Short Term Scientific Mission (STSM) Report

STSM details

Title	**UV radiation dosimetry and skin cancer**
Participant	Dr. Alexandra-Irina Butacu
Host	Professor Dr. Giovanni Pellacani, University of Modena and Reggio Emilia, Modena, Italy
Period	20 – 26 March 2017

Background

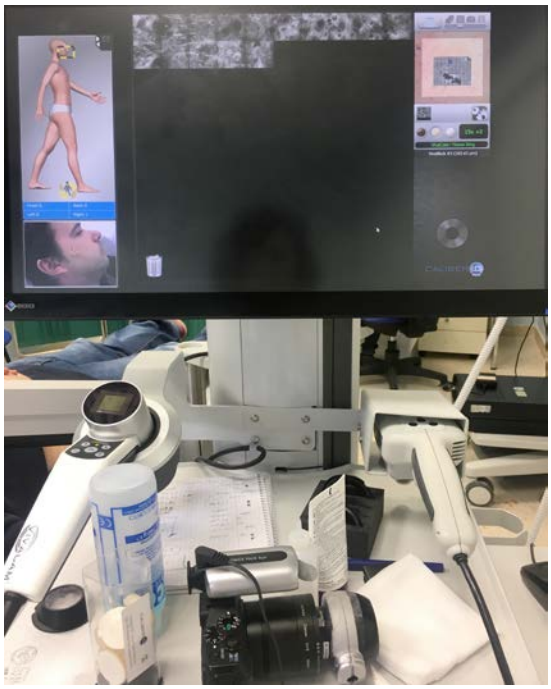
Occupational UV-induced skin cancer is an important, but still neglected pathology worldwide. In Romania, there are few interventional studies that correlate UV exposure doses in outdoor workers and the appearance of skin changes, including both melanocytic tumors and non-melanoma skin cancer. In relation to this, a better knowledge of skin changes seen both in video dermoscopy and in confocal microscopy is of great value. We plan to study concrete architectural epidermal modifications corresponding to different doses of UV radiation. Dosage of UV radiation is necessary for the assessment of occupational skin cancer. The Department of Dermatology at the University of Modena and Reggio Emilia with its rich experience and dedication to these investigations provided a great opportunity for me to deepen my knowledge with regard to those aspects.

Aim (purpose) of the STSM

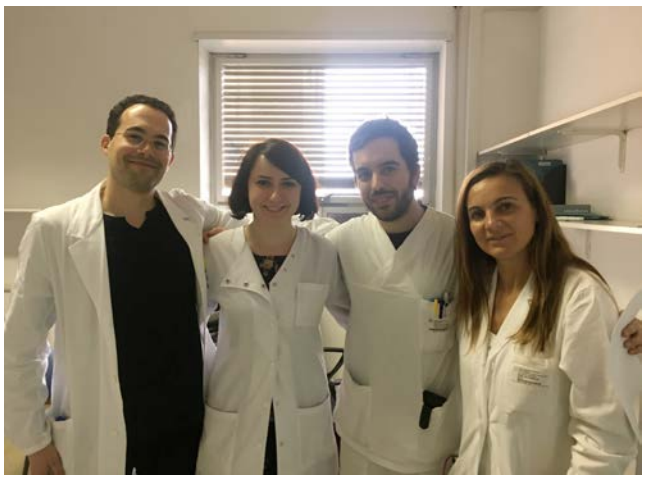
The aim of this STSM was to obtain better knowledge and practical skills in video dermoscopy and in confocal microscopy so I could better analyze the superficial layers of the skin and sun-related skin changes offering me the opportunity to do a more detailed study of different pathologies.

Work carried out during the STSM

Professor Pellacani kindly offered me the opportunity of working and learning the protocol of diagnosing skin tumors. I worked closely with several members of his team, such as Dr. Francesca Farnetani, Francesca Giusti and Sara Bassoli in the video dermoscopy and in vivo confocal microscopy laboratories. Hence, I had the chance of closely seeing the methods used for melanocytic tumors' diagnosis and follow-up, criteria in dermoscopy and in confocal microscopy for diagnosing melanoma and non-melanoma skin cancer. That provided me with a better understanding of changes in the superficial epidermal layers seen from chronic UV exposure in confocal microscopy.



In-vivo confocal microscope-Vivascope 3000



Working with University of Modena and Reggio Emilia's team

Main results obtained

After receiving training in video dermoscopy and confocal microscopy, I now know how to have an accurate step by step protocol in diagnosing melanocytic lesions and non-melanoma skin cancer and how to interpret superficial skin changes seen in chronic actinic damaged skin. Furthermore, I learnt how to proper use the in-vivo confocal microscope, how to prepare the patient, how to analyze the data obtained and what drawbacks I might encounter during my following studies.

Future collaboration with the host institution

In the near future, we intend to start an analytical study in Bucharest aimed to analyze skin changes in outdoor construction workers using the in-vivo confocal microscope from our clinic (Colentina Clinical Hospital) and to collaborate with Professor Pellacani and his team in analyzing our results.

Foreseen publications/articles resulting from the STSM

I consider that my STSM will be extremely helpful for our following studies and our work will result in articles that will be published in several scientific journals.

Other comments

I would like to kindly thank Professor Pellacani and his team for their professionalism, excellent organizing skills, for sharing their rich experience and of course for offering me the opportunity of learning in-vivo confocal microscopy which will be extremely useful in our future projects.

Dr. Alexandra-Irina Butacu
Colentina Clinical Hospital
Bucharest, Romania
March 30, 2017

Modena, 30/3/2017
Prof Giovanni Pellacani