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## **Feasibility of nanofiber-based systems for skin cancers treatment**

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The incidence of Skin Cancer (SC) has dramatically risen over the last decades. Conventional therapeutic measures possess numerous drawbacks; hence, developing effective therapies is indispensable. Modern delivery systems, e.g., nanofiber-based systems, can deliver therapeutic agents and nanostructures, which could be the harbinger of a new era to obviate SC complications. Nano Fibers (NFs) can be fabricated by natural and synthetic or both materials with a versatile technique, Electro Spinning (ES). Such structures offer a great number of advantages because of their unique properties so that a delivery system or reservoirs can provide an adequate matrix for encapsulation and incorporation of therapeutic agents such as chemical components and natural substances as well as able to prevent the harmful impact of radiation exposure. In addition, therapeutic nanostuctures, e.g., metal and magnetic Nano Particles (NPs), have been incorporated into NFs to achieve multimodal treatments like photo-thermal therapy and hyperthermia. Thus, in this study, the various mentioned nanofibrous-based strategies and their effectiveness in treating SCs have been discussed.

**Keywords:** Skin tumor, Melanoma, Chemotherapy, Nanomaterials, Electro spinning.

### **Biography**

Shirin Shojaei is a researcher with 3+ years of experience contributing to scientific discoveries in the fields of Nano medicine and nanotechnology. After her graduation from secondary school, she attended a medical university. At the end of her education, she graduated with a degree in Nuclear Medicine Technologist. Since then, she has been working as a nuclear medicine expert and of course, researcher in the nuclear medicine department at Kermanshah University of medical science. After that, she has found nanomedicine as a wonderful field in which to do research since she started studying for a master's degree in this field at Tehran University of Medical Science. Currently, she is working with very strong research groups in the fields of cancer diagnosis and treatment with nanomedicine technology, targeted drug delivery and increasing the bioavailability of drugs and the field of her thesis is the treatment of skin cancer with Nano fibers.

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