

Third Winner Iranian Researcher Resident Abroad



Project Title:

Pro-dual-drug Strategy in Combating Cancer

Researcher:

Gholam Hossein Hakimelahi (Ph.D.)

Colleagues:

Ali Akbar Moosavi Movahedi

Country of Residence:

Taiwan

Dr. Gholam Hossein Hakimelahi, graduated from McGill University, Canada, in Medicinal Chemistry (Ph.D., Post Doctoral and Research Associate) has accomplished a long range of multidisciplinary works. He also published 125 scientific papers in various journals.

Dr. Hakimelahi used the concept of pro-dual-drug and synthesized novel antibiotics with profound activities against resistant strains of pathogenic microorganisms. He also developed a new synthesis strategy to prepare the first non-classical carbapenems. A novel strategy was also developed by Dr. Hakimelahi for the synthesis of a series of N (7)-parine asyclic nucleosides.

In his present project, he deals with a well-known problem in anticancer therapy through inhibition of PDPR, which is the lack of bioavailability of phosphorylated derivatives of nucleosides. This is the main obstacle in industrial application of PDPR inhibitors. To overcome the problems associated with commercial use of PDPR inhibitors, which manifest them with formulation and delivery, he and his colleague designed and synthesized a conjugate molecule by use of pro-dual-drug concept.