

WHATIF: PASSIONATELY CURIOUS

UAB
Universitat Autònoma de Barcelona

Roger Castells Graells
Tutor: Josep Allué Creus
Universitat Autònoma de Barcelona

INTRODUCTION

Nowadays scientific information is available everywhere. However, it can be difficult for students to find really useful sources.

Moreover, some institutions are concerned about how to promote the interest for science culture, because there is a lack of interest among students.

This project aims to bring science to the students. We want to improve communication and interaction among students, scientists, teachers and society within science.

What does passionately curious mean?

WhatIf believes that it is essential to have passion for doing and understanding science. The main goal is to stimulate curiosity and promote passion for science. WhatIf launched a platform where students can learn and find sources of information and inspiration. We believe that sharing and spreading knowledge are essential.

We want to broaden your mind! **Be WhatIf, be passionately curious!**

WhatIf Networking Sites: Connecting with students

Information about scholarships, science news, summer programs, useful tools and links, conferences, activities...

Facebook



1000+ likes (60+ international)
90+ posts (in Catalan, Spanish or English)

Twitter



Science classes for high schools students

- 6 classes for students from 2nd, 3rd and 4th of ESO.
- Topics: The universe, Maths in nature, Useful tools and links, Scientists, Evolution, Plants, Molecular Biology, Biotechnology, Student experiences
- Supplementary materials: Strawberry DNA extraction kits, physics experiment, fossils, a turtle, a carnivorous plant, science books.
- 121 students filled in a survey and a short quiz about the class.
 - o Quiz results: 78% correct answers
 - o Feedback: 98% students enjoyed and learned from the class



Left image: Explaining the DNA extraction method.
Right image: Asking for volunteers to extract the DNA from strawberries.



Interviews with scientists

What do the interviews want to show?

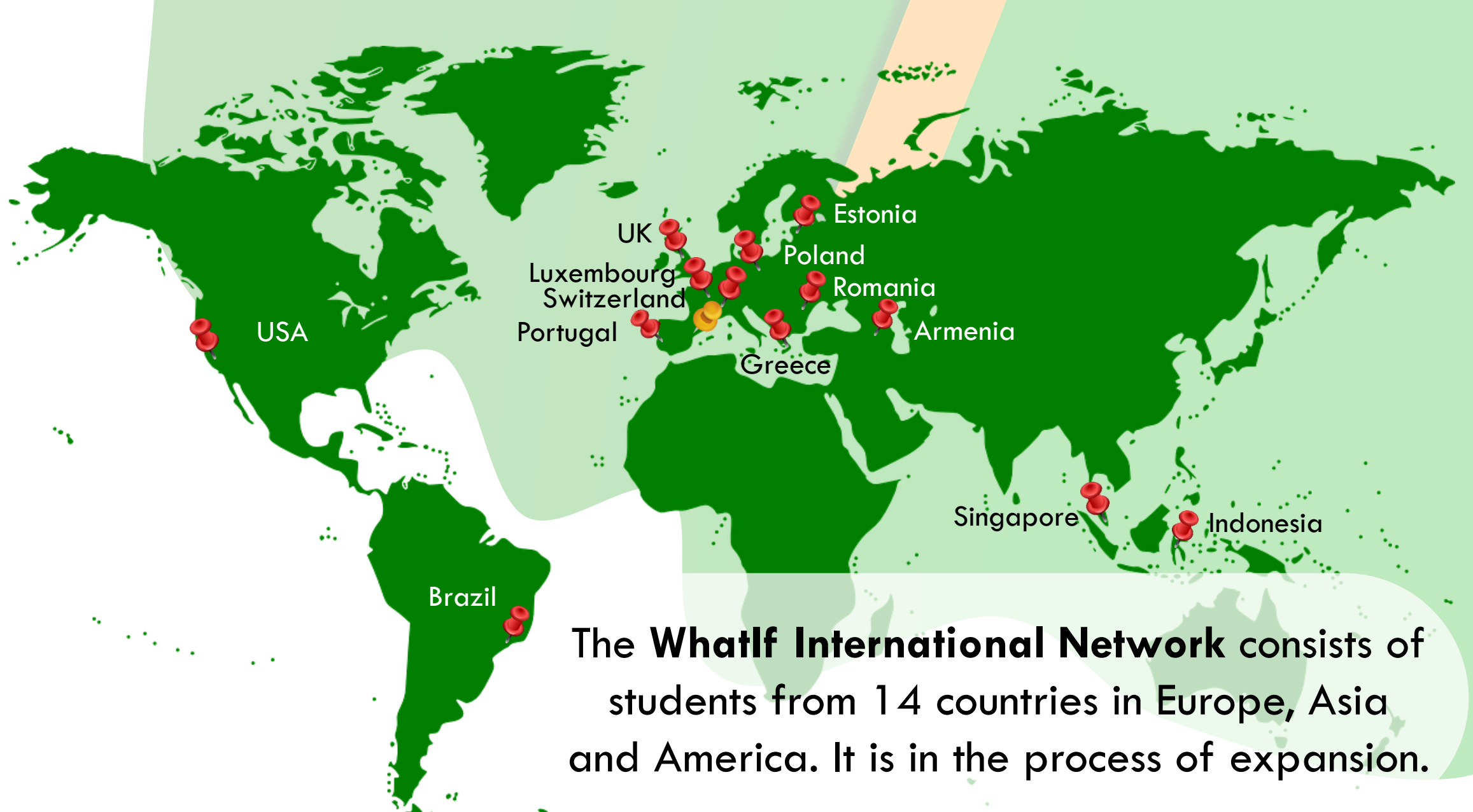
- Research projects
- Scientists' experience
- Sources of information
- Advice and Curiosities

