

Breve descripción de la charla

“El fenotipo de resistencia a múltiples fármacos (MDR) de las células tumorales describe la resistencia a una amplia gama de agentes anticancerígenos no relacionados estructuralmente y es una limitación importante para una quimioterapia efectiva. El desarrollo de sub-líneas resistentes ofrece modelos in vitro eficientes para estudiar la MDR. Asimismo, la elucidación de los mecanismos de resistencia proporciona información en líneas de investigación orientadas a personalizar la quimioterapia. Por lo tanto, la identificación de potenciales moduladores apoya los estudios clínicos para aumentar la eficacia de los tratamientos contra el cáncer.”

Más información

Prof. Dr. Özlem Darcansoy İşeri was born in Ankara, Turkey, in 1980. Dr. İşeri had her B.Sc. degree from Department of Biological Sciences, Middle East Technical University (METU), Ankara, Turkey in 2002. She holds her M.Sc. and Ph.D. degrees in Biotechnology from METU. She worked as a research assistant at the Department of Biological Sciences, METU between 2002 and 2009. In 2009, she began her work in the Institute Transplantation and Gene Sciences, Baskent University. She became a faculty member at the Department of Biomedical Engineering, Faculty of Engineering in 2012. She took her ‘Associate Professorship’ title in Biology in 2013. In March 2016, she was designated as the founder head of the Department of Molecular Biology and Genetics, Faculty of Science and Letters. On January 2019, she took the ‘Full Professorship’ title. Dr. İşeri is also the vice director of the Research Center of Food, Agriculture and Husbandry.

She studied molecular mechanisms of cancer chemotherapy resistance in her Ph.D. She developed model multidrug resistant mammary carcinoma cell lines, and conducted genome wide expression analysis of cell lines together with reversal of the developed resistance. Currently, ongoing studies of the research team on cancer biology focuses on the evaluation of the agents, supplements and drugs for anticarcinogenic potential.

She also adapted her biotechnology degree and background to conduct research on agricultural biotechnology and crop science. Her recent research interests on this area are abiotic stress tolerance and genotoxicity of abiotic stress factors in plants. She is the coordinator of many projects of the Institute

which are mainly focused on agricultural biochemistry and biotechnology, and their field applications. Furthermore, genotoxicological studies of the environmental pollutants such as copper were also covered in projects. She works on antioxidant enzyme and molecule response of different plants to salinity, and the improvement of salt tolerance in crops by conventional agricultural practices such as grafting, seed and seedling pretreatments. In addition, she works on anticarcinogenic, antioxidant and antibacterial properties of extracts of endemic plant species.

Her technical background covers many basic methodologies in molecular genetics, biochemistry, plant and animal cell culture, i.e. cell viability assays, nucleic acid and protein based analysis techniques, cDNA microarray, enzyme activity assays, telomerase activity assay, and prokaryotic and eukaryotic cloning.

She has published 36 research articles and three book chapters, which were cited more than 400 times. She has several international and national congress presentations. She has been a FEBS scholar for three times, and a doctorate scholar of the Scientific and Technological Research Council of Turkey. She has been involved in and coordinated several projects supported by Scientific and Technological Research Council of Turkey and the university fund. She has worked as panelist, reviewer, and mentor for international and national projects, proposals, and programs for universities, academies, and ministry. She has been giving undergraduate level courses at the Faculty of Science and Letters, Faculty of Engineering, and graduate courses for the Institute of Applied Sciences and Institute of Health Sciences in her academic career.