

Development of ^{18}F -labeled tumor imaging probes for clinical use

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Abstract

A collaborative study between Tohoku University and Iwate Medical University was initiated to develop a new ^{18}F -labeled tumor imaging probe at Nishina Memorial Cyclotron Center. Considering several ^{18}F -probes which are presently evaluated to be useful for clinical use in oncology, [^{18}F]FRP-170, a potential hypoxic cell imaging agent which was originally developed at Tohoku University, was chosen as a candidate probe. Based on an automated module for [^{18}F]FDG preparation, F100, a new automated system was developed by introducing a purification module consisting of a syringe pump module and an HPLC injector for on-column base hydrolysis followed by HPLC purification. The study is currently in progress.