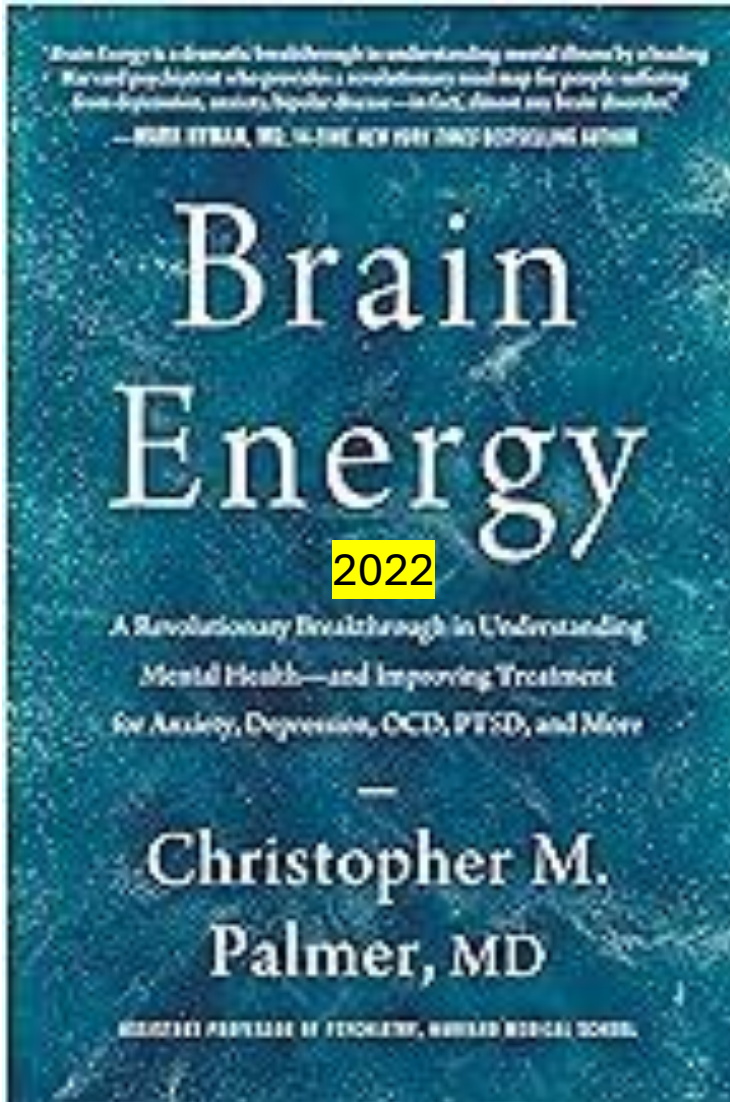


Mental Health and Cellular Function

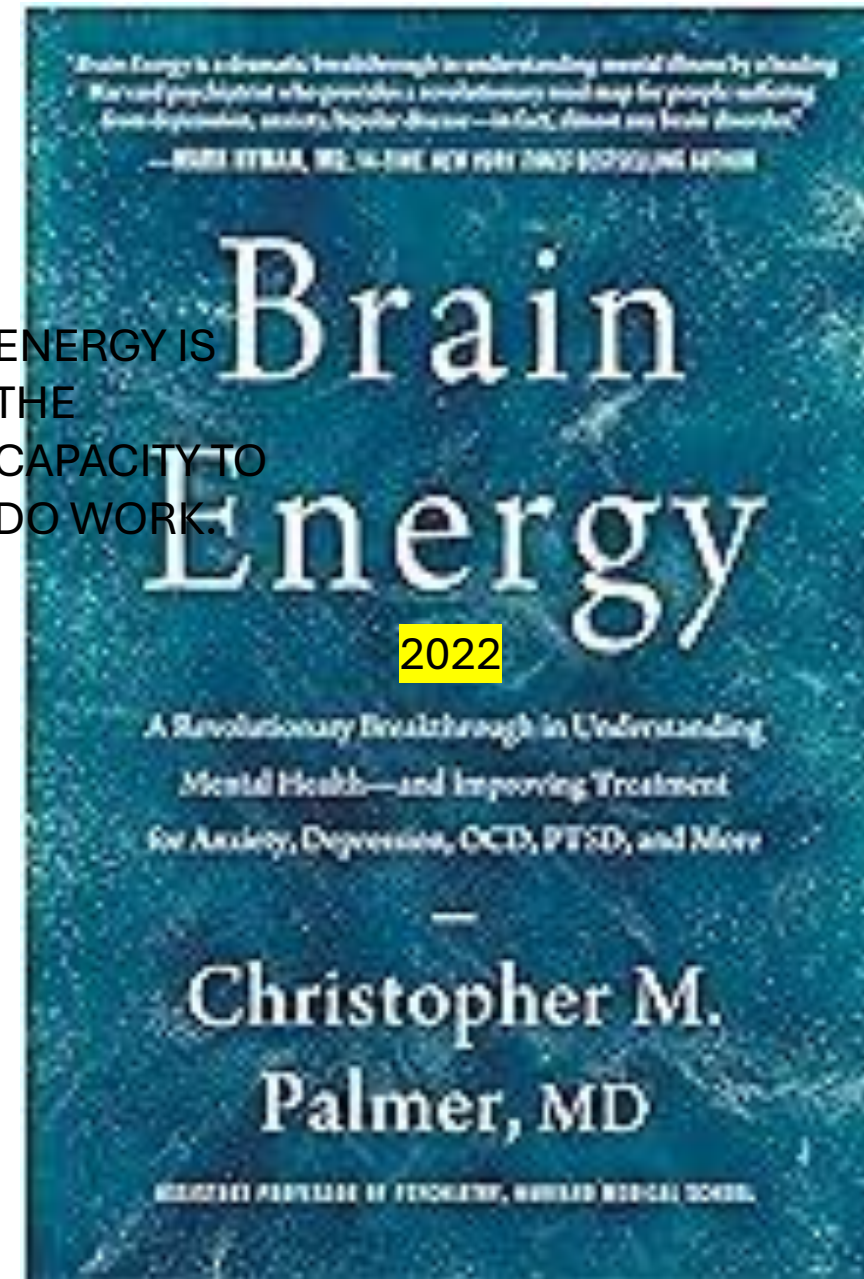


1406 Mental Health and Cellular Function

Tue, Sep 24-Oct 15, 9:30-10:45 am (MOD ZOOM)

Harvard psychiatrist Chris Palmer MD connected the dots in his book titled Brain *Energy*. Mental illnesses are related to dysfunction of the hundreds of bacteria-like *mitochondria* that inhabit all our cells. If their *metabolic machinery* is poisoned, energy (*ATP*) production falls and behavioral dysfunction emerges. We will discuss this book's new hopeful ways of looking at brain health and preventing mental illness.

Moderator: Kirt Hobler is a retired general surgeon MD, MS (physiology), FACS, with teaching, practice, and research (metabolism) at Univ. of Rochester and UNC Chapel Hill.



Mental Health and Cellular Function Glossary

ENERGY=THE CAPACITY TO DO WORK.

