

University of Debrecen

invites you to international workshop, organized within the V4 “Small grant” project
Metalloomic Scientific Network:

Metalloomics and skin cancer

Abstract

The increasing incidence of non-melanoma skin cancers (NMSC) and cutaneous malignant melanoma (CMM) is a significant burden on the health care system. The incidence of NMSC is approximately 100 per 100000 individuals in Europe. Basal cell carcinoma (BCC) is a semi-malignant tumour that usually develops on sun-exposed skin areas. Both cumulative and intermittent high-dose ultraviolet irradiation (UVR) play a role in the formation of BCC. Cutaneous squamous cell cancer (CSCC) appears to be associated with the cumulative UVR because it develops on the chronically sun damaged skin of elderly people at the site of precancerous skin lesions. CSCCs rarely metastasise to regional lymph nodes, but they do so in a manner that depends on tumour depth and immune status. Cutaneous malignant melanoma (CMM) has a heterogeneous aetiology and pathogenesis, e.g., lentigo maligna melanoma is associated with chronic cumulative sun exposure, whereas other forms of CMM are associated with high-dose intermittent UVR, and there are even types of CMM that are not related to sunlight. The incidence of CMM is 4-19 per 100000 individuals in Europe, and many patients are younger than 40 years old. Hereditary factors that affect skin pigmentation, DNA repair efficacy, and immune response play a very important role in the pathogenesis of CMM. CMM is characterised by a high propensity to metastasise and a low healing rate in metastatic cases. Surgery is the mainstay of skin cancer therapies. Topical and systemic medications are used to treat very early or advanced stages of the disease.

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Dear Colleagues,

Metallomics Technology Conference is an international forum for scientific discussion focused on understanding the relationship and connections between metals and their binding species inducing amino acids, peptides, proteins and nucleic acids.

The aim of this multidisciplinary conference is to bridge the gaps between the specialists and fields of science as diverse as inorganic chemists, biochemists and clinicians.

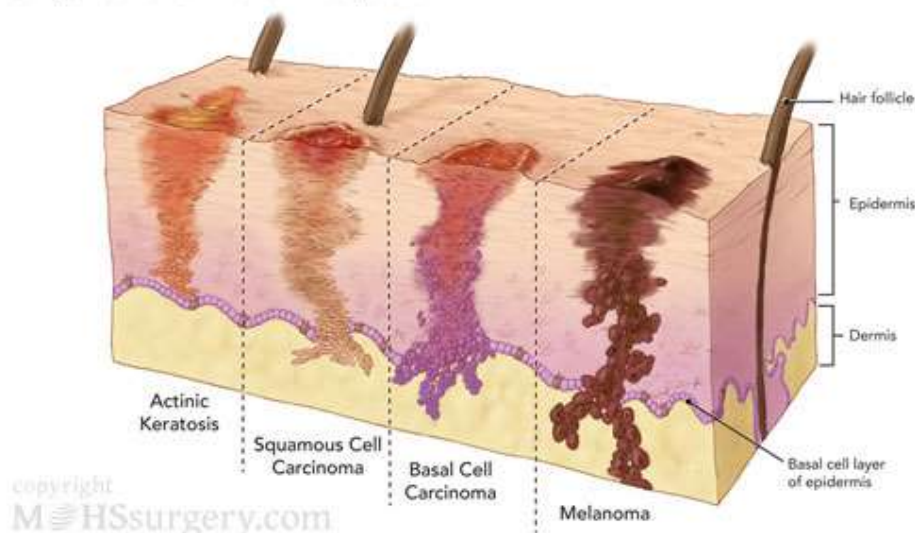
There is a need for sensitive and reliable analytical methods which would help us to determine what bioactive metal-binding compounds are found in an organism, as well as for trace analysis methods in complex biological matrices to follow the bioactive compounds and their metabolites in the human body. Moreover, we need to understand how disorders and illnesses can influence these.

It is evident that enormous progress has been made in metallomics over the last decade. Recent challenges for scientists in this field are to develop analytical technologies that would allow us to understand our personal metabolism, in connection with specific biomarkers, with the overall aim to personalize medicine as generalized recommendations and to discover how to influence metal metabolism for treatment of civilization diseases.

We are looking forward to meeting you in Debrecen.

Vojtěch Adam

Comparison of Common Skin Neoplasms



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WORKSHOP PROGRAMME

Place: 4032 Debrecen, Egyetem tér 1, Debrecen

Date: 1. - 3. 7. 2015

Content: Immunohistochemistry workshop



Wednesday 1. 7.

18:00 – arrival to Debrecen

19:45 – Meeting at the hotel

20:00 – Welcome dinner

Thursday 2. 7.

Morning session

10:00 – meeting at the University of Debrecen

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10:15 – 10:30 – Introductory words – Gabriela Emri

10:30 – 11:00 – Metallothionein and skin cancer – Vojtech Adam

11:00 – 11:30 – Electrophoresis in metallomics - Marta Kepinska

11:30 – 12:00 – Electrochemistry of metallomics - Ján Labuda

12:00 – 13:00 – Lunch

Afternoon session

13:00 – 14:00 – Gabriella Emri – clinical characteristics and treatment of skin cancers, UV and photocarcinogenesis, project ideas

14:00 – 14:15 – Emese Gellén – photodynamic therapy in the management of skin cancers

14:15 – 14:30 - Gábor Boros – in vitro synthesized mRNA encoding CPD photolyase

14:30 – 15:00 Coffee break

15:00 – 15:15 - Csaba Hegedűs – mitochondrium regulatory pathways

15:15 – 16:15 - Gabriella Emri – immunohistochemistry basics

16:15 – 16:30 - Visit to histopathology laboratory

Friday 3. 7.

9:00 – 12:00 Round table – Metallomics and skin cancer

12:00 – 12:30 Closing of meeting

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1.7 – 3. 7. 2015

University of Debrecen, Egyetem tér 1, 4032 Debrecen, Hungary

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