

14th International Conference on
PHARMACOLOGY AND TOXICOLOGY
&
6TH ANNUAL DENTISTS MEETING

July 18-19, 2019
Zurich, Switzerland

S2T (Skin-to-Thing) – The last-mile element which enables personalized drug administration via patch pump

Edith Bianchi
Med-S2T, Israel

New approaches to drug delivery are a fast growing field in the medical device industry. Strong market forces and healthcare trends are dramatically enhancing this evolution. Pharmacological advancements in drugs developments and their manufacturing, have a tremendous contribution to the drug delivery field. One meaningful drive is the significant rise of injectable biologic therapies for more and more chronic conditions. The challenges presented by these drugs, are creating the need and opportunity for drug delivery systems. The personalized medicine trend is obviously influencing drug related topics. The changes in approach to the patient are shifting hospital care to homecare setting, and simultaneously, shifting administrating injection of drugs subcutaneously instead of intravenous. Obviously intravenous injection demands costly skilled staff and mostly cannot be done in home setting. These are all taking part too in the evolution of drug delivery devices. Another meaningful factor is patient's non-compliance to treatment, which is not only effecting the patient's health and poor outcomes, but is also baring substantial losses to pharmaceutical

companies and resulting in a serious burden to the healthcare system. We are therefore, witnessing a great interest in adequate solutions for wearable drug delivery advanced devices which adhere to the patient's skin. When designing such a system, some significant challenges arise. The development of a drug delivery patch device involves critical issues such as safety, the drug/reservoir interaction and many other elements which are necessary to be considered. However, engineering teams are becoming more and more familiar with yet another critical aspect- Human Factor and Ergonomics. These factors are most crucial with any S2T ("Skin to Thing") solution as I call them, and have an even more crucial weight when dealing with a drug delivery patch pump. The "Skin-to-Thing" medical patch which is required to adhere the device to the body is indeed the body/machine crucial interface and should be given just as much a careful and thorough attention as the device itself; in order to achieve the device goals, assure the patient's compliance and successful treatment.

edithbianchi73@gmail.com