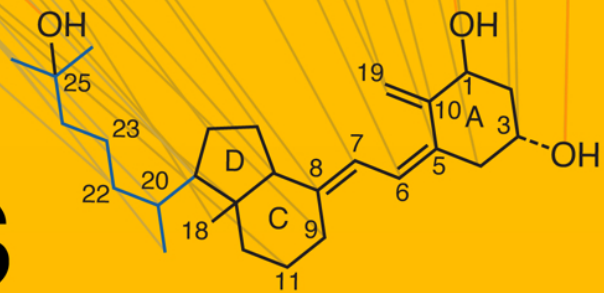
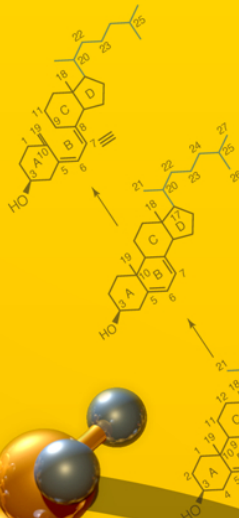
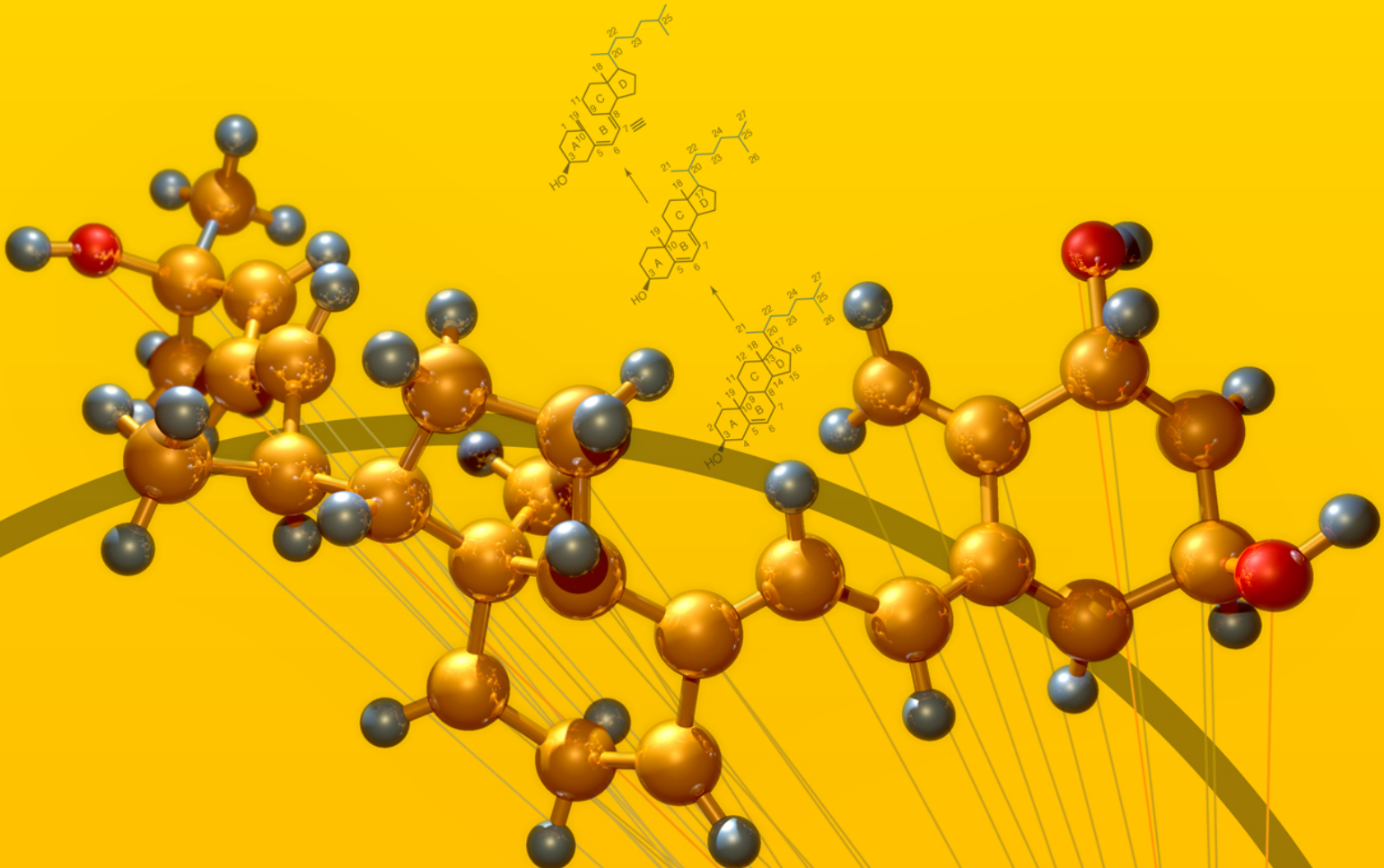


