

2016-2017



# Premed at UCU

Information is aimed at first  
year students

# Topics

- Premedical Science Fellow/ Tutors
- Pre-med program
- Make use of the possibility to look beyond biology and biomedical courses
- Medical (Research) Masters Programs in the Netherlands (in Dutch)
- Requirements medicine abroad: mathematics, physics and chemistry are included

Extra (not shown during the presentation):

- Preparation for SUMMA/Website SUMMA
- Variant SUMMA tech

# Premedical Science Fellow

- Dr. Sanders  
UMC Utrecht  
Department of Medicine  
[c.sanders@umcutrecht.nl](mailto:c.sanders@umcutrecht.nl)
- Instructor *UCSCIMED21 Mechanisms of Diseases* and coordinating instructor *UCSCIMEDL2/MEDL3: Human Anatomy/Histology/Pathology labs*

# Premed related Science Tutors

- **Gerda van Rossum** *tutor/ biochemist/ instructor UCSCIBIO11, UCSCIBIOL2- Coordinator SCI 291 Laboratory course Newton Mm*
  - <http://intranet.ucu.uu.nl/index.php?page=gerda-van-rossum>
- **Patricia Post-Nievelstein** *head tutor/ tutor/ biologist/ instructor UCSCIBIO13 – Newton Kk*
  - <http://intranet.ucu.uu.nl/index.php?page=patricia-post>

# For PREMED CURRICULUM go to

- <http://students.uu.nl/en/university-college-utrecht/academics/study-programme/science/pre-med>
- Consists of courses in biology, chemistry and medical science
  - 3x level 1 SCI semester courses
  - 4 x level 2 SCI semester courses
  - 4 x level 3 SCI semester courses
  - Plus: science laboratory (winter summer term), mathematics (level 1), biostatistics (level 2), Science Research Thesis (level 3)

# Optimal Program 1

SCI requirement and Courses	Amount
General SCI Requirements (including Labs*, Math, Biostatistics and 15 EC Research project)	5
level 1 SCI courses (preferably in first year)	3
level 2 SCI courses	4
level 3 SCI courses	4
Total	16
Courses left $25^*$ (or 26 or 27) <sup>#</sup> -16 =	9 ( or <u>10</u> or 11)

\*labs are default ex-semester thus extra → 25  
# UCSCIRE32 can be scheduled in semester or partially (7.5) or completely ex-semester → 26-27

# Optimal Program-Room for Liberal Arts and Science Spirit

Courses	Amount
General UCU requirements UCACCACA11	1
Language and culture requirement	1 – 2
HUM and SSC requirement (can count towards minor)	2
Space left for electives max	4-5 (or <u>6</u> * or 7) → *2 minors possible <i>For minors with specific methodology requirements 1 minor possible</i>
Extensive language track (3 courses)	3 (or 4 or 5) → 1 minor possible

# Optimal Program-room for Liberal Arts and Science Spirit

- Make use of the possibility to look beyond biology and biomedical courses
- Exchange Possible? → Yes



# Optimal Program-room for Liberal Arts and Science Spirit

- Exchange Possible → Yes
- Preferably semester spring 2018 (4<sup>th</sup> semester for most of you-Deadline application Mid Nov 2016)
- If fall 2018 (5<sup>th</sup> semester for most of you) -  
Deadline application Mid November 2016
  - Look for substitute on exchange for **UCSCIBIO33**  
*Advanced Physiology* and **UCSCIMED32** *Pharmacology*
  - However other pre med related courses that are not offered at UCU can be valuable as well
  - Part of the courses for e.g. minor also possible


# Semester abroad and lab course planning

- **Science Laboratory-** 3 modules (UCSCIxxxLx. scheduled in winter (2.5 EC) and summer term (5 EC). To be taken in two consecutive terms
- To be finished by the end of the second year
- Current first semester students that are planning to go on exchange in spring 2018 are advised to start coming January
  - **General registration deadline: Oct 28, 2016 NOON, via your tutor (Workspace code SCI 291 2016-2 W)**



# Recommendation

- Extracurricular activities related to Medicine/ Biomedical Research
- Extracurricular activities showing interest in humans in general

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- After completing the Pre-Med track at UCU, there are several medical master programs in the Netherlands to which you can apply. Make sure to check the websites for all requirements, deadlines and admission criteria. All medical masters programs in the Netherlands are taught in Dutch.

# medical master programs in the Netherlands

- Utrecht (research oriented MD/PhD)
  - SUMMA – Selective Utrecht Medical Master
  - Masters information evening on October 7
- Amsterdam
  - UvA: Zij-instroom Master Geneeskunde
  - Masters information day on November 14
  - VU: VUmc Zij-instroom Geneeskunde
  - Masters information evening December 1

# medical master programs in the Netherlands

## ■ Groningen

- Zij-instroom Geneeskunde
- Master information day November 18

## ■ Leiden

- Zij-instroom Geneeskunde
- Master information day November 6

## ■ Maastricht (Research oriented → MD/PhD)

- Arts-Klinisch Onderzoeker
- Masters information evening January 19

# Medicine abroad

- Requirements vary
- Start checking in an early stage
- Suggested website for more information
- <https://ucsamedco.wordpress.com/career/>
- Maintained by UCU Medco in collaboration with premed alumni

# Preparation for SUMMA-selection procedure

- <http://www.uu.nl/masters/selective-utrecht-medical-master-summa>



# Requirements SUMMA: Students need to speak/write Dutch

- Preparation at UCU
- UCHUMDUT01-UCHUMDUT11-UCHUMDUT21
  - NT 2 exam (requirement)-you have to subscribe yourself via [www.ib-groep.nl/](http://www.ib-groep.nl/) or
  - Dutch certificate as a Foreign Language, "Profile Academic Language Proficiency (PAT) or Language Proficiency Higher Education" (PTHO)
- Some extra practice advised
  - *suggestion see* → <http://cpioweb.science.uu.nl/cpio/modules/>

# Requirements SUMMA:

- Bachelor's degree with **at least 90 EC biomedical subjects** at university undergraduate level
- The following subjects have to be covered in sufficient quantity and depth (“Box A”)
  - Molecular and cellular processes (DNA / RNA / protein synthesis and gene regulation) (BIO11, BIO21, BIO31/32/34, BIOL2/3)
  - Metabolism and biochemistry of carbohydrates, proteins and fats (CHE11, CHE23, CHE32, CHEL5)
  - General physiological principles and Physiology of the heart, lungs, kidneys (BIO13, BIO23, MED21, BIO33)

# Requirements:

- Students who wish to follow SUMMA must possess a Bachelor's degree with at least 90 EC biomedical subjects at university undergraduate level
- And at least two subjects from box B, C and / or D are addressed adequately (The subjects from box C and D will count for up to 20 EC of the total score of 90 EC biomedical topics requested).

# Box B

- Histology and morphology of tissues (MEDL2)
- Anatomy and Embryology (MEDL3, BIO34)
- Pharmacology (MED32, BIOL4)
- Immunology and infection (MED31)
- Hormonal control (BIO13, BIO23)

## Box C (MAT11)

- Calculus
- Linear algebra

## Box D (PHY12, PHY21)

- Biomechanics
- Electricity, magnetism and optics
- Continuum Mechanics
- Fluid Mechanics
- Mass Transport

# SUMMA tech UCU preparation

- At least 70 EC credits of the listed biomedical subjects plus:
- UCSCIMAT11 Introduction to calculus (3 weeks of linear algebra included)
- UCSCIPHY12 Classical physics (fall)
- UCSCIPHY21 Classical Electrodynamics (spring)