



THE VITAMIN D WORKSHOP

www.vitamindworkshop.org

Conference Summary: The 2019 Vitamin D Workshop will be held from May 29-June 1, 2019. The conference will begin with an evening Welcome Reception and a Plenary Poster Session. These posters will be chosen from abstracts which will be ranked by the program committee (consisting of ~30 internationally recognized Vitamin D scientists). This will be followed by 2.5 days of scientific sessions including plenary and keynote lectures, invited speakers, promoted short communications and two additional poster sessions. For 2019, will host 20 invited speakers including two Keynotes. Additional short talks for each session will be chosen from among the submitted abstracts. Sessions will focus on the role of vitamin D in bone, cancer, immunology, pregnancy and genetics. A highlight will be talks from the PIs of four large ongoing high profile vitamin D supplementation trials (VITAL, ViDA, DO Health and D2D). Additional sessions on vitamin D nutrition and evaluation of vitamin D status have been organized.

Regarding onsite scientific exchange, we have dedicated ample time to interactions during coffee breaks, poster sessions and on-site lunches. In addition, a dinner Networking event is planned (cruise around Manhattan on the Circle Line) to facilitate exchange of information and collaborations in a more social atmosphere. For post-meeting dissemination, we routinely partner with the Journal of Steroid Biochemistry and Molecular Biology (JSBMB) for publication of the conference proceedings as a Special Issue. All invited speakers and abstract presenters are encouraged to submit a manuscript for the Special Issue which is peer-reviewed according to standard journal practice. We typically have a great response to this initiative (between 40-60 accepted papers per issue). The Chair of the Workshop (Dr. James Fleet, Purdue University) acts as Guest Editor for the Special Issues.



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Although vitamin D has been known as an essential nutrient since the first description of rickets in the 1600s, its metabolism and mechanism of action is complex and not completely understood. Vitamin D can be produced in the body, but endogenous production is highly variable and requires exposure to ultraviolet radiation (a known carcinogen) from sunlight. The use of exogenous sources of vitamin D (food, dietary supplements, fortified products) is a proven and reliable strategy to maintain vitamin D status. However, population studies indicate that vitamin D deficiency remains prevalent in modern society. Although sub-optimal vitamin D status has been linked to increased risk of chronic diseases such as cancer, cardiovascular, diabetes and others, there is considerable controversy regarding supplementation benefits and strategies, justifying annual meetings. For more details on the Vitamin D Workshop please visit our website at www.vitamindworkshop.org.

About the Vitamin D Workshop Organization: The Vitamin D Workshop is a 501(c) (3) non-profit organization incorporated in 1974. As noted above, our mission is the organization of annual Vitamin D Workshops, which are international scientific meetings that focus on the biology and health implications of Vitamin D. Since the first meeting in 1973, there have been 21 Vitamin D Workshops with #22 to be held in May 2019. We host a multi-day forum where the latest research on Vitamin D is presented, debated and shared. The Workshops are organized by a dedicated group of internationally recognized scientists who are experts on Vitamin D. The Workshop Executive Committee (WEC) serves as the Board of Directors of the organization and is responsible for planning and implementing the annual meetings. The Program Advisory Committee (PAC) assists the WEC in choosing session topics, speakers and awardees for each workshop. Members of both the WEC and the PAC contribute to editing and reviewing manuscripts for the Proceedings of each Workshop.

How Celgene can contribute to the 21st Workshop: This conference is partially supported by an R13 conference grant from the National Institute for Aging (R13AG048689, Annual Vitamin D Workshops 2014-2018). Currently committed corporate sponsors and exhibitors for 2019 include Heartland Assays, Abiogen, BioTech Pharmacal, and Immundiagnostik. A request from Pfizer, who has supported our meeting annually since 2014, is pending. Despite these generous sponsors and income from registration fees, the meeting runs at a deficit. Thus we would be highly appreciative of additional financial support from Celgene.

The budget for our 2019 meeting is included with this request. We would like to propose that Celgene sponsor our poster sessions with a donation of \$15,000. As noted on our Program, there are three poster sessions: an evening Plenary Poster Session at which highly rated abstracts will be displayed, and two full day Poster Sessions for the remaining posters. A donation from Celgene of \$15,000 will cover venue costs including poster board rental and setup. Celgene funding will not be used for the associated food costs.

