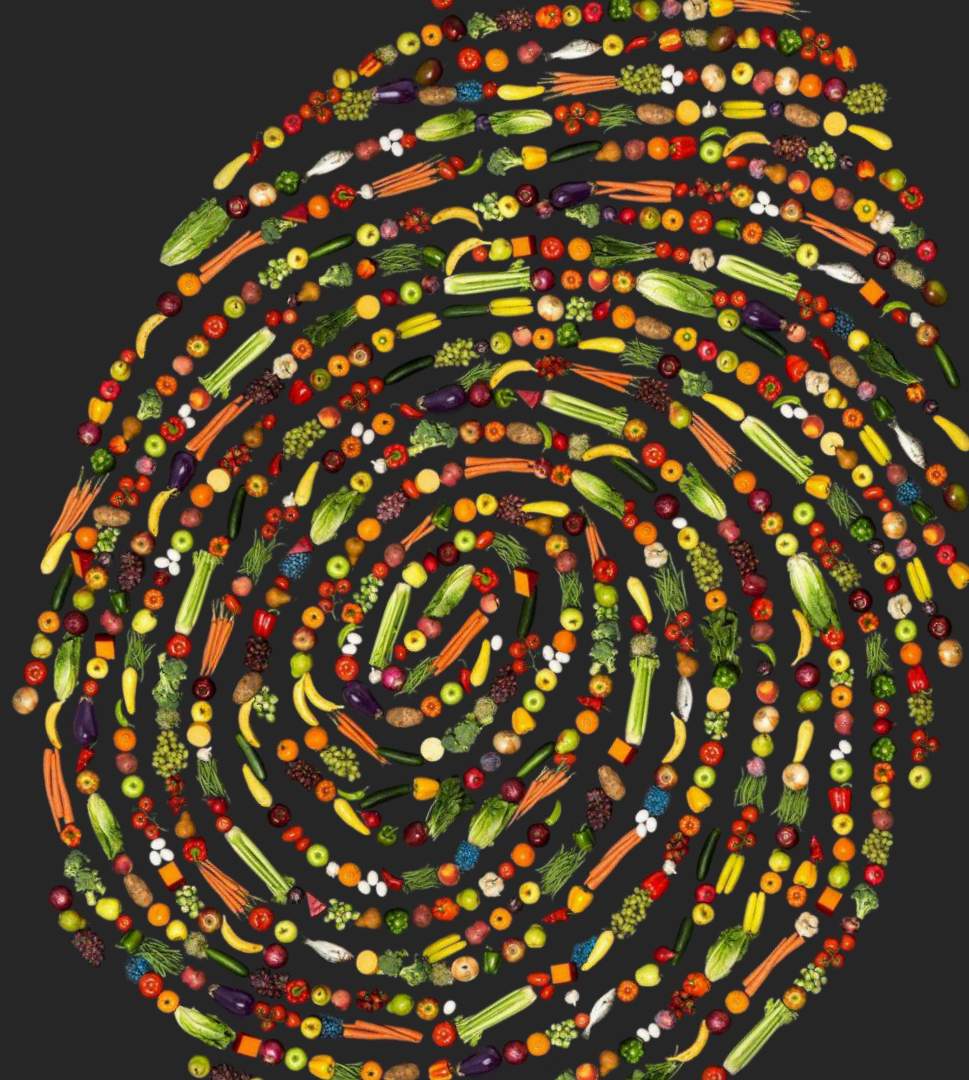


THE UNIVERSITY of
NORTH CAROLINA
at CHAPEL HILL

NUTRITION RESEARCH INSTITUTE

EATUNIQUELY





NUTRITION RESEARCH INSTITUTE FACILITIES

- 125,000 square feet
- Wet and clinical laboratories
- Clinical intake facility
- Metabolic kitchen
- Whole-room calorimeter



Original Eppendorf
eppendorf
In touch with life

LAB RESEARCH

70% ETHANOL



CLINICAL TRIALS



STUDENT TRAINING



COURSES



COMMUNITY ENGAGEMENT



NUTRITION IS IMPORTANT

HEART DISEASE kills **614,248** Americans per year.

CANCER kills **591,699** Americans per year.

STROKE kills **133,103** Americans per year.

DIABETES kills **76,488** Americans per year.

KIDNEY DISEASE kills **48,146** Americans per year.

1,463,684
PREVENTABLE
DEATHS

We spend 86% of all healthcare dollars treating chronic conditions, many of which are preventable by better nutrition.

—*Centers for Disease Control and Prevention*

**YOU ARE
UNIQUE
SO DON'T
EAT LIKE
ANYONE ELSE**



NUTRIGENETICS

The science of

How nutrition changes the way our
genes function, and
How our genes change our nutrient
requirements



A complex metabolic pathway diagram showing various chemical compounds and their interconnections. The pathways are color-coded: orange, green, pink, yellow, blue, and red. Key molecules include D-Glucose 1-phosphate, D-Fructose 1,6-bisphosphate, Pyruvate, Citrate, and L-Alanine. The diagram illustrates the flow of nutrients through various enzymatic steps.

GENES AND METABOLISM

Normal nutrition is composed of many metabolic pathways that nutrients must transit.

Pathways depend on our genes.

Some genes have naturally occurring spelling differences that cause roadblocks in metabolism.

Each of us can have as many as 50,000 of these differences.

