

PROGRAM BOOK

2016

VITAMIN D WORKSHOP



www.vitaminDworkshop.org

NEXT MEETING

20th Workshop on Vitamin D – Orlando, FL – March 28 – 31, 2017

Table of Contents

Time Table.....	ii
Official Sponsors	iii - v
Organizers	vi
2016 Awards	vii
General Information	viii
Scientific Program	1 - 4
ABSTRACTS	
Tuesday	
Plenary Poster Session	5 - 16
Wednesday	
Session I.....	17 - 18
Session II.....	19
Session III.....	20 - 21
Session IV	22 - 23
Session V	24 - 25
Poster Session I	26 - 71
Thursday	
Session VI	72 - 74
Session VII	75
Session VIII	76 - 77
Session IX	78 - 80
Poster Session II	81 - 125
Session X	126
Session XI	127 - 129
Session XII	130
Session XIII	131 - 132
Index of Abstract Authors.....	133 - 140
JSBMB Manuscript Information and Instructions for Submission	141
Hotel Map	142
Participant List	143 - 149

19th Workshop on Vitamin D

Time Table

Tuesday, March 29, 2016

3:00 - 6:00PM	Registration	Gallery Foyer
5:00 - 8:00PM	Welcome Reception and Plenary Poster Session	Loft 2 and Studio 3

Wednesday, March 30, 2016

8:00 - 5:00PM	Registration	
8:00 - 9:35AM	Session I: Vitamin D, Immunity and Infection	Loft 1
9:35 - 9:55AM	Coffee Break	Gallery Foyer
10:00 - 10:55AM	Session II: Clinical Plenary Lecture	Loft 1
10:55 - 12:05PM	Session III: Analogs and VDR Structure and Molecular Mechanism of 1,25(OH) ₂ D ₃ Action	Loft 1
12:05 - 1:30PM	Lunch and Poster Session I Viewing	Loft 2 and Studio 3
1:35 - 2:20PM	Session IV: Assays	Loft 1
2:25 - 3:20PM	Session V: Vitamin D and Cancer	Loft 1
3:25 - 3:45PM	Coffee Break	Gallery Foyer
3:45 - 5:30PM	Session VI: Vitamin D, Bone, Muscle and Parathyroid	Loft 1
5:30 - 6:00PM	2016 Awards Ceremony	Loft 1
6:00 - 9:00PM	Networking Banquet	Emerald Lounge (Mezzanine Level)

Thursday, March 31, 2016

8:00 - 12:00PM	Registration	Gallery Foyer
8:00 - 8:55AM	Session VII: Plenary Lecture	Loft 1
9:00 - 9:55AM	Session VIII: Vitamin D and the Intestine	Loft 1
9:55 - 10:15AM	Coffee Break	Gallery Foyer
10:15 - 11:50AM	Session IX: Vitamin D and Reproduction	Loft 1
11:50 - 1:15PM	Lunch and Poster Session II Viewing	Loft 2 and Studio 3
1:15 - 2:15PM	Session X: The Debate: Back to the Future, Beyond 25D	Loft 1
2:20 - 3:55PM	Session XI: Metabolism and Nutrition	Loft 1
3:55 - 4:25PM	Session XII: Non-traditional Targets	Loft 1
4:25 - 5:30PM	Session XIII: Vitamin D Hydroxylases	Loft 1
5:30 - 6:00PM	Closing Announcements	Loft 1

Scientific Program – Tuesday and Wednesday

Tuesday, March 29

3:00 - 6:00PM Registration
5:00 - 8:00PM Welcome Reception and Plenary Posters

Wednesday, March 30

8:00 - 5:00PM Registration
8:00 - 8:15AM Opening Remarks
Marie Demay, Workshop Chair and Sylvia Christakos, Workshop Co-chair

Session I:

VITAMIN D, IMMUNITY AND INFECTION

Moderators: Chantal Mathieu and Richard Mellanby

8:15 - 8:35AM R. Modlin THE VITAMIN D ANTIMICROBIAL PATHWAY IN
8:35 - 8:40AM Discussion MYCOBACTERIAL INFECTION

8:40 - 9:00AM B. Roep VITAMIN D AND DENDRITIC CELL FUNCTION
9:00 - 9:05AM Discussion