VITAMIN D WORKSHOP HISTORY

- 1st - Frankfurt, West Germany (1973)
- 2nd - Wiesbaden, West Germany (1974)
- 3rd - Asilomar, CA, USA (1977)
- 4th - Berlin, West Germany (1979)
- 5th - Williamsburg, VA, USA (1982)
- 6th - Merano, Italy (1985)
- 7th - Rancho Mirage, CA, USA (1988)
- 8th - Paris, France (1991)
- 9th - Orlando, FL, USA (1994)
- 10th - Strasbourg, France (1997)
- 11th - Nashville, TN, USA (2000)
- 12th - Maastricht, Netherlands (2003)
- 13th - Victoria, BC, Canada (2006)
- 14th - Brugge, Belgium (2009)
- 15th - Houston, TX, USA (2012)
- 16th - San Francisco, CA, USA (2013)
- 17th - Chicago, IL, USA (2014)
- 18th - Delft, Netherlands (2015)
- 19th - Boston, MA, USA (2016)
- 20th - Orlando, FL, USA (2017)
- 21st - Barcelona, Spain (2018)



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Contact Information: As chief financial officer of the Vitamin D Workshop, I am the contact person for corporate sponsorships. I would be pleased to provide additional information as necessary. Checks should be made payable to "Vitamin D Workshop" and sent to the following address:

Dr. JoEllen Welsh
1 Discovery Drive
Suite 342B
Rensselaer, NY 12144

On behalf of the Board of Directors, thank you for considering our request,

JoEllen Welsh, PhD
SUNY Distinguished Professor
University at Albany Cancer Research Center

Chief Financial Officer,
Vitamin D Workshop



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22nd WORKSHOP ON VITAMIN D - PRELIMINARY SCIENTIFIC PROGRAM

WEDNESDAY MAY 29, 2019

- 1:00 - 8:00PM Registration / Hospitality Desk Opens
5:00 - 8:00PM Welcome Reception and Plenary Poster Session

THURSDAY MAY 30, 2019

- 8:00 - 8:15AM **OPENING REMARKS** - Jim Fleet, Workshop Chair

Keynote I: THE YEAR IN VITAMIN D: BASIC/TRANSLATIONAL RESEARCH

- 8:15 - 9:00AM Carlos Bernal-Mizrachi, MD, Washington University

Session I: VITAMIN D RECEPTOR – TRANSCRIPTION/MECHANISM OF ACTION

- 9:00 - 9:25AM Moray Campbell, PhD, The Ohio State University
9:25 - 10:25AM Promoted Abstracts

**Session II: VITAMIN D METABOLISM
(Tribute to Dr. Helen Henry)**

- 10:45 - 11:10AM Wes Pike, PhD, University of Wisconsin
11:10 - 12:00PM Promoted Abstracts

- 12:30 - 2:30PM **LUNCH AND POSTER SESSION I VIEWING**

Session III: UPDATE ON VITAMIN D SUPPLEMENTATION TRIALS

- 2:30 - 4:30PM *D2d Trial* - Anastassios Pittas, MD, Tufts University
ViDA Trial - Robert Scragg, MD, University of Auckland
D2d Trial - Heike Bischoff-Ferrari, MD, MPH, University of Zurich
VITAL Trial - JoAnn Manson, MD, Harvard University
4:30 - 5:00PM Directed Discussions and Q&A: CLINICAL TRIALS

- 7:00 - 10:00PM **NETWORKING DINNER EVENT: CRUISE AROUND MANHATTAN ON CIRCLE LINE**

FRIDAY MAY 31, 2019

Session IV: VITAMIN D AND CANCER

- 8:00 - 8:25AM Leonard Augenlicht, PhD, Albert Einstein Medical School
8:25 - 9:50AM Promoted Abstracts

Session V: MICROBIOME AND IMPLICATIONS FOR VITAMIN D NUTRITION

- 10:10 - 10:35AM Vin Tangpricha, MD, PhD, Emory University
10:35 - 12:00PM Promoted Abstracts



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12:30 - 2:30PM **LUNCH AND POSTER SESSION II VIEWING**

**Session VI: VITAMIN D REGULATION OF BONE AND MINERAL METABOLISM
(Tribute to Dr. Robert Wasserman)**

2:30 - 2:55PM Sylvia Christakos, PhD, Rutgers New Jersey Medical School
2:55 - 3:50PM Promoted Abstracts

Session VII: IMPACT OF GENETICS ON VITAMIN D

4:10 - 4:35PM Brent Richards, McGill University

5:30 - 6:00PM **AWARDS CEREMONY – Young Investigators and Trainee Travel Awards**

SATURDAY, JUNE 1, 2019

Keynote II: A YEAR IN VITAMIN D: CLINICAL/POPULATION RESEARCH

8:15 - 9:00AM Inez Schoenmakers, PhD, University of East Anglia

Session VIII: NEW FUNCTIONS OF VITAMIN D: LATE BREAKING SESSION

9:00 - 9:25AM Stephanie Atkinson, PhD, McMaster University
9:25 - 10:30AM Promoted Abstracts

Session IX: CONTROVERSY – VITAMIN D REQUIREMENTS DURING PREGNANCY

10:50 - 12:15PM Carol Wagner, Medical University of SC
Daniel Roth, Hospital for Sick Children, University of Toronto

