

INTERVIEW:

Lara Hyde, PhD



For all the readers here, give us an intro to your background. What got you into nutrition and what have been some of your areas of research?

I have been interested in health and nutrition for as long as I can remember. I was that kid who would always choose an apple over a candy bar. When I was an undergrad studying physiology at McGill University, I had set my sights on medical school and decided to gain some experience by working in an emergency room. It seemed like there were so many patients coming in for band-aid fixes to conditions that were nutrition and lifestyle related, so I decided to steer my career to address preventative health through nutrition. Simultaneously, I was taking a bone physiology class and learned how vitamin D worked at the molecular level. It seems so naïve now, but I had never considered before how nutrients functioned biochemically. After an undergrad summer milking guinea pigs as part of a study into the effect of maternal omega-3 supplementation on offspring bone development, I was hooked. I married my interest in preventative health with my curiosity at the cellular level, so I pursued a PhD in biochemical and molecular nutrition at Tufts University. I studied the effect of Western-style diets and calorie restriction on epigenomic patterns over the aging process. During my postdoc, I characterized epigenomic patterns in skin cells called fibroblasts from diabetic foot ulcers.

Nutritional epigenomics is a very hot field right now, which often comes with a lot of hype. Do you see any areas in nutritional epigenomics that may soon produce real-world applications? Or is it still too soon to tell?

I was drawn to the field of epigenetics for my doctoral work because it studies the intersection between nature and nurture — investigating how the environment can impact whether genes are turned on or off by regulating chemical tags on our DNA. Right now, I consider epigenetics one of the many mechanisms that explains how a healthy lifestyle impacts physiology. Most nutritional epigenomic studies in humans have been correlational in nature, and it can be challenging to collect samples of relevant tissues in humans. There are some clear applications of nutritional epigenetics for particular periods of development, such as adequate intake of B vitamins for women during pregnancy or in older adults to reduce risk of colorectal cancer. Much nutritional epigenetic research has focused on sulforaphanes, which are nutrients in the brassica family that includes broccoli and Brussels sprouts. Diets high in these vegetables reduce cancer risk, and cell culture studies indicate that these nutrients regulate the activity of epigenetic modifying enzymes, so I consider this to be

What are some of the upcoming videos we can look out for on your channel?

It will be a busy few months over here at Nourishable. I'm currently working on a series of episodes about the microbiome — what it is, how it influences health, and how diet, fermented foods, probiotics and lifestyle can impact it. I'm also delving into nutrition labeling. Which labels are regulated, which are pay-to-play,

which are related to health or environmental differences — all to help consumers make educated decisions based on their own priorities. The role of dairy in the diet will also be a focus, and I will dissect the nutritional perspectives from the confounding politics. As someone who lives with severe food allergies, I'm also continuing to develop episodes focused around food allergy research and management. ♦



Lara Hyde, PhD is the creator and host of Nourishable, an evidence-based nutrition channel on YouTube. Lara earned her PhD studying nutritional epigenetics at the Friedman School of Nutrition Science and Policy at Tufts University. She has taught extensively at Dartmouth College, Tufts University and in the Community College System of New Hampshire. Outside of science, Lara is an accomplished dancer, performing with local contemporary dance companies and choreographing musical theater productions. She merged dance and science together in her [Dance your PhD](#) entry, earning serious nerd cred as a Biological Sciences finalist in 2011. Lara loves adventuring with her husband and poodle, especially when the adventures involve lots of physical activity and eating fruits and vegetables. Subscribe to Nourishable on [YouTube](#) to support videos on evidence-based nutrition information. You can also follow Nourishable on [Facebook](#).

Credits

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