



Perma-Fix Awarded Key Patent for its Microporous Composite Material in Eurasia

Wroclaw – September 9, 2016 – Perma-Fix Medical S.A. (WAR:MMD), a subsidiary of Perma-Fix Environmental Services, Inc., a Nasdaq listed company, and developer of a reliable, cost effective, non-uranium process to produce technetium-99 (Tc-99m), the most widely used medical isotope in the world, today announced that Perma-Fix Environmental Services, Inc. has been granted a key patent covering its Microporous Composite Material and its applications in countries that are signatories to the Eurasian Patent Convention. These countries include Russia, Kazakhstan, Belarus, Azerbaijan, Armenia, Turkmenistan, Tajikistan, Kyrgyz Republic, and the Republic of Moldova.

This patent follows the original U.S. patent granted in January 2015 by the US Patent Office to Perma-Fix Environmental Services, Inc., allowing all claims in its patent application. Perma-Fix Medical, S.A. has a Patent License Agreement with Perma-Fix Environmental Services, for the production of technetium-99 (Tc-99m).

The claims of the patent address the proprietary resin that Perma-Fix manufactures, including but not limited to:

- Selective separation of Tc-99m pertechnetate from molybdenum-99 (Mo-99)
- Enhanced sorption of molybdenum with a holding capacity in excess of 60% of the dry weight of the sorbent
- Sorbent and generator resistant to degradation by gamma and beta radiation and acid environments
- Sorption of selective isotopes from radioactive waste streams
- Removal of heavy metals, such as mercury and arsenic, from waste water streams

Stephen Belcher, Chief Executive Officer of Perma-Fix Medical S.A., stated, “The Eurasian markets represent an attractive near-term opportunity for our proprietary process to produce Tc-99m, along with other future applications of our breakthrough resin. Tc-99m is the most widely used medical isotope in the world and is used in 80-85% of all diagnostic nuclear medical procedures each year. In particular, these Eurasian countries struggle with even greater supply chain issues due in part to proliferation concerns related to the current process.”

Nearly all of the world’s supply of Tc-99m comes from the thermal fission of highly enriched uranium (HEU) targets in a small number of highly specialized reactors. The current process is costly and from time to time, has experienced disruptions, which has resulted in short-term shortages. The current process also raises serious proliferation concerns related to the threat associated with international production, transportation and/or use of HEU in the production of medical isotopes.

Perma-Fix Medical’s technology overcomes these issues by using neutron capture to activate natural molybdenum, a common metal, to produce Mo-99, which decays into Tc-99m. Unlike conventional processes, the Perma-Fix Medical process can be produced locally using standard research and commercial reactors, thereby eliminating the need for special purpose reactors. The new process encompasses the full production cycle, from reactor to final medical supply, and should be easily deployable around the world within the current industry infrastructure.

About Perma-Fix Medical S.A.

Perma-Fix Medical was formed to develop, obtain FDA and other regulatory approval and commercialize a new process to produce Technetium-99 (Tc-99m), the most widely used medical isotope in the world. The new process is expected to solve worldwide shortages of Tc-99m as it is less expensive, does not require the use of government-subsidized, weapons-grade materials and can be easily deployed around the world using standard research and commercial reactors, thereby eliminating the need for special purpose reactors. Please visit us on the World Wide Web at <http://www.medical-isotope.com>.

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