



This transcript has been edited for clarity and length.

**IAFNS:** Thank you for joining us today. Could you tell us a bit about yourself and your educational background?

**Renan Danielski**

My name is Renan Danielski and I just finished my doctorate at Memorial University of Newfoundland, Canada.

**IAFNS**

Are there misconceptions about food additives that you learned about in your work at IAFNS this summer?

**Renan Danielski**

I learned that people don't seem to really know the function of food additives – the general population, the media, and health professionals. Many have a perception that food additives are there to mask flavors but that's not their function. There's a lot of misconceptions about how they're regulated and how much science has to go into the years-long approval of food additives. Health impacts are misunderstood as well. Food additives help make food safer and shelf-stable by controlling pathogens and preventing food waste.

**IAFNS**

How is a food additive different than an ingredient?



**Renan Danielski**

Additives provide very specific functions ensuring microbiological safety, preserving food integrity, and extending shelf-life. They are separate from ingredients like the flour, yeast, salt and eggs that make up bread, for example.

**IAFNS**

Who are the audiences you are targeting for your work this summer?

**Renan Danielski**

Health professionals are a key group. My impression is that they have limited knowledge of food additives. It was very helpful to speak with dietitians, nurses and other health professionals to learn their perspectives on additives. Because of their training, health professionals are not always prepared to make connections about health effects and whether they are being caused by food additives. But the review paper I'm working on uses language geared toward many audiences in an effort to clear up some of these misconceptions.

**IAFNS**

What is a "clean-label" on food products and is it rigorously defined?

**Renan Danielski**

Generally, by clean-label people mean food labels that only have natural ingredients and additives and no synthetic chemicals. However, such labels are not rigorously defined in detail. Yet many food makers strive for clean labels as they think certain segments of customers appreciate products without extensive lists of chemical compounds in them.

**IAFNS**

Are food additives regulated in the U.S.?

**Renan Danielski**

Oh yes, new additives must be approved by the U.S. Food & Drug Administration (FDA) in advance of companies being able to market them. You have to submit a petition with an extensive scientific dossier that demonstrates safety. There must be a lack of toxicity



and data demonstrating it won't cause any concerning health problems. The FDA reviews the dossier and the public also gets an opportunity to comment on it.

FDA can approve it and can also set conditions or limits, if warranted, to certain concentrations of permissible food additives in a product (e.g. 100 parts per million). The petitioner could be trying to get approvals for emulsifiers, colorants and other products. Petitions need to identify what roles the additive plays as well as which products it may be used in. Even after pre-market approvals are granted, FDA conducts post-market surveys and reviews as well to identify any unanticipated health concerns or issues. Finally, existing food additives are sometimes reassessed in light of emerging information by U.S. regulatory scientists in food agencies.

## **IAFNS**

Can you talk about your experience at IAFNS this summer in terms of your exposure to researchers and other professionals across sectors including government, industry and academia?

### **Renan Danielski**

It was a privilege to engage with people from universities, government and industry. It was quite valuable to me to understand the regulatory process for food additives from the perspectives of people from those backgrounds during my time this summer with IAFNS and people in IAFNS' network. IAFNS does a really good job of connecting those sectors, but my sense is that outside communication among those three sectors is not always so good. It would benefit society as a whole if more communication across these sectors occurred in the food and beverage enterprise.

## **IAFNS**

What advice would you have for others considering a Summer Research Opportunity Fellowship at IAFNS?

### **Renan Danielski**

I would tell them to take the work very seriously and do the best job you can. This is a chance to showcase yourself as a professional. The most important thing someone can offer you is a chance. Leave a good impression and network with people across sectors who have expertise in different topics and disciplines like the technology sector. Put your creativity to work and have fun.