Joint International Symposium

Vitamin D in Prevention and Therapy

and

Biologic Effects of Light

Organized by

J. Reichrath¹, M.F. Holick², M. Friedrich³ and Th. Vogt¹

May 04-06, 2022

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PRELIMINARY PROGRAMME
Organizing Committee

M. Friedrich, Krefeld, Germany
M.F. Holick, Boston, USA
J. Reichrath, Homburg, Germany
Th. Vogt, Homburg, Germany

Local Organizing Committee

T. Felix-Fernandes, Homburg/Saar
M. Preiß, Homburg/Saar
J. Reichrath, Homburg/Saar
R. Saternus, Homburg/Saar
Th. Vogt, Homburg/Saar

Scientific Board

M. Preiß, Homburg/Saar
M.F. Holick, Boston
J. Reichrath, Homburg/Saar
Th. Vogt, Homburg/Saar

Supported by Deutsche Forschungsgemeinschaft (DFG)
Conference Language

English

Presentation

Speakers are requested to turn their presentations (power point) over to the projectionist at least 15 minutes before the session begins.

Social Programme

The organizers invite all speakers and registered participants on Tuesday evening (7.30 PM) to a welcome reception and on Wednesday/Thursday evening for dinner, all at the Schlossberg hotel. For accompanying persons, tickets for welcome reception (30 EURO/person) and dinner (50 EURO/person) can be purchased at the registration desk.

Payment

Registration fee:

Students: 50 Euro for one symposium: Vitamin D OR BEOL
          75 Euro for both symposia: Vitamin D AND BEOL

Other participants: 250 Euro for one symposium: Vitamin D OR BEOL
                   350 Euro for both symposia: Vitamin D AND BEOL
Vitamin D in Prevention and Therapy

PRELIMINARY PROGRAMME

Wednesday, May 4

7.30 AM – 6.00 PM Registration

Featured Lectures

8.00 – 8.05 AM Welcome address

8.05 – 8.15 AM Opening remarks
T. Vogt (Homburg), M.F Holick (Boston), and J. Reichrath (Homburg):

I. Keynote Lecture
Chair: A.T. Slominski (Birmingham, USA)
C. Carlberg (Kuopio Finland)

8.15 – 8.45 AM M. F. Holick (Boston, USA):
Vitamin D for Human Health: History is repeating itself
II. Personalized Medicine and Vitamin D: Promises and Pitfalls (I)

Chair: A.T. Slominski (Birmingham, USA)  
C. Carlberg (Kuopio Finland)

8.45 – 9.00 AM  
A.T. Slominski (Birmingham, USA)  
C. Carlberg (Kuopio Finland)  
An introduction to promises and pitfalls of personalized medicine to optimize effects of vitamin D for human health: assessing the opinion of the audience by an interactive voting system

9.00 – 9.30 AM  
C. Carlberg (Kuopio, Finland):  
Personalized Vitamin D Signaling

9.30 – 9:45 AM  
L. Kattner (Saarbrücken, Germany)  
Synthesis of $^{13}$C-labelled vitamin D metabolites for their use in LC-MS/MS applications

9:45-10.00 AM  
Ben Schöttker (Heidelberg, Germany)  
Efficacy and safety of a personalized vitamin D$_3$ loading dose followed by 2,000 IU per day to raise serum 25-hydroxyvitamin D in colorectal cancer patients with vitamin D insufficiency. Interim analysis of a RCT

10.00-10.15 AM  
J.T. Bittenbring (Homburg, Germany)  
How to rapidly substitute vitamin D in patients with diffuse large-B-cell lymphoma

10.15 – 10.45 AM  
Coffee Break, Industrial Exhibition and Poster Viewing
III. Personalized Medicine and Vitamin D: Promises and pitfalls (II)

Chair: A. Zittermann (Bad Oeynhausen, Germany)
       H. Brenner (Heidelberg, Germany)

10.45- 11.00 AM S. Zelzer (Graz, Austria)

Mass spectrometric determination of vitamin D metabolites in serum, a convenient tool to identify individuals with 24-hydroxylase deficiency.

