

## Method for Preparation of High Specific Activity Platinum -195m for Medical Therapy

### **Disclosure Number**

200101032

### **Technology Summary**

The subject invention disclosed herein is a unique and new "indirect" reactor route for production of high specific activity platinum-195m ( $^{195m}\text{Pt}$ ) radioisotope. Platinum-195m is of widespread interest for biokinetic and metabolic studies of important platinum-based anti-tumor drugs and evaluation as a cancer therapeutic radioisotope for Auger electron therapy. The method of the subject invention as an indirect production method provides no-carrier-added  $^{195m}\text{Pt}$  from a complex decay scheme from reactor-produced iridium-195m ( $^{195m}\text{Ir}$ ) radioisotope. Iridium 195-m is produced by neutron irradiation of highly enriched  $^{193}\text{Ir}$  target in a nuclear reactor. This new approach of the subject invention makes this important radioisotope available with a specific activity of 50-100 mCi/mg. Attachment of  $^{195m}\text{Pt}$  to Intracellular-targeted agents is expected to represent a new opportunity for cancer therapy via Auger electron therapy.

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