You are cordially invited to the 284th meeting as scheduled below.

**Date:** July 18, 2014 (Fri) 15:00 –

**Place:** RERF Auditorium

**Speaker:** Hiroko Kato Solvang, Ph.D.
Institute of Marine Research, Norway

**Title:** “Estimation of an optimum threshold related to T-category of Breast Cancer by differential gene expression”

**Summary:**

Tumor size indicated by the T-category of Breast Cancer is known as a strong prognostic indicator and is one of the factors taken into account when deciding how and if to treat a patient, independently on lymph node status with significantly better survival in T1 tumors. It is common practice to distinguish the groups T1 and T2 by the 2cm rule. It is well known that T1 and T2 distinction is reflected in prognosis: T2 is more aggressive and might be spread already. However, the 2cm rule is unlikely to be optimal. We now try to find an optimum threshold for identification of genes related to variability for tumor size. To focus on such challenge, we provide an integrated analysis for differential gene expression to microarray data across three different studies based on aggregated differentially expressed measurements and Fisher’s inverse chi-square. We found over 2 cm as an optimum threshold with regards to the size which is best for distinguishing breast cancer patients into two groups, so that their expression patterns differ at most.