

IntelGenx takes migraine medication “head-on”

The term a “bitter pill to swallow” may have been used as a figure of speech since the 17th century, but for many this phrase is literal. Swallowing humongous tablets is a reality for many people. Sure I have wished from time to time during those flu days that I could have continued taking that kids-friendly syrup that tastes like grape juice, but really I’m just so grateful that taking pills is not an everyday reality for me. I am aware that not everyone is as fortunate. For many people consuming multiple doses of tablet-based medication each day is a reality. Studies reveal that 40% of American adults have experienced trouble swallowing standard pills, citing “*being overwhelmed by a panicked feeling of a stuck tablet*” as the primary cause of fear. The problem is magnified for paediatric, geriatric and dysphagic patients who have sincere difficulties swallowing traditional tablets and capsules.

To this end, IntelGenx Technologies Corp. (TSXV: IGX | OTCQX: IGXT) (“IntelGenx”) has been perfecting an ingenious drug delivery system from their Quebec laboratory since 2003. Led by Dr. Horst Zerbe, their proprietary oral administration technology, VersaFilm™, promises a new era of convenient and efficient pharmaceutical delivery for some of the world’s most popular drugs. Requiring no proximity to a water source, VersaFilm™ allows patients the freedom to dose themselves discreetly at any time; a benefit particularly precious to those requiring immediate symptomatic relief from conditions such as migraines and erectile dysfunction, two conditions for which IntelGenx is extremely close to market.

Migraine is an extraordinarily prevalent neurological disease affecting 1 billion people worldwide, making it the third most common illness. More than 4 million people experience chronic

daily migraine, suffering up to 15 migraine days per month at the very least. Triptan medicines are a specific painkiller for migraine headaches that are thought to work by mitigating the changes that occur during migraine events. They cause the blood vessels around the brain to contract, reversing the dilation of blood vessels that's believed to play a significant role in the migraine process. Compared to other triptan-based medications, rizatriptan has demonstrated the highest efficacy and exhibits the shortest Tmax providing a quick onset of action for migraine sufferers, and in 2012, the leading branded rizatriptan product made sales of \$638 million. Rizaport™ is IntelGenx's oral disintegrating film solution for the delivery of rizatriptan and will soon be available to a population of over 50 million people.

Considering common ailments that require discreet dosing, it is difficult to imagine a more fitting condition than erectile dysfunction for a drug delivery system such as VersaFilm™. The National Institutes of Health in the United States estimate that 30 million men in the US experience erectile dysfunction, but something tells me this number may be considerably higher. Tadalafil is one of the three major PDE5 inhibitors currently used to treat erectile dysfunction, it shows longer duration of action and less food related side-effects compared with competitors' products and the latest formulation successfully demonstrated bioequivalence to Cialis® tablet in a pilot study. The company is eager to launch their Tadalafil product, and now that the Cialis® patent has expired, it possesses real potential to be the first generic competitor to the Cialis® tablet.

The Quebec lab is the first ever Canadian pharmaceutical oral film manufacturing facility, and has over twenty employees, seven of which are post-doctoral scientists. The plant can manufacture up to 100 million films per year and IntelGenX is currently looking for a partnership or alliance opportunity to complete development and commercialisation of multiple

VersaFilm™ solutions. With the innovative little films having received marketing approval for Europe and beyond, it seems we may see a day when a multitude of pharmaceuticals can be kept in a wallet and used without fuss or embarrassment.