



2022 Annual Report

HSeT Foundation
Chemin des Boveresses 155
1066 Epalinges, Switzerland
<https://hset.org>

eTraining Programs of the International Association of Gerontology and Geriatrics (IAGG)

In July 2021, IAGG decided to go online with HSeT to develop an online program aimed at training the future leaders in Gerontology and Geriatrics

- The first session on healthy aging took place on December 11, 2021 and was followed in 2022 by 11 monthly sessions of 3 hours with presentations of experts, case studies and discussions. The training program was followed by ~ 100 participants.
- During the sessions the following topics related to Science of Muscle Ageing, Physical Frailty, Dementia and Cognitive Impairment, Falls and fracture, Geriatric Pharmacotherapy, Gerontechnology, Life course vaccination and Advance Care Planning were covered.
- Decision has been made by AAG World to support in addition to ASIO training (Asia and Oceania), AFMEE (training for Africa, Middle East and Europe) and LATAM for Latin America.
- 3 EACCME (European Accreditation Council for Continuing Medical Education) accreditation per one 3h-session (valid in Europe, Canada, USA) have been granted after validation of the quality evaluation.
- Discussion have been initiated with the Centre for Continuing and Distance Education of the University of Geneva to develop a certified "Executive short course" including 60 hours of training corresponding to 2 ECTS credits.



eTraining Programs of the International Association of Gerontology and Geriatrics (IAGG)

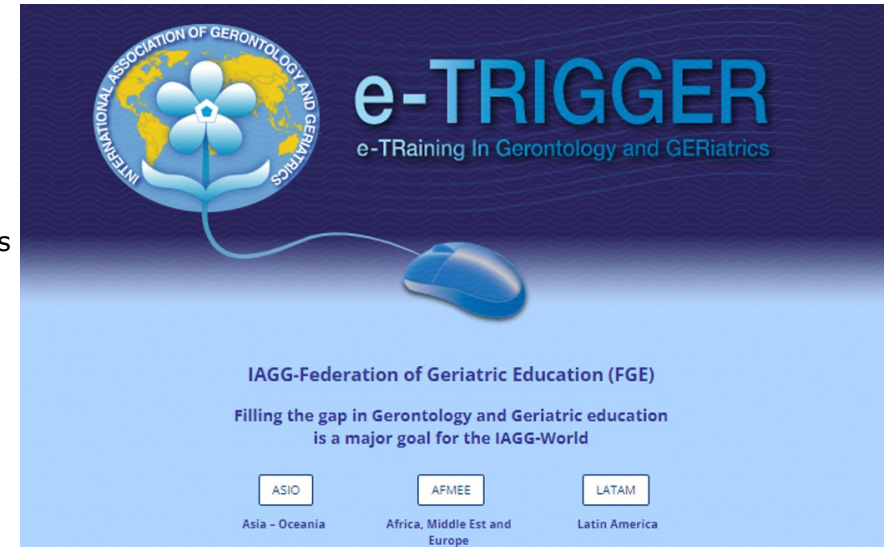
Description of the project. In July 2021, IAGG decided to go online with HSeT to develop an online program aimed at training the future leaders in Gerontology and Geriatrics. The IAGG-FGE was created by the IAGG-World President, Prof John Rowe in 2017 at the San Francisco IAGG world congress, to expand the training mission of the Association. Prof. Jean-Pierre Michel, a pioneer in this domain after the set up and implementation of presence-based "Train the Trainers" sessions in Europe (EAMA), Latin America (ALMA), Middle East (MEAMA) and Asia (AAMA), was nominated as the first IAGG-FGE director. Unfortunately, due to the COVID pandemic, all these teaching activities were brought to an abrupt halt. They have now resumed in an online format, called the IAGG e-TRIGGER programme, and are open to all healthcare professionals caring for or working with older adults.

In 2022, the first IAGG e-TRIGGER programme was implemented, destined for Asian healthcare professionals. The first session on healthy aging took place on December 11, 2021 and was followed in 2022 by 11 monthly sessions of 3 hours with presentations of experts, case studies and discussions. During the sessions the following topics related to Science of Muscle Ageing, Physical Frailty, Dementia and Cognitive Impairment, Falls and fracture, Geriatric Pharmacotherapy, Gerontechnology, Life course vaccination and Advance Care Planning were covered.

The success of the course has prompted the extension of the program to two other time zones, namely:

- Africa, Middle East and Europe (AFMEE), starting in May 2023.
- Latin America (LATAM), anticipated start date in the fall of 2023.

Number of participants and their origin. The training program was followed by ~100 participants, from Taiwan, China, Japan, Thailand,



Project partners. IAGG-federation of Geriatric Education , IAGG-regional Academies in Geriatrics and HSeT.

Credit earned. 3 EACCME (European Accreditation Council for Continuing Medical Education) accreditation per one 3h-session (valid in Europe, Canada, USA) have been granted after validation of the quality evaluation. Discussion have been initiated with the Centre for Continuing and Distance Education of the University of Geneva to develop a certified "Executive short course" including 60 hours of training corresponding to 2 ECTS credits.