Microbiome

The science of

How nutrition changes our
microbiome, and

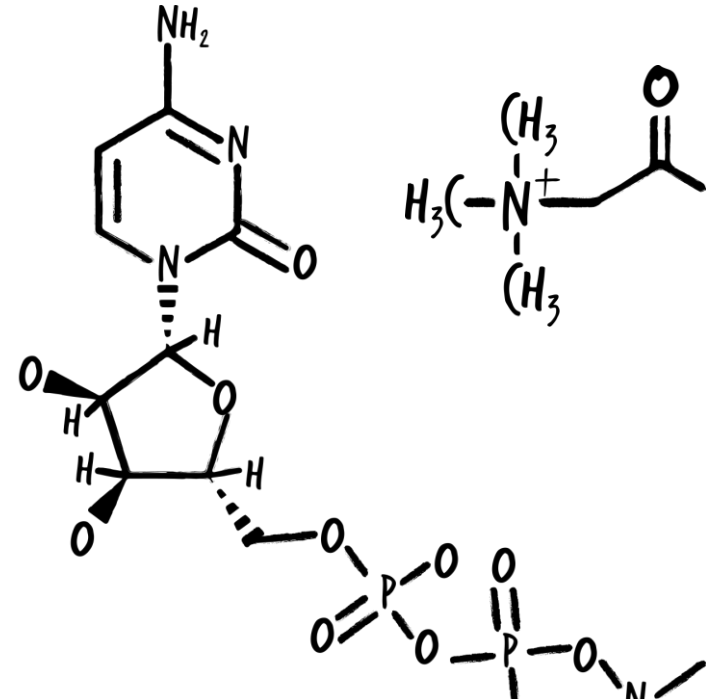
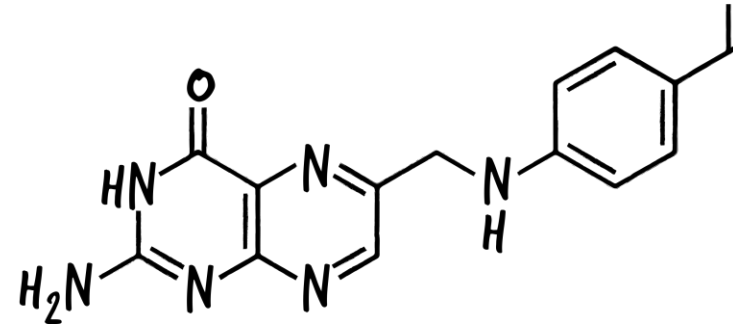
How our microbiome changes
our nutrient requirements



METABOLOMICS

The science of

Measuring thousands of chemicals in a small sample of blood for a more comprehensive view of a patient's metabolism than the limited glucose and cholesterol measurements that doctors now use

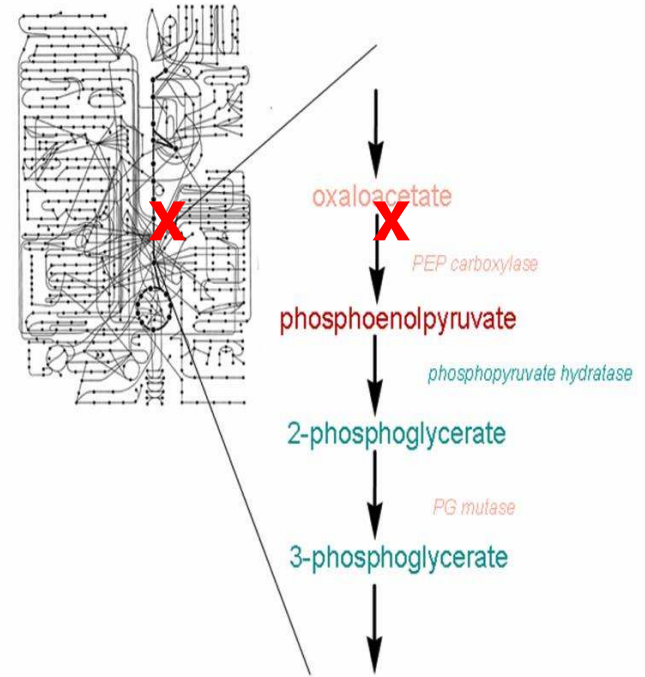


A close-up photograph of a wooden cutting board filled with fresh fruits. In the foreground, there are several apricots with their characteristic orange and red hues. Scattered around them are blueberries and a cluster of blackberries. The background is softly blurred, showing more of the same fruits. The overall lighting is natural and bright, highlighting the textures of the fruit and the wood.

THE CUTTING EDGE OF MEDICINE IS
**PERSONALIZED
NUTRITION**

HOW WILL PERSONALIZED NUTRITION WORK?

NRI research is helping create a “dictionary” of gene variations that change nutrition requirements. Your medical practitioner will be able to look up your unique changes to find the best interventions.



NRI LEADS FIELD IN INDIVIDUALIZED NUTRITION

“The University of North Carolina Nutrition Research Institute is a leader in the growing field of individualized nutrition, studying what’s known as nutrigenomics: the link between genes and diet. The science is a comparatively new one but early reports are tantalizing.”

Oz, Dr. Mehmet. “The Oz Diet.” *TIME Magazine*
12 Sept 2011: 5. Print.





We've discovered why some babies need extra essential fatty acids for better brain function.



Our research shows that a lack of choline in a diet could lead to liver and muscle damage.



We've discovered that a choline-rich diet during pregnancy is essential for babies' healthy brain and spinal development.



Our studies show that eating blueberries may improve mental processing speed and have a positive effect on mild cognitive decline.



We've discovered that omega-3 fatty acids together with weight loss can be very therapeutic in preventing and reducing the risks of some cancers.

At the UNC Nutrition Research Institute

We study nutrition and:

- Brain development
- Dementia
- Cancer
- Obesity
- Gout
- Fetal Alcohol Syndrome
- Fatty liver
- Muscle loss with aging
- Response to environment





UNC NUTRITION RESEARCH INSTITUTE

Thank you!

Please visit and get involved.

To make a difference and be the
best in the world we need your help.

www.uncnri.org