9:05 - 9:15AM V. Nurminen 1,25-DIHYDROXYVITAMIN D₃ MODULATES THE LEVEL OF
9:15 - 9:20AM Discussion ACTIVE CHROMATIN IN THP-1 HUMAN MONOCYTES

9:20 - 9:30AM YD. Lin VITAMIN D DEFICIENCY RESULTS IN FEWER INNATE
9:30 - 9:35AM Discussion LYMPHOID CELLS AND SEVERE INFECTION WITH
CITROBACTER RODENTIUM

9:35 - 9:55AM Coffee Break

Session II:

CLINICAL PLENARY LECTURE

Moderator: Martin Hewison

10:00 - 10:45AM S. Weiss RESULTS OF VDAART: VITAMIN D SUPPLEMENTATION IN
10:45 - 10:55AM Discussion PREGNANCY AND CHILDHOOD ASTHMA TRIAL

Session III:

ANALOGS AND VDR STRUCTURE AND MOLECULAR MECHANISM OF 1,25(OH)₂D₃ ACTION

Moderators: Nanjoo Suh and Atsushi Kittaka

10:55 - 11:15AM N. Rochel STRUCTURAL DETERMINANTS OF VDR INTERACTIONS
11:15 - 11:20AM Discussion WITH LIGANDS AND CO-ACTIVATORS

11:20 - 11:30AM W. Quarni VDR-RIPK1 COMPLEX AND ITS IMPLICATION IN VITAMIN D
11:30 - 11:35AM Discussion ACTION

11:35 - 11:45AM A. Slominski ROR α AND ROR γ AS ALTERNATIVE RECEPTORS FOR
11:45 - 11:50AM Discussion NONCLASSICAL VITAMIN D HYDROXY-METABOLITES

11:50 - 12:00PM J. White TURNOVER OF TARGET PROTEINS OF THE E3 LIGASE AND
12:00 - 12:05PM Discussion TUMOR SUPPRESSOR FBW7 IS REGULATED BY THE
HORMONE-BOUND VITAMIN D RECEPTOR

12:05 - 1:30PM **LUNCH AND POSTER SESSION I VIEWING**

Session IV:**ASSAYS**

Moderators: Ron Horst and Miguel Maestro

1:35 - 1:45PM	C. Sempos	VITAMIN D MEASUREMENT STANDARDIZATION: THE WAY OUT OF THE CHAOS
1:45 - 1:50PM	Discussion	
1:50 - 2:00PM	A. Hoofnagle	QUANTIFICATION OF VITAMIN D-BINDING PROTEIN BY LIQUID CHROMATOGRAPHY-TANDEM MASS SPECTROMETRY: IMPLICATIONS FOR THE ASSESSMENT OF BIOAVAILABLE VITAMIN D CONCENTRATIONS ACROSS GENOTYPES
2:00 - 2:05PM	Discussion	
2:05 - 2:15PM	C. Jenkinson	A HIGH THROUGHPUT AUTOMATED LC-MS/MS METHOD FOR ANALYSIS OF MULTIPLE VITAMIN D METABOLITES IN SERUM AND TISSUE
2:15 - 2:20PM	Discussion	

Session V:**VITAMIN D AND CANCER**

Moderators: JoEllen Welsh and Mieke Verstuyf

2:25 - 2:45PM	Eniko Kallay	THE CROSS-TALK BETWEEN THE VITAMIN D SYSTEM AND THE CALCIUM-SENSING RECEPTOR IN COLORECTAL CANCER
2:45 - 2:50PM	Discussion	
2:50 - 3:00PM	E. Zoltick	PRE-DIAGNOSTIC 25-HYDROXYVITAMIN D AND COLORECTAL CANCER RISK: AN INTERNATIONAL POOLING PROJECT OF 17 COHORTS
3:00 - 3:05PM	Discussion	
3:05 - 3:15PM	M. Campbell	INTEGRATIVE GENOMIC ANALYSES REVEALS A CLINICAL SIGNIFICANT CROSS-TALK BETWEEN VDR AND FOXA1 IN COLON CANCER
3:15 - 3:20PM	Discussion	
3:25 - 3:45PM	Coffee Break	