Volunteer Hours Deployed. The 9 teachers and the 14 tutors have spent 36 hrs/year and 3hrs/year respectively pro bono for the program

Project costs and revenues. The project costs included the construction of the Moodle platform (2'500), tutorship and teaching (46'000 CHF). Revenues: 70'000 USD from IAGG world.

International Master of Vaccinology

- **IMVACC**, a Master of Advanced Studies of vaccinology (<https://imvacc.org>), is proposed by the University of Lausanne, Switzerland, offers 60 ECTS credits and a diploma. IMVACC is an initiative of the Swiss Vaccine Research Institute (SVRI) and HSeT. It consists of four web-based modules with tutoring during the first year and a master thesis during the second year which can be carried out in an academic or an industrial organization as shown in the figure 1.
- **Customized OnLine Training (COLT)** is the main educational approach of IMVACC. It offers flexibility, accommodates the time constraints of the trainees, and saves long-distance travel and housing expenses. It focuses on case studies and problem-solving exercises. It is moderated by tutors who are in biweekly contact with the students to guide them, to answer questions, and to maintain momentum. All the students from class that have not defended their master thesis are currently actively working on their master thesis projects under the supervision of a local thesis director.
- **Assessment fits a formative paradigm** designed to assess learning and acquisition of skills. Each module finishes with an Online exam and at the end of the first year the students undergo the final exam in the form of the design of a novel vaccine. The self assessment link to all the learning activities provide an opportunity i/ to make up for gaps in knowledge by offering links to relevant teaching material, and ii/ to acquire skills and competence to solve problems related to the design vaccines.
- Since the starting date in 2016, a total of **39 students** have been enrolled in the Master program. Most of the students come from low and middle income countries (see figure 2) and 27 have completed and successfully defended their master thesis. They received the UNIL diploma. Three students have published their Master thesis work in peer reviewed journals.
- The high tuition fees (20'000 Swiss francs) are not compatible with the financial resources of students from low and medium income countries. Fellowships were therefore requested and obtained for some students .
 - ◊ Seventeen South African students received a fellowship from the South African Medical research Council (MRC).
 - ◊ Seven students from Kenya, Uganda and Tanzania were supported by the East African Consortium for Clinical Research (EACCR).
 - ◊ One student from Cameroon received a fellowship from the Fondation Biochimie in Lausanne, Switzerland and a South African student from a Geneva Foundation.

Unfortunately, due to financial constraints the South African MRC fellowship program was discontinued in 2020, and the EACCR funding ended in 2021 .
- **The students' experience** with the IMVACC program is summarized in the [IMVACC web-site](#). Some students have been promoted to responsibility positions.

First year		
Modules	ECTS	Study hours
1. Vaccines & vaccine sciences	15	450
2. Vaccine development	15	450
3. Vaccines & public health	7	210
4. Project & time management	2	90
Total	40	1200

Second year		
Master thesis	20	600
Total	60	1800

Figure 1. IMVACC consists of 2 parts, a **theoretical part** during the first year with 4 modules and a **practical part** in the form of a master thesis project under the supervision of a local thesis director.

Austria	1		Morocco	1	
Cameroon	1		Mexico	1	
Germany	1		South Africa	18	
India	2		Switzerland	4	
Kenya	2		Tanzania	2	
RDC	1		Uganda	4	
Czechia	1		Total	39	13

Figure 2. Geographic distribution of the IMVACC students. The 39 students come from 39 students from all over the world

International Master of Vaccinology

Description of the project. The International Master of Vaccinology is a Master of Advanced Studies of vaccinology (<https://imvacc.org>) proposed by the University of Lausanne, Switzerland. It consists of four web-based modules with tutoring during the first year and a master thesis during the second year which can be carried out in an academic or an industrial organization as shown in the figure 1. IMVACC is a student-centered blended learning approach whereby the learner interacts with other students and with the tutors through balanced integration of the online & face-to-face environments. Students work individually and then share experience with each other through dedicated online fora, chat tool, and virtual conferences. The 4 modules are covering all aspects of vaccinology including: i/ vaccines and vaccine related sciences; ii/ Vaccine development and clinical trials; iii/ Vaccines & public health (pharmacovigilance & pharmaco-economics); iv/ Project and time management which are intended to help the students to master vaccine development activities which are complex and multidisciplinary. They are best managed as projects using a methodology that was defined to maximize the chances of meeting the goal of the project within time and budget while minimizing the risk of failure.

First year		
Modules	ECTS	Study hours
1. Vaccines & vaccine sciences	15	450
2. Vaccine development	15	450
3. Vaccines & public health	7	210
4. Project & time management	2	90
Total	40	1200
Second year		
Master thesis	20	600
Total	60	1800

Number of participants and their origin

Austria	1		Morocco	1	
Cameroon	1		Mexico	1	
Germany	1		South Africa	18	
India	2		Switzerland	4	
Kenya	2		Tanzania	2	
RDC	1		Uganda	4	
Czechia	1		Total	39	13

The first IMVACC class was enrolled in 2016 with 4 students and over the 7 years, 32 students registered within 5 classes. By the end of 2022, 27 trainees have obtained a diploma from the University of Lausanne with 60 ECTS credits. Twelve trainees received a fellowship from the South African Medical Research Council, 7 trainees were supported by the Eastern Africa Consortium for Clinical Research, and 2 trainees received a fellowship from two Swiss philanthropic foundations.

