



CONVERGENCE

News, Links, and Insights
by JEFFREY BLAND, PHD



July 2018

Thank you for subscribing to Dr. Jeffrey Bland's newsletter. Enjoy and share this information, which is for educational purposes only and is not intended to be a substitute for professional medical advice, diagnosis, or treatment. Always consult with a qualified healthcare professional when you are in need of advice regarding a medical condition.

In this issue: Living with Hypertension is Better with Good Culture; Important Updates on the PREDIMED Study (video blog); FMT is Interactive -- and Recipients are Selective; SNIppets: Apolipoprotein A2; KNEW Health Seattle Event; Classic FMU Clinical Pearls



FMU KNOWLEDGEBASE

THE AUDIO ARCHIVE OF JEFFREY BLAND, PHD

"YOU CAN'T HAVE A SICK GUT AND A
HEALTHY BODY. THEY ARE INTERRELATED."

- JEFFREY BLAND, PHD
JULY 2013

FIND A LINK TO THIS ISSUE AT THE END OF THE NEWSLETTER

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Living with Hypertension is Better with Good Culture



The American Heart Association (AHA) and research recently published in The Lancet medical journal have pointed out that [1 in 3 adults](#) and [1 in 7 humans](#) world-wide have high blood pressure—and the global adult average blood pressure is around 124/78, which is high according to the new AHA guidelines. While cutting excessive salt intake (and increasing that of potassium) is undoubtedly the first and easiest step in controlling blood pressure for many people, a recent study conducted in health professionals with high blood pressure provides further insight into lowering cardiovascular risk in

those with this condition.

After examining the dietary patterns of over 70,000 hypertensive health care providers (many of whom are likely taking medication for the condition), the study found that [those consuming more yogurt](#) displayed reduced risk for myocardial infarction, and when intakes reached at least two servings weekly, yogurt eaters also showed less likelihood of experiencing stroke or major coronary artery disease—and cardiovascular protection was further amplified by adherence to the DASH (Dietary Approaches to Stop Hypertension) diet pattern, even among these health professionals with hypertension.

Previous research may suggest means by which yogurt can benefit heart and vessel function. Milk proteins include peptides that have been shown to [beneficially influence biological processes](#) that relate to blood pressure, [atherosclerosis](#), and the formation of clots within blood vessels, so perhaps it is not surprising that greater consumption of fermented dairy products, in which milk proteins have been partially broken down into their constituent peptides, may help support long-term cardiovascular health.

Dr. Bland's Latest Video Blog

In the News: Important Updates on the PREDIMED Study

The New England Journal of Medicine recently retracted a major 2013 study on the Mediterranean diet—and then republished it. It's an interesting story and one that many people find confusing. Dr. Jeff Bland sorts through the details and shares his insights.

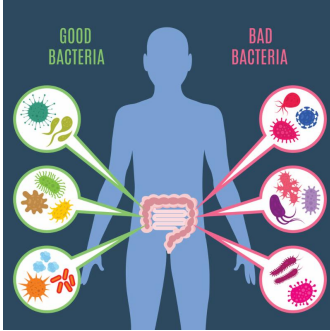


Video Link: <https://www.youtube.com/watch?v=7175Dph3e6I>

Video is one of Dr. Bland's favorite communication tools. Subscribe to his [YouTube channel](#) to never miss an update, and also find many additional videos on the Personalized Lifestyle Medicine Institute [Vimeo page](#).

FMT is Interactive -- and Recipients are Selective

Despite its oddness as a medical therapy, the success of fecal microbial transplantation (FMT) in improving challenging conditions like metabolic syndrome, inflammatory bowel disease, and antibiotic-associated diarrhea is compelling. FMT involves transfer of fecal material from a healthy donor

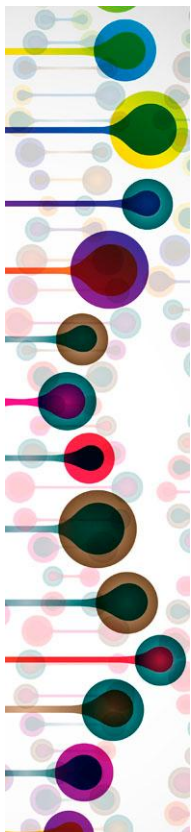


into a recipient via rectal injection, a bit like a suppository or colonic treatment. After FMT, donor strains can persist for months within the recipient, and studies have seen significant clinical improvements after as few as 1-3 treatments. However, the complexity of metabolic, immune, and microbial interactions within the digestive tract means that FMT is not merely a transfer of one microbiome to another, but rather an opportunity for donor and recipient microbiomes to interact.

A new study, coordinated by Harvard and MIT and employing a machine learning method, accounted for contributions to FMT recipient microbiomes from not only donors but also environmental input and microbiome interactions. It concluded that transfer of organisms between microbiomes that will persist in the recipient [occurs in a selective manner](#) whereby a recipient microbiome will tend to maintain abundant related species of its own and receive abundant related species from a donor—particularly if they relate to species in the recipient. Thus, multiple instances of FMT are expected to be necessary to alter the overall composition of a recipient, even though benefit may be seen after the first treatment.

