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|  | **program Information** | | |
| **NO.** | |  | |
| **Program Type** | | Degree Based …………….....  Non degree-Based ……..…. | □  ■ |
| **Level of Study** | | Undergraduate ………..……  Master …………………..……...  PhD ………………………..…….  Post Doc …………………..…..  Specialty ………………..…….  Subspecialty …………………  Fellowship ……………..……..  Short term Course ………… | ■  ■  ■  □  □  □ |
| **School** | | Pharmacy | |
| **Department** | | Pharmaceutics | |
| **Major/ Name of Program** | | Preparation and characterization of sunscreens and new aspects | |
| **Keywords (3 Words)** | | Preparation, Characterization, Sunscreen, SPF, novel drug delivery | |
| **Language Requirement** | | English | |
| **Admission Requirement** | | PharmD or PhD (Pharmaceutics), Fluency in English | |
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| Contact Person Name : Dr Shiva Golmohammadzadeh | |
| **Description (500 words)** | | This program is organized to help promising researchers from different countries to improve their practical skills and broaden their perspectives in formulation and characterization of sunscreens and some new aspects of the Nanobase sunscreen formulations. Participants are expected to bring the acquired knowledge and skills back to their home countries and take part in researches related to design and preparation of physical and chemical sunscreens and SPF determination, water resistance, UVA protection and Nanoparticulate Drug Delivery Systems especially Solid Lipid Nanoparticles (SLN) as new drug delivery systems for sunscreens. The program is intended to be flexible to meet the needs of individuals. The duration is 1 weeks. This program highlights different aspects of sunscreen formulations and characterization. Some topics in the suggested program are as follows:   1. Learning different methods of preparation of sunscreens 2. Learning different methods of characterization of sunscreens including determination of physical stability, measurement of SPF, UVA protection, water resistance property, etc. 3. Learning different method to preparation of SLN containing sunscreen ingredients 4. Learning different methods of characterization of SLN including measurement of size, zeta potential, TEM studies, etc.   School of Pharmacy (Mashhad University of Medical Sciences, Mashhad, Iran) is among the well-known centers in the Middle East for these studies. Different high quality papers have been published by researchers of the host department. | |
| **Complete Description** | |  | |
| **Program Detail** | | Regular Teaching Events   * Explanation of the advantages and adverse effects of UVA and UVB in sunlight * Solar spectrum wavelength and their penetration to the skin in different layers of the skin * Preparation of different sunscreens * Physical and chemical ingredients in sunscreens * Physical and chemical stability study in sunscreens * Preparation of standard and some other sunscreens * SPF determination by in vivo methods * SPF determination by in vitro methods * Evaluation of UVA radiation * Evaluation of water Resistance Property of the sunscreens * YJournal Club * YLectures * YLab Technique Presentations * YResearch Studies | |