Aims & Scope:

Acute myeloid leukemia (AML) is an aggressive cancer of the myeloid lineages of blood cells. The disease is characterized by a differentiation arrest and accumulation of abnormal myeloid precursor cells in the bone marrow. The standard chemotherapy treatment (cytarabine plus an anthracycline) and long-term outcome for adults with AML has not changed much over the past 40 years. Most of the patients still relapse after achieving complete remission and die of the disease. Cell therapy in the form of allogenic hematopoietic stem cell transplantation (HSCT) is the most successful postremission treatment for younger adults with AML. However, the risk for transplantant-related mortality is high because of increased frequency of infections and graft-versus-host disease. Moreover, intensive chemotherapy and HSCT is often eligible for patients above 70 years. New promising treatment regimens such as immunotherapy could represent an alternative or additive beneficial to chemotherapy for AML.

The purpose of this theme issue is to highlight new advances in targeted immunotherapies for AML, including anti-inflammatory and immunomodulatory agents such as checkpoints inhibitors, chemokine receptor antagonists and antibody-directed drug delivery to the leukemic stem cells by using immunoliposomes. Potential therapeutic modulation of aberrant post-translational modifications, inflammatory signaling and G protein-coupled receptors (GPCRs) signaling will be presented.
Topics to be covered (main bioactive component):

1. Acute myeloid leukemia (AML)
2. Cell therapy in the form of allogenic hematopoietic stem cell transplantation (HSCT).
3. Intensive chemotherapy and HSCT
4. Targeted immunotherapies for AML.
5. Anti-inflammatory and immunomodulatory agents such as checkpoints inhibitors, chemokine receptor antagonists.
6. Antibody-directed drug delivery to the leukemic stem cells by using immunoliposomes.
7. Inflammatory signaling and G protein-coupled receptors (GPCRs) signaling
8. New technology and methods for disclose bioactive molecules from marine resource.

**Keywords:**

Bioactive molecules, Marine, Pharmacognosy, marine resource, biosynthesis, chemical synthesis.

**Schedule:** The final articles will be delivered by March 2019.