

You are cordially invited to a **Computational Genomics Seminar**:

Speaker: **Roni Shouval MD, PhD**, Hematology Division, Talpiot Medical Leadership Program, Chaim Sheba Medical Center, Tel-HaShomer, Israel

Time: Wednesday **July 25** at **11:00** sharp

Place: **Schreiber 309**, School of Computer Science, TAU

Title: **Predictive Modeling in Stem Cell Transplantation: Lessons Learned and Future Challenges**

Abstract: Allogenic hematopoietic stem cell transplantation (HSCT) is a risky but curative treatment for hematological malignancies. The course following HSCT is dependent on a complex network of parameters and considerably differs between individuals. Hence, outcome prediction is of major clinical importance for patient selection and treatment personalization. There are two cultures in the use of statistical modeling to reach conclusions from data. One assumes that the data are generated by a given stochastic data model. The other uses algorithmic models and treats the data mechanism as unknown. Traditionally, the statistical community has been committed to the almost exclusive use of data models. More recently, using machine learning based techniques, the algorithmic approach, is increasingly being used for modeling outcomes in clinical scenarios. In the presentation, I will share our experience in developing various prediction models for outcomes following HSCT and feature selection using the two approaches. Furthermore, examples of how findings can affect clinical practice will be discussed.

Host: **Prof. Ron Shamir** (rshamir@tau.ac.il), School of Computer Science, Tel Aviv University