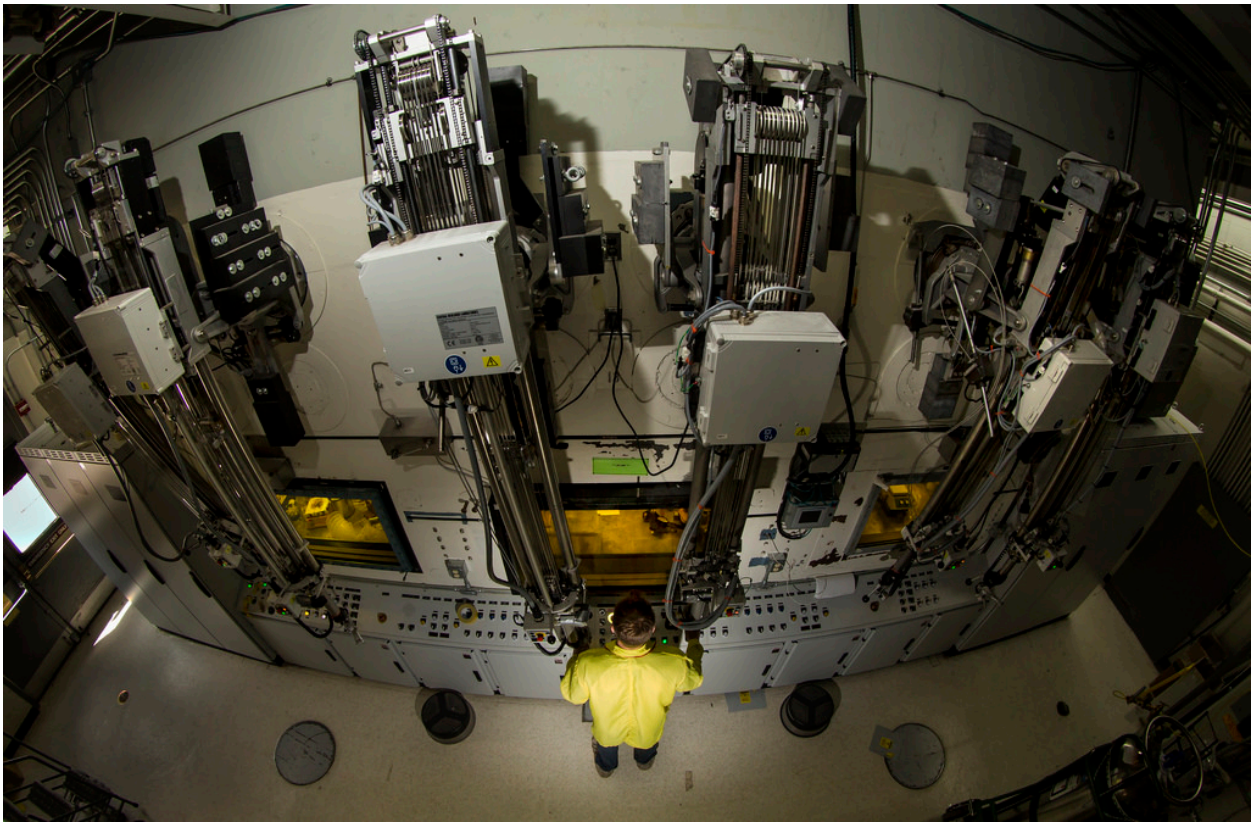
Picture of the Week: Hot cells for medical isotopes

June 7, 2015



[View extra-large image on Flickr »]

Every year, over 1,000,000 cardiac, cancer and other patients are helped by isotopes produced by the Los Alamos National Laboratory Isotope Program. Isotopes from Los Alamos are used for the diagnosis of cardiac disease, for the calibration of PET scanners which in turn diagnose cancer, neurological disease, inflammatory diseases, trauma, and other circulatory diseases, and are increasingly being investigated for their potential to treat a variety of localized pathologies. The highly radioactive materials used to produce these critical isotopes can only be handled remotely inside hot cells, which are heavily shielded concrete containments with leaded glass windows to protect radiochemists from the radiation inside. In this image, a worker uses remote

manipulator arms to handle a highly radioactive target inside the Lab's radiochemistry hot cell facility.