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3.4.6: Documents for books and chapters in edited volumes published per teacher during the Session 2020-21:

Name of Department: **Institute of Pharmaceutical Sciences**

Name of Teacher(s) : Dr. Archana Sharma, Dr. Dinesh kumar,Dr. Nitin vats, Dr. kamal saroha, Dr. Avtar chand Rana

CHAPTER 4

INSIGHT INTO THE PHARMACOLOGICAL POTENTIALS OF *CAMELLIA SINENSIS* LINN.

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CHAPTER 10

SOLID LIPID NANOPARTICLES IN DRUG DELIVERY FOR SKINCARE

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ABSTRACT

Skin being a cardinal organ of the body needs adequate nourishment and care. Following a skin care regimen, appropriate and timely treatment can lead to a considerable decline in the prevalence of skin diseases. Considering the lipoidal nature of human skin, a number of lipid-based dermatological carriers have been explored in the past, but the invention of solid lipid nanoparticles (SLNs) in the 1990s could be considered as a landmark in the arena of dermal drug delivery. SLNs, which are colloidal carriers formulated by using lipids that are solid at room temperature, not only offers the advantage of modified drug release and epidermal targeting but are also devoid of problems associated with drug loading, stability, and scale-up. The large surface area, occlusive property, skin hydration and ultraviolet resistance of these nanocarriers make them ideal for dermal application. Ease of fabrication and characterization further augment their commercialization potential. Owing to their inherent merits, SLNs have been used for cosmetic application of several active moieties, such as CoQ_{10}, retinol and tocopheryl

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Chapter

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Chapter 11

Application of Microbes in Pharmaceutical Industries

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ABSTRACT

Variety of species of microorganisms, animals and plants found in the nature are significant sources of novel therapeutic agents due to their incredible chemical diversity. Now days, microorganisms are playing a vital role in pharmaceutical and nutraceutical industries at global level. They have been employed for production of variety of biochemicals such as proteins, enzymes, biosurfactants, antioxidants, immunosuppressants, vitamins, pigments, organic acids, nanoparticles and antibiotics, *etc.* having remarkable therapeutic activity. They are also being utilized for the treatment as well as diagnosis of various diseases. The present chapter describes different applications of microorganisms in pharmacy and pharmaceutical industry.

Keywords: *Microbes, Pharmaceutical, Nanoparticles, Antimicrobial, Biosurfactant.*

Introduction

Pharmaceutical agents are required for the treatment of diseases and are essential for maintaining the good health of public. Various health challenges are accepted and resolved by advancements in drug therapies which are important