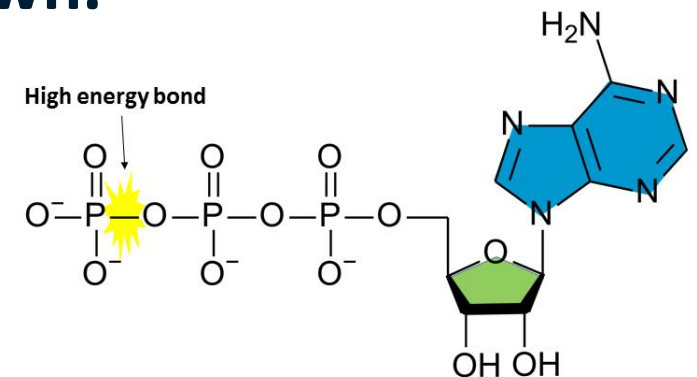
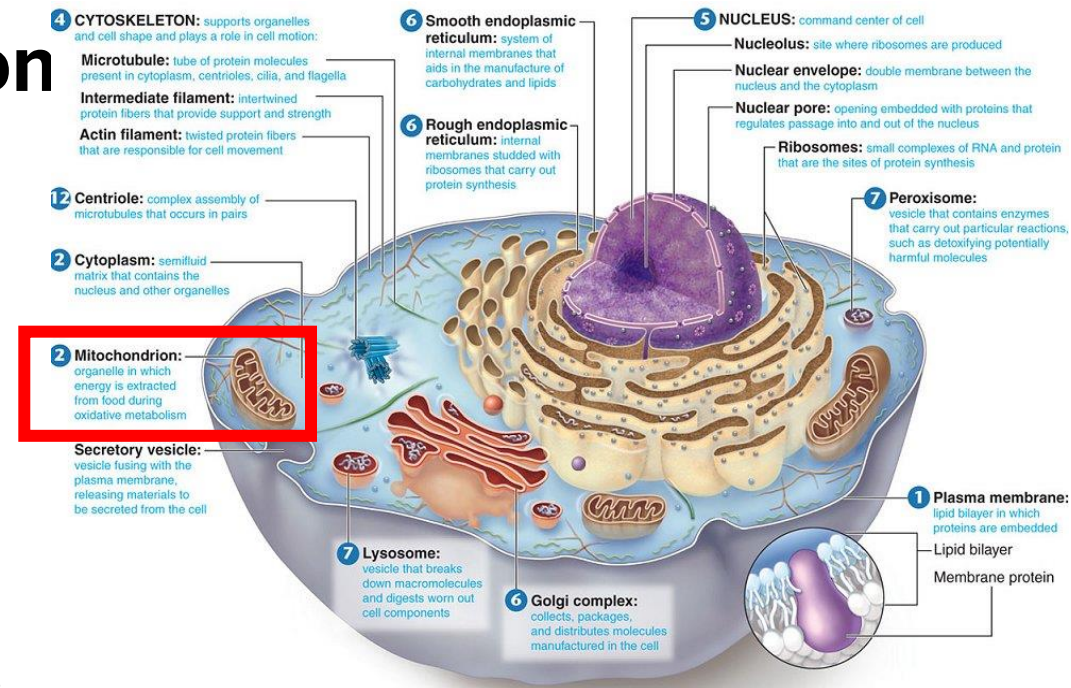
MITOCHONDRIA=BACTERIAL CELLS WITHIN OUR NUCLEATED CELLS that do much of the work of metabolism.

METABOLISM=BUILD IT UP OR KNOCK IT DOWN:

the process by which the body converts food into electrochemical energy and builds molecular structures or knocks them down.

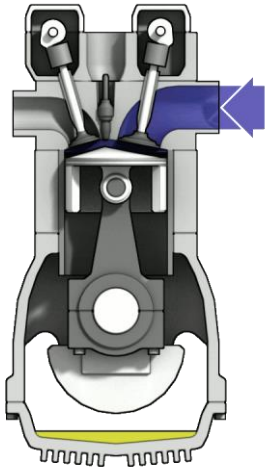
ATP=ADENOSINE TRIPHOSPHATE,

A molecular battery that plugs into enzymatic machinery to make them work.

