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1st COLLOQUIUM ON BIOINFORMATICS LEARNING, EDUCATION AND TRAINING

In conjunction with 11th GOBLET ANNUAL GENERAL MEETING 2022

11-14th OCTOBER 2022

Bioinformatics Training and Education: Charting the Path Ahead

Hybrid

Lessons from a ten-year-long journey: building a student-driven computational biology society across Turkiye

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 Functional Genomics & Machine Learning Group

Radcliffe Department of Medicine

GREEN TEMPLETON

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COLLEGE





LEGITIM BAL

Who are we?

We are a student group in Turkiye affiliated with the International Society for Computational Biology (ISCB).



Who are we?

RSG-Turkiye was founded in 2011 by Dr Hatice Billur Engin, Dr Nurcan Tuncbağ and Dr Emre Güney.

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Uluslararası Hesaplamalı Biyoloji Topluluğu Öğrenci Konseyi (ISCBSC) çatısı altında Türkiye Yerel Öğrenci Grubu olarak başlatacağımız girişim için ISCB[5] üyesi iki öğrencinin (bir başkan ve bir sekreter) ve yine ISCB üyesi bir öğretim görevlisinin (danışman) başvurusu gerekmektedir. Birlikten kuvvet doğacağı öğretisinden hareketle, böyle bir girişimin ancak bu fikri benimseyen, bu konuda emek sarf etmeye hazır bir topluluk ile hayata geçirilebileceğini biliyoruz. Bu yüzden öncelikle sizlerin kıymetli görüşlerinizi ve sonrasında da desteğinizi bekliyoruz.

> Uluslararası Hesaplamalı Biyoloji Topluluğu Öğrenci Konseyi Türkiye Yerel Öğrenci Grubu Kurma Girişimi Billur Engin (Koç Üniversitesi, Istanbul) Emre Güney (Pompeu Fabra Universitesi, Barselona) Nurcan Tunçbağ (Massachusetts Teknoloji Enstitüsü, Boston) Akademik Danışmanlar: Prof. Attila Gürsoy (Koç Üniversitesi, Istanbul) Prof. Özlem Keskin (Koç Üniversitesi, Istanbul)



Who are we?



RSG Argentina 🕑 🖪 RSG Belgium 🕑 🖪 RSG California+Nevada RSG Denmark (CBioVikings) У 🖪 RSG France 🎔 😭 **RSG Spain** RSG Luxembourg У 🖪 **RSG Netherlands** RSG Mexico 🎔 🖪 RSG Pakistan 🕑 🖪 RSG Sri Lanka **RSG** Turkey **RSG Western Africa RSG Southeastern USA** RSG Australia (COMBINE) У 🖪 **RSG** Brazil RSG DC **RSG Eastern Africa RSG Germany RSG** Italy **RSG Norway RSG Northern Africa** RSG Chile 🕑 😭 RSG India 🕑 🖪 **RSG Switzerland** RSG United Kingdom **RSG** Colombia RSG Peru У

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28.08.2014 1:30pm (UTC+2), 12:30pm (CET) PLEASE SEND US AN E-MAIL TO REGISTER! RSG-TURKEY@ISCBSC.ORG

RECONSTRUCTION OF SIGNALING NETWORK TOPOLOGY FROM STEADY STATE AND DYNAMIC PERTURBATION DATA ASSOC. PROF. DR. TOLGA CAN, METU, TURKIYE

ABSTRACT: Given a set of proteins of interest in a signaling pathway, a common problem is to elucidate the signaling interactions and the dynamics of these interactions between these proteins. A first step towards anaccurate solution is to figure out the underlying network topology; before working out the details of the dynamics of these interactionsusing biochemistry or structural biology. Several experimental techniques, such as RNAi screens, are designed to infer the structure of signaling networks. Existing solutions, either manual or automated, usually suffer from the scalability problem: they are not practical for signaling networks containing more than 20-30 proteins. In our research group, we target this problem and have developed a couple of algorithms in the past to construct larger scale signaling networks. In my talk, I will first show that reconstructing signaling networks from perturbation data is indeed a difficult problem. I will then propose two heuristics to solve the problem approximately and showthat the approximate solutions are biologically acceptable. Finally, I will discuss our recent formulation which utilizes available time series data in sconstruction of the network topology. Our results show that, time series data is very valuable in scaling the solution easily to networks of larger sizes.

Cover Pic. LIU, G.; LI, D.Z.; JIANG, C.S. and WANG, W.. Transduction motif analysis of gastric cancer based on a human signaling network. Braz J Med Biol Res [online]. 2014, vol.47, n.5

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Webinars



Distribution of people accessing RSG-Turkey webinar series worldwide.

Workshops





Introduction to Single-Cell Analysis

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- Theoretical Background of scRNA-seq
- Introduction to Data Processing of scRNA-seq
- Overview of Data Formats and Preparation for the Tools
- Theoretical Background of scATAC-seq
- Applications and Analysis of scATAC-seq



rsgturkey.com/en/introduction-to-single-cell-analysis-workshop

INSTRUCTORS

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E. Ravza Gür MRC Weatherall Institute of Molecular Medicine University of Oxford, United Kingdom

19-20 DECEMBER

Events



Main events and activities of RSG-Turkey across years.



For registration: https://symposium.rsgturkey.com/ EDITORIAL

Check for updates

Lessons from a ten-year-long journey: building a student-driven computational biology society across Turkey [version 1; peer review: not peer reviewed]

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Author details



This article is included in the Bioinformatics gateway.

Abstract

The Regional Student Group Turkey (RSG-Turkey) is officially associated with the International Society for Computational Biology (ISCB) Student Council (SC). At the RSG-Turkey, we aim to contribute to the early-career researchers in computational biology and bioinformatics fields by providing opportunities for improving their academic and technical skills in the field. Over the last ten years, we have built a well-known student-driven academic society in Turkey that organizes numerous events every year and continues to grow with over 650 current members. Celebrating the

10th anniversary of RSG-Turkey, in this communication, we share our experiences, five main lessons we learned, and the steps to establish a long-standing academic community: having a clear mission, building a robust structure, effective communication, turning challenges into opportunities, and building collaborations. We believe that our experiences can help students and academics establish long-standing communities in fast-developing areas like bioinformatics.









To join: Image: To join: Image

For more information



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