



Master of Advanced Studies in
Toxicology

September 2010 – June 2012

*The only part-time study in toxicology in Switzerland
Compatible with the needs of scientists already in employment*

Ecole de Pharmacie
EPGL
Genève – Lausanne



**UNIVERSITÉ
DE GENÈVE**



The Master of Advanced Studies in Toxicology provides a specific educational pathway recognized by national and international authorities as a postgraduate qualification in toxicology. It is designed to fulfil the needs of recently graduated students, those who are already in employment and potential employers in industry, academia and regulatory bodies.

The MAS originates from the situation described in the 2007 report of the Swiss Federal Council on independent toxicology research in Switzerland which recognized the increasing demand for qualified toxicologists. This educational need could up to now only be fulfilled by studying abroad because there has been no higher education curriculum at the pre- or postgraduate level in Switzerland in this field.

Based on the mandate given by the Swiss Confederation to the newly-established Swiss Centre for Applied Human Toxicology (SCAHT) to promote education and continued professional development in this important discipline, the curriculum has been developed by the School of Pharmaceutical Sciences, Faculty of Sciences, University of Geneva (Ecole de Pharmacie Genève-Lausanne). The Master is part of an educational platform of collaboration with the Universities of Lausanne, Zürich and Basel, the Swiss Society of Toxicology, the Swiss Register of Toxicologists, the Centre of Competence in Analytic Chemistry and Toxicology (CCCTA), the Centre Ecotox (eawag/EPFL), regulatory authorities and the pharmaceutical industry.

The course is designed to comply with the regulations and guidelines for continuing education in toxicology set by the Swiss Register of Toxicologists and EUROTOX. Successful completion of the course may be used towards fulfilment of the requirements for professional registration as a toxicologist (see www.swisstox.ch/eng/register/register_reglement_bylaws.php for details).

Target Audience

- Graduates employed in a toxicological field who wish to obtain a recognized academic qualification in toxicology. Those who have already received formal postgraduate training in toxicology may be eligible for recognition of equivalence for some courses.
- Graduate students wishing to embark on a career in toxicology and who have completed a master in medicine, veterinary medicine, pharmacy, biochemistry, chemistry, biology or a diploma judged as equivalent. Bachelors may be admitted under certain conditions (see admission criteria)



Objectives

- To acquire specific knowledge in toxicological sciences, in particular human toxicology, recognized by national and international authorities towards fulfilling the educational requirements of registration as a toxicologist
- To build on basic knowledge in toxicology acquired during pregraduate education
- To better understand the complexity of the different aspects of human toxicology

Programme Structure

- Complete course corresponding to ca. 18 week teaching over three semesters on a bloc schedule + e-learning and self-teaching (14 modules)
- Minimum of 80 % attendance by each student to each module
- Possibility to attend individual modules with free-student status if places are available
- Master thesis in academic or industrial environment corresponding to ca. 14 weeks (full time basis)

For details about the schedule see: www.unige.ch/formcont/toxico

Credits

MAS programme of 90 ECTS credits including 14 modules (60 ECTS credits) and a Master thesis (30 ECTS credits).

Teaching Methods

- A responsible person for each module and teaching by specialists in the various areas of toxicology
- Access to dedicated e-teaching tool throughout the course
- Teaching mostly in English (limited teaching in French)
- Possibility of accrediting prior postgraduate education on a case-by-case basis
- Each module accredited by an evaluation

Degree

Participants who successfully complete the programme (90 ECTS credits) will be awarded the Master of Advanced Studies in Toxicology (Maîtrise universitaire d'études avancées en Toxicologie).

P r o g r a m m e

The 14 modules and their responsible organizers

1 **Basic principles in toxicology (e-learning)**

Prof. Bernard ROSSIER, Department of Pharmacology and Toxicology, Faculty of Biology and Medicine, University of Lausanne

Dr Michelle ROSSIER, The Health Sciences eTraining Foundation, Centre des laboratoires, Epalinges

Prof. Jacques DIEZI, Department of Pharmacology and Toxicology, Faculty of Biology and Medicine, University of Lausanne

2 **Xenobiotic metabolism, toxicogenetics**

Prof. Jules DESMEULES, Department of Anesthesiology, Pharmacology and Intensive Care, Faculty of Medicine, School of Pharmaceutical Sciences, Faculty of Sciences, University of Geneva

Dr Chin EAP, Department of Psychiatry, Faculty of Biology and Medicine, University of Lausanne / School of Pharmaceutical Sciences, Faculty of Sciences, University of Geneva

3 **Organ toxicology and pathology**

Dr Florianne TSCHUDI-MONNET, Department of Physiology, Faculty of Biology and Medicine, University of Lausanne

