



Uppsala students praised for creative design in SensUs 2020

2 september 2020



Uppsala University's student team UppSense won the second prize for their creative design in the biosensor competition SenseUs 2020.

In this year's digital version of the competition SensUs 2020, Uppsala University's student team UppSense won the second prize in the category "Creativity Award".

Due to the pandemic, the international competition was held online instead of at Eindhoven University of Technology in the Netherlands. Fifteen international student teams presented their innovative biosensor systems to detect Valproate, a biological drug used to treat epilepsy. The Uppsala students competed with a system where a kind of three-dimensional polymer, MIP, coated on gold nanoparticles made the drug traceable when combined with an optical technique called Surface Enhanced Raman Spectroscopy (SERS).

"SensUs brings the students from different disciplinary to learn from and complement each other to address short-coming in the growing area of biosensor for rapid diagnostics and treatment monitoring," says the coordinator Masood Kamali-Moghaddam.

"The students have worked hard, came up with ideas and discussed with experts in various fields at Uppsala University such as Jöns Hilborn and Jacinto Sá," says Gemma Mestres, coach for the student team. "And as every year we also had students from many different specializations which came in handy in the design of the biosensor."

Cross-faculty collaboration

The team UppSense consisted of thirteen students from both the Faculty of Science and Technology as well as Pharmacy and Medicine. Eleven countries were represented with students in both bachelor's and master's programs such as chemistry, bioinformatics, molecular medicine and medical research. When the university began teaching remotely in March, the team moved its meetings online. It was a tough time when only a few people at a time could meet and work in the labs, says Gemma Mestres, and it was hard to maintain the students' motivation who realized that they would not be able to travel to Eindhoven in August to attend the competition.

"That's why I'm glad that they continued the work after all and were able to present a really good biosensor idea."

One of the students was Cédric de Voghel, from the Master's Program in Applied Biotechnology. Although he was happy and proud of the award, the project itself had left an even bigger imprint.

"The whole journey was a valuable learning experience. There is no academic course in my experience that is able to teach me and put into practice the wide skillset used in this project."

Welcoming new student participants

Uppsala University has participated in the international student competition SensUs from the first edition, five years ago. Since then the project has been moved forward by two faculties, of Science and Technology with Gemma Mestres as the coach, and Medicine with Masood Kamali-Moghaddam as the coordinator.

"I do not see this happening otherwise, it allows us to compete at a higher level! The fact that Teknat and Medfarm are working together on this project is a great example of synergy between the faculties," says Gemma Mestres.

She and Masood Kamali-Moghaddam are grateful to EIT Health and all the master program directors and course leaders at Uppsala University who supported the SensUs project. The two will soon start recruiting Uppsala students for next year's team.

2020-09-05

Uppsala students praised for creative design in SensUs 2020 - Vetenskapsområdet för teknik och naturvetenskap - Uppsala univer...

“The theme of the 2021 project should be to detect viral respiratory diseases, specifically influenza in saliva. Really exciting!”

Anneli Björkman

[READ MORE:](#)

SensUs

Bachelor's or master's students at Uppsala University who want to participate in SensUs 2021 are welcome to contact Uppsala University SensUs Team