MEDRx Co., Ltd. received notification from its agent on February 28, 2018 that the Japan Patent Office has approved its patent application concerning a composition for patch preparation comprising drug, organic solvent, lipophilic mass base, and powder.

This is one of several basic patents that cover CPN-101, a transdermal patch formulation of Tizanidine™ for the management of spasticity (MRX-4TZT tizanidine tape) and MRX-1OXT, a central analgesic transdermal patch (oxycodone™ tape). The patent will expire in 2033.

This patent will have no effect on the MEDRx Group’s results of operations in 2018.
Tizanidine is a type of central analgesic (acts on the central nerves in the brain and the spinal cord to relieve muscle tonicity). This drug is used to alleviate discomfort from shoulder stiffness, back problems, frozen shoulder, tension headaches and other problems.

CPN-101 (previously MRX-4TZT) is a medicated patch with tizanidine, a central muscle relaxant, that uses the ILTS® (Ionic Liquid Transdermal System), an exclusive MEDRx technology that incorporates its ionic liquid expertise.

On April 6, 2017, MEDRx signed a worldwide licensing agreement (except for East Asia) with Cipla USA Inc. which is a wholly owned subsidiary in USA of Cipla Ltd., a global pharmaceutical company based in India, to further develop and commercialize MRX-4TZT. On January 29, 2018, results that met pre-determined standards were obtained from additional Phase I studies (P1a’) that took place in the United States. Having completed this study, MEDRx and Cipla USA will now advance to the next step of the clinical development process.

An ionic liquid is a salt with a melting point of not more than 100°C and is also called a room temperature molten salt. Properties include a low melting point, high ion conductivity, high polarity, non-volatility and non-combustibility. Many applications are being examined for ionic liquids, including in solar cells and environmentally responsible reaction solvents. MEDRx was first in the world to discover that converting drugs into ionic liquids and dissolving drugs in ionic liquids can dramatically increase the transdermal permeability of these drugs. MEDRx has gained considerable knowledge involving ionic liquids. There is a library of ionic liquids that are believed to be safe by combining them with compounds that have already been used for human consumption. MEDRx has expertise in selecting ionic liquids that are best suited to increasing the transdermal permeability of targeted drugs. And MEDRx has the know-how to produce drugs in format that is easy to use (patches, ointments, etc.) while retaining the properties of ionic liquids that contain drugs. The exclusive technology for producing transdermal drugs, which incorporates this knowledge, is called the Ionic Liquid Transdermal System (ILTS®).

Oxycodone is a type of central analgesic (acts on the central nerves in the brain and the spinal cord to relieve pain) and is a designated narcotic drug for medical use. It is used for relieving severe acute pain, chronic pain, and cancer pain.

MRX-1OXT is a transdermal patch that utilizes the ILTS® to significantly improve transdermal delivery of poorly absorbable oxycodone and is also safe for application on the skin. MRX-1OXT also uses the Abuse and Misuse Resistant Transdermal System (AMRTS®), an exclusive MEDRx technology newly developed for producing drugs absorbed through the skin. The aim of this technology is to reduce and prevent the improper and erroneous use of oxycodone, which is designated as a narcotic drug for medical use.

AMRTS® is an exclusive MEDRx drug production technology newly developed to reduce and prevent the improper and erroneous use of drugs that are absorbed through the skin. AMRTS® consists technologies for low drug extractability, a strong bitter taste to prevent oral ingestion, the virtual elimination of drug permeation when a patch is reused, and the prevention of the reattachment of patches.