Dr. Styliani Michael, Ph.D.
Postdoctoral Researcher,
Tumor Viruses and Cancer Laboratory,
University of Cyprus

“Investigating the interplay between HPV16 and cellular stemness”

Wednesday, 24 March 2021, at 17:00

The seminar will be hosted via Zoom
Click here to access the registration link for the seminar

The seminar is open to the public

Human papillomaviruses are associated with >5% of human cancers and are useful models for also understanding non-virally associated cancers. Defining the molecular mechanisms implicated in the generation and maintenance of carcinogenesis is important in the development of improved methods for the prevention, diagnosis and treatment of cancer. Our lab is interested in the role of cancer-causing papillomaviruses in manipulating stem cells or cellular stemness. Recent evidence from other infectious pathogens have shown direct modification of cellular stemness, which may be important for the pathogen lifecycle, the development of symptoms, or even tissue remodeling and healing after the infection resolves. We speculate that direct or indirect signaling on tissue stem cells and changes in cellular stemness are also implicated in the carcinogenic process.

We have been using the human papillomavirus HPV16, the major cause of cervical cancer, as a model for oncogenic viruses to provide the first direct evidence for the interplay between an oncogenic virus and stemness, aiding in the elucidation of the reciprocal interaction between infection, cellular stemness and cancer. We have generated preliminary evidence that HPV16 can change tissue stem cell dynamics and promote acquired stemness both in vitro and in vivo. The underlying mechanisms and the outcomes of these changes are currently under investigation.