The War on Counterfeiting

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Counterfeiting — the distribution of imitation goods with the intent to defraud a consumer — is a significant and growing problem for manufacturers, brand owners and consumers alike in wide range of industries. But perhaps nowhere is the crime of counterfeiting more troubling than in the pharmaceutical industry, where criminals have never had more compelling motives and more accessible means to try their hand at this lucrative crime.

According to Interpol, the return on investment for counterfeiting pharmaceuticals can be over 20 times more than the return on dealing illegal drugs. In addition to making more money, counterfeiters usually face relatively lower penalties if caught. And technology makes counterfeiting easier than ever: In the past, counterfeiters needed specialized graphics skills, used large printing equipment that was easy to track, and relied on a physical distribution system to sell illicit products. Today, counterfeiters can hide behind the anonymity of desktop imaging and printing equipment, utilize online marketplaces, and distribute products through common carriers like UPS and FedEx, making it much more difficult to track the origin of a counterfeit good. It is no wonder then that trade in counterfeit drugs is on the rise.

Going from Bad to Worse

The ill effects of fake drugs in the marketplace are numerous: Consumer safety can be placed at risk, a drug manufacturer’s reputation can be compromised, brand loyalty eroded and profits that could have been invested into research for new drugs can disappear. In the pharmaceutical counterfeiting industry there is no oversight and regulation in the facilities where fake drugs are manufactured to ensure they are produced in sanitary and quality conditions. Additionally, there is no determination if the active ingredient is in the counterfeit drug in the right amount or even in it at all. This poses a major problem to the millions of people who rely on authentic drugs for their well-being and quality of life.

Despite the potential risks associated with counterfeit drugs, consumers in the United States have generally been comforted by the belief that counterfeit pharmaceuticals is largely a third world problem that doesn’t affect the U.S. supply chain. Further, many consumers believe that as long as drugs are purchased from a reputable pharmacy there is little to fear. Unfortunately, those assurances just do not ring true anymore.

In February 2012, Swiss drug maker Roche said that fake versions of its cancer drug Avastin had been distributed in the United States. This crime is a game changer on many levels. First, it demonstrates that the U.S. pharmaceutical supply chain is not as safe as once thought since fake Avastin was able to make its way into an American hospital. Secondly, it proves that despite training and sophisticated

technology, counterfeiters are able to fool hospital workers and purchasing agents into buying fake drugs. And finally, it proves that counterfeiters have no limits in the types of drugs they are willing to counterfeit whether it be a lifestyle drug or a drug needed to fight a serious disease like cancer.

How Can Technology Help?

Since technology has empowered the counterfeiter with low cost but high quality imaging, printing and distribution capabilities, technology must also provide consumers, brand owners, manufacturers, and law enforcement officials with the tools needed to fight the threat of counterfeiters. Thankfully companies are developing overt, covert and digital authentication technologies that key stakeholders can use to secure the pharmaceutical supply chain against criminals.

Overt Technologies

Overt technologies are designed to be easily recognizable but difficult for counterfeiters to replicate. They deliver unique visual features that a consumer can validate in a point of sale environment with the tools they carry with them every day — their eyes. These features include specialty inks, holograms, and tamper-evident seals. Currently, holography and color-shifting technologies are the most widely used overt authentication technology and provide the first layer of protection against the fraudulent use of a product.