11.00- 11.30 AM A.T. Slominski (Birmingham, USA)

Alternative Nuclear Receptors for Vitamin D Hydroxyderivatives

11.30-12.00 AM Round Table Discussion: assessing the opinion of the audience using an interactive voting system

Personalized medicine and vitamin D: where are we standing and where will we be going?

(chair: A.T. Slominski (Birmingham, USA) and Winfried März (Mannheim, Germany); podium: M. F. Holick (Boston, USA), H. Brenner (Heidelberg, Germany), S. Gandini (Milan, Italy), C. Carlberg (Kuopio, Finland), A. Zittermann (Bad Oeynhausen, Germany).

IV Molecular Biology of Vitamin D

Chair: N. Rochel (Illkirch, France):
       M.A. Maestro (La Coruna, Spain)

11.00 – 11.30 AM N. Rochel (Illkirch, France):

Novel Structural Aspects of Vitamin D Signaling and Function of VDR

11.30-11.45 AM R. Bernhardt (Saarbrücken, Germany)

Functional and structural characterization of cholesterol- vitamin D₂- and D₃-hydroxylases from BACILLUS MEGATERIUM

11.45 -0.00 PM M.A. Maestro (La Coruna, Spain)

Developments towards synthesis of labeled vitamin D metabolites
0.00 – 0.30 PM

Dieter Steinhilber (Frankfurt, Germany)

*Vitamin D and immune response: 1,25(OH)₂D₃ regulates host defense-relevant genes by transcript initiation and elongation*

0.30 – 2.00 PM

**Lunch Break, Industrial Exhibition and Poster View**

V  **Vitamin D in Prevention and Therapy (I)**

**Chair:**
A.R. Webb (Manchester, UK)
P. Lindqvist (Stockholm, Sweden)

2.00 – 2.30 PM

A. Zittermann (Bad Oeynhausen, Germany)

*The impact of vitamin D on cardiovascular disease, and beyond*

2.30 – 2.45 PM

C. Diaconu (Bucharest, Romania)

*Vitamin D and the heart: controversies still exist*

2.45 – 3.00 PM

R. Mahtani (Pune, India)

*Daily oral vitamin D₃ in the management of psoriasis: A case series.*

3.00 – 3.15 PM

M.O.W. Grimm (Homburg, Germany)

*Impact of vitamin D in Alzheimer’s disease*

3.15 – 3.45 PM

M.F. Holick (Boston, USA),

*A new insight as to how vitamin D can help reduce morbidity and mortality in covid-19 patients*

3.45 – 4.15 PM

S. Gandini (Milan, Italy)

*Vitamin D supplementation may improve covid-19 prognosis? Evidence from a systematic review and meta-analysis.*

4.15 – 4.45 PM

**Coffee Break, Industrial Exhibition and Poster viewing**
VI  Vitamin D in Health and Disease

Chair: H. C. Wulf (Copenhagen, Denmark)  
W.B. Grant (San Francisco, USA)

4.45 - 5.15 PM  A. Zhu (Heidelberg, Germany).
Vitamin D binding protein, total, „non-bioavailable“, bioavailable, and free 25-hydroxyvitamin D, and mortality in a large population-based cohort of older adults

5.15 – 5.45 PM  I.M. Heerfordt (Copenhagen, Denmark)
Vitamin D status in individuals with erythropoietic protoporphyria

5.45 – 6.15 PM  A. R. Young (London, UK)
A revised action spectrum for vitamin D synthesis

6.15- 6.45 PM  A.R. Webb (Manchester, UK)
Exploring enhancement of dietary vitamin D in climates where cutaneous synthesis is seasonally restricted

6.15 – 6.20 PM  Closing Remarks: J. Reichrath, Th. Vogt
Thursday, May 5

8.00 AM - 1.20 PM

VII Vitamin D in Prevention and Therapy of Skin Cancer

Chair: T. Vogt (Homburg, Germany)
H. C. Wulf (Copenhagen, Denmark)

8.00 – 8.30 AM Andrzej T. Slominski (Birmingham, USA)
CYP11A1-derived vitamin D hydroxyderivatives as therapeutics against skin cancer

8.30 – 8.45 AM F.R. de Gruijl (Leiden, The Netherlands)
Impacts of UV and vitamin D on skin cancer, mouse experiments

8.45 – 9.00 AM P.A. Philipsen (Copenhagen, Denmark)
High oral vitamin D intake does not protect against UVR-induced squamous cell carcinoma in hairless mice.