VITAMIN D WORKSHOP

2012 15th Workshop
June 19th-22nd
(ENDO 2012, June 23rd-26th)
Houston, TX

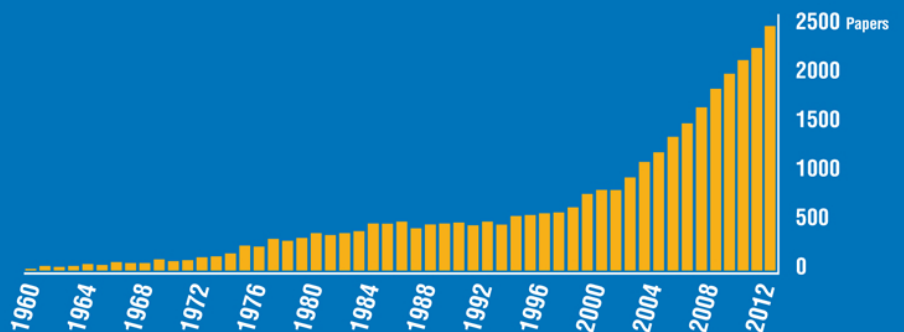
2013 16th Workshop
June 11th-14th
(ENDO 2013, June 15th-18th)
San Francisco, CA

2014 17th Workshop
June 17th-20th
(ENDO 2014, June 21st-24th)
Chicago, IL



Abstracts

Growth of vitamin D research over the past 52 years has resulted in over 33,770 papers [‘Vitamin D’ in the Title or Abstract @ PubMed]



Scientific Program

16th Vitamin D Workshop



June 11 – 14, 2013

The Palace Hotel

San Francisco, CA

Front Cover Images

Main Molecular Image: Not surprisingly, the molecular model describes the three dimensional shape of the steroid hormone, $1\alpha,25$ -dihydroxy vitamin D_3 that binds selectively and tightly to its cognate protein receptor, the vitamin D receptor (VDR). The two-dimensional structure (lower right) is also $1\alpha,25(OH)_2D_3$. The fine lines connect each atom in the two-dimensional view with the same atom in the 3D model.

Histogram: The histogram reports the number of papers published and listed in the National Library of Medicine that included the term 'Vitamin D' in either the Title or the Abstract from 1960 – 2012. In the past 52 years over 33,770 papers have been published on vitamin D. In 2012 there were 3,600 papers and it is projected that in 2013 it will be $\sim 4,500$ papers.

Image of Man: The image is known as the Vitruvian Man.

The front cover was designed by Sohail Wasif, in Computing and Communications at the University of California, Riverside.



The Vitruvian Man is a world-renowned drawing created by Leonardo da Vinci in about 1487. It is accompanied by notes based on the work of the famed architect, Vitruvius. The drawing, which is in pen and ink on paper, depicts a male figure in two superimposed positions with his arms and legs apart and simultaneously inscribed in a circle and square. The drawing and text are sometimes called the Canon of Proportions. It is stored in the Gallerie dell'Accademia in Venice, Italy.

The drawing is based on the correlations of ideal human proportions with geometry described by the ancient Roman architect Vitruvius in Book III of his treatise *De Architectura*. Vitruvius described the human figure as being the principal source of proportion among the classical orders of architecture. Leonardo's drawing is traditionally named in honor of the architect. (Abstracted from Wikipedia)

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16th Workshop on Vitamin D

Time Table

Tuesday, June 11, 2013

3:00 - 5:00 PM	Workshop Executive Committee (WEC) (Closed Meeting)	Sacramento
2:00 - 6:00 PM	Registration Desk Opens	Regency Foyer
6:00 - 8:00 PM	Opening Reception	Regency Foyer

