



CONVERGENCE

News, Links, and Insights
by JEFFREY BLAND, PHD



August 2019 - 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: Mindshare Summit 2019; Do Polyphenols Help Satisfy a Microbiome's Appetite?; Classic FMU: Eric Schadt, PhD

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

Do you want to track Dr. Jeff Bland's activities, see photos from his travels, and find inspiration in his words? Follow his social media pages to stay connected!



From upper left: Dr. Jeff Bland and Dr. William Li, author of Eat to Beat Disease; Dr. Jeff Bland with Dr. Terry Wahls and James Maskell; JJ Virgin opens the 2019 Mindshare Summit.

Mindshare Summit 2019

Each year, bestselling author JJ Virgin hosts an exciting conference called the Mindshare Summit. This event draws influencers, innovators, and top leaders from the wellness industry. Dr. Jeff Bland decided to join this year's group in San Diego and the experience did not disappoint! It was a weekend filled with opportunities to learn new skills and network with new colleagues. PLUS, thanks to the presence of an onsite video team, Dr. Bland and James Maskell filmed a whole series of interviews for their popular [Big Bold Health Podcast](#). That's none other than Dr. Terry Wahls in the photo at left and additional interviews included Katie Wells (Wellness Mama), Dr. Trevor Cates (The Spa Doctor), and Dr. Hyla Cass (Natural Solutions for a Vibrant Mind).

Do Polyphenols Help Satisfy a Microbiome's Appetite?



Some people lose weight and keep it off, while others lose and regain weight throughout life. Some regain gradually, while others seem to regain it in an increasingly precipitous fashion, especially if they have previously been obese. While our ancestors' fasting, feasting, and famine play a role, how does what we eat—or don't eat—affect how our likelihood of regaining lost weight?

A memorable 2016 experiment found that dietary flavonoids and their metabolites are factors in this complex equation. In mice with obesity induced by a high-fat diet, a certain gut microbiome composition seemed to "remember" these experiences, and it was associated with future weight regain. In addition, fecal transfer from these mice into others also caused them also to "remember" obesity and dieting and rapidly regain weight, and the researchers found that fecal transfer from normal, healthy mice into affected mice restored a more normal pattern of weight maintenance in them. Finally, through analyzing gut microbiomes associated with each weight regain pattern, the scientists discovered that supplementing affected animals' diets with the [flavonoids naringenin and apigenin](#) also helped reduce subsequent weight regain and renormalize weight maintenance. (Some [food sources of naringenin](#) include citrus fruits, citrus fruit peels, oregano, tomatoes, parsley, sour cherries, and licorice root, while celery, chamomile, garlic, thyme, [sage, oregano](#), coriander, skullcap herb, eyebright herb, and marjoram are [sources of apigenin](#).)

A high-fat diet creates a distinctive pattern of metabolism and microbiome composition that is resistant to change with caloric restriction alone, and provision of flavonoids (which are typically associated with nutrient-dense foods) may alter gut microbe populations in such a way as to re-establish more stable weight. Generous dietary intake of polyphenols, as exemplified by the traditional Mediterranean diet, is thought to [counter the development of obesity](#) and immunometabolic aging through multiple means, including:

- Providing prebiotic nourishment for advantageous gut microbes
- Mobilizing stored fat for use as an energy source
- Inducing formation of [mitochondria-rich brown fat](#), which alters energy dynamics and insulin metabolism
- Encouraging programmed cell death in susceptible fat cells

A 2015 study found that in overweight or obese subjects, giving a combination of fruit polyphenols with prebiotic saccharides increased circulating levels of [satiety hormones](#), subjective feelings of satiety, and gut production of short-chain fatty acids (also associated with appetite suppression) while additionally improving glucose metabolism.

In this video, computer technologist-turned-nutrition scientist Eran Segal discusses how the composition of the [microbiome impacts glucose metabolism](#) in a profound and extremely individualized manner, with implications for long-term health maintenance as well as weight maintenance. (He also provides background on the creation of the postprandial glucose-predicting algorithm now employed by DayTwo.) Thus, it appears that our habitual diet transmits signals that not only program the cells of our own bodies but also the microbes comprising our microbiomes, and our microbiomes respond by changing their population cross-sections and producing metabolites and chemical messengers that reflect back to us the immunometabolic quality of life our diet provides for them. This 'conversation' or 'negotiation' is manifested in our long-term comfort and function, and nutrient-dense foods (perhaps especially flavonoid-dense foods) may help convince our bodies and microbiomes that our ancestral history of starvation is not repeating itself every time we try to lose weight.

In research, why are healthy people only brought in as controls for studying illness? After many decades of investigating disease, we have some idea of what it looks like and who may end up with it—yet know relatively little about what enables people to withstand adversity and stay well—whether because of or in spite of their genetic inheritance. What are the physical, genetic, and epigenetic presentations (phenotypes and genotypes) of this resilience, and how can it be cultivated? What are ‘perturbagens,’ and are there beneficial as well as beneficial perturbagens? In [this classic FMU interview](#), Dr. Jeffrey Bland talks with genomics researcher Eric Schadt, PhD, who helped usher in the collaborative era of sharing and analyzing complex Big Data datasets, and is investigating functional traits involved in stress resilience. They discuss the potential benefits of studying not only seemingly disadvantageous genetics (and how to counter them) but also “gain of function” mutations related to long-term wellness.



Interview Link:

<http://jeffreybland.com/knowledgebase/july-2014-issue-eric-schadt-phd/>

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