



**BİLKENT UNIVERSITY**  
**MOLECULAR BIOLOGY AND GENETICS**  
**DEPARTMENTAL SEMINAR**

**“Hematopoietic Stem Cells Expansion Post Gene Editing Procedures”**

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Hematopoietic stem cells (HSCs) are rare cell types housed in the bone marrow. They maintain all types of differentiated blood cell level throughout life. Due to limited availability of HSCs for transplantation, treatment of various inherited bone marrow disorders and anemia requires the development of HSC expansion and gene editing technologies. To this end, various studies addressed the use of cytokines and growth factors that were marked as effective factors for HSC expansion. Major hurdle with these studies was found to be spontaneous differentiation of HSCs into different lineages during ex vivo expansion. In addition, cost efficient approaches were needed. Thus, studies move on to the identification of small molecules with potential to enhance cell cycle progression and block inhibitory signaling mechanisms during ex vivo HSC expansion as well as following gene editing studies.

**Date-Time : Wednesday, November 9, 2016 – at 15:40**

**Place : SBZ-14**

**Host : Serkan Göktuna**