

Contamination No More: SCiO, an Innovative Quality Control Measure for Injectable Pharmaceuticals

By Suii Strain-Kokich, Kavlie Verner, Crystal Chan, and Kristen Pellizzi

Five months after our acquisition of the recall-plagued Hospira, Pfizer is pleased to announce that we will combat the contamination of Hospira's injectable pharmaceuticals by integrating SCiO technology into our quality control system. In addition to the financial consequences of recalls, damage has been done to the company's reputation. This results in a loss of trust from valuable customers and stockholders. With this acquisition and revised quality control system, Pfizer is determined to get Hospira back on its feet as the preeminent producer of injectable pharmaceutical drugs.

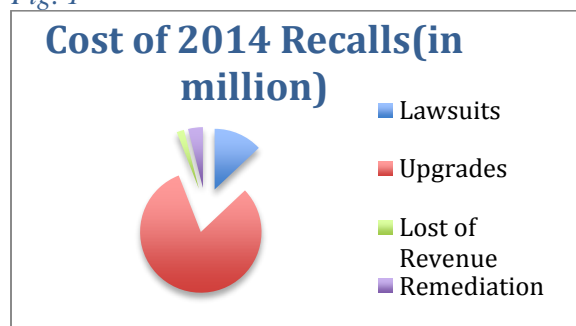
SCiO, which is slated to be released Fall of 2015, has great potential in revolutionizing the way we look at the world around us. It is a handheld device that utilizes spectrometer technology. This means that with the click of a button, SCiO can scan and detect the molecular makeup of an object in three quick seconds. It then retrieves information about the object from a cloud database and sends this information to a smart-device so users can learn about the content of their food, verify the identity of their medications, and much more.

In addition to its convenient size, what differentiates SCiO from pre-existing spectrometer devices is its flexibility. By giving users the option of developing a customized application within SCiO, the device can adapt to specific users' needs. For Pfizer, this means SCiO will be able to detect the chemical makeup of the injectable drugs Hospira manufactures. If a foreign contaminant is detected within the products, a member of the manufacturing quality control team can be alerted before the product reaches consumers.

With a retail price of \$249, SCiO has proven itself to be an inexpensive yet effective solution for reducing FDA scrutiny and recall frequency. It is estimated that the implementation of this system will save Pfizer approximately \$14.5

million annually, which takes into account 53% of the cost of remediation and lost revenue (see Fig.1 below). This was derived from the fact that 53% of the 38 recall warnings Hospira received in 2014 were directly related to particle contamination. If Pfizer fully implements SCiO to all of Hospira's 19 facilities, the ROI is estimated to be 2965%.

Fig. 1



Before fully integrating SCiO into our operations, we plan to implement the use of these devices at Hospira's Rocky Mountain facility. As one of Hospira's largest injectable drug manufacturing plants in the U.S., the North Carolina facility is the ideal location for this pilot program. The total cost of providing 10% of the 2,000 employees at the facility with a SCiO device will be \$49,800.

To ensure the successful introduction of SCiO to current operations, Pfizer will enforce two additional changes: a check-in and check-out system to ensure the security of individual SCiO devices assigned to employees, and systematic checkpoints throughout the manufacturing process to ensure SCiO identifies contaminants at all major stages of production.

At Pfizer we strive to significantly improve people's lives through science and our resources. By introducing SCiO, we hope to eliminate room for mistakes and continue to combat the challenges of the most feared diseases of our time.