Left image: Publication of the interview with David Jou, physics professor, at the UABtv.



WhatIf International Network (WIIN)

The WIIN aims to connect students around the world that are interested in science and that are willing to share their experiences. A profile of each member is displayed in the website.



The WhatIf International Network consists of students from 14 countries in Europe, Asia and America. It is in the process of expansion.

References:

- 1- Bölter B, Soll J, Hill K, Hemmler R, Wagner R (1999) A rectifying ATP-regulated solute channel in the chloroplastic outer envelope from pea. EMBO J., 18:5505-5516.
- 2- Casacuberta JM, Santiago N (2003) Plant LTR-retrotransposons and MITEs: control of transposition and impact on the evolution of plant genes and genomes. Gene, 311:1-11.
- 3- Laszlo, P (2006) Communicating science. Springer, Germany.
- 4- Lebrun, J.L (2010) When The Scientist Presents. World Scientific, Singapore.
- 5- Lisch D (2013) How important are transposons for plant evolution? Nat Rev Genet., 14(1):49-61.
- 6- Soll J, Schleiff E (2004) Protein import into chloroplasts. Nat. Rev. Mol. Cell Biol., 5:198-208

OBJECTIVES

- Awaken the interest for science.
- Share useful information and tools for students.
- Provide educational activities for high school and university students.
- Contribute to the communication of scientific knowledge.
- Create a network of students with passion for science.

What is WhatIf?

WhatIf is an innovative educational project that aims to bring science to students

How has WhatIf evolved?

Social networking sites & WhatIf website

- Connecting with the students and spreading useful information

Educational activities for students

- Students sharing knowledge and experiences

Science communication & WhatIf International Network (WIIN)

- Scientists and research project communication
- Connecting students all over the world

CONCLUSIONS

- WhatIf project successfully implemented
- Spread of the Passionately curious attitude
- 1000+ likes on social networking sites
- Great outcomes in:
 - Activities for students
 - Interviews with scientists (UABtv)
 - Science projects presentations
 - WhatIf International Network