9.00 – 9.15 AM J. Reichrath (Homburg, Germany)
Low vitamin D status is associated with poor clinical outcome in advanced melanoma treated with immune checkpoint or BRAF/MEK-inhibitors: results from a pilot study

Keynote Lecture

9.15 - 10.00 AM M.F. Holick (Boston, USA)
The future of vitamin D: Novel therapeutic approaches for healthy, obese and malabsorption in the era of covid-19

10:00 -10.30 AM Coffee Break, Industrial Exhibition and Poster View
# Vitamin D Supplementation, Food Fortification: Time to act?

**Chair:**
- S. Gandini (Milan, Italy)
- H. Brenner (Heidelberg, Germany)

## 10:30 – 10:45 AM

- **S. Gandini (Milan, Italy)**
- **H. Brenner (Heidelberg, Germany)**

*An introduction to vitamin D supplementation, food fortification: assessing the opinion of the audience by an interactive voting system*

## 10:45 – 11:15 AM

- **W. März (Mannheim, Germany)**

*Vitamin D food fortification: Time to act*

## 11:15 – 11:45 AM

- **S. Kuznia (Heidelberg, Germany)**

*Efficacy of vitamin D₃ supplementation on cancer mortality in the general population and the prognosis of patients with cancer: A systematic review and individual patient data meta-analysis of randomized controlled trials*

## 11:45 – 0.15 PM

- **F. Bellerba (Milan, Italy)**

*Colorectal cancer, vitamin D and microbiota: a double-blind phase II randomized trial in colorectal cancer patients.*

## 0.15 – 0.45 PM

- **S. Sha (Heidelberg, Germany)**

*Real world evidence for the effectiveness of vitamin D supplementation in the reduction of total and cause specific mortality. Results from almost half a million participants of the UK Biobank cohort study*

## 0.45 – 1:15 PM

- **H. Brenner (Heidelberg, Germany)**

*Potential of vitamin D supplementation or vitamin D food fortification for preventing cancer death in Germany*

## 1.15 – 1.45 PM

**Round Table Discussion:** assessing the opinion of the audience using an interactive voting system

*Vitamin D Supplementation, Food Fortification: Time to act?*

(chair: Hermann Brenner (Heidelberg, Germany) and Winfried März (Mannheim, Germany); podium: M. F. Holick (Boston, USA), A.T.)
1.45–2.00 PM **Concluding Remarks:** J. Reichrath, Th. Vogt

2.00 – 3.00 PM **Lunch break, Industrial Exhibition and Poster Viewing**
Biologic Effects of Light

PRELIMINARY PROGRAMME

Featured Lectures

3.00 – 3.15 PM  Opening remarks
M.F. Holick (Boston), Th. Vogt and J. Reichrath (Homburg):

I  Keynote Lecture
Chair:  
P.G. Lindqvist (Stockholm, Sweden)
H. C. Wulf (Copenhagen, Denmark)

3.15 – 4.00 PM  Donat-P. Häder (Erlangen, Germany)
Photosynthesis in plants and algae

II. Optical Radiation and Human Health (I)
Chair:  
P.G. Lindqvist (Stockholm, Sweden)
H. C. Wulf (Copenhagen, Denmark)

4.00 – 4.30 PM  Pelle G Lindqvist, (Stockholm, Sweden)
Sun exposure – Hazards and benefits

4.30 – 5.00 PM  William B. Grant (San Francisco, USA)
A narrative review of observational studies of personal UVB exposure and risk of cancer

5.00 – 5.15 PM  Jacqueline Rehner (Homburg, Germany)
Modulation of the skin microbiota by optical radiation

5.15 – 5.45 PM  Coffee Break, Industrial Exhibition and Poster View
III. Optical Radiation and Human Health (II)

Chair: T. Vogt (Homburg, Germany)
A. Tanew (Vienna, Austria:

5.45-6.15 PM Hans Christian Wulf (Copenhagen, Denmark)
A simple procedure to determine the minimal erythema dose (MED)

6.15 --6.30 PM Jörg Reichrath (Homburg, Germany)
Potential harmful effects associated with the use of sunscreens to prevent skin cancer – the good, the bad and the ugly of sun protection

