



CONVERGENCE

News, Links, and Insights
by JEFFREY BLAND, PHD



December 2018 - Mid-Month Bonus

Thank you for subscribing to Dr. Jeffrey Bland's newsletter. Enjoy and share this information, which is for educational purposes only. Always consult with a qualified healthcare professional when you are in need of medical advice, diagnosis, or treatment.

In this issue: The Vantage Point; Fruit Intake May Impact Brain Levels of Beta-Amyloid; Classic FMU: Christoph Westphal, MD, PhD; Summer 2019 Events in London and Dublin

The Vantage Point: What's Been Happening in Dr. Bland's World?

Dr. Bland's passport has been getting a workout! To track his activities in real time and see all the photos from his travels consider following his [Instagram page](#).



Adventures in Thailand

It's been on the bucket list for many years—a trip to the beautiful northern mountains of Chiang Mai in Thailand. In November, all factors aligned and Dr. Bland spent more than a week hiking, exploring cultural sites, learning Thai cooking, and bonding with new four-legged friends at a local elephant sanctuary.

Down time—as we all know—is time well spent. Although it was just a brief break from his full schedule and his many commitments, beautiful Thailand was the perfect place for Dr. Bland to reflect, recharge, and ramp up for exciting things that are planned for 2019!



Eating in traditional Mediterranean style has already been linked with better long-term cognitive function and reduced risk for Alzheimer's disease, and new research has looked at how this dietary pattern impacts brain levels of beta-amyloid. Though this dysfunctional protein is characteristic of Alzheimer's, it accumulates during biological aging and is found in 'normal' brains as well. This Australian study [scanned the brains of 77 study subjects](#) aged 60 or older 3 times over a period of 3 years, while also scoring their adherence (from 0-9) to the Mediterranean Diet. Results

showed that each additional Med Diet score point correlated with 20 percent less accumulation of beta-amyloid per year—thus adding up to 60 percent less accumulation of this prion-like protein over the 3-year study period. It was interesting that fruit intake was the single strongest factor in limiting beta-amyloid (which the researchers thought might relate to fruits' polyphenol and vitamin C contents), while possessing 1-2 $\epsilon 4$ alleles at the ApoE gene and age were the strongest positive associations. Previous research has demonstrated that dietary nutrient density and quality influence biological aging processes and that lifestyle programs can [reduce the impact of ApoE \$\epsilon 4\$](#) status—and these current findings further point to lifestyle factors as damping down an important mechanism by which Alzheimer's develops and progresses.

From the Functional Medicine Update Audio Archive



FMU KNOWLEDGEBASE
www.JeffreyBland.com



Two Crucial Evolutionary Carry-On Items

An interview with:
Christoph Westphal, MD, PhD

November 2015

Can you name two crucial things we have in common with single-celled organisms—and why they were important enough to hold onto? A great many things happened on the way to our evolution as humans, but we did manage to bring a few useful tools from our early “cellhood” life. [In this classic FMU](#), sirtuin researcher Christoph Westphal, MD, PhD talks with Dr. Jeffrey Bland about how remarkably analogous these gene-editing enzymes are among primitive bacteria, yeast, worms, insects...and *Homo sapiens*. In their cross-talk with other nutrient-sensing and cellular housekeeping factors (like PGC1 α , PARP, and AMPK), sirtuins have a great deal of say about whether cells live or die and how efficiently we produce energy versus pro-oxidants in our mitochondria—which are, incidentally, our second evolutionary carry-on item. Drs. Bland and Westphal also discuss behavioral means of instigating these cellular longevity programs and describe how nutritional hormesis is a two-way street leading to longer or shorter healthspan depending on which direction your lifestyle is headed.

Classic FMU Top Ten Clinical Pearls

Sirtuin researcher Christoph Westphal, MD, PhD

1. Xenohormesis (how small amounts of foreign substances influence metabolism) helps us understand that food speaks to receptors and genes and alters function; food = information, not just calories.
2. Xenohormetic substances reflect lifestyle and may either add to or relieve biological stress; for example, trans fats as opposed to flavonoids.
3. Nutritional hormesis is how low levels of dietary substances modulate physiology to alter phenotypic expression; resveratrol exemplifies this in its role in the French Paradox of cardiovascular health.
4. Resveratrol mimics caloric restriction by activating sirtuins that modulate PGC1 α

- and AMPK to increase mitochondria number/efficiency, improve glucose/insulin metabolism; a slower-aging phenotype.
5. Exercise, caloric restriction, and sirtuin activators alike increase mitochondrial efficiency, generating more energy and less pro-oxidants.
 6. Exercise and caloric restriction exert many metabolic as well as epigenetic health effects, and sirtuin activation is just one of these.
 7. Sirtuins open certain gene regions for reading, are remarkably conserved throughout evolution, and their cell longevity functions require sufficient NAD, which is also needed for mitochondrial energy production.
 8. Resveratrol levels in plants are increased by stress, and resveratrol activates analogous cellular stress management programs in those consuming these plants.
 9. Sirtuin activators like resveratrol may be beneficial in conditions like cancer, inflammation, diabetes, and neurodegenerative or mitochondrial diseases.
 10. Medical diagnostic coding fails to reflect physiological dysfunctions common across multiple conditions as well as the uniqueness of individuals' disease presentations.

Interview Link:

<http://jeffreybland.com/knowledgebase/december-2007-issue-christoph-westphal-md-phd-sirtuin-pharmaceuticals-inc/>

Summer 2019: Hello London, Hello Dublin!

Nutri Advanced
are bringing
DR. JEFFREY BLAND
to the UK

London - 15th June 2019

London - 15th June 2019

Title:
The Science of Health

Sponsored by:
Nutri Advanced

More information here:
<https://bit.ly/2rpF7Ck>

INSTITUTE OF HEALTH SCIENCES Presents
DR. JEFFREY BLAND

Nutrigenomics in Clinical Practice:
Opportunities and Uncertainties

Friday June 21st 2019 Dublin Tickets on sale now

Early bird offer available

Dublin - 21st June 2019

Title:
Nutrigenomics in Clinical Practice:
Opportunities and Uncertainties

Sponsored by:
Institute of Health Sciences

More information here:
<https://bit.ly/2PuhEtn>

Connect with Dr. Jeffrey Bland



©2018 Jeffrey Bland, PhD
All Rights Reserved

Jeffrey Bland, PhD - Publisher

Cheryl Kos, ND - Content Developer and Writer

Trish Eury - Content Editor

Annette Giarde - Subscription Manager