



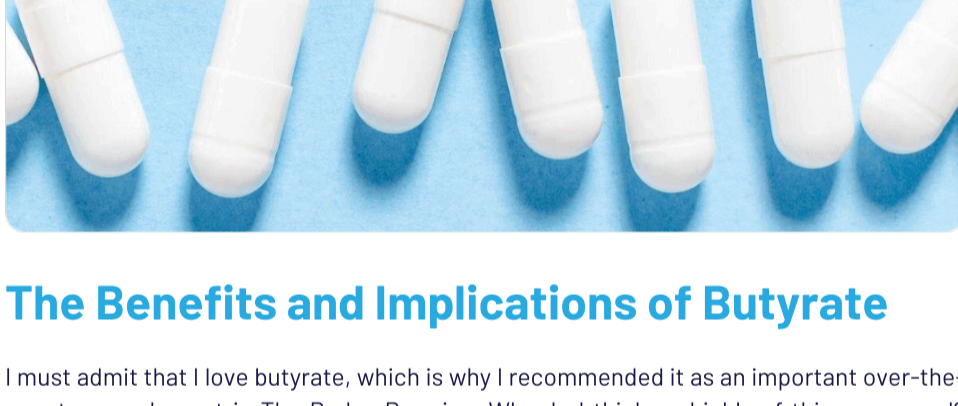
SEEDS SCIENTIFIC
RESEARCH &
PERFORMANCE

Community Digest

SEPTEMBER 2025



FROM DR. SEEDS



The Benefits and Implications of Butyrate

I must admit that I love butyrate, which is why I recommended it as an important over-the-counter supplement in The Redox Promise. Why do I think so highly of this compound? First, it's a naturally occurring SCFA that is produced in the colon by resident gut bacteria—typically through the fermentation of dietary fiber. The synthesis by intestinal bacteria occurs via four pathways: nondigestible carbohydrates (like fiber), succinate, L-lysate, and glutarate. It is then taken up and metabolized by the colonic epithelial cells, after which low levels of butyrate enter the liver and regulate fatty acid metabolism.

This naturally occurring postbiotic is an integral source of energy for colonocytes, the cells lining the colon, to maintain the integrity of the intestinal barrier and prevent conditions like leaky gut. Butyrate also exerts strong anti-inflammatory effects by inhibiting histone deacetylases (HDACs), which regulate gene expression involved in immune responses and thereby reduce inflammation. Additionally, butyrate prompts the growth of beneficial bacteria. Relevant to our purposes here, butyrate has also been shown to improve insulin sensitivity.

[Continue Reading](#)

JOURNAL CLUB



[Click here to watch now.](#)

The Potential Influence of Melatonin on Mitochondrial Quality Control: A Review

SSRP Member Video Vault Rewind from April 2025: How does melatonin influence mitochondrial quality control? Discover how this hormone helps cells adapt to stress, boost flexibility, and stay energy-efficient.

This session highlights why mitochondrial resilience is central to long-term cellular health.

[Article Link](#)

[Member's Video Vault](#)

[Scroll down to videos published in April 2025.](#)

CONTINUE READING

Neostigmine's New Frontier: Immunity & Cognition

"Neostigmine is primarily used to reverse neuromuscular blockade, but it also shows promise in controlling immune-inflammatory responses via the cholinergic anti-inflammatory pathway and in protecting the brain during surgery. However, while nonclinical studies support these benefits, human trials have produced mixed results." - Dr. Seeds

<https://doi.org/10.3389/fphar.2023.1227496>

When Microbes Sync with Mosquitoes: New Insights in Malaria Spread

"Mosquito gut microbiota follow a daily cycle which affects malaria parasite transmission rates thus enabling better results from vector-control and transmission-blocking interventions when implemented during specific daily periods." - Dr. Seeds

<https://pubmed.ncbi.nlm.nih.gov/40947390/>

Salt's Double-Edged Role in Th17 Immunity

"Tissue NaCl exposure leads human Th17 cells to adopt an anti-inflammatory FoxP3/TGF- β -associated fate through the p38/MAPK-NFAT5-SGK1 signaling pathway yet it enhances Th17 pathogenicity when TGF- β levels are low in proinflammatory environments. The study indicates that treating chronic inflammatory and autoimmune diseases will become more effective when patients receive cytokine-blocking therapies (e.g., IL-1 β /IL-6/IL-23) together with salt exposure management." - Dr. Seeds

<https://doi.org/10.1172/JCI137786>

Hold the Salt: Protect Your Liver

"People who frequently add salt to their food face increased risks of MASLD cirrhosis and HCC which makes salt reduction an effective prevention method to decrease liver-related health problems. High salt consumption leads to aldose reductase activation which produces additional endogenous fructose that causes leptin resistance and results in liver fat accumulation and tissue damage."

- Dr. Seeds

<https://pubmed.ncbi.nlm.nih.gov/40542866/>

High-Dose Semaglutide Weekly: Redefining Obesity Treatment

"The 7.2 mg semaglutide dose administered weekly to obese adults with type 2 diabetes resulted in superior 72-week weight loss and waist reduction and HbA1c control compared to placebo while producing similar glycemic effects to 2.4 mg but more side effects that need separate assessment for their value." - Dr. Seeds

[https://www.thelancet.com/journals/landia/article/PIIS2213-8587\(25\)00225-6/abstract](https://www.thelancet.com/journals/landia/article/PIIS2213-8587(25)00225-6/abstract)

Nicotinamide: A Shield Against Skin Cancer

"Use of nicotinamide 500 mg twice daily represents a practical chemopreventive approach for first-time keratinocyte carcinoma patients because it shows effectiveness in lowering future skin cancer risk particularly for cSCC in real-world settings." - Dr. Seeds

<https://doi.org/10.1001/jamadermatol.2025.3238>

UP NEXT



**CELLULAR
MEDICINE
MASTERMIND**

Mastermind 14: The Brain Code

November 7 - 8, 2025 • Westlake Village, CA



**GRAND
ROUNDS**

Grand Rounds

November 9, 2025 • Westlake Village, CA



**CELLULAR
MEDICINE
MASTERMIND**

Mastermind 15: The Aesthetic Matrix

March 13 - 14, 2026 • Oahu, HI

[Explore Live Events](#)

Need help? Have questions?

[Schedule a Call](#)



**REDOX
REVOLUTION**

New episodes of Redox Revolution drop every Tuesday! Join Dr. Seeds and the Redox Medical Group as they uncover the science of cellular resilience and real-world clinical strategies.

**Join The
Revolution - New
Episodes Every
Tuesday!**

[Click here to watch now.](#)



SEEDS SCIENTIFIC
RESEARCH &
PERFORMANCE

P.O. Box 406, Ashtabula, OH 44005

© Seeds Scientific Research & Performance. All Rights Reserved.



You're receiving this email because you have subscribed to the SSRP News {unsubscribe 'Manage Email Preferences Here!' %}