پیک علوم

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Discovery of New Anti-Malaria Drug from Iranian Native Plants by IAU Science and Research Branch Researcher

The new anti-malaria agent using the extracts of Artemisia Diffusa, of Khorasan province native plants, which is effective on Plasmodium Berghei parasite, is discovered by a researcher of IAU Science and Research Branch.

According to the Public Relations Department of IAU Science and Research Branch, Professor Abdulhossein Roostaian, faculty member and a researcher of this branch, noted: malaria is one of the most serious health threats in many parts of the world, particularly in Africa and Latin America, causing high mortality. These conditions are further complicated in endemic situations where resistant parasites spread against standard drugs.

He further remarked that malaria is caused by a protozoan of Plasmodium type in red blood cells. It is transmitted by infected bites of Anopheles, causing periodical fever and chills. He added that the mortality rate of under-four-year old children has witnessed an eleven-fold increase within six years due to the resistance of the parasite against Choloroquine. Only in Africa, the disease claims lives of one million children. The idea of eradication of this disease through vaccination is not a realistic one.

Abdulhossein Roostaian further continued that so far there have been several drugs suggested and used for this disease, most well-known of which is Artimisinin as a Lactone trepen ces CUI with an androproxid cycle extracted from Artemisia anuua and other types such as Artemir, Artsonat, etc.

Roostaian added that the anti-malaria effects of Tehranolide existing in Artemisa diffusa on the rodents' malaria parasite, Plasmodium barghei NY strain will be assessed in different mice models.

According to Professor Roostaian, this drug sample has been used on the laboratory animal and yielded a convincing result.

IAU Science and Research Branch Aerospace Students Earn 2nd Rank in Iranian Cansat Competition (ICC)

The Iranian Cansat Competition was held first time in Iran, in six months, in different phases, and IAU Science and Research aerospace association earned the second rank in this competition.

According to the Public Relations Department of IAU Science and Research Branch, in the competition held in Amir Kabir University, the teams were supposed to design and manufacture satellites in the size of a cola can. These satellites were following specific missions. 35 teams had participated in this competition, 15 of which could reach the operational phase, and were ranked according to the performance.

It is worth mentioning that Pluto team of Science and Research Branch of IAU including Hamed Esmaili, Ehsan Moosivand, Rahim Najafi, and Saeedeh Mashayekhi, and Niloofar Davoodi, represented the Aerospace Association of IAU Science and Research Branch. The team was supervised and managed by Hamed Esmaili and guided by Jalal Malmir, earned the second rank of the competition in free photography.

The term Cansat is composed of can, and sat, a short form of satellite. Cansat could be dropped down by instruments such as rockets or balloons from high altitudes to perform its missions. In addition, different landing mechanisms could be applied and used for cansat, most salient of which is parachute.

Cansats are designed and manufactured in two sizes. First, standard size, roughly about a cola can, and Free size, limited to 1-liter volume size.

Cansat is a simple mechatronic system which is considered a subcategory of space robotic science. The name of this system is based upon it manufacturing standard size of a cola can. This system is an educational opportunity for students interested in designing and making a satellite. Each cansat should include all fundamental parts of a satellite including its power system, data management, and telecommunication, so that it is able to perform independently.

IAU Faculty Member Appointed as Ref of International Journal of Renewable and Sustainable Energy Reviews

IAU faculty member appointed was appointed as ref of international Journal of Renewable and Sustainable Energy Reviews with impact factor (IF) of 5.3.

According to the report by Public Relations Department of IAU, Science and Research Branch , Renewable and Sustainable Energy Reviews is one of the most globally known science and research journals in the world. This journal is a member of Science Direct and Elsevier, and enjoys the Impact Factor of 5.3, and consequently ranked as one of the most prestigious publications in the arena of renewable and sustainable energies.

Based on this report, Dr. Sanaz Ghazi, faculty member of IAU, is a specialist in fields of environmental management and renewable and sustainable energies, and has presented several articles and publications internationally, leading her to be appointed as a member of the jury of the above-mentioned journal.