Wednesday, June 12, 2013

8:30 - 10:15 AM	Session I	Grand Ballroom
10:15 - 10:35 AM	Coffee Break	Regency Foyer
10:35 - 11:55 AM	Session II	Grand Ballroom
11:55 - 1:25 PM	Session III: Poster Session A (Boxed Lunch)	Gold
1:25 - 2:30 PM	Session IV	Grand Ballroom
2:30 - 3:50 PM	Session V	Grand Ballroom
3:50 - 4:10 PM	Coffee Break	Regency Foyer
4:10 - 5:45 PM	Session VI	Grand Ballroom

Thursday, June 13, 2013

8:30 - 10:20 AM	Session VII	Grand Ballroom
10:20 - 10:40 AM	Coffee Break	Regency Foyer
10:40 - 12:00 PM	Session VIII	Grand Ballroom
12:00 - 1:15 PM	Session IX: Poster Session B (Boxed Lunch)	Gold
1:15 - 2:35 PM	Session X	Grand Ballroom
2:35 - 3:40 PM	Session XI	Grand Ballroom
3:40 - 4:00 PM	Coffee Break	Regency Foyer
4:00 - 5:20 PM	Session XII	Grand Ballroom
5:20 - 5:35 PM	Recognition of Workshop Award Recipients	Grand Ballroom
6:30 - 8:00 PM	Social Event: Workshop Buffet	Ralston

Friday, June 14, 2013

8:30 - 9:15 AM	Session XIII	Grand Ballroom
9:15 - 9:25 AM	Break	Regency Foyer
9:25 - 10:30 AM	Session XIV	Grand Ballroom
10:30 - 10:50 AM	Coffee Break	Regency Foyer
10:50 - 12:05 PM	Session XIV	Grand Ballroom
12:05 - 1:35 PM	Session XV: Poster Session C (Boxed Lunch)	Gold
1:35 - 3:10 PM	Session XVI	Grand Ballroom
3:10 - 3:30 PM	Coffee Break	Regency Foyer
3:30 - 5:20 PM	Session XVII	Grand Ballroom
5:30 - 7:30 PM	Workshop Executive Committee (WEC) (Closed Meeting)	Grant

Official Sponsors
16th Workshop on Vitamin D

Leadership Sponsors

Chugai Pharmaceutical Co. Ltd., Japan

Heartland Assays, USA

Pfizer, Inc., USA

Teijin Pharma, Ltd., Japan

Bio-Tech Pharmacal, Inc., USA

Strong Sponsors

Cerbios-Pharma SA, Switzerland

DiaSorin, Inc.

Roche Diagnostics

Organizers

16th Workshop on Vitamin D

Workshop Executive Committee (WEC)

Daniel Bikle, USA
Anthony Norman, USA
JoEllen Welsh, USA
Roger Bouillon, Belgium
Sylvia Christakos, USA

David Goltzman, Canada
Paul Lips, The Netherlands
Rebecca Mason, Australia
Wesley Pike, USA

Program Advisory Committee (PAC)

Heike Bischoff-Ferrari, Switzerland
Ricardo Boland, Argentina
Carsten Carlberg, Finland
Marie Demay, USA
David Feldman, USA
Christopher Gallagher, USA
Edward Giovannucci, USA
Helen Henry, USA
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Antonio Mourino, Spain
John Pettifor, South Africa
Joerg Reichrath, Germany
George Studzinski, USA
Hans Van Leeuwen, The Netherlands
Reinhold Vieth, Canada
John White, Canada
Susan Whiting, Canada

Riverside Committee

Nancy Day

Meetings Plus

Roxanne Hall
Aelinor Conaway
Carol Montgomery
Natalie Bishop
Jean Hood
Cherie Johnston

General Information

16th Workshop on Vitamin D

June 11 – 14, 2013

Welcoming Reception, Tuesday, June 11, 2013

Please join us for a Welcoming Reception Tuesday evening from 6:00 – 8:00 PM. All delegates and their registered accompanying guests are cordially invited.

Poster Sessions, Wednesday – Friday, June 12 – 14, 2013

There will be three poster sessions during the Workshop. The poster sessions will be held each afternoon during the lunch period in the Gold Ballroom.

Wednesday Poster Session Mount Time: June 11th between 5:00 pm – 9:00 pm or on June 12th before 9:00 am. Posters should remain up for viewing until 4:30 pm on June 12th.