12:15 - 12:30PM **CLOSING REMARKS**

Jim Fleet, Workshop Chair



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NEEDS ASSESSMENT Vitamin D is the precursor to a series of steroid metabolites which exert biological actions via the vitamin D receptor (VDR). The parent compounds Vitamin D₂ and Vitamin D₃ can be obtained through diet and supplements, and Vitamin D₃ can also be synthesized in skin upon exposure to UV light. The VDR has been identified in almost every bodily tissue, and its expression is dynamically altered in physiological (puberty, pregnancy, aging) and pathological (diabetes, cancer) states. The pleiotropic effects of Vitamin D are now well accepted, and the implications and relevance of these basic research findings are being translated into the clinic, the community and the pharmaceutical industry. Our conference dedicated to the unique biology of Vitamin D attracts researchers in multiple areas including cell and molecular biology, nutrition, food science, epidemiology, medicine and public policy. Furthermore, because Vitamin D has been linked to optimal health in a number of clinical areas including musculoskeletal, cardiovascular, diabetes mellitus, cancer, inflammatory disease, and hypertension, many diverse diseases are represented at our meetings. Basic cell and molecular researchers will continue to uncover novel roles for Vitamin D in emerging areas such as stem cells, aging and energy metabolism, thus annual meetings are essential for rapid dissemination of these exciting new developments.

In recent years, intense media attention to an individual's Vitamin D status and the perceived need for supplementation has resulted from the surge of publications on Vitamin D and chronic disease. Furthermore, with the recognition that Vitamin D is potentially involved in a wide variety of physiologic and pathologic processes, clinical testing of Vitamin D status and use of Vitamin D supplements has expanded dramatically. Worldwide, government agencies are striving to revise the recommended dietary allowances for Vitamin D, and many are considering complex fortification and regulatory issues. Physicians and other health professionals have received mixed messages concerning when to measure Vitamin D status, what the "optimal" serum Vitamin D level is and how to institute supplementation regimens for deficient patients. Collectively these factors warrant an annual meeting of Vitamin D scientists to disseminate current findings, discuss the emerging basic and applied research, and bring areas of controversy to light.

LEARNING OBJECTIVES The overall goals of our annual workshops are shown in the table at right. We strive for a broad base of the best science involving cell/molecular research studies, issues related to Vitamin D deficiency in the community, role of Vitamin D in wellness/health promotion and potential therapeutic applications of natural and synthetic VDR ligands. This is a not for profit meeting run by academics which typically attracts 200-300 attendees. As an international meeting, the Vitamin D Workshop brings basic investigators, nutrition experts, and clinicians together from around the globe. These individuals come from academia, government and industry, and include graduate students, postdoctoral fellows, junior and senior faculty, regulators and policy makers as well as additional lay individuals and grassroots organizations. It is expected that the interactions among this diverse group of basic and clinical investigators with common interests in Vitamin D will foster new collaborations and promote rational clinical applications and responsible decisions regarding policy relevant to the Vitamin D field.

Goals of the Vitamin D Workshops

1. To present and discuss the latest peer-reviewed scientific research regarding the production, metabolism, and mechanisms of action of vitamin D.
2. To discuss the nutritional concerns of worldwide vitamin D deficiency and how best to identify, treat and prevent this condition.
3. To examine the role of various vitamin D metabolites and analogs in prevention and treatment of specific diseases
4. To review the evidence on the adequate and safe levels of vitamin D that should be achieved/maintained in normal individuals and those with various disease states
5. To provide a forum for sharing state of the art research approaches for studying vitamin D, from populations to genetically engineered mouse models to cell and molecular genomics.



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OUTCOMES/EVALUATION PLAN Dissemination of the knowledge from this meeting will be both onsite and after the conference. The onsite scientific exchanges are facilitated through ample time for interactions during coffee breaks, poster sessions and on-site lunches. In addition, an evening Networking event (dinner cruise around Manhattan on the Circle Line) is planned to facilitate exchange of information and collaborations in a more social atmosphere. Post-meeting dissemination will primarily be via publication of the conference proceedings as a Special Issue in the Journal of Steroid Biochemistry and Molecular Biology (JSBMB). All invited speakers and abstract presenters are encouraged to submit a manuscript for the Special Issue which is peer reviewed according to standard journal practices. We typically have a great response to this initiative (between 40-60 accepted papers per issue). The Chair of the Workshop (Dr. James Fleet for 2019) acts as Guest Editor for the Special Issues. Evaluation of the conference's impact is achieved via a detailed Survey Monkey questionnaire sent to all participants after the meeting. We typically get greater than 50% of attendees providing feedback via this link. Results are collated, summarized and presented to the Board of Directors for consideration in planning of subsequent meetings.