The impact of sustained delivery of reproductive hormones on the hypothalamic-pituitary-gonadal axis in males and females using different animal models

Evaluation of devices, drugs, and drug delivery systems (CDS) have been investigated by both in vitro and in vivo procedures. Ceramic drug delivery systems have shown to be biocompatible, non-toxic and highly acceptable by the host. The CDS can also reduce handling of animals and facilitate long-term evaluations before conducting clinical trials. To date, CDS have been used to deliver various biologicals such as aldosterone, androstanedione, beta-lactoglobulin, bovine serum albumin, chymotrypsin, danazol, difluoromethylenornithine, dihydrotestosterone, estradiol, gamma globulin, gonadotrophic releasing hormone, gossypol, growth hormone, insulin, pepsin, progesterone, neuropeptide Y antagonist, thymoquinone, vitamins and testosterone to name a few. The results of our findings provided significant scientific evidence to effectively use CDS as an alternative route of drug administration to treat diseases requiring long-term chronic drug therapy as well as disorders caused by deficiency of certain medications (hormone replacement therapy).

Biography

Hamed Benghuzzi is currently the Professor and Chairman at University of Mississippi Medical Center, USA. His area of research is the development and applications of novel ceramic drug delivery systems (over 26 years/over 250 publications and 600 abstracts at various meetings). He was fortunate to be recognized as a fellow by the American Institute of Medical and Biological Engineering, as well as, International Fellow by the World Congress of Biomaterials Societies (Japanese, American, Asian, and European). His passion is teaching and training students. He had been the mentor of several faculty at the school of health related professions and other clinical departments including two orthopedic surgery faculty through grants supported by OTA and OREF. He served and serving as a major advisor for over 30 PhD students as well as a mentor for students at various levels (High school, undergraduate, MS, residents and postdoctoral). He is also a course director for several graduate and undergraduate courses. These include Pathophysiology (I and II), Histopathology, Pathophysiological phenomena, Human Physiology and Pathology. Administratively, he served as a chair for departments of Health Sciences, Cytotechnology and currently he serve as a chair of the Department of Diagnostic and Clinical Health Sciences and Director of CHS program.

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