



UMS
UNIVERSITI MALAYSIA SABAH



(AFOB MARINE BIOTECHNOLOGY DIVISION)



WEBINAR:

MARINE ECOSYSTEM CRADLE OF BIOLOGICAL DIVERSITY, NATURAL CHEMICALS AND LEAD PHARMACEUTICALS

18 NOVEMBER 2021 | 1:00 PM - 5:10 PM (JAPANESE TIME)

(MALAYSIA TIME, UTC + 08:00) ;
(JAPAN STANDARD TIME, UTC + 09:00)

Our Speakers:

Theme 1: Diversity in Marine Ecosystems



Dr. Tsuyoshi Watanabe



Dr. Zarinah Waheed



Prof. Dr. Kei Kawai

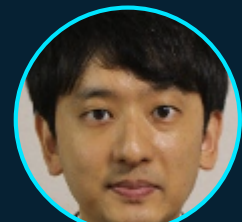
Theme 2: Chemical Ecology of Marine Organisms



Prof. Dr. Tatsufumi Okino



**Prof. Dr. Charles S.
Vairappan**

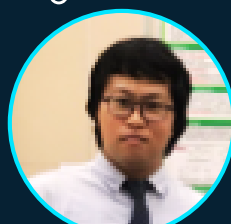


Dr. Momochika Kumagai

Theme 3: Discovery of Lead Pharmaceuticals from Marine
Organisms



Prof. Dr. Toshiyuki Wakimoto



Dr. Kazuki Tani



Prof. Dr. Toshiyuki Hamada

Contact Person:

Prof. Dr. Charles S. Vairappan (csv@ums.edu.my)

Dr. Ng Shean Yeaw (sheanyeaw@ums.edu.my)

Registration: <https://forms.gle/BoZA9cr7HYSNjmn19>

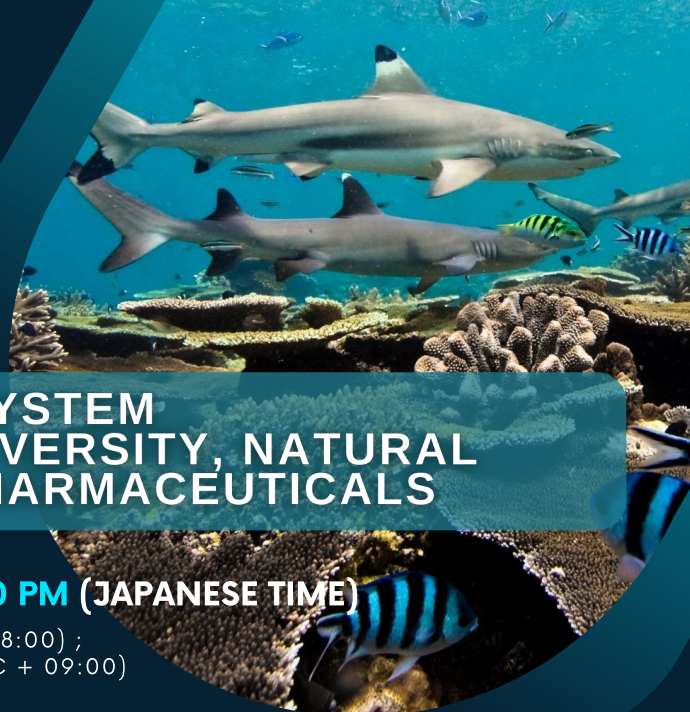




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Marine ecosystem is an important cradle of life and vital source of bioresources for human well-being. It offers a wide variety of organisms due to the diversified environment offered by different oceanic zones. Enormous ecological resources of the sea have been exploited since ancient times and included the use of marine animals like fish and preparations from algae as the sources of medicine. It is a natural habitat for a broad variety of living organisms having different physiology and capacity to adapt their environment. A total of 33 animal phyla known today, of these 32 phyla are to be found in the marine ecosystems out of which 15 varieties are exclusively present in the marine environment. It also offers an ecological resource comprising a variety of aquatic plants, animals and microbes. The unique genetic diversity enables them to exhibit chemical diversity that is much needed for their survival, which has also been a vital source of potential new drugs for human well-being. Most of these chemicals are produced as secondary metabolites for communication, reproduction and defence, to enhance their survival. These chemicals has been found to be of importance to human well-being as food, vital nutraceuticals and lead drugs. Marine derived drugs represents countless and diverse resource for new leads to combat major diseases. Secondary metabolites derived from marine organisms are screened for antibacterial, immunomodulator, anti-fungal, anti-inflammatory, anticancer, antimicrobial, neuroprotective, analgesic, and antimalarial properties. They are used for new drug developments extensively across the world. Marine pharmacology offers the scope for research on these drugs of marine origin.

Hokkaido University - Universiti Malaysia Sabah - Kagoshima University webinar, will touch on three important aspects mentioned above; 1) Marine Biodiversity, 2) Chemical Ecology of Marine Organisms, and 3) Drug Discovery from Marine secondary Metabolites.

Contact Person:

Prof. Dr. Charles S. Vairappan (cvs@ums.edu.my)

Dr. Ng Shean Yeaw (sheanyeaw@ums.edu.my)

Registration: <https://forms.gle/BoZA9cr7HYSNjmn19>



WEBINAR TENTATIVE SCHEDULE

18 NOVEMBER 2021 | 1:00 PM - 5:10 PM (JAPANESE TIME)

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1300 – 1310 : Opening Remarks

Theme 1: Diversity in Marine Ecosystems

1310 – 1330: **Dr. Tsuyoshi WATANABE**

Title: Coral reefs and earth environmental sciences

1330 – 1350: **Dr. Zarinah WAHEED**

Title: Biodiversity and ecosystem services of coral reefs in Borneo

1350 – 1410: **Dr. Kei KAWAI**

Title: Biodiversity and ecosystem services of marine mollusks in coral reefs in Kagoshima, Japan

1410 – 1430 : Discussion

Theme 2: Chemical Ecology of Marine Organisms

1430 – 1450: **Dr. Tatsufumi OKINO**

Title: Antifoulants and other biologically active compounds from cyanobacteria collected in Borneo

1450 – 1510: **Dr. Charles S. VAIRAPPAN**

Title: Secondary metabolites as defence compounds against seaweed pathogens from red algae in Borneo

1510 – 1530: **Dr. Momochika KUMAGAI**

Title: Stereoselective biological activity of red algae derived natural products

1530 – 1550: Discussion

Theme 3: Discovery of Lead Pharmaceuticals from Marine Organisms

1550 – 1610: **Dr. Toshiyuki WAKIMOTO**

Title: A new cyclase family catalyzing head-to-tail macrolactamization of non-ribosomal peptides

1610 – 1630: **Dr. Kazuki TANI**

Title: Bioactive metabolites from Bornean soft corals.

1630 – 1650: **Dr. Toshiyuki HAMADA**

Title: The search of the new marine natural products for development of the therapeutic drug against adult T-cell leukemia

1650 – 1710: Discussion

1710 : CLOSURE