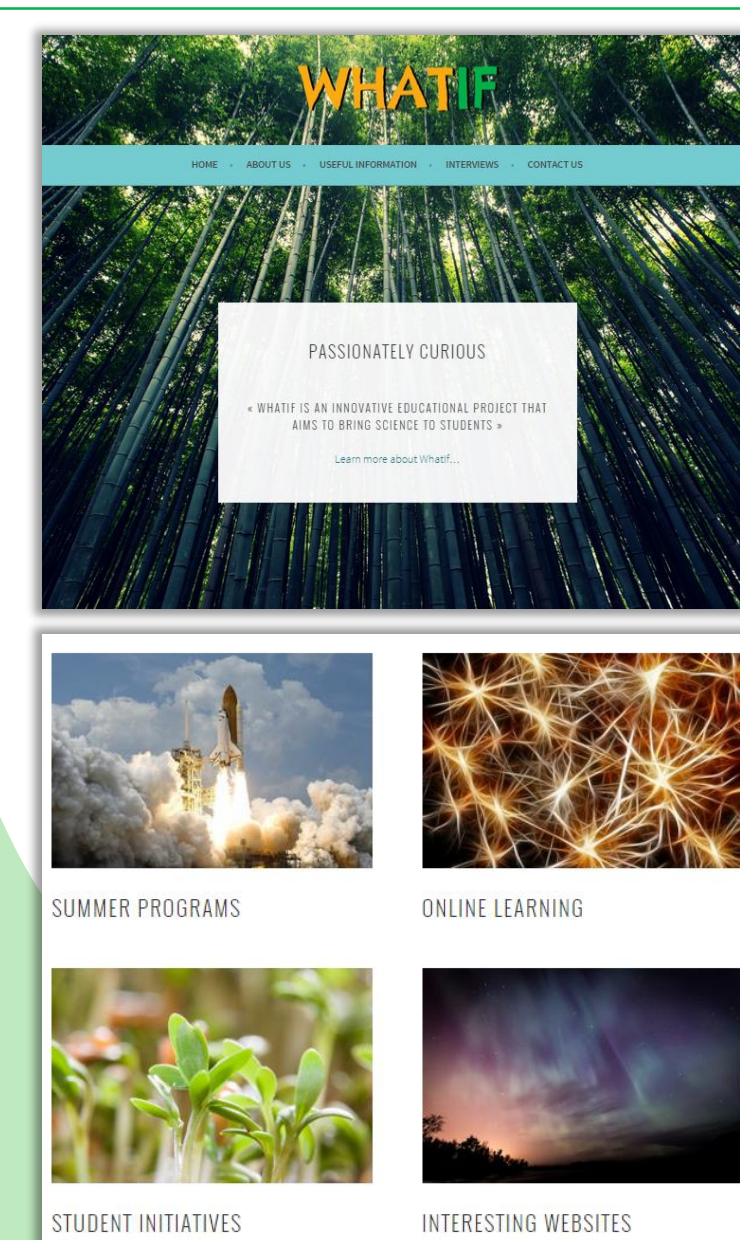
What are the values and philosophy of WhatIf?

Curiosity Interest Creativity Participation
Effort Passion Teamwork Study Perseverance

WhatIf Website www.whatifnet.science

- Useful information:
 - Summer Programs
 - Online Learning
 - Student Initiatives
 - Interesting Websites
- Interviews with scientists and students
- WhatIf International Network

WhatIf website link posted in the home page of the Faculty of Biosciences, UAB (www.uab.cat/biociencies)



Talks for university students

- 2 talks of one hour each.
- 130 students from different subjects attended the talks.
- Talks about scholarships, international programs, research centres, useful tools, resources and opportunities for students.
- Two students who have already finished their degree were invited to share their experience.

Xerrada Ciència i més! D'estudiants cap a estudiants. Parlarem de...

Pràctiques aquí i a l'estranger
Beques Oportunitats
Ciència
Eines i recursos útils

15 de desembre
a les 13:00h i a les 14:00h
Aula C1/009
Facultat de Ciències i Biociències