Wednesday Poster Removal: 4:30 – 6:30 pm.

Thursday Poster Session Mount Time: June 12th between 6:30 – 9:00 pm or on June 13th before 9:00 am. Posters should remain up for viewing until 4:30 pm on June 13th.

Thursday Poster Removal: 4:30 – 6:30 pm.

Friday Poster Session Mount Time: June 13th between 6:30 – 9:00 pm or on June 14th before 9:00 am. Posters should remain up for viewing until 3:30 pm on June 14th.

Friday Poster Removal: 4:30 – 6:30 pm

Lunches

On Wednesday, Thursday and Friday, lunches are included in the registration fee. The box lunches will be available each day outside the Grand Ballroom.

Coffee Breaks

All registered Delegates are invited to enjoy a cup of coffee during the coffee breaks outside the Grand Ballroom.

Social Event: Thursday, June 13th

All registered delegates and registered guests are invited to participate in an informal buffet. A cash bar will be available.



Scientific Program – Wednesday 16th Workshop on Vitamin D

Wednesday, June 12, 2013

Session I:

D-Code ENCODE
Session Chair: J. Wesley Pike

8:30 - 9:05 AM
9:05 - 9:15 AM

J. Stamatoyannopoulos
Discussion

WHAT IS ENCODE?

9:15 - 9:40 AM
9:40 - 9:45 AM

W. Pike
Discussion

GENOME-WIDE TECHNIQUES REVEAL NOVEL
DETAILS OF BONE CELL GENE REGULATION
BY 1 α ,25-DIHYDROXYVITAMIN D₃

9:45 - 10:10 AM
10:10 - 10:15 AM

C. Carlberg
Discussion

THE USE OF ENCODE DATA FOR
UNDERSTANDING GENOME-WIDE VITAMIN D
RECEPTOR SIGNALING

10:15 - 10:35 AM

COFFEE BREAK

Session II:

Epigenetics and Transcriptional Regulation
Session Chair: Moray Campbell

10:35 - 10:40 AM

Introduction by Chair

10:40 - 11:05 AM
11:05 - 11:10 AM

S. Ramagopalan
Discussion

ROLE OF VITAMIN D IN EPIGENETIC
REGULATION OF THE GENOME

11:10 - 11:20 AM
11:20 - 11:25 AM

P. Singh
Discussion

DISTORTED TARGETING OF CO-REPRESSORS
TO VDR TARGET GENES IN PROSTATE
CANCER PROGRESSION

11:25 - 11:35 AM
11:35 - 11:40 AM

M. Meyer
Discussion

EPIGENETIC PLASTICITY DEFINES
TRANSCRIPTIONAL ACTIONS FOR VDR IN
DIFFERENTIATION

11:40 - 11:50 AM
11:50 - 11:55 AM

T. Seth
Discussion

NOVEL MECHANISM OF NEGATIVE
REGULATION OF 1,25-DIHYDROXYVITAMIN D₃
INDUCED 24(OH)ASE TRANSCRIPTION:
EPIGENETIC MODIFICATION INVOLVING
CROSS-TALK BETWEEN PROTEIN ARGININE
METHYLTRANSFERASE 5 AND THE SWI/SNF
COMPLEX

Session III:

Poster Session A

11:55 - 1:25 PM

Box Lunch and Poster Viewing

Session IV: Biologic Significance of Tissue Specific Vitamin D Metabolism
Session Chair: Glenville Jones

1:25 - 1:30 PM Introduction by Chair

1:30 - 1:55 PM M. Collins
1:55 - 2:00 PM *Discussion* TUMOR INDUCED OSTEOMALACIA AS A
MODEL FOR THE STUDY OF MINERAL
METABOLISM

2:00 - 2:10 PM H. Bachman
2:10 - 2:15 PM *Discussion* HUMAN PHARMACOKINETIC PROFILE OF 1,25-
DIHYDROXYVITAMIN D₃ - GLYCOSIDE OF
HERBAL ORIGIN

2:15 - 2:25 PM R. Schmidt
2:25 - 2:30 PM *Discussion* SELECTED VITAMIN D METABOLIC GENE
VARIANTS AND AUTISM SPECTRUM
DISORDER