This selectivity may result from microbes' metabolic needs, as related species tend to have similar preferences in sources of energy and nutrients they can receive from a host's microbiome. However, because microbiome composition relates strongly to dietary intakes and lifestyle outputs, there is good reason to believe that combining FMT with diet and lifestyle changes tailored to suit both the patient and the desired bacteria may enable introduction of particular beneficial species into a recipient, even if they are not initially abundant. Ensuring availability of ideal energy sources and providing high counts of related species (whether from FMT, diet, or supplementation) may facilitate transplantation of chosen bacteria.

In [this FMU interview](#), neurologist David Perlmutter, MD and Dr. Bland discuss successful application of FMT in children with autism and in type 2 diabetics, and Dr. Perlmutter describes how targeted antibiotic use and FMT can each make a big difference in autism.



SNiPpets

How significant to health are certain single nucleotide polymorphisms, also known as SNPs? SNiPpets is an ongoing exploration of this topic. This column is produced by Jeffrey Bland, PhD and the Personalized Lifestyle Medicine Institute.

This SNP Could Influence Body Fat Deposition From Saturated Fats

Cardiologist Dr. Mark Houston has described the importance of having not only a sufficient HDL level but also that one's HDLs demonstrate efficacy in encouraging healthy lipid transport. Apolipoprotein A2 is the second most abundant structural apolipoprotein in HDLs. Among type 2 diabetics, carriers of a CC gene variant in SNP rs5082 for the Apo A2 gene show higher levels of the [inflammation marker hsCRP](#), and this polymorphism has also been associated with greater obesity in individuals with [high dietary intakes of saturated fats](#) (such as those in meats and dairy products). These findings suggest that carriers of this SNP would likely receive special cardiometabolic and antiinflammatory benefit from limiting intakes of saturated fats and/or increasing consumption of omega-3 fats.

Upcoming Appearance: Dr. Jeff Bland to Speak in Seattle on July 9th



SEATTLE, ARE YOU...

- ...concerned by the state of American Medicine?
- ...overpaying for health insurance for services that you never used?
- ...paying cash for services that you value but not valued by insurance?

If you said YES to any of these questions, join us for FREE July 9, 2018!

Featured Speakers Include:



KNEW Health, the Evolution of Medicine and the Functional Future presents the KNEW Vision Tour. A 22-city, 4-month effort dedicated to making radical national statements about functional medicine in the nation's major health cities. The government contractor asks on your city and register for your FREE regular ticket using the code "04000".



This summer, James Maskell, CEO of KNEW Health and Co-founder of Evolution of Medicine is traveling across the United States and hosting educational events in 22 cities. On July 9th, the tour makes a stop in Seattle for an evening of presentations and networking at The Fremont Foundry. Dr. Jeff Bland will be giving a keynote talk at this event and tickets are available now if you would like to attend.

More information available here:

<https://www.eventbrite.com/e/knew-vision-tour-seattle-wa-tickets-45819747097?aff=eac2>



Where in the World is Dr. Bland?

Every year, Dr. Jeff Bland speaks in front of audiences around the world.

Will this be the year your paths cross?

[View Appearances Calendar](#)



For more than three decades, Dr. Jeff Bland recorded and self-published a monthly audio journal called Functional Medicine Update (FMU). Although he is no longer recording new issues, an archive of content spanning 1997-2016 is [free to explore](#) on Dr. Bland's website, and this extraordinary collection is now known as the FMU Knowledgebase.

To access the July 2013 issue, which is featured at the start of this newsletter, click [here](#). That issue features an interview with Patrick Hanaway, MD, Research Director of the Cleveland Clinic Center for Functional Medicine. Dr. Hanaway was also interviewed in December 2006, which can be accessed [here](#).

Here are some classic clinical pearls from Dr. Bland's discussions with Dr. Hanaway:

1. The gut's immune system continuously samples contents and is where the body 'learns' about healthful and proinflammatory influences and distinguishes self from non-self
2. Oligosaccharide prebiotics feed the protective biofilm covering the gastrointestinal surface and block biological mimicry that can lead to inflammation and autoimmune

- pathology
3. Genetic and lifestyle-related alterations in digestive capacity and gut immune responsivity can link mechanistically with leaky gut, gluten enteropathies, and inflammatory bowel disease
 4. When using probiotics, provide generous amounts (on the order of trillions of organisms) and multiple strains in order to make a clinical difference
 5. Dietary effects on assimilation, detoxification, elimination, and the microbiome are instrumental in setting inflammatory tone along the digestive tract
 6. Fecal calprotectin is an underappreciated biomarker for gastrointestinal structure and function and the double-sugar test is valuable for assessing malabsorption as well as gut permeability
 7. Per Michael Gershon, there are more neurotransmitters in the gut than in the brain
 8. Diet, lifestyle, and exposure to drugs, microbes, and vaccines during the first two years of life establish one's immune baseline
 9. The combination of inflammation, genetic predisposition, and *Klebsiella* in the microbiome can increase susceptibility to autoimmune conditions
 10. Monthly subscription care models present a realistic payment scheme for Functional Medicine practitioner
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