“New paradigms targeting resistance against antimicrobials”

AIMMS STAR PLUS Course on Antimicrobials
“New paradigms targeting resistance against antimicrobials”

AIMMS-SILS-BioSB (Science in Amsterdam) focused workshop
29 November - 2 December 2016
Amsterdam VU University, O|2 building, de Boelelaan 1108, Amsterdam

Pre-courses, Day 1

Tuesday 29 November ‘16

Practical Modelling course: Getting our hands dry
Location: W&N building, de Boelelaan 1085; computer room S-329
Chair: Hans Westerhoff

Afternoon Session (optional; separate registration)

14.00 – 15.30 Hans Westerhoff
Introduction to molecular biochemistry, micro- and cell biology
15.30 – 17.00 Thierry Mondeel
Network modeling + Wrap up

Pre-courses, Day 2

Wednesday 30 November ‘16

Morning Session (optional; separate registration)

Practical Modelling course: Getting our hands dry
Location: W&N building, de Boelelaan 1085; computer room S-329
Chair: Hans Westerhoff

09.00 – 10.30 Hans Westerhoff
Everything you wanted to know about microbes, their victims, antimicrobials, carcinostatics, resistance, adaptation, selection, and more
10.30 – 10.45 Short break
10.45 – 12.15 Daan Geerke
Protein-structure based modeling and simulation
12.15 – 13.00 Walk to O|2 building + Lunch (general hallway)

Scientific / Grant writing tutorial
Location: O|2 Building; room 02-W-06
Chair: Maartje de Snoo

13.00 – 15.00 Douwe Molenaar and Maartje de Snoo
15.00 – 15.15 Short break
15.15 – 17.30 Continuation
17.30 – 18.30 Socializing event / Drinks with STAR PhD students and STAR PLUS candidates
“New paradigms targeting resistance against antimicrobials”

Antimicrobial Course, Day 1

Thursday 1 December 2016

Introduction to Antimicrobial research and resistance, part 1
Location: OJ2 building, room 01-W-08
Chair: Ellen Langemeijer

09.00 – 09.15  Ellen Langemeijer  Welcome, introduction to AIMMS STAR-PLUS and logistics
09.15 – 09.45  Christina Vandenbroucke-Grauls (VUmc)  Antibiotic resistance and society

09.45 – 10.00  Short break

10.00 – 10.30  Dirk Bald  Energy and adaptation; against resistance
10.30 – 11.00  Eelco Ruijter  Chemical strategies in Antimicrobial research

~ This session will be continued on Friday morning 10:30-12:00 ~

11.00 – 11.30  Short break

Thursday 1 December 2016

Morning Session 2 (For STAR PLUS candidates)
extra limited seats available upon request

NWO STAR Projects 2015-2019; PhD students present
Location: OJ2 building, room 02-W-06 (12 people max)
Chair: Frank Bruggeman

11.30 – 11.45  Maurice Steenhuis  Screening for inhibitors of Autotransporter trafficking
11.45 – 12.00  Coco van Boxtel  Tolerance, the road to drug resistance
12.00 – 12.15  Sandra Ortega Ugalde  Endo- and exogenous redox-partners supporting the catalytic activity of Mycobacterium tuberculosis Cytochrome P450 enzymes
12.15 – 12.30  Maarten Bebelman  Live imaging of exosomal chemokine receptor release

12.30 – 13.30  Lunch and network session (general hallway)
Thursday 1 December 2016

NWO STAR PhD topic 1
Location: O12 auditorium
Chair: Maurice Steenhuis

13.30 – 14.15 Tanneke den Blaauwen (SILS) Nonconventional approaches to inhibit peptidoglycan crosslinking
14.15 – 14.45 Joen Luirink Antimicrobials directed against cell division and virulence
14.45 – 15.00 Short break

Thursday 1 December 2016

NWO STAR PhD topic 2
Location: O12 auditorium
Chair: Coco van Boxtel

15.00 – 15.45 Arjan de Visser (WUR) Exploring the evolvability of an antibiotic resistance enzyme
15.45 – 16.15 Frank Bruggeman Bet hedging and tolerance
16.15 – 16.30 Short break

Thursday 1 December 2016

NWO STAR PhD topic 3
Location: O12 auditorium
Chair: Sandra Ortega Ugalde

16.30 – 17.15 Wilbert Bitter Finding new drugs that are active against Mycobacterium tuberculosis
17.15 – 17.45 Nico Vermeulen Inter-individual differences in drug metabolism and safety
17.45 – 18.30 Discussion during pizza dinner

Thursday 1 December 2016

Brain hurricane
Location: O12 auditorium
Chair: Hans Westerhoff

18.30 – 19.15 Hans Westerhoff Network strategies against resistance
19.15 – 21.00 All participants 3 Discussion topics, selected from suggestions from STAR PLUS candidates

Drug resistance: the problem and its solutions;
Pitches proposing approaches to resistance, including pitches by MSc and PhD students.
Antimicrobial Course, Day 2

Friday 2 December 2016

Morning Session 1

NWO STAR PhD topic 4

Location: O/2 Auditorium

Chair: Maarten Bebelman

9.00 – 9.45  Chris de Graaf  Phosphodiesterase Inhibitors for Neglected Parasitic Diseases
9.45 – 10.15 Martine Smit  Viral hijacking of chemokine receptor function

10.15 – 10.30 Short break

Morning Session 2

Friday 2 December 2016

Introduction to Antimicrobial research and resistance, part 2: Tools and issues

~ Continuation from Thursday morning Session 1 ~

Location: O/2 Auditorium

Chair: Ellen Langemeijer

10.30 – 11.30 Benno ter Kuile (SILS)  1. Antimicrobials and food safety
11:30 – 12:00 Marjon de Vos (WUR)  2. Molecular mechanisms for acquisition of antibiotic resistance
12:00 – 12.30 Anton Feenstra  The effect of ecological interactions on antibiotic resistance

12:30 – 13.30 Lunch

Friday 2 December 2016

Afternoon Session (For STAR PLUS candidates)

Project enhancement STAR PLUS candidates

Location: O/2 (diverse rooms)

Chair: -

13.30 – 15.30 Break-out sessions rotations of 15 min each: candidate pitches project idea with experts / AIMMS PIs in 4 meeting rooms, and discusses methodology, challenges, pitfalls, etc.

Detailed Schedule needed:

Room 1 (02-W-04)  Marjon de Vos (WUR) - Hans Westerhoff
Room 2 (02-W-06)  Benno ter Kuile (SILS) – Anton Feenstra
Room 3 (03-W-04)  Dirk Bald - Chris de Graaf
Room 4 (03-W-06)  Frank Bruggeman - Edith Houben

15.30 – 17.00 Wrap-up session for STAR PLUS candidates with drinks

Organizers:

Ellen Langemeijer (AIMMS: e.v.langemeijer@vu.nl)
Hans Westerhoff (AIMMS-SILS-MCISB)

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