Session V: Physiologic Role of Extrarenal CYP27B1
Session Chair: Howard Morris

2:30 - 2:35 PM Introduction by Chair

2:35 - 3:00 PM W. Chang
3:00 - 3:05 PM *Discussion* CONTRIBUTION OF THE PARATHYROID
CYP27B1 TO CIRCULATING 1,25(OH)₂D LEVELS

3:05 - 3:30 PM J. Adams
3:30 - 3:35 PM *Discussion* REGULATION OF EXTRARENAL CYP27B1

3:35 - 3:45 PM A. Verone
3:45 - 3:50 PM *Discussion* 25-HYDROXYVITAMIN D₃ (25(OH)D₃) INHIBITS
A SUBSET OF LUNG CANCER CELLS
INDEPENDENT OF CYP27B1 ACTIVITY

3:50 - 4:10 PM COFFEE BREAK

Session VI: Novel Pathways of Vitamin D Metabolism
Session Chair: Rebecca Mason

4:10 - 4:15 PM Introduction by Chair

4:15 - 4:40 PM K. Thummel
4:40 - 4:45 PM *Discussion* OXIDATIVE AND CONJUGATIVE METABOLISM
OF 25-HYDROXYVITAMIN D₃ AND ITS
CONTRIBUTION TO DRUG AND DISEASE
INDUCED PATHOLOGIES

4:45 - 5:10 PM A. Slominski
5:10 - 5:15 PM *Discussion* THE PHYSIOLOGIC ROLE OF CYP11A1 IN
VITAMIN D REGULATION OF EPIDERMAL
FUNCTIONS

5:15 - 5:25 PM E. Tieu
5:25 - 5:30 PM *Discussion* RATES OF METABOLISM OF INTERMEDIATES
OF THE C24 OXIDATION PATHWAY BY HUMAN
CYP24A1

5:30 - 5:40 PM D. Bikle
5:40 - 5:45 PM *Discussion* RECIPROCAL ROLES OF VDR AND β-CATENIN
IN THE REGULATION OF KERATINOCYTE
PROLIFERATION AND DIFFERENTIATION

Scientific Program – Thursday 16th Workshop on Vitamin D

Thursday, June 13, 2013

Session VII: Vitamin D Regulated Pathways in Malignancy
Session Chair: JoEllen Welsh

8:30 - 8:35 AM	Introduction by Chair	
8:35 - 9:00 AM	W. Bai	ROLE OF MICRORNAS IN OVARIAN CANCER SUPPRESSION BY VITAMIN D
9:00 - 9:05 AM	<i>Discussion</i>	
9:05 - 9:30 AM	S. Gonzalo	NOVEL ROLES OF $1\alpha,25(\text{OH})_2\text{D}_3$ IN DNA REPAIR PROVIDE NEW STRATEGIES FOR BREAST CANCER TREATMENT
9:30 - 9:35 AM	<i>Discussion</i>	
9:35 - 9:45 AM	J. Welsh	MODELING VITAMIN D ACTIONS IN BASAL-LIKE BREAST CANCER
9:45 - 9:50 AM	<i>Discussion</i>	
9:50 - 10:00 AM	J. White	E3 UBIQUITIN LIGASE AND TUMOR SUPPRESSOR FBW7 AS A HUB OF $1\alpha,25(\text{OH})_2\text{D}_3$ -MEDIATED CELL CYCLE ARREST
10:00 - 10:05 AM	<i>Discussion</i>	
10:05 - 10:15 AM	J. Lundqvist	WSTF IS A KEY PLAYER IN VITAMIN D MEDIATED DOWN REGULATION OF ESTROGEN RECEPTOR SIGNALING IN BREAST CANCER CELLS
10:15 - 10:20 AM	<i>Discussion</i>	
10:20 - 10:40 AM	COFFEE BREAK	

Session VIII: Regulation of Vitamin D Metabolism and Function by miRNAs
Session Chair: Martin Hewison

10:40 - 10:45 AM	Introduction by Chair	
10:45 - 11:10 AM	Y.C. Li	CRITICAL ROLES OF MICRORNA-155 IN $1,25$ -DIHYDROXYVITAMIN D REGULATION OF INNATE IMMUNE RESPONSE
11:10 - 11:15 AM	<i>Discussion</i>	
11:15 - 11:25 AM	Y. Jiang	LONG NON-CODING RNA: A NOVEL MECHANISM FOR THE PROTECTIVE ROLE OF VITAMIN D SIGNALING IN SKIN CANCER FORMATION
11:25 - 11:30 AM	<i>Discussion</i>	
11:30 - 11:40 AM	W. Wang	MODULATION OF ENERGY METABOLISM IN PROSTATE CANCER CELLS BY $1,25(\text{OH})_2\text{D}_3$
11:40 - 11:45 AM	<i>Discussion</i>	
11:45 - 11:55 AM	R. Kasiappan	$1\alpha,25$ -DIHYDROXYVITAMIN D_3 SUPPRESSES LEPTIN STIMULATION OF TUMOR GROWTH THROUGH MICRORNA-498-MEDIATED TELOMERASE DOWN-REGULATION
11:55 - 12:00 PM	<i>Discussion</i>	

Session IX: Poster Session B

12:00 - 1:15 PM Box Lunch and Poster Viewing

Session X: Vitamin D Regulation of Immune Function
Session Chair: John White

1:15 - 1:20 PM Introduction by Chair

1:20 - 1:45 PM M. Cantorna THE IMPACT OF 1,25(OH)₂D₃ ON IMMUNE
1:45 - 1:50 PM *Discussion* MEDIATED DISEASE

1:50 - 2:00 PM T. Takiishi ORAL VITAMIN D₃ SUPPLEMENTATION SAFELY
2:00 - 2:05 PM *Discussion* PREVENTS DIABETES IN NOD MICE WHEN
GIVEN LONG TERM

2:05 - 2:15 PM A. Mehrota IMPACT OF D₃ REPLETION OF
2:15 - 2:20 PM *Discussion* ALLOREACTIVITY IN VITAMIN D DEFICIENT
HEMODIALYSIS PATIENTS: A RANDOMIZED
CONTROLLED TRIAL

2:20 - 2:30 PM G.B. Ferreira 1 α ,25-DIHYDROXYVITAMIN D₃ AND THE
2:30 - 2:35 PM *Discussion* GENERATION OF TOLEROGENIC DENDRITIC
CELLS AS VACCINATION THERAPY IN TYPE 1
DIABETES

Session XI: Vitamin D and the Kidney
Session Chair: David Goltzman

2:35 - 2:40 PM Introduction by Chair

2:40 - 3:05 PM M. Wolf FGF23 AND ITS IMPACT ON VITAMIN D
3:05 - 3:10 PM *Discussion* METABOLISM IN CHRONIC KIDNEY DISEASE

3:10 - 3:20 PM J. Kong VITAMIN D RECEPTOR ATTENUATES ACUTE
3:20 - 3:25 PM *Discussion* LUNG INJURY BY BLOCKING THE
ANGIOPOIETIN-2-TIE-2 PATHWAY AND THE
RENIN-ANGIOTENSIN SYSTEM

3:25 - 3:35 PM N. Rochel TEMPORAL CONTROL OF VDR MEDIATED
3:35 - 3:40 PM *Discussion* SIGNALING IN MICE EXPRESSING A
STRUCTURE-BASE POINT MUTATED VDR

3:40 - 4:00 PM COFFEE BREAK

Session XII: Vitamin D Effects on Intestinal Calcium Absorption and Bone
Session Chair: Sylvia Christakos

- 4:00 - 4:05 PM Introduction by Chair
- 4:05 - 4:30 PM J. Fleet
4:30 - 4:35 PM *Discussion* FORWARD AND REVERSE GENETIC APPROACHES REVEAL CRITICAL ASPECTS OF VITAMIN D REGULATED INTESTINAL CALCIUM ABSORPTION
- 4:35 - 4:45 PM P. Dhawan
4:45 - 4:50 PM *Discussion* TRANSGENIC EXPRESSION OF THE VITAMIN D RECEPTOR (VDR) RESTRICTED TO THE ILEUM, CECUM AND COLON OF VDR KNOCKOUT MICE RESCUES VDR DEPENDENT RICKETS
- 4:50 - 5:00 PM H. Morris
5:00 - 5:05 PM *Discussion* DELETION OF VDR IN MATURE OSTEOBLASTS RESULTS IN INCREASED BONE VOLUME DURING GROWTH DUE TO IMPAIRED RANKL-MEDIATED BONE RESORPTION
- 5:05 - 5:15 PM J. Ryan
5:15 - 5:20 PM *Discussion* GENDER RELATED DIFFERENCES IN THE SKELETAL PHENOTYPE OF AGED VITAMIN D RECEPTOR (VDR) KNOCKOUT MICE
- 5:20 - 5:35 PM Recognition of Workshop Award Recipients
- 6:30 - 8:00 PM Social Event: Workshop Buffet