Session VI:**VITAMIN D, BONE, MUSCLE AND PARATHYROID**

Moderators: Peter Ebeling and Carlos Bernal-Mizrachi

3:45 - 4:05PM	R. St-Arnaud	OPTIMAL BONE FRACTURE REPAIR REQUIRES 24,25-DIHYDROXYVITAMIN D AND ITS EFFECTOR MOLECULE, FAM57B2
4:05 - 4:10PM	Discussion	
4:10 - 4:30PM	G. Carmeliet	THE ROLE OF VDR IN THE SKELETON: DIRECT OR INDIRECT?
4:30 - 4:35PM	Discussion	
4:35 - 4:55PM	B. Dawson-Hughes	VITAMIN D AND MUSCLE FUNCTION
4:55 - 5:00PM	Discussion	
5:00 - 5:10PM	A. Herberger	NOVEL LOCAL FEEDBACK ACTIONS OF PARATHYROID HORMONE (PTH) IN REGULATING SERUM 1,25-DIHYDROXYVITAMIN D ₃ , CALCIUM, AND PTH LEVELS IN BASAL AND HYPERPARATHYROID STATES IN MICE
5:10 - 5:15PM	Discussion	
5:15 - 5:25PM	E. Clinkenbeard	DISRUPTION OF NORMAL PHOSPHATE CHALLENGE RESPONSES AND RESCUE OF GENETIC HYPOPHOSPHATEMIA VIA CONDITIONAL TARGETING OF FGF23
5:25 - 5:30PM	Discussion	
5:30 - 6:00PM	2016 Awards Ceremony	
6:00 - 9:00PM	Networking Banquet	

Scientific Program - Thursday

Thursday, March 31

8:00 - 12:00PM Registration

Session VII:

BASIC RESEARCH PLENARY LECTURE

Joint Session: Vitamin D Workshop and the International Aldosterone Conference

Moderators: Sylvia Christakos and Hirotaka Shibata

8:00 - 8:45AM

P. Sassone-Corsi

THE INTERPLAY BETWEEN NUTRITION, METABOLISM,
MICROBIOTA AND THE CIRCADIAN CLOCK

8:45 - 8:55AM

Discussion

Session VIII:

VITAMIN D AND THE INTESTINE

Moderators: Jim Fleet and Julia Charles

9:00 - 9:20AM

M. Cantorna

VITAMIN D AND THE MICROBIOTA COOPERATE TO
REGULATE GASTROINTESTINAL HOMEOSTASIS AND
INFLAMMATORY BOWEL DISEASE

9:20 - 9:25AM

Discussion

9:25 - 9:35AM

C. Leyssens

INTESTINAL DELETION OF THE VITAMIN D RECEPTOR
DOES NOT AGGRAVATE EXPERIMENTAL COLITIS

9:35 - 9:40AM

Discussion

9:40 - 9:50AM

S. Goswami

1,25-DIHYDROXYVITAMIN D₃ OR HIGH DIETARY VITAMIN D
ALLEVIATES INFLAMMATORY BOWEL PHENOTYPES IN A
GENETIC MOUSE MODEL WITH A HIGH DISEASE
SUSCEPTIBILITY

9:50 - 9:55AM

Discussion

9:55 - 10:15AM

Coffee Break

Session IX:

VITAMIN D AND REPRODUCTION

Moderators: Anne Marie Jukic and Malachi McKenna

10:15 - 10:35AM

G. Neal-Perry

VITAMIN D AND REPRODUCTIVE DYSFUNCTION:
NEUROENDOCRINE ORIGINS

10:35 - 10:40AM

Discussion

10:40 - 11:00AM

M. Blomberg-Jensen

VITAMIN D AND MALE REPRODUCTION: CLINICAL
RELEVANCE?