Project partners. IMVACC is an initiative of the Swiss Vaccine Research Institute (SVRI) and HSeT. The governance of the IMVACC MAS is constituted of a steering committee, a scientific committee and a scientific advisory board, which members from the Lausanne University Hospital (CHUV), the Lausanne University, the World Health Organization and the Institut Pasteur, Paris.

Credit earned. IMVACC offers 60 ECTS credits and a diploma for the students that have completed the Master with the Master thesis. A certificate with 40 credits is delivered for the students that have passed the exam of each module and the final exam.

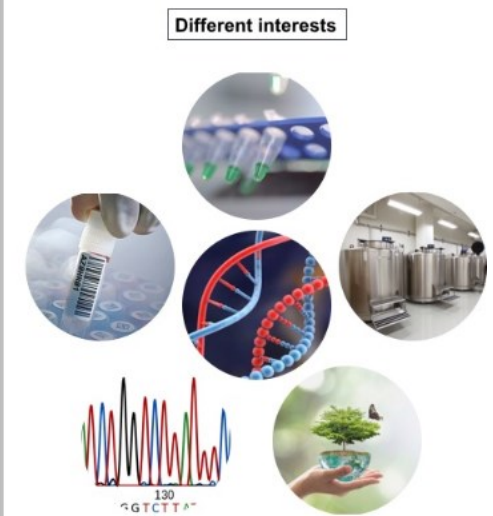
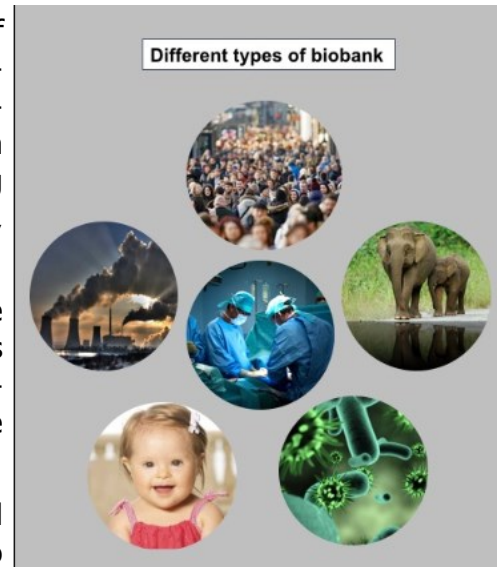
Volunteer Hours Deployed. Two phases were required to create and run the master. From 2013 to 2016, Jean-Pierre Kraehenbuhl worked pro bono and spend on average 500 hrs/ year for the creation and from 2017 to 2022, 350 hrs for running the program.

Project costs and revenues. The costs for the creation of the program consisted of a FTE salary of 220'000 CHF/year) as well as 3 yrs or the running of the program paid by the Swiss Vaccine Research Institute (2.2 million). The income of 720'000 was from the tuition of the trainees (36 students at 20'000 CHF)

Other training activities

Course in Biobanking. The Institut Pasteur Paris, the Network of Biological Resources of the Institut Pasteur (BIPnet), the European Virus Archive goes Global (EVAg), and the HSeT Foundation have developed an online training course, that is based on their experience in the surveillance of infectious diseases, and is adapted to the training and transfer of knowledge to students and staff of biobank structures, especially in developing countries.

- A first course was organized in 2021 which was entirely online due to the Covid-19 pandemic and followed by 16 participants from Africa, Asia, South America and Europe. The students received 5 ECTS from the University of Lausanne after passing the final exam.
- A second course took that place in the spring 2022 was blended with a three month on line training followed by a 4 day face to face practical session in Paris. 28 students participated in the course and 17 the practical session. The students that completed both activities and passed a final exam received a certificate with 5 ECTS credits from the University of Lausanne.



The Pasteur Institute has joined partners from the University of Geneva, the Swiss Biobanking Platform and the HSeT Foundation to create a Certificate of Advanced Studies (CAS) in Biobanking which will start in the fall of 2023 and eventually replace the Pasteur course.

Institut Pasteur Vaccinology course. Twenty participants from all over the world followed the 15th-vaccinology course of the Institut Pasteur. The course consisted of face-to-face lectures (at the Institut Pasteur), a workshop on Vaccine Design (blended, partly online and partly face to face) and online self-directed learning in the form of annotated articles and content. The access to the online aspects of the course was offered by HSeT via a Moodle platform acting as a Learning Management System) linked to the HSeT platform acting as Content Management System. A certificate from the Institut Pasteur was offered to the students that successfully passed the final exam.