Exporecerca Jove

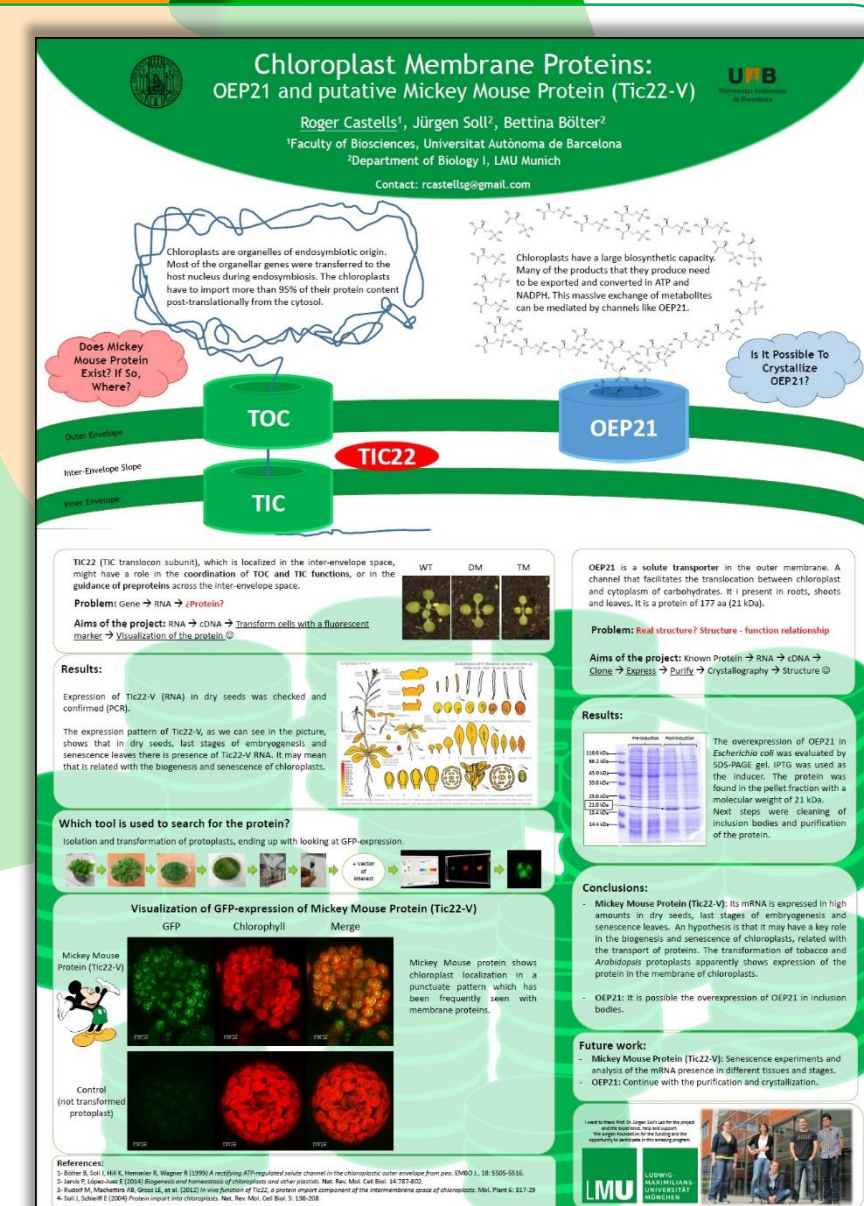
- For 3 days, presentation of the research: "Study of the impact of mobile elements in the genomes of melon and cucumber".
- Complementary educative materials like pictures, plants, DNA extraction kits and corncobs in order to make the explanation more friendly and easy to understand for students and general public.
- 100+ students of different ages participated in this expo.



The presentation got two awards during the expo. One of them is the participation in another expo in Turkey.

British Conference of Undergraduate Research

- Presentation of the research: "Chloroplast membrane proteins: OEP21 and putative Mickey Mouse Protein". The poster design reproduces the structure of chloroplasts and membrane proteins.
- Two 3D-models complemented the poster: protoplast generation and confocal microscopy.
- 300+ students from different countries participated in this conference.



Future enhancements

- New features and contents on the website
- Additional posts on Facebook and Twitter
- New educational activities for schools
- More interviews with scientists and students
- New collaborators and partnerships
- Contact universities and research centres
- Expansion of the WIIN
- Start WhatIf projects in other countries
- Promotion of science entrepreneurship



Contact:
rcastells@gmail.com