4 **Animal experimentation**

Dr Florianne TSCHUDI-MONNET, Department of Physiology, Faculty of Biology and Medicine, University of Lausanne

5 **Alternative methods to animal experimentation**

Prof. Luc STOPPINI, Haute école du paysage, d'ingénierie et d'architecture Geneva (Hepia), University of Applied Sciences Western Switzerland

Dr Florianne TSCHUDI-MONNET, Department of Physiology, Faculty of Biology and Medicine, University of Lausanne

6 **Mutagenesis, carcinogenesis, teratogenesis**

Prof. Muriel CUENDET, School of Pharmaceutical Sciences, Faculty of Sciences, University of Geneva

7 **Molecular endocrinology**

Dr Michel ROSSIER, Departments of Internal Medicine, and of Genetic and Laboratory Medicine, Faculty of Medicine, University of Geneva

8 **Clinical toxicology, immunotoxicology**

Prof. Denis HOCHSTRASSER, Department of Genetic and Laboratory Medicine, Faculty of Medicine, School of Pharmaceutical Sciences, Faculty of Sciences, University of Geneva

9 **Food and industrial toxicology, epidemiology**

Dr David VERNEZ, Institute for Work and Health, Faculty of Biology and Medicine, University of Lausanne

Dr Patrick EDDER, Service de la consommation et des affaires vétérinaires (SCAV), Etat de Genève

10 **Risk assessment and regulatory toxicology**

Dr Martin WILKS, Director, Swiss Centre for Applied Human Toxicology, SCAHT

11 **Ecotoxicology**

Dr Nathalie CHÈVRE, Institute of Land Use Policies and Human Environment, Faculty of Geosciences and Environment, University of Lausanne

Dr Sophie CAMPICHE, Centre Ecotox, eawag/EPFL

12 **Toxicological analysis**

Prof. Jean-Luc VEUTHEY, School of Pharmaceutical Sciences, Faculty of Sciences, University of Geneva

13 **Forensic toxicology**

Dr Christian STAUB, Toxicology Unit, University Center of Legal Medicine, Lausanne-Geneva

14 **Biostatistics**

Dr Serge RUDAZ, School of Pharmaceutical Sciences, Faculty of Sciences, University of Geneva

Dr Marianne GEX-FABRY, Departement of Psychiatry, Faculty of Medicine, University of Geneva

MAS Programme Management

The programme is run by the School of Pharmaceutical Sciences, Faculty of Sciences, University of Geneva, University of Lausanne

Director

Prof. Jules **DESMEULES**, Department of Anesthesiology, Pharmacology and Intensive Care, Faculty of Medicine / School of Pharmaceutical Sciences, Faculty of Sciences, University of Geneva

Coordinator

Prof. Eric **DOELKER**, School of Pharmaceutical Sciences, Faculty of Sciences, University of Geneva

Board of Directors

- Prof. Jules **DESMEULES**, President of the Board, Faculty of Medicine, Faculty of Sciences, University of Geneva
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- Prof. Jean-Luc **VEUTHEY**, School of Pharmaceutical Sciences, Faculty of Sciences, University of Geneva
- Dr Martin **WILKS**, Director, Swiss Centre for Applied Human Toxicology, SCAHT

Scientific Committee

- Prof. Jacques **DIEZI**, Department of Pharmacology and Toxicology, University of Lausanne
- Prof. Eric **DOELKER**, School of Pharmaceutical Sciences, University of Geneva
- Dr Hugo **KUPFERSCHMIDT**, Director, Swiss Toxicological Information Centre, Zürich
- Prof. Alex **ODERMATT**, Institute of Molecular and System Toxicology, University of Basel
- Dr Serge **RUDAZ**, School of Pharmaceutical Sciences, University of Geneva
- Dr Thomas **SINGER**, Global Head, Non-Clinical Safety, F. Hoffmann-La Roche, Basel

General Information

Admission Criteria

- Master in Medicine, Veterinary Medicine, Pharmacy, Biochemistry, Chemistry, Biology or equivalent, or
- Bachelor in Medicine, Veterinary Medicine, Pharmacy, Biochemistry, Chemistry, Biology or equivalent + at least 3 years of professional experience in a field related to toxicology
- Letter of application including motivation to take the course
- Strong command of both written and spoken English

The number of participants is limited to 25 per two-year cycle

Application and deadline

To apply please send photocopies of relevant university degrees, a curriculum vitae and a letter of motivation till **June 30, 2010**, to:

Prof. Eric DOELKER

Section des sciences pharmaceutiques

Université de Genève – 1211 Genève 4

mas-toxicology@unige.ch

For individual modules, please apply at least one month prior to the beginning of the concerned module

Scholarship

A limited number of scholarships may be available for recently graduated applicants who are currently not in employment.

