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HORIZON-MISS-2021-CANCER-02-01
Develop new methods and technologies
for cancer screening and early detection

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Description of the Organization

Cancer and Stem Cell Research Center (MUKKAM) Maltepe University, Istanbul, Turkey

- MUKKAM was established in 2014 to serve scientists, clinicians, and students studying cancer and stem cell.
- The center performs studies related to liver cancer and focuses on developing products, techniques, and procedures on cancer and stem cell biology, genetic engineering, biotechnology, and bioinformatics.
- 2D- and 3D- cell culture studies at morphological, biochemical, functional, proteomic and genomic level are continuously being performed at the center.

Our Research Interest

Development of Artificial Intelligence Based Tools for Early Diagnosis and Prognosis of Liver Cancer

- Our team contain physicians, biochemists, cell biologists, chemist, histologists, bioengineers, bioinformaticians and students.
- We focus on the algorithm between the changes on liver cancer cells as their response to the environmental changes.
- Our studies demonstrate correlations between some carcinogenic markers and the features of liver cells.
- We would like to gather more data and confirm our findings on the samples from patients and on organoids.

9 Awards, 16 Publications (9 International, 7 National)
35 presentations (27 International, 8 National)

Project Idea:

DEVELOPMENT OF BETTER METHODOLOGIES FOR EARLY DIAGNOSIS AND PROGNOSIS OF LIVER CANCER

Call Topic of Interest:

HORIZON-MISS-2021-CANCER-02-01 :Develop new methods and technologies for cancer screening and early detection

Relevant project ideas:

Studies on liver cancer-derived organoids, tumor spheroids, cell culture studies, patient samples, and patient history records.

We would like to create collaborations to gather more data and to analyze correlations between the findings to develop algorithms for liver cancer diagnosis and prognosis.

Objectives:

- to clarify markers for early diagnosis of liver cancer
- to investigate correlation between different parameters to define prognosis of liver cancer

Expected results

- Create algorithms that would be helpful for clinicians to evaluate the findings of the liver cancer patients

Consortium - required partners

No	Expertise	Type	Country	Role in the project
01	Bioinformatic	RTD	ANY	Analyzing multi-dimensional data
02	Organoid modeling of liver cancer	SME	ANY	Examining the same parameters in the experiments on organoids
03	Multiplexing of pathological samples	INFRA	ANY	Examination of multiple protein expressions in cancer cells
04	In Vitro Studies	RTD	ANY	Multi-centered data collection based on in vitro studies
05	Clinical data	SMA	ANY	Comparing data with pre-clinical studies



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