

## **DIVISIONS C-F-H / C 1, F 2, F 3, H 2 / INTER-COMMISSION WG EDUCATION AND TRAINING IN ASTROBIOLOGY**

**CHAIR**

**Muriel Gargaud**

### **TRIENNIAL REPORT 2015-2018**

#### **1. Introduction**

This Inter-commission WG C1-F2-F3-H2 Education and Training in Astrobiology Working Group was created in October 2015 in order to coordinate training, education and outreach activities in astrobiology at the international level.

Five goals were identified:

1. To collect all lectures and conferences in astrobiology which have been recorded during the last 10 years (whatever the language is), to categorize them according to their field and the intended audience (from the general public to specialists in the field), and to make them available for free on a website so that people with few financial resources can access them remotely. The platform "Online courses in astrobiology" was launched in November 2017:

<http://astrobiovideo.com/en/>. So far 3 languages are available: French, English and Spanish.

2. To produce handbooks and Massive Open Online Courses (MOOCs) for university students, essentially pooling the individual national efforts that are already in progress over the world. Two MOOCs have been produced or are still in progress:

- Chris Impey: Astronomy: Exploring Time and Space (<https://www.mooc-list.com/course/astronomy-exploring-time-and-space-coursera>).
- Charley Linne Weaver : Are we alone? (in progress).

3. To develop outreach for the general public and high school teachers. One book has been recently published in French for the general public and will be translated soon in different languages: "La plus grande histoire jamais conte", Belin Publisher:

<https://www.belin-editeur.com/la-plus-grande-histoire-jamais-contee>

4. To create an annual international astrobiology Training School (TS) lasting one to two weeks, which will train the young generation in the basics of astrobiology. In 2016 the annual TS "Rencontres Exobio pour Doctorants/Astrobiology Introductory Course" received the recognition of IAU. The next TS will be organised in March 2018:

<http://www.exobiologie.fr/red/index.php/en/red16-astrobiology-course/>.

In addition to this annual TS, we have twice organized a 2-day TS before an international conference to let the local students (and also the conference PhD students) have a basic course in astrobiology: in Vietnam in 2016, just before the conference "Search for

life : from early Earth to exoplanets”

<http://rencontresduvietnam.org/conferences/2016/search-for-life/program/>

and in Chile in 2017, just before the C.F3 Astrobiology Conference:

<http://astrobiology2017.org/training-school/>.

Lectures of all these TSs are recorded and are available on the Online courses in astrobiology. The next 2 day-TS will be organised in Vienna on August 17-18, just before the IAU S345 symposium ”Origins: from the protosun to the first steps of life”. These lectures will also be recorded.

5. To organize a regular international workshop on education in astrobiology in order to discuss how to carry out multidisciplinary training in astrobiology, how to evaluate students, and above all to share all training materials that each country may have developed but kept in its national drawers. The first International Symposium on Education in Astronomy and Astrobiology (ISE2A) co-organised in Utrecht in July 2017 in collaboration with the C.C1: see <https://ise2a.uu.nl/>. It gathered 100 participants. The next one will be organised in Malaga in 2020.

## 2. Prospective for 2018-2021

For the period 2018-2020 we plan to continue with all these goals and in particular, we plan:

- Develop further the platform ”online courses in astrobiology”, to implement the display of MOOCs and to add lectures in languages other than English, French and Spanish.
- Organize, as often as possible, a 2-days astrobiology TS before each important international astrobiology conference, in addition to the ”Rencontres Exobio pour Doctorants/Astrobiology Introductory Course” which is organised in France in English every year
- Develop outreach for the general public and high school teachers
- Train the trainers, specifically in countries where astrobiology is not developed a lot.

Muriel Gargaud  
*chair of Working Group*