

9<sup>th</sup> Edition of International Conference on **Environmental Science & Technology**  
&  
48<sup>th</sup> World Congress on **Microbiology**  
&  
50<sup>th</sup> International Congress on **Nursing Care**

June 24-25, 2019 Moscow, Russia

## The sponges associated fungi from moluccas water, Indonesia

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The marine sponges are the most productive source of bioactive compounds with potential application in human health such as anticancer, antibacterial, anti-inflammatory and antioxidant. However, some research proved that the associated microorganisms, such as fungi are the original producers of the bioactive compounds or the precursor. This research aims to obtain the sponges associated fungi that produce bioactive compounds. The sponge specimens were collected from six stations in Ternate Island, Moluccas, Indonesia by the diving method. The fungi were isolated by tapping methods. The isolates were cultured on malt extract agar media in the room temperature until fully covered by the petri dish before they are refreshed and transferred into a small tube. The isolates were tested against *Escherichia coli*, *Klebsiella pneumoniae*, *Bacillus subtilis*, *MRSA*, and *Acinetobacter baumannii*. The most active isolates were identified using molecular method. Isolation of the 54 sponges provided a total of 158 isolates.

### Recent Publications

1. Agus Trianto, Ocky Karna Radjasa, Agus Sabdono, Sakti Imam Muchlissin, Rachmat Afriyanto, Sulistiowati, Septhy Kusuma Radjasa, Phillip Crews and Erin McCauley (2019) Exploration culturable bacterial symbionts of sponges from Ternate Islands, Indonesia. *Biodiversitas Journal of Biological Diversity* 20(3):776-782.
2. Erin McCauley, Ocky Karna Radjasa, Agus Trianto, Mitchell S Crews, Alexander Smith, Gavin C Smith, Paul Zerebinski, Agus Sabdono and Phillip Crews (2018) The UNDIP-UCSC campaign to culture chemically prolific gram-negative bacteria from Indonesian Jaspis sponges. *The Free Internet Journal for Organic Chemistry IV* 123-131.
3. Walter Balansa, Agus Trianto, Nicole J de Voogd and Junichi Tanaka (2017) new cytotoxic polyacetylenic alcohol from a sponge *Callyspongia* sp. *Natural Product Communications*. 12(12):1909-1911.
4. Agus Trianto, Ocky Karna Radjasa, Rudhi Pribadi, Sekar Widyaningsih, Khoeruddin Wittriansyah, Isei Yusidharta, Wiratno, and Ita Riniatsih (2017) Exploration of Marine Sponges-Associated Fungi Producing Antifungal Compounds. *Asian Journal of Microbiology Biotechnology & Environmental Science* 19(3):588-593.
5. Agus Trianto, Nicole J de Voogd and Junichi Tanaka (2014) Two new compounds from an Indonesian sponge *Dysidea* sp. *Journal of Asian natural products research* 16(2):163-168.

### Biography

Agus Trianto is a Researcher in the Department of Marine Science, Faculty of Fisheries and Marine Science, Diponegoro University. He obtained the BSc degree in Marine Science from Diponegoro University in 1993. He got the Master and Doctoral degree on Marine Natural Product from the University of Ryukyus in 2000 and 2011, respectively. Since 2012 he got a position as secretary of Marine Science Study Program, then became the Head of Marine Science Study Program of Diponegoro University in 2017. Since 2000 he conducted research mainly on natural product focusing on search of bioactive compounds from marine invertebrates such as sponge, gorgonian, tunicate and soft coral. From 2015, he has been working on sponges associate microorganisms to produce the bioactive compounds in a larger amount continuously. He published paper more than 50 papers both in international and national journals on natural product and related fields.

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