6.30-7.00 PM Marie Christine Martens (Rostock, Germany)
Molecular pathology and clinical management of xeroderma pigmentosum – an update

7.00 – 7.05 PM Closing Remarks: J. Reichrath, Th. Vogt
Featured Lectures

I. Optical Radiation and Human Health (I)

8.00-8.15 AM  J. Reichrath (Homburg, Germany)
               Andrzej T. Slominski (Birmingham, USA)

   An introduction to effects of optical radiation on human health
   assessing the opinion of the audience by an interactive voting system

   Chair:  T. Vogt (Homburg, Germany)
          A. Tanew (Vienna, Austria:

Keynote Lecture

8.15-8.45 AM  Andrzej T. Slominski (Birmingham, USA)

   On the ultraviolet B (UVB) regulation of the cutaneous and systemic
   immune system

8.45-9.15 AM  Urs Albrecht (Fribourg, Switzerland)

   Light, the circadian clock and behavioural despair

9.15-9.45 AM  William B. Grant (San Francisco, USA)

   Solar radiation factors that affect the seasonality of diseases

9.45-10.15 AM  Adrian Tanew (Vienna, Austria)

   Ultraviolet phototherapy of skin diseases – what’s vitamin D got to do
   with it?
10:15 -10.45 AM Coffee Break, Industrial Exhibition and Poster View

II UV-Radiation and Skin Cancer

Chair: P. A. Philipsen (Copenhagen, Denmark)
C. Pföhler (Homburg, Germany)

10.45-11.00 AM Catharina M. Lerche (Copenhagen, Denmark)
Quantifying urinary thymine dimers based on LC-MS/MS

11.00 -11.15 AM Felix Götzinger (Homburg, Germany)
Hydrochlorothiazide did not lead to phototoxic reactions and DNA damage in healthy volunteers – the „HCTox-study“

11.15 – 11.30 AM Celina Pihl (Copenhagen, Denmark)
Nicotinamide and phytochemicals phloroglucinol and syringic acid delay UVR-induced squamous cell carcinoma onset in hairless mice

11.30. -12.00 AM Peter Alshede Philipsen (Copenhagen, Denmark)
High oral vitamin D intake does not protect against UV-induced squamous carcinoma in hairless mice

0.00 -0.30 PM Hans Christian Wulf (Copenhagen, Denmark)
Removal of side effects in photodynamic therapy of actinic keratoses

0.30 - 1.00 PM Norbert J. Neumann (Düsseldorf, Germany)
Phototoxic skin reactions: an update

1.00-2.30 PM Lunch Break, Industrial Exhibition and Poster viewing
2.30 -3..15 PM  **Award of the Arnold Rikli Price**  
Florian Gruber (Vienna, Austria)  
*Light on the Epi-lipidome of the Skin - Oxidized Phospholipids as Messengers of Stress and Aging"*

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**III. Optical radiation and malignant melanoma: what is the evidence?**

**Chair:**  
Andrzej T. Slominski (Birmingham, USA)  
Jörg Reichrath (Homburg, Germany)

3.15 -3.45 PM  
Frank R. de Gruijl (Leiden, The Netherlands)  
*Cutaneous melanoma: sheep in wolves clothing?*

3.45 -4.15 PM  
Sara Gandini (Milan, Italy)  
*Applicability of criteria for causality to sunbed use and melanoma*

4.15-4.45 PM  
Jörg Reichrath (Homburg, Germany)  
*Melanoma risk and solarium use: still many open questions, not the time to close the debate*

4.45-5.15 PM  
**Round Table Discussion: assessing the opinion of the audience by an interactive voting system**  
*Optical Radiation and Human Health: challenge and promise*  
(chair: J. Reichrath (Homburg, Germany), FR de Gruijl (Leiden, The Netherlands); podium: A.T. Slominski (Birmingham, USA), S. Gandini (Milan, Italy), HC Wulf (Copenhagen, Denmark), A Tanew (Vienna, Austria), PA Philipsen (Copenhagen, Denmark), A Young (London, UK)

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5.15-5.30 PM  
**Concluding Remarks:**  J. Reichrath, M.F Holick, Th. Vogt