11:00 - 11:05AM

Discussion

11:05 - 11:15AM

M. Hewison

ALTERATIONS IN THE MATERNAL AND PLACENTAL
VITAMIN D METABOLOME ARE ASSOCIATED WITH
PRE-ECLAMPSIA

11:15 - 11:20AM

Discussion

11:20 - 11:30AM

M. Kiely

VITAMIN D STATUS IS ASSOCIATED WITH UTERO-
PLACENTAL DYSFUNCTION IN A LARGE PROSPECTIVE
PREGNANCY COHORT WITH LOW 25(OH)D₃ AND
UBIQUITOUS 3-EPI-25(OH)D₃ AND 25(OH)D₂.

11:30 - 11:35AM

Discussion

11:35 - 11:45AM

Y. Dong

MATERNAL VITAMIN D SUPPLEMENTATION AND CORD
BLOOD GENOME-WIDE DNA METHYLATION ANALYSIS

11:45 - 11:50AM

Discussion

11:50 - 1:15PM

LUNCH AND POSTER SESSION II VIEWING

Session X:

1:15 - 2:15PM

THE DEBATE: BACK TO THE FUTURE, BEYOND 25D

Moderator: Roger Bouillon

WHAT SHOULD WE MEASURE: DBP, BIOAVAILABLE 25-HYDROXYVITAMIN D OR 1,25-DIHYDROXYVITAMIN D?

Panel: Inez Schoenmakers
Dan Bikle
Ravi Thadhani**Session XI:****METABOLISM AND NUTRITION**

Moderators: Anastassios Pittas and Anouk Vaes

2:20 - 2:40PM
2:40 - 2:45PMA. Schaefer
DiscussionVITAMIN D AND INTESTINAL CALCIUM TRANSPORT POST
BARIATRIC SURGERY2:45 - 3:05PM
3:05 - 3:10PMP. Lips
Discussion

VITAMIN D AND TYPE II DIABETES

3:10 - 3:20PM
3:20 - 3:25PMT. Smith
DiscussionESTIMATION OF THE DIETARY REQUIREMENT FOR
VITAMIN D IN UK ADOLESCENTS AGED 14-18 YEARS: A
DOUBLE-BLIND, RANDOMIZED PLACEBO-CONTROLLED
TRIAL3:25 - 3:35PM
3:35 - 3:40PMR. Jacobsen
DiscussionEXPOSURE TO SUNSHINE EARLY IN LIFE AND RISK OF
TYPE 1 DIABETES IN DANISH CHILDREN3:40 - 3:50PM
3:50 - 3:55PME. O'Brien
DiscussionCALCIUM ATTENUATES IMPACT OF VITAMIN D
INADEQUACY ON BONE TURNOVER IN WINTER
PREGNANCY**Session XII:****NON-TRADITIONAL TARGETS**

Moderators: Wenhan Chang and Rebecca Mason

3:55 - 4:05PM
4:05 - 4:10PMV. Saini
DiscussionABSENCE OF VDR-MEDIATED PPAR γ SUPPRESSION
LEADS TO ALOPECIA IN VDR NULL MICE4:10 - 4:20PM
4:20 - 4:25PMK. DiFranco
DiscussionVITAMIN D INDUCTION OF CYSTIC FIBROSIS
TRANSMEMBRANE CONDUCTANCE REGULATOR (CFTR) *IN*
VITRO AND *IN VIVO***Session XIII:****VITAMIN D HYDROXYLASES**

Moderators: Marie Laure Kottler and Chris Gallagher

4:25 - 4:45PM
4:45 - 4:50PMT. Carpenter
DiscussionCYP24A1 MUTATIONS: CLINICAL PHENOTYPE AND
EFFECTS ON VITAMIN D METABOLISM4:50 - 5:10PM
5:10 - 5:15PMT. Thacher
DiscussionCYP2R1 MUTATIONS CAUSING VITAMIN D-DEFICIENCY
RICKETS5:15 - 5:25PM
5:25 - 5:30PMS. Pauwels
Discussion1 β ,25 DIHYDROXYVITAMIN D: A NEW VITAMIN D
METABOLITE IN HUMAN SERUM

5:30 - 6:00PM

Closing Announcements