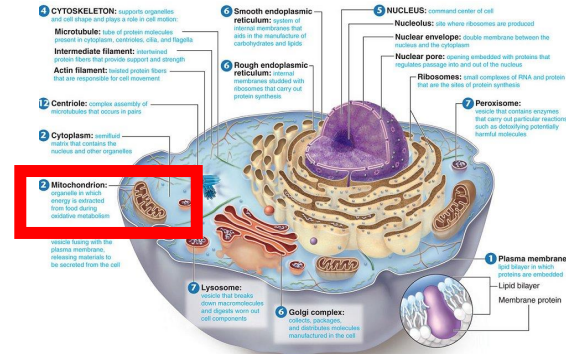


ENERGY METABOLISM: 5 BASIC MODELS OF UNDERSTANDING

1

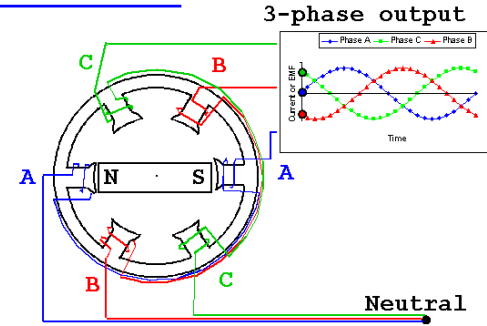


PERIODIC TABLE

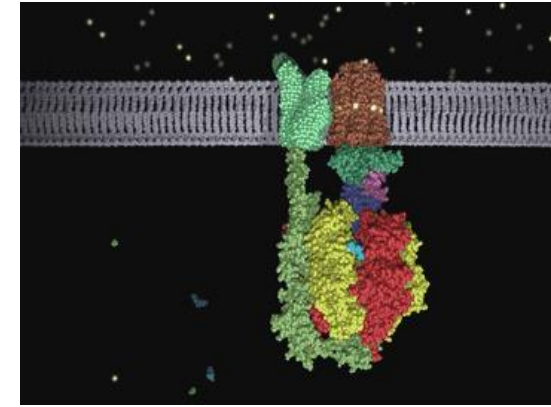


HUMAN CELL WITH MITOCHONDRIA

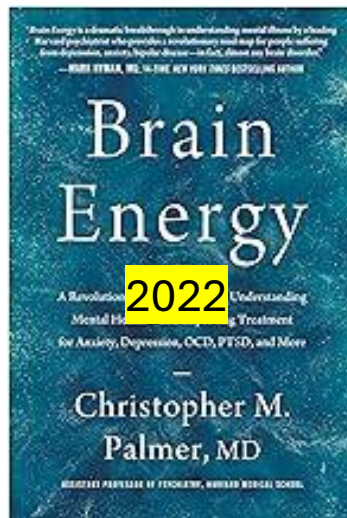
The Generator



TESLA ELECTROMAGNETIC GENERATOR/MOTOR

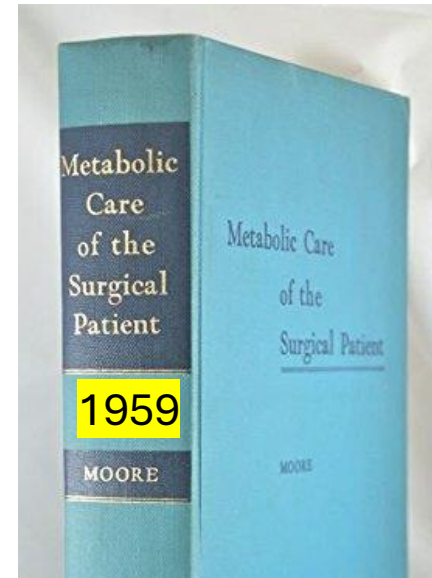


ATP SYNTHASE MOLECULAR ENGINE (ENZYME)



PROCESSING DATA INTO INFORMATION AND KNOWLEDGE ABOUT ENERGY METABOLISM AND HEALTHY CELLULAR FUNCTIONING.

molecular biology was currently hot



Mental Health and Cellular Function

4 WEEK COURSE OUTLINE

1. INTRODUCTION: BRAIN ENERGY THEORY OF CHRIS PALMER M.D.

2. CELLULAR FUNCTION, MITOCHONDRIA, THE MICROBIOME AND ENERGY METABOLISM

3. 21st CENTURY NEUROSCIENCE SINCE THE DISCOVERY OF NITRIC OXIDE (NOBEL PRIZE, 1998)

4. THE METABOLIC TREATMENT OF MENTAL DISORDERS

