Tentative title for the special issue

TOWARD PERSONALIZED TREATMENT FOR ACUTE MYELOID LEUKEMIA

Aims & scope

Acute myeloid leukemia (AML) is an aggressive stem cell disease characterized by a differentiation arrest and increased proliferation and accumulation of myeloid precursor cells in the bone marrow, with approximately 2-3 months median survival if left untreated. The WHO classification of acute myeloid leukemia is mainly based on morphology in addition to the detection of genetic abnormalities that have a prognostic impact in patients who receive intensive anti-leukemic treatment. Several studies have shown that additional prognostic factors are also important, and these observations limit the use of the WHO classification alone for prognostic evaluation of AML patients with regard to risk of relapse. This theme issue will focus on proteomic and genomic approaches that may be utilized for development of new biomarkers that can be used for improved prognostic, sub classification of the disease and risk-benefit evaluation of potential allotransplant patients, and not least the choice of therapy. Also, new breakthroughs in leukemia therapy will be presented.

Tentative titles of proposed articles

1. The current subclassification, prognostication and treatment of acute myeloid leukemia (AML) patients

2. Global AML cell proteome profiling, phospho-signaling and targeted quantitative proteomics for identifying new biomarkers for chemoresistance and prognostication in acute myeloid leukemia patients

3. Bioinformatics tools for cancer proteomics

4. Whole genome sequencing and microarray-based gene expression profiling of AML patients

5. New Animal models of acute myeloid leukemia

6. Targeted Nanoparticles for drug delivery and treatment of acute myeloid leukemia

7. New targeted drugs for acute myeloid leukemia

8. Marine microorganisms as a source for novel anti-leukemic compounds

9. Leukemia stem cell and their use in therapy

10. Challenges in transplantation therapy

Contributing authors

Authors that has accepted to contribute to our scheduled theme issue in the area of leukemia research includes:
Clinical and Scientific, professor Øystein Bruserud, MD., PhD., Professor Stein O. Døskeland, MD., PhD. and Professor Bjørn T. Gjertsen (MD, PhD) have all published 200 or more articles, with 50-100 publications each the last five years, in high impact journal, including Nature, Cell, Blood, Leukemia.

Bioinformatic and proteomics, post doc Marc Vandel (~20 publication last 5 years), PhD., Professor Frode S. Berven (~30 publication last 5 years), PhD. and researcher Øyvind Barsnes (~30 publication last 5 years) has just got an article accepted in Nature Biotechnology.

The guest editors, professor Frode Selheim (~15 publication last 5 years), PhD. and researcher Lars Herfindal (~25 publication last 5 years), PhD., in the area of proteomics and nanoparticles for drug delivery.

Dr. Gillian Barratt, PhD (total more than 100 papers, ~20 last 5 years) in the area of nanoparticles for drug delivery
Other international partners and potential contributing authors will be contacted if our proposed special theme issue is approved by you as the Editor-in-Chief’s.

**Tentative time schedule**

30th June, 2015, article titles for all contributing authors accepted/finalized.

**Tentative submission deadline**

30th July, 2015.

Review process and resubmission finished before 20th July 2015.

**15th August, 2015 finalized issue**

Sincerely,

Frode Selheim

Professor, Dr Scient (PhD)

**Proteomics Unit at the University of Bergen**

Department of Biomedicine

Jonas Lies vei 91, 5009 Bergen, Norway

Email: Frode.Selheim@biomed.uib.no