האוניברסיטה העברית בירושלים
THE HEBREW UNIVERSITY OF JERUSALEM

The Hebrew University of Jerusalem

Syllabus

Precision Medicine in Cancer- From Dreams to Reality - 94844

Last update 31-10-2021

HU Credits: 2

Degree/Cycle: 2nd degree (Master)

Responsible Department: Bio-Medical Sciences

Academic year: 0

Semester: 2nd Semester

Teaching Languages: Hebrew

Campus: Ein Karem

Course/Module Coordinator: Prof. T. Peretz

Coordinator Email: Tamarp@mail.huji.ac.il

Coordinator Office Hours: 8-9

Teaching Staff:
Prof Tamar Peretz,
Dr. Amichay Meirovitz,
Dr. Jonathan Cohen,
Prof Hovav Nechushtan,
Prof Haggi Mazeh,
Dr. Iris Lavon,
Prof Popovtzer Aharon,
Dr. Merims Sharon,
Dr. Shani Paluch-Shimon,
Dr. Tal Michaeli,
Dr. Mordechai Avner,
Dr. Ofra Maimon,
Dr. Aviad Zick,
Dr. Moshe Gatt,
Dr. Alexander Gural

Course/Module description:
The course is designed to allow students to participate and experience the practice of precision medicine in Oncology

Course/Module aims:
• Understand the principles of precision oncology
• Understand current challenges in prevention, early detection and therapy for cancer, based on genomic-molecular profiling .
• Take part in real-life scenarios across the treatment sequences; from genetic alterations detection to choosing the optimal oncological approach.

Learning outcomes - On successful completion of this module, students should be able to:
• Basic understanding of genomic-molecular alterations in cancer and their implication on cancer prevention, diagnosis, treatment and follow-up
• Basic molecular detection tools
• Basic approaches for treatment selection

Attendance requirements(%):
100

Teaching arrangement and method of instruction: Introductory lectures, than case

studies of real patients- discussing on tumor board, visiting diagnostic laboratories, treatment facilities, interaction with patients in clinics

Course/Module Content:
Molecular genetics
Molecular pathology
Oncogenic pathways
Monoclonal antibodies
Small molecules
Checkpoint inhibitors
Abscopal effect of radiation
Combination therapies
Side effects of therapies
Definitions of response by imaging and molecular surrogate markers
Therapy based on genomic targets

Required Reading:
Seminal papers

Additional Reading Material:
De Vita, Cancer Principles & Practice of Oncology, 2016

Course/Module evaluation:
End of year written/oral examination 0 %
Presentation 0 %
Participation in Tutorials 50 %
Project work 50 %
Assignments 0 %
Reports 0 %
Research project 0 %
Quizzes 0 %
Other 0 %

Additional information: