

View Abstract

CONTROL ID: 3766719

TITLE: Multispectral imaging algorithm predicts Breslow tumor depth of malignant melanoma

AUTHORS (FIRST NAME, LAST NAME): Szabolcs Bozsányi¹, Noémi N. Varga¹, Klára Farkas¹, András Banvolgyi¹, Kende Lorincz¹, Gyorgy Paragh^{2,3}, Péter Holló¹, Márta Medvecz¹, Norbert Kiss¹, Norbert M. Wikonkál¹

INSTITUTIONS (ALL): 1. Department of Dermatology, Venereology and Dermatooncology, Semmelweis University, Szolnok, Hungary.

2. Department of Dermatology, Roswell Park Comprehensive Cancer Center, Buffalo, NY, United States.

3. Department of Cell Stress Biology, Roswell Park Comprehensive Cancer Center, Buffalo, NY, United States.

CURRENT TOPICS: Melanoma and Other Skin Cancers

PRESENTATION TYPE: Oral or Poster

ABSTRACT BODY:

Abstract Body: Breslow tumor thickness is a major prognostic factor for melanoma. As it is based on histopathological evaluation, it is not available to aid clinical decision making at the time of the melanoma diagnosis. In this work, we assessed the efficacy of multispectral imaging (MSI) to predict Breslow tumor thickness and developed a melanoma classification algorithm to determine the optimal surgical safety margins. First, we excluded nevi from the analysis with the use of a novel quantitative parameter. Based on this parameter, we could differentiate nevi and melanomas with a sensitivity of 89.60% and a specificity 88.11%. This initial step was followed by the categorization of melanomas into three different subgroups based on Breslow thickness (≤ 1 mm, 1-2 mm and > 2 mm) with a sensitivity of 78.00% and specificity of 89.00% and a substantial agreement ($\kappa = 0.67$; 95% CI, 0.58-0.76). We compared our results to the performance of dermatologists and dermatology residents who assessed dermoscopic and clinical images of these melanomas and reached a sensitivity of 60.38% and specificity of 80.86% with a moderate agreement ($\kappa = 0.41$; 95% CI, 0.39-0.43). Based on our results, this novel method may aid the prediction of appropriate safety margins for curative melanoma excision.

Abstract Previously Submitted: No

Awards - Agreement: Yes

Award - Short Letter: [ESDR_travel grant.pdf]

Award - CV/Publication List: [CV_and publication list_Bozsanyi.pdf]

----- Forwarded message -----
From: **European Society for Dermatological Research** <thomas@esdr.org>
Date: Mon, Jun 27, 2022 at 2:26 PM
Subject: ESDR 2022 Abstract Notification Letter
To: <bozsanyiszabolcs@gmail.com>

Dear colleague

Thank you for submitting your abstract entitled "Multispectral imaging algorithm predicts Breslow tumor depth of malignant melanoma" (Abstract ID: 3766719) to the 51st Annual ESDR Meeting 2022.

Your abstract has been accepted as Poster 456

This number also corresponds to your final abstract number to be published in the Journal of Investigative Dermatology.

Note that all posters are ELECTRONIC ONLY in 2022. You will be contacted by our partner with instructions on how to upload your poster. Uploaded posters will be available for viewing by ESDR 2022 meeting delegates through our web platform and at the meeting site in Amsterdam on specially designed Poster Kiosks.

If you have submitted more than one abstract with this email address and have not received a notification letter please contact me.

We look forward to seeing you in Amsterdam.

Kind regards
Thomas Florestan
Executive-Director

Copyright © 2022 ESDR. All rights reserved.
ESDR 2022 Abstract Notification

Our mailing address is:

ESDR
Rue Cingria 7
Geneve 1205
Switzerland



51ST ANNUAL ESDR MEETING

28 SEPTEMBER - 1 OCTOBER 2022, AMSTERDAM, NL



**PROGRAM
BOOK**

Complete Program Book of
51st Annual ESDR Meeting



29 SEPTEMBER 2022 THURSDAY

Eastern Europe Symposium

Chairs:

Andrea Szegedi (Hungary)

Marta Szell (Hungary)

Location: Room 2

Time: 09:00 - 10:30

09:45- 09:53

Periostin: Can it be a marker in the follow-up of chronic urticaria?

B.Cayhan, Z Turkoglu, Çam and Sakura City Hospital, Istanbul, Turkey

09:53- 10:01

[POSTER 456]

Multispectral imaging algorithm predicts Breslow tumor depth of malignant melanoma

S.Bozsanyi,¹ NN Varga,¹ K Farkas,¹ A Benvolgyi,¹ K Lorincz,¹ G Paragh,^{2,3} P Hollo,¹ M Medvecz,¹ N Kiss¹ and N Wikonkal¹

¹Department of Dermatology, Venereology and Dermatocarcinology, Semmelweis University, Szolnok, Hungary, ²Department of Dermatology, Roswell Park Comprehensive Cancer Center, Buffalo, NY and ³Department of Cell Stress Biology, Roswell Park Comprehensive Cancer Center, Buffalo, NY

10:01- 10:09

[POSTER 460]

Enhancement of antibody-dependent cellular cytotoxicity is associated with treatment response to extracorporeal photopheresis in Sézary syndrome

C. Iselin,^{2,1} Y Chang,² T Schlaepfer,² C Fassnacht,⁴ F Dimitriou,⁴ M Nägeli,⁴ S Pascolo,⁴ W Hoetzenecker,² M Bobrowicz⁴ and E Guenova^{2,1} ¹Faculté de biologie et de médecine, UNIL, Lausanne, Switzerland, ²Service de dermatologie et vénéréologie, CHUV, Lausanne, Switzerland, ³Department of Dermatology, Cantonal Hospital St. Gallen, St. Gallen, Switzerland, ⁴Department of Dermatology, University Hospital Zurich, Zurich, Switzerland, ⁵Dermatologie und Venerologie, Kepler Universitäts Klinikum, Linz, Austria and ⁶Department of Immunology, Medical University of Warsaw, Warsaw, Poland