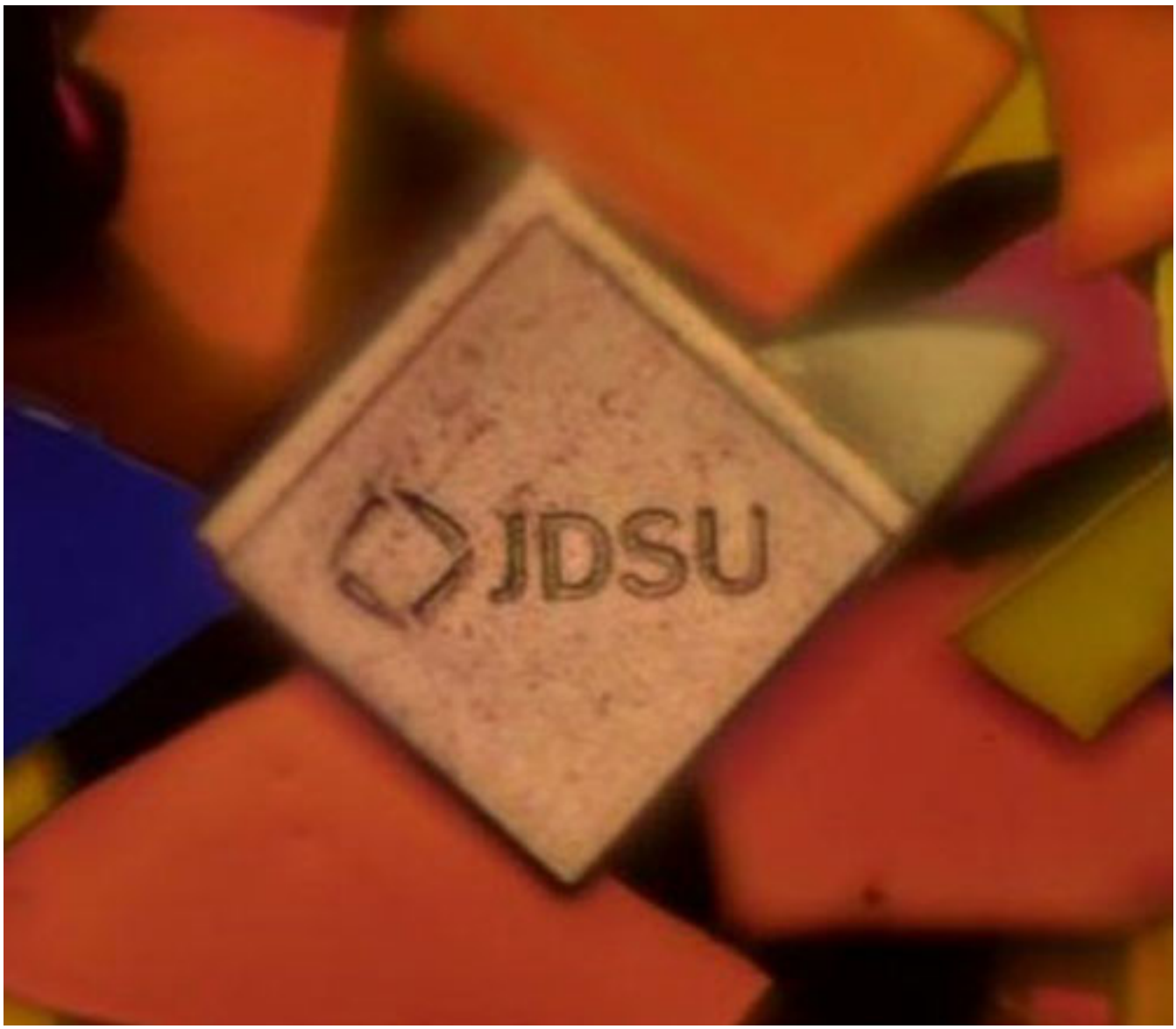
Caregivers and consumers alike can see benefits when sophisticated overt technologies are integrated into pharmaceutical packaging used in the hospital environment. An overt mark gives care givers something for which to look before administering a drug to verify authenticity. At the same time, overt authentication technologies empower consumers to take part in the authentication process since little training and no equipment is required to identify a well-executed overt mark as authentic.

Covert Technologies

Covert technologies contain hidden features that are not visible to the human eye and can only be detected with microscopes or specialized readers, making them ideal for second level field investigators looking for an added degree of certainty in the authentication process. Covert solutions can be incorporated into the overt solution or can function on a stand-alone basis to protect against counterfeiting.

Current technology features a broad spectrum of covert authentication solutions that varies from machine readable technology, micro-text, nano-text, imbedded images, and a mix of machine readable technology and holographic imagery.

A hospital worker concerned about a potential simulation of packaging may not have time to send a questioned drug out for third party analysis. A covert feature can provide a field investigator, such as a hospital security officer, an additional level of assurance that a product is authentic or cause for concern that it is not.



Digital Technologies

Digital authentication solutions provide actionable intelligence to brand owners through electronic means so that they can pinpoint unauthorized sellers on the internet, track and trace products through the distribution chain, and remotely authenticate a product anywhere, anytime by scanning a product label with a smart phone or by entering a code into a computer. A robust digital authentication program can help prevent fake drugs from entering the supply chain, providing a key compliment to the benefits of overt and covert technologies.

Looking Ahead

Counterfeiting is a growing menace to our society and increasingly presents a threat to the health and safety of consumers and the integrity and reputation of pharmaceutical companies. As the pharmaceutical industry continues to research and develop new drugs that help cure diseases and improve the quality of life for people all over the world, it is critical that manufacturers are equipped with the tools necessary to protect brands and, more importantly, consumers.

Therefore, it is important that pharmaceutical companies, law enforcement officials and consumers familiarize themselves with the technologies available to protect our society from the threat of counterfeit drugs. Technology has enabled the counterfeiter to become more and more skilled and successful, but technology can also empower brand owners, manufacturers and consumers alike to protect themselves against this fraud.

For more information, please visit www.jdsu.com/en-us/Authentication-Solutions/Pages/default.aspx *[1].*

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