

## 2. Nuclear Medicine in China

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In the past 15 years, Nuclear Medicine in China has made great progress. Over 800 hospitals and institutions with 4002 staffs have the department (dept), or division of Nuclear Medicine. In most of hospitals, Nuclear Medicine is an independent department, separate from Radiology. There are three major Nuclear Medicine Centers (Beijing, Shanghai and Wuxi) which have taken part in teaching, research and clinical practice. Instrument: 100  $\gamma$  camera and computer systems, about 1/3 made in China, 164 SPECTs, 70 Nuclear Cardiac probes, 388 renogram detectors, 168 Liquid Scintillation counters and one PET Center. Radiopharmaceuticals: 121.