

## **Students from Debrecen are participating biotechnology competition in the U.S.**

### **The iGEM 2010 Team Debrecen gives new prospects for the students from University of Debrecen in the field of molecular biology**

University of Debrecen is on the first time to compete in Hungary on the International Genetically Engineered Machine (iGEM) Biotechnology Competition. The competitor students have to engineer all the molecules (which is simply called the kit) to solve biological problems using tricky procedures. The first iGEM contest was organized in 2003, and now it has participating students pleading 180 universities from all over the world. Our group consists of general medicine, molecular biology, medical imaging diagnostic laboratory assistant students from Hungary, Israel and Taiwan, as well as students from the Budapest Alternative Secondary School of Economics joined the competition. Our work started in April 2010, now it is currently on the final stage, before the presentations will be held between 5th and 8th of November in Cambridge (MA, U.S.). Our team has decided to focus efforts on creating a nuclear hormone receptor kit (regulatory proteins which affect the cell function by linking directly to the genetical material), for use mainly on eukaryotic (such as human cells) cells to influence their function. This is especially true for the permanent cell maturation process (cell differentiation) and the regulation of the paracrine and endocrine system. After these modified cells had finished their function they have to be removed by inducing the programmed cell death which is a natural process to get rid of dispensable or harmful cells in the human body. The project is coordinated by the Department of Biochemistry and Molecular Biology UD-MHSC, which has considerable experience and reputation on the field of the nuclear hormone receptors, and programmed cell death research. The official website of the competition is <http://2010.igem.org>, the wiki of our team can be reached at <http://2010.igem.org/Team:Debrecen-Hungary>, which is under continuous construction. Results of our project may open perspectives towards the medical and industrial applications, as well as to strengthen the reputation of our University and our City. Our estimated costs of constructing our project exceed 10 million HUF, and therefore we expect financial help for future sponsors.