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This presentation will highlight successful efforts in working with the UM Office of Patents and Licensing to patent, license and commercialize radiopharmaceuticals for medical applications that emerged from collaborative research programs in which I was involved. Two FDA approved radiopharmaceuticals based on relevant patents have been commercialized and are in routine use in the U.S. and other countries. Ceretec™ is a diagnostic agent for imaging neurologic disorders and infectious processes in patients. Quadramet™ is a radiotherapeutic drug used for treatment of painful skeletal cancers.

An exclusive license agreement with Amersham International was negotiated with UM for development and marketing of Ceretec™ while Quadramet™ resulted from a joint R&D program involving investigators at MU and Dow Chemical Company. A more recent patent was issued to protect the invention for use of radiolabeled bombesin peptides for diagnosis and treatment of human prostate, breast and other cancers. A license agreement was negotiated between the University and a venture capital company – Resolution Pharmaceuticals – for development of radiopharmaceuticals covered under the broad-scope US and European patents. Human clinical trials with a diagnostic agent and a therapeutic agent based on radiolabeled bombesin analogs have been performed and show promising results.

It is important to recognize that the inventors of all three of these technologies worked closely with the UM Office of Patents and Licensing in identifying viable and desirable commercial partners and in negotiations of the licensing agreements. Flexibility was a key element in developing effective licensing agreements. The three examples highlighted in the presentation demonstrate three different approaches in developing corporate agreements that were successful in translating MU life sciences research into radiopharmaceuticals that are for use as diagnostic and therapeutic applications in human patients.