



Infectious  
Diseases Labs

ID LABS

# Prof Andreas Lopata

Australian Institute of Tropical Health & Medicine  
James Cook University-Australia

Monday, 15th May 2023  
1pm to 2pm (SGT)



Join Zoom Meeting [here](#)

Meeting ID: 920 9950 9757  
Passcode: 026165

Venue: Diversity @ Immunos L5

This seminar is **in-person** but due to limited seats you may also join on zoom

## **Anisakis Nematodes in Fish and Shellfish- from infection to allergies**

Food allergy is a major health issue globally, with rates more than tripling in the last decade. In Singapore, the food allergy prevalence is nearly 5% with increasing prevalence reported in both children and adults. Furthermore, the cause for anaphylaxis in Singapore was mostly seafood and with a strikingly higher rate in children compared to adults. Seafood is the most complex and under-investigated food commodity among the 'big eight' food groups.

The presentation of seafood allergy seems to be region-specific and prevalence's have been reported between 0%-7% worldwide, with up to 5% in Vietnam and 8% among seafood-processing workers. In countries with high seafood consumption, fish and shellfish are the second most common triggers of food allergy.

The food-borne parasite *Anisakis* is an important hidden food allergen. Anisakids are nematodes responsible for different clinical patterns in humans. The well-known human-infecting *Anisakis* species include members of the *Anisakis simplex* (AS) complex. Humans usually contract anisakiasis through ingestion of raw or undercooked seafood containing *Anisakis* larvae. Once *Anisakis* has been ingested, patients may develop disease driven directly by *Anisakis* larvae and/or by allergic reaction due to this nematode. Symptoms experienced due to exposure to this parasite include gastrointestinal disorders, urticaria, dermatitis, asthma and even anaphylaxis. Accurate prevalence data of allergic sensitisation to *Anisakis* are difficult to estimate due to the lack of well-designed population-based studies. While exposure to this parasite seems to increase due to the increasing consumption of seafood worldwide, the immunology of infection and allergic sensitization is not fully understood.

**Prof Andreas L. Lopata** leads the Molecular Allergy Research Laboratory in the Australian Institute of Tropical Health and Medicine at James Cook University/Australia, and is Theme Leader of the 'Molecular Immunology Program' in the Centre for Molecular Therapeutics and the 'Seafood and Human Health' program within the Centre for Sustainable Tropical Fisheries and Aquaculture. He has a joint appointment with the Tropical Futures Institute at James Cook University-Singapore.

Hosted by **Dr Stefan Oehlers**

Webinar is open to all. No registration required

Questions? Contact us at [seminars@idlabs.a-star.edu.sg](mailto:seminars@idlabs.a-star.edu.sg)

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