

## **LEARNING HOW TO DESIGN DRUGS FROM FISH-HUNTING CONE SNAILS**

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### **ABSTRACT**

The Philippines is the center of distribution for cone snails (genus *Conus*), which are a predatory and venomous group of 500 different species of marine snails. The most well known species is *Conus gloriamaris*, the glory-of-the-sea cone; the deadliest is *Conus geographus*, the geography cone that has caused several human fatalities in the Philippines and the rest of the Indo-Pacific. Our laboratories have systematically studied the biochemistry, physiology, and pharmacology of venomous cone snails. There is a wealth of pharmacologically active compounds in these venoms. The talk will describe how a basic science investigation of *Conus* venoms led to the development of promising therapeutic drugs for intractable pain and epilepsy. The unexpected pathway to finding new therapies from deadly venoms demonstrates the importance of basic science in developing novel scientific applications, and the importance of students in original research.

