

## Novel Anti-HIV Proteins from Coral Reefs

### Summary (1024-character limit)

Scientists at the National Cancer Institute's Molecular Targets Laboratory have discovered that Cnidarins as a novel class of highly potent proteins capable of blocking the HIV virus from penetrating T-cells. The National Cancer Institute seeks parties interested in collaborative research to license or co-develop large-scale recombinant production of cnidarins.

### NIH Reference Number

E-295-2012

### Product Type

- Therapeutics

### Keywords

- cnidarin
- anti-viral
- HIV

### Collaboration Opportunity

This invention is available for licensing and co-development.

### Contact

- John D. Hewes  
NCI - National Cancer Institute

240-276-5515

[John.Hewes@nih.gov](mailto:John.Hewes@nih.gov)

### Description of Technology

Scientists at the National Cancer Institute's [Molecular Targets Laboratory](#) have discovered that Cnidarins as a novel class of highly potent proteins capable of blocking the HIV virus from penetrating T-cells. Cnidarins were found in a soft coral collected in waters off Australia's northern coast. Cnidarins can block virus fusion/entry but do not block viral attachment. In addition, Cnidarins do not have lectin-like activity and therefore possibly a unique mechanism of action. Thus, Cnidarins may represent important new leads for HIV microbicides or for systemic therapeutics for HIV.

### Potential Commercial Applications

Microbicide, Therapeutic, Research tool

NCI Technology Transfer Center

<https://techtransfer.cancer.gov/pdf/e-295-2012.pdf>

### **Competitive Advantages**

- High potency against HIV
- Novel Chemical composition
- Family of related proteins
- Unique mechanism of action

### **Inventor(s)**

[Barry OKeefe \(NCI\)](#), James McMahon (NCI), Koreen Ramessar (NCI), Chang-yun Xiong (NCI)

### **Development Stage**

- Pre-clinical (in vivo)

### **Patent Status**

- **U.S. Patent Filed:** U.S. Patent Application Number PCT US1510797

### **Therapeutic Area**

- Infectious Diseases