

13.5.20

הקורס שיטות ביו-רפואיות לאבחון וטיפול בסרטן

יינתן בחורף תשפ"א במסגרת נושאים מתקדמים 334014

המרצה ד"ר יוסי שמאי

2.0 נק'. הציון יקבע עפ"י עבודה שתוגש.

Course title: Advanced Biomedical Methods for Cancer Therapy and Imaging

Syllabus:

Introduction to Cancer and Personalized Cancer Medicine

Cancer Imaging and Detection: Novel radioactive tracers and imaging modalities, Liquid biopsies

Frontiers Radiotherapy and Chemotherapy: Hyperthermia, High intensity focused ultrasound (HIFU), alpha particles and 'gamma-knife'

Targeted Therapies: Kinase inhibitors and precision medicine

Oncolytic viruses

Immunotherapies

Cancer Nanomedicine

Photodynamic therapies

Antiangiogenic treatments

Frontiers in Integrative medicine for Cancer

Big data, Databases and Portals for Cancer Research

Learning outcomes: The students will be able to navigate through the complex world of cancer medicine using innovative tools and public databases such as Human Protein Atlas, Broad CCLE, CoreMine Medical, and more. The final learning outcome would be to write and present a proposal for novel personalized combination therapies for hypothetical case studies.