



Prague, 24 September 2013

The biggest science contest of this Autumn already has its winners!

The Academy of Sciences of the Czech Republic in close cooperation with the Ministry of Education, Youth and Sports hosted on September 20 – 24, 2013 a prestigious science contest for talented young students – European Union Contest for Young Scientists (EUCYS).

A prestigious projects show of young talented scientists which was held in Prague for the first time, has announced its winners. The exhibition took place at the Exhibition Grounds in Prague- Holešovice where 124 participants from 37 countries arrived and the European Schools. A total of 83 projects in nine award categories competed: biology, chemistry, computer science, engineering, environment, mathematics, medicine, physics, and humanities. The winners were honored at the awards ceremony at the premises of the Bethlehem Chapel.

The Academy of Sciences of the Czech Republic organized press conference on the occasion of awards ceremony of the 25th EUCYS which took place on Tuesday September 24, 2013 at the premises of the Bethlehem Chapel. The press conference was attended by the President of the Academy of Sciences - Prof. Jiri Drahos, chief manager of EUCYS 2013 - Dr. Katerina Sobotkova, Minister of Education, Youth and Sports - Prof. Dalibor Stys, member of the Cabinet of the European Commissioner for Research and Development - Patricia Reilly, President of the Contest Jury of EUCYS 2013 - Dr. Henrik Aronsson, representative of the European Commission - Karen Slavin and above all by the winners of the 25th EUCYS.

Winners of the 25th European Union Contest for Young Scientists by awards:

1st prize and Stockholm International Youth Science Seminar

Winner: Frederick Edward Turner

Country: United Kingdom

Project title: Genetics at home: Building a PCR machine and other equipment for setting up a home genetics lab

Scientific Field: Engineering

In this project the contestant designed and built a low cost PCR machine. This device is one of the cornerstones of molecular biology; it allows specific regions of DNA to be amplified facilitating analysis. In designing the biotechnology device the contestant solved several significant electrical and mechanical engineering problems. In particular he found an excellent solution to the problem of cycling the temperature of

the samples rapidly and accurately. The device costs a small fraction of the price of professional machine. He proved the efficacy of his process by testing his family members for the red hair gene.

1st prize and Stockholm International Youth Science Seminar

Winner: Perttu Aku Anttoni Pölönen

Country: Finland

Project title: Music A' Clock

Scientific Field: Social sciences

This brilliant project demonstrates a deep understanding of music theory, and manages to translate that into a sophisticated low-tech device for teaching music intuitively and allows students. The versatility of the tool that Perttu developed is impressive, allowing, as it does, use in musical pedagogy for several instruments -- with more to come. Beside the technical expertise, the jury was also impressed by Perttu's enthusiasm and engagement in developing the musical clock.

1st prize and London International Youth Science Forum

Winner: Ciara Elizabeth Judge, Emer Frances Hickey, Sophie Healy-Thow

Country: Ireland

Project title: A statistical investigation of the effects of diazotroph bacteria on plant germination

Scientific Field: Biology

Rhizobium bacteria establish natural symbiotic relations with legume plants, fixing nitrogen. In this project, three very young scientists provide solid scientific proof that the addition of *Rhizobium* bacteria to seeds of non-legume plants significantly accelerates the rate of germination hence potentially increasing yields of valuable crops. Most of the experiments were performed at home, and incubators, agitators and a transfer chamber were ingeniously designed by these enthusiastic girls.

International Cooperation Prize

Winner: Jessie MacAlpine

Country: Canada

Project title: Mustard Oil as an Apicomplexan-targeting Drug Therapy for Plasmodium falciparum

Scientific Field: Medicine

The International Cooperation Prize goes this year to Jessie MacAlpine. Jessie comes from Canada and she is trying to find a way how to cure malaria – disease killing millions of people every year. Jessie has found that mustard oil – widely used for cooking – inhibits the growth of the parasite called Plasmodium – the cause of malaria. It might be that in the near future the systematic work of Jessie on the inexpensive and widely accessible treatment will save lives and prevent suffering of millions.

A complete list of winners has been published on the website www.eucys2013.cz.

EUCYS 2013 welcomed in Prague the best talented scientists, winners of national contests who competed in several rounds. The Contest jury, consisting of eighteen scientific experts from across Europe, assessed student research projects during the exhibition across several rounds.

Thanks to the media campaign, “Věda jede!” which accompanied the contest, the general public became aware of the science show. From September 21 – 23, 2013 over 3.000 visitors visited the Exhibition Grounds in Holešovice. Many pupils, students and teachers, as well as many parents with their children enjoyed visiting stands of exhibitors of scientific and educational institutions from across the Czech Republic. Visitors were attracted by various scientific exhibits, experiments with liquid nitrogen, culinary experiences of molecular bar and many other curiosities. There was even the chance to meet the contestants.

The farewell party for young scientists will take place at the club SaSaZu where they will have the opportunity to enjoy impressive laser show. We believe that not only the winners but all the contestants, the Contest jury, the European Commission and visitors of the contest formed many lasting memories at the jubilee 25th EUCYS 2013 which was simply unforgettable.

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