Tuition Fee

- CHF 12,000.- including the practical Animal Experimentation module
- Special fee for individual modules (i.e. for person who do not follow the MAS cursus)

Course Location

Courses are held in both Geneva and Lausanne

For more details see: www.unige.ch/formcont/toxico

Contact

Secretariat

Section des sciences pharmaceutiques – EPGL

Tél. +41 (0)22 379 60 49 – Fax +41 (0)22 379 68 08

mas-toxicology@unige.ch

www.unige.ch/formcont/toxico

www.scaht.org

Partnership

Swiss Centre for Applied Human Toxicology, SCAHT

Universities of Lausanne, Zürich and Basel

Centre of Competence in Analytic Chemistry and Toxicology, CCCTA

Swiss Society of Toxicology

Swiss Register of Toxicologists

Centre Ecotox, eawag/EPFL



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REGISTRATION FORM to be returned before June 30, 2010 to:

Prof. Eric DOELKER
Section des sciences pharmaceutiques
Université de Genève – 1211 Genève 4
Fax: +41 (0)22 379 68 08 - mas-toxicology@unige.ch

Please complete in block capitals and tick the relevant boxes

Ms/Mrs Mr Last Name First Name.....
Date of birth (day/month/year) Nationality.....

BUSINESS CONTACT DETAILS

Company/Institution
Address
Post code/Town/Country
Telephone Fax.....
E-mail

PERSONAL CONTACT DETAILS

Address
Post code/Town/Country
Telephone Fax.....
E-mail

MAILING ADDRESS
(tick one box only)

Personal Business

Have you enrolled previously in a Swiss higher education institution? Yes No

Swiss enrolment number (SIUS)

If you are not able to provide your enrolment number, please give the name of the last higher education institution you attended in Switzerland. This will enable us to retrieve your enrolment number

HIGHEST LEVEL OF QUALIFICATION OBTAINED

- Federal Certificate of Competence (CFC)
- Vocational school-leaving certificate
- General school-leaving certificate / Baccalaureate (secondary)
- Bachelor/Master from University of Applied Sciences / University of Teacher Education
- Bachelor/Master/Doctorate from University or Federal Institute of Technology
- Other

TITLE OF QUALIFICATION (highest obtained):

HOW DID YOU FIND OUT ABOUT THIS COURSE? (tick all that apply)

- Personal recommendation
- My company
- Education/careers adviser
- Newspaper advertisement => if yes, state which
- University of Geneva brochure / prospectus / poster / continuing education course catalogue
- University of Geneva continuing education website www.unige.ch/formcont
- Another website => if yes, state which:
- Direct enquiry to the University of Geneva
- E-mail advertising the course
- At a trade fair or show (e.g. Salon RH, Salon de l'Etudiant) => if yes, state which
- Other:

Please turn over: signature required on reverse ./.

OTHER EXPERIENCE OF CONTINUING EDUCATION OVER THE LAST TWO YEARS

(Please include all types of education and training, including seminars, symposia, conferences, debates, etc.)

No other experience of continuing education

Number of courses of one day or less (<8 hours)

Number of courses of more than one day (> 8 hours)

Number of award-bearing courses (Certificate/Diploma/Master of Advanced Studies, etc.):

EMPLOYMENT

Are you currently in employment?

Yes, full-time

Yes, part-time => Percentage worked

No => because you are

Seeking employment

On training leave

Retired

Other, please specify

Note: If you are not currently in employment, please complete the section below based on the last position in which you were employed:

Business

Role (job title)

Level

Self-employed

Senior manager

Middle manager

Employee

Sector

Self-employed business

NGO

Public administration or similar

European organisation

Association

International organisation

Private company

Size of company

Fewer than 10 employees

11 to 50 employees

51 to 100 employees

101 to 500 employees

501 to 1000 employees

over 1,000 employees

Comments

REGISTRATION

I would like to enrol on the

MAS in TOXICOLOGY

and agree to pay the sum of CHF 12,000.- on receipt of confirmation of my registration

I would like to attend the following module/s (i.e. for person who do not follow the complete MAS cursus):

Mod. 1

Mod. 2

Mod. 3

Mod. 4

Mod. 5

Mod. 6

Mod. 7

Mod. 8

Mod. 9

Mod. 10

Mod. 11

Mod. 12

Mod. 13

Mod. 14

Special fee for individual modules (i.e. for person who do not follow the complete MAS cursus). Participants enrolled on the MAS will be given priority if places are limited.

ADDITIONAL DOCUMENTATION REQUIRED

Please attach a CV, copies of your qualifications, a copy of your identity document and a covering letter.

CANCELLATION CONDITIONS

Any withdrawal before the start of the programme will incur an administration fee of CHF 400.00. Fees will be payable in full once the course has begun.

Date:.....Signature: