PROGRAM BOOK
2016
VITAMIN D WORKSHOP

www.vitamindworkshop.org

NEXT MEETING
20th Workshop on Vitamin D - Orlando, FL - March 28 - 31, 2017
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# 19th Workshop on Vitamin D

## Time Table

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<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>3:00</td>
<td>Registration</td>
<td>Gallery Foyer</td>
</tr>
<tr>
<td>5:00</td>
<td>Welcome Reception and Plenary Poster Session</td>
<td>Loft 2 and Studio 3</td>
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### Wednesday, March 30, 2016

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00</td>
<td>Registration</td>
<td></td>
</tr>
<tr>
<td>8:00-9:35</td>
<td>Session I: Vitamin D, Immunity and Infection</td>
<td>Loft 1</td>
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<tr>
<td>9:35-9:55</td>
<td>Coffee Break</td>
<td>Gallery Foyer</td>
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<tr>
<td>10:00-10:55</td>
<td>Session II: Clinical Plenary Lecture</td>
<td>Loft 1</td>
</tr>
<tr>
<td>10:55-12:05</td>
<td>Session III: Analogs and VDR Structure and Molecular Mechanism of 1,25(OH)$_2$D$_3$ Action</td>
<td>Loft 1</td>
</tr>
<tr>
<td>12:05-1:30</td>
<td>Lunch and Poster Session I Viewing</td>
<td>Loft 2 and Studio 3</td>
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<tr>
<td>1:35-2:20</td>
<td>Session IV: Assays</td>
<td>Loft 1</td>
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<tr>
<td>2:25-3:20</td>
<td>Session V: Vitamin D and Cancer</td>
<td>Loft 1</td>
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<tr>
<td>3:25-3:45</td>
<td>Coffee Break</td>
<td>Gallery Foyer</td>
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<tr>
<td>3:45-5:30</td>
<td>Session VI: Vitamin D, Bone, Muscle and Parathyroid</td>
<td>Loft 1</td>
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<tr>
<td>5:30-6:00</td>
<td>2016 Awards Ceremony</td>
<td>Loft 1</td>
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<tr>
<td>6:00-9:00</td>
<td>Networking Banquet</td>
<td>Emerald Lounge (Mezzanine Level)</td>
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### Thursday, March 31, 2016

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>8:00-12:00</td>
<td>Registration</td>
<td>Gallery Foyer</td>
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<tr>
<td>8:00-8:55</td>
<td>Session VII: Plenary Lecture</td>
<td>Loft 1</td>
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<tr>
<td>9:00-9:55</td>
<td>Session VIII: Vitamin D and the Intestine</td>
<td>Loft 1</td>
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<tr>
<td>9:55-10:15</td>
<td>Coffee Break</td>
<td>Gallery Foyer</td>
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<tr>
<td>10:15-11:50</td>
<td>Session IX: Vitamin D and Reproduction</td>
<td>Loft 1</td>
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<tr>
<td>11:50-1:15</td>
<td>Lunch and Poster Session II Viewing</td>
<td>Loft 2 and Studio 3</td>
</tr>
<tr>
<td>1:15-2:15</td>
<td>Session X: The Debate: Back to the Future, Beyond 25D</td>
<td>Loft 1</td>
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<tr>
<td>2:20-3:55</td>
<td>Session XI: Metabolism and Nutrition</td>
<td>Loft 1</td>
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<tr>
<td>3:55-4:25</td>
<td>Session XII: Non-traditional Targets</td>
<td>Loft 1</td>
</tr>
<tr>
<td>4:25-5:30</td>
<td>Session XIII: Vitamin D Hydroxylases</td>
<td>Loft 1</td>
</tr>
<tr>
<td>5:30-6:00</td>
<td>Closing Announcements</td>
<td>Loft 1</td>
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# Scientific Program – Tuesday and Wednesday

## Tuesday, March 29

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
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<tbody>
<tr>
<td>3:00 - 6:00PM</td>
<td>Registration</td>
</tr>
<tr>
<td>5:00 - 8:00PM</td>
<td>Welcome Reception and Plenary Posters</td>
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## Wednesday, March 30

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
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<tbody>
<tr>
<td>8:00 - 5:00PM</td>
<td>Registration</td>
</tr>
<tr>
<td>8:00 - 8:15AM</td>
<td>Opening Remarks</td>
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<tr>
<td></td>
<td>Marie Demay, Workshop Chair and Sylvia Christakos, Workshop Co-chair</td>
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### Session I: VITAMIN D, IMMUNITY AND INFECTION

Moderators: Chantal Mathieu and Richard Mellanby

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Title</th>
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<tbody>
<tr>
<td>8:15 - 8:35AM</td>
<td>R. Modlin</td>
<td>THE VITAMIN D ANTIMICROBIAL PATHWAY IN MYCOBACTERIAL INFECTION</td>
</tr>
<tr>
<td>8:40 - 9:00AM</td>
<td>B. Roep</td>
<td>VITAMIN D AND DENDRITIC CELL FUNCTION</td>
</tr>
<tr>
<td>9:05 - 9:15AM</td>
<td>V. Nurminen</td>
<td>1,25-DIHYDROXYVITAMIN D$_3$ MODULATES THE LEVEL OF ACTIVE CHROMATIN IN THP-1 HUMAN MONOCYTES</td>
</tr>
<tr>
<td>9:20 - 9:35AM</td>
<td>Y. Lin</td>
<td>VITAMIN D DEFICIENCY RESULTS IN FEWER INNATE LYMPHOID CELLS AND SEVERE INFECTION WITH CITROBACTER RODENTIUM</td>
</tr>
<tr>
<td>9:35 - 9:55AM</td>
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<td>Coffee Break</td>
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### Session II: CLINICAL PLENARY LECTURE

