



2nd INTERNATIONAL CANCER AND ION CHANNELS CONGRESS

September 22 – 24, 2019 Wyndham Grand Ozdilek Izmir / Turkey

“Ion Channels, Cancer Metabolism, and Translation To Therapy”

COURSE OF BIOINFORMATICS APPLICATIONS IN CANCER RESEARCH

HEADS OF COURSE

Asst. Prof. Zerrin Işık
Asst. Prof. Altuğ Koç
Prof. Dr. Hülya Ellidokuz

Course Scientific Secretariat

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LECTURER

- Prof. Dr. Uğur Sezerman
- Assoc. Prof. Femin Yalçın
- Asst. Prof. Altuğ Koç
- Asst. Prof. Ezgi Karaca
- Asst. Prof. Zerrin Işık
- Dr. Emine Acar
- Asım Leblebici
- Nazlı Mert-Özüpek
- Dr. Erşen Kavak (Genomize)
- Ferda Altaytaş (ATQ-Qiaçen)



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PROGRAMME

- 09:00-09:30** Opening Speech
- 09:30-10:15** Use of multi ‘Omics’ data for identification of personalized driver pathways and Cancer therapy candidates
Prof. Dr. Uğur Sezerman
- 10:15-10:45** Qiagen Digital Sequencing and Bioinformatic Solution
ATQ-Qiagen / Ferda Altaytaş
- 10:45-11:00** **Coffee Break**
- 11:00-11:30** Clinical analysis of germline and somatic variants
Asst. Prof. Altuğ Koç
- 11:30-12:00** Systematic comparison of somatic analysis methods
Genomize
- 12:00-13:15** **Lunch**
- 13:15-13:45** Metabolic and signaling pathways, functional enrichment
Network-based gene enrichment analysis
Asst. Prof. Zerrin Işık
- 13:45-14:15** Access to database for drug target determination
Asst. Prof. Zerrin Işık
- 14:15-15:00** Characterization of biological molecule interactions by docking method
Asst. Prof. Ezgi Karaca
- 15:00-15:30** **Coffee Break**
- 15:30- 16:00** Molecular docking application in cancer research
Nazlı Mert-Özüpek
- 16:00-16:30** Radiomics and clinical translation
Dr. Emine Acar
- 16:30-17:00** Access and application to genomic databases with R
Asım Leblebici
- 17:00-17:30** Access and application of genomic databases with Python
Assoc. Prof. Femin Yalçın



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DATE OF COURSE : 22 September 2019 Sunday

DEADLINE OF COURSE APPLICATION: 20 September 2019

Aim

The aim of this course is to introduce the data banks and bioinformatics tools that researchers frequently access in cancer studies and to inform the participants about how to use these data banks and tools through practical studies. In this course, participants will gain experience on access genome data banks, next-generation sequencing methods, drug target determination, and molecular docking, and to inform the clinical applications.

Contents

- Bioinformatics tools, data and their use accessible via the Internet
- Use of multi-omic data
- Next generation sequence data analysis approaches
- Access and use of metabolic pathway and gene function databases
- Access to drug databases for drug target determination
- Clinical reflections of bioinformatics
- Access to protein-ligand databases and docking of molecular targets
- Access and use of genome databases with R and Python

Participant Profile

Biological Sciences, Health Sciences, Medicine and related departments of undergraduate and graduate programs in the field of cancer research, students studying in these areas, ministries, public R & D institutions and private sector employees can participate in the training.