Scientific Program – Friday 16th Workshop on Vitamin D

Friday, June 14, 2013

Session XIII:	Plenary Lecture Joint Session: Vitamin D Workshop and the International Aldosterone Conference Session Co-chairs: William Rainey and Daniel Bikle	
8:30 - 9:10 AM	K. Yamamoto	MULTIPLE MECHANISMS OF STEROID HORMONE ACTION
9:10 - 9:15 AM	<i>Discussion</i>	
9:15 - 9:25 AM	BREAK	
Session XIV:	Problems and Promises in Vitamin D Assessment Session Chair: Ron Horst	
9:25 - 9:30 AM	Introduction by Chair	
9:30 - 9:55 AM	N. Binkley	VITAMIN D ASSAYS, WHICH ONES ARE USEFUL AND HOW TO INTERPRET
9:55 - 10:00 AM	<i>Discussion</i>	
10:00 - 10:25 AM	M. Hewison	VITAMIN D AND DBP: THE FREE HORMONE HYPOTHESIS REVISITED
10:25 - 10:30 AM	<i>Discussion</i>	
10:30 - 10:50 AM	COFFEE BREAK	
10:50 - 11:15 AM	E. Hypponen	GENETIC INFLUENCES ON 25-HYDROXYVITAMIN D: IMPLICATIONS AND USES
11:15 - 11:20 AM	<i>Discussion</i>	
11:20 - 11:45 AM	A. Young	HOLIDAY UVR EXPOSURE AND SUNSCREEN USE ON VITAMIN D STATUS
11:45 - 11:50 AM	<i>Discussion</i>	
11:50 - 12:00 PM	A. Burild	BIOAVAILABILITY AND STORAGE OF ORAL 25-HYDROXY-D ₃ AND D ₃ IN RELATION TO PLASMA 25-HYDROXY-D ₃
12:00 - 12:05 PM	<i>Discussion</i>	
Session XV: Poster Session C		
12:05 - 1:35 PM	Box Lunch and Poster Viewing	
Session XVI:	Public Health Aspects of Vitamin D Deficiency Session Chair: John Pettifor	
1:35 - 1:40 PM	Introduction by Chair	
1:40 - 2:05 PM	C. Palacios	IS VITAMIN D DEFICIENCY A MAJOR GLOBAL PUBLIC HEALTH PROBLEM?
2:05 - 2:10 PM	<i>Discussion</i>	
2:10 - 2:35 PM	P. Lips	HYPERCALCEMIA FOLLOWING HIGH DOSE VITAMIN D SUPPLEMENTATION
2:35 - 2:40 PM	<i>Discussion</i>	
2:40 - 3:05 PM	Z. Mughal	THE PREVENTION OF VITAMIN D DEFICIENCY AT THE COMMUNITY LEVEL
3:05 - 3:10 PM	<i>Discussion</i>	

3:10 - 3:30 PM COFFEE BREAK

Session XVII: Vitamin D and the Metabolic Syndrome
Session Chair: David Gardner

3:30 - 3:35 PM Introduction by Chair

3:35 - 4:00 PM A. Pittas VITAMIN D AND TYPE II DIABETES
4:00 - 4:05 PM *Discussion*

4:05 - 4:15 PM R. Jorde SUPPLEMENTATION WITH HIGH DOSES OF
4:15 - 4:20 PM *Discussion* VITAMIN D TO SUBJECTS WITHOUT VITAMIN D
DEFICIENCY MAY HAVE NEGATIVE EFFECTS ON
GLUCOSE METABOLISM, LIPIDS AND MARKERS OF
INFLAMMATION. POOLED DATA FROM FOUR
INTERVENTION TRIALS IN TROMSØ

4:20 - 4:45 PM R. Thadhani VITAMIN D AND HYPERTENSION
4:45 - 4:50 PM *Discussion*

4:50 - 5:15 PM C. Bernal-Mizrachi VITAMIN D AND LIPID DISORDERS /
5:15 - 5:20 PM *Discussion* ATHEROSCLEROSIS

WORKSHOP IS ADJOURNED