

AVVISO DI SEMINARIO

Dr. Hilda Elisa Garay Pérez
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Venerdì 27 ottobre ore: 12:00 AM

Nell'aula seminari del Dipartimento di Scienze e Tecnologie
Chimiche

Terrà un seminario dal titolo:

Development of peptide drugs and peptide based vaccines at CIGB

Proponente: Prof. Mariano Venanzi

ABSTRACT

Peptides are highly selective and efficacious and relatively safe and well tolerated. Consequently, there is an increased interest in peptides by pharmaceutical industry. Currently, there are more than 60 approved peptide medicines on the market and this is expected to grow significantly in the near future [1, 2]. In the seminar, we will talk about peptide therapeutics and peptide-based vaccines, the advantages and disadvantages of these molecules as pharmaceutical products and how to overcome the weaknesses. The Center for Genetic Engineering and Biotechnology (CIGB) of Havana, have some synthetic peptides in their biomedical project pipeline that currently are in research or clinical trial stages. We will present the results of four peptide projects of the CIGB. We will talk about: (i) Peptide-based vaccines against *Neisseria meningitidis* serogroup B [3, 4]; (ii) Therapeutic peptide vaccine against prostate cancer (HeberProvac) [5, 6]; (iii) Therapeutic peptide against rheumatoid arthritis (CIGB-814) [7, 8] and (iv) Therapeutic peptide for cancer therapy (CIGB-552) [9, 10]. At the end, we will briefly summarize the results of the CIGB main product for the treatment of diabetic foot ulcer (HeberProt-p).

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4. Garay H, et al. Study of various presentation forms for a peptide mimetic of *Neisseria meningitidis* serogroup B capsular polysaccharide. *Bioconjug Chem.* 2011, 19; 22(1): 33-41.
5. Junco JA, et al. Immunotherapy of prostate cancer in a murine model using a novel GnRH based vaccine candidate. *Vaccine.* 2007; 25 (50): 8460-8468.
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7. Dominguez M del C, et al. An altered peptide ligand corresponding to a novel epitope from heat-shock protein 60 induces regulatory T cells and suppresses pathogenic response in an animal model of adjuvant-induced arthritis. *Autoimmunity.* 2011; 44 (6): 471-482.
8. Cabrales-Rico A, et al. Development and validation of a bioanalytical method based on LC-MS/MS analysis for the quantitation of CIGB-814 peptide in plasma from Rheumatoid Arthritis patients. *J. Pharm Biomed Anal.* 2017; 143 :130-140.
9. Vallespi MG, et al. Identification of a novel antitumor peptide based on the screening of an Ala-library derived from the LALF(32-51) region. *J Pept Sci.* 2010; 16(1):40-47.
10. Vallespi MG, et al. Antitumor efficacy, pharmacokinetic and biodistribution studies of the anticancer peptide CIGB-552 in mouse models. *J Pept Sci.* 2014; 20(11):850-859.