Concepts of Cardiac Development
Planning of the course

Lausanne November 26th - 27th, 2015

Professor Dr. Antoon FM Moorman
Department of Anatomy Embryology & Physiology
Academic Medical Centre, University of Amsterdam
a.f.moorman@amc.uva.nl

Lectures:
Lectures will be given Thursday and Friday morning from 9:00 – 12:30h by Dr Moorman. PDF’s of the slides are available for the participants as well as “General Literature” to introduce the topic.

Workshop 1:
The workshop on Thursday afternoon (14:30-17:30h) will start by a lecture on cardiac sequential segmental analysis by Dr Moorman. This analysis is an introduction to the clinical diagnosis of cardiac congenital malformations. Dr Nicole Sekarski, head of pediatric cardiology at the CHUV, will show clinical examples and the students have to apply the principles of the cardiac sequential segmental analysis to diagnose the malformations. Expected time: 2-3 hours, depending on the interaction.

Workshop 2:
In the second workshop on Friday afternoon (14:30-17:30h) four groups of 3 students will each prepare a presentation of exactly 20 minutes followed by 10 minute discussion. The presentations should include discussion of a prime paper of the topic (see below for topics and papers) and provide suggestions for further research; when a group presents the other groups have to ask critical questions (similar to defending a project proposal in front of your peers and PIs). The workshop will be followed by a networking aperitif.
(Nearly) all materials listed below can be found in the UNIL e-learning System “Moodle”. To have access, do the following:
- go to "https://moodle2.unil.ch"
- log in with your institutional/university address
- click on "Faculté de Biologie et de Médecine" > "Ecole doctorale / doctoral school" > "Life Science"
- the papers are stored under " Concepts of Cardiac Development

Please make use of the “self-enrollment” method. There is no special access code needed.
In case of problems please contact the CVM-PhD program coordinator: Ulrike.toepel@unil.ch.

GENERAL LITERATURE (TO PREPARE FOR MORNING TALKS AND WORKSHOP 1)

1. PDF’s of the lectures
3. AFM Moorman in: Gray’s Anatomy; Development of the thorax, 40th/41th ed, chapter 59

LITERATURE FOR WORKSHOP 2

TOPIC 2A. HOW DOES THE HEART GROW?

TOPIC 2B. WHY IS, DURING DEVELOPMENT OF THE HEART, SINUSOIDAL ACTIVITY ALWAYS AT THE INTAKE OF THE HEART?

**TOPIC 2C. HOW DO TRANSCRIPTIONAL REPRESSORS PERMIT DEVELOPMENT OF THE CARDIAC CONDUCTION SYSTEM?**

12. PEMH Habets et al., (2002) Cooperative action of Tbx2 and Nkx2.5 inhibits ANF expression in the atrioventricular canal: implications for cardiac chamber formation


**TOPIC 2D. HEARTS OF LOWER VERTEBRATES HAVE NO CONDUCTION SYSTEM OR ATRIOVENTRICULAR FIBROUS INSULATION, YET DISPLAY AN ECG AS SEEN IN MAMMALS AND BIRDS; HOW IS THIS ACHIEVED?**