Moderator: Martin Hewison

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>10:00 - 10:45AM</td>
<td>S. Weiss</td>
<td>RESULTS OF VDAART: VITAMIN D SUPPLEMENTATION IN PREGNANCY AND CHILDHOOD ASTHMA TRIAL</td>
</tr>
<tr>
<td>10:45 - 10:55AM</td>
<td></td>
<td>Discussion</td>
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</table>

### Session III: ANALOGS AND VDR STRUCTURE AND MOLECULAR MECHANISM OF 1,25(OH)$_2$D$_3$ ACTION

Moderators: Nanjoo Suh and Atsushi Kittaka

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<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>10:55 - 11:15AM</td>
<td>N. Rochel</td>
<td>STRUCTURAL DETERMINANTS OF VDR INTERACTIONS WITH LIGANDS AND CO-ACTIVATORS</td>
</tr>
<tr>
<td>11:15 - 11:20AM</td>
<td></td>
<td>Discussion</td>
</tr>
<tr>
<td>11:20 - 11:35AM</td>
<td>W. Quarni</td>
<td>VDR-RIPK1 COMPLEX AND ITS IMPLICATION IN VITAMIN D ACTION</td>
</tr>
<tr>
<td>11:35 - 11:45AM</td>
<td>A. Slominski</td>
<td>ROR$<em>\alpha$ AND ROR$</em>\gamma$ AS ALTERNATIVE RECEPTORS FOR NONCLASSICAL VITAMIN D HYDROXY-METABOLITES</td>
</tr>
<tr>
<td>11:45 - 11:50AM</td>
<td></td>
<td>Discussion</td>
</tr>
<tr>
<td>11:50 - 12:00PM</td>
<td>J. White</td>
<td>TURNOVER OF TARGET PROTEINS OF THE E3 LIGASE AND TUMOR SUPPRESSOR FBW7 IS REGULATED BY THE HORMONE-BOUND VITAMIN D RECEPTOR</td>
</tr>
<tr>
<td>12:00 - 12:05PM</td>
<td></td>
<td>Discussion</td>
</tr>
<tr>
<td>12:05 - 1:30PM</td>
<td></td>
<td>LUNCH AND POSTER SESSION I VIEWING</td>
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</tbody>
</table>
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

2:45 - 2:50PM Discussion

2:50 - 3:00PM E. Zoltick PRE-DIAGNOSTIC 25-HYDOXYVITAMIN 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-DIHYDOXYVITAMIN 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-DIHYDOXYVITAMIN D₃, 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
11:30 - 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: THE DEBATE: BACK TO THE FUTURE, BEYOND 25D
1:15 - 2:15PM 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 A. Schaefer VITAMIN D AND INTESTINAL CALCIUM TRANSPORT POST BARIATRIC SURGERY
2:40 - 2:45PM Discussion
2:45 - 3:05PM P. Lips VITAMIN D AND TYPE II DIABETES
3:05 - 3:10PM Discussion
3:10 - 3:20PM T. Smith ESTIMATION OF THE DIETARY REQUIREMENT FOR VITAMIN D IN UK ADOLESCENTS AGED 14-18 YEARS: A DOUBLE-BLIND, RANDOMIZED PLACEBO-CONTROLLED TRIAL
3:20 - 3:25PM Discussion
3:25 - 3:35PM R. Jacobsen EXPOSURE TO SUNSHINE EARLY IN LIFE AND RISK OF TYPE 1 DIABETES IN DANISH CHILDREN
3:35 - 3:40PM Discussion
3:40 - 3:50PM E. O’Brien CALCULUM ATTENUATES IMPACT OF VITAMIN D INADEQUACY ON BONE TURNOVER IN WINTER PREGNANCY
3:50 - 3:55PM Discussion

Session XII: NON-TRADITIONAL TARGETS
Moderators: Wenhan Chang and Rebecca Mason
3:55 - 4:05PM V. Saini ABSENCE OF VDR-MEDIATED PPARγ SUPPRESSION LEADS TO ALOPECIA IN VDR NULL MICE
4:05 - 4:10PM Discussion
4:10 - 4:20PM K. DiFranco VITAMIN D INDUCTION OF CYSTIC FIBROSIS IN TRANSMEMBRANE CONDUCTANCE REGULATOR (CFTR) IN VITRO AND IN VIVO
4:20 - 4:25PM Discussion

Session XIII: VITAMIN D HYDROXYLASES
Moderators: Marie Laure Kottler and Chris Gallagher
4:25 - 4:45PM T. Carpenter CYP24A1 MUTATIONS: CLINICAL PHENOTYPE AND EFFECTS ON VITAMIN D METABOLISM
4:45 - 4:50PM Discussion
4:50 - 5:10PM T. Thacher CYP2R1 MUTATIONS CAUSING VITAMIN D-DEFICIENCY RICKETS
5:10 - 5:15PM Discussion
5:15 - 5:25PM S. Pauwels 1β,25 DIHYDROXYVITAMIN D: A NEW VITAMIN D METABOLITE IN HUMAN SERUM
5:25 - 5:30PM Discussion
5:30 - 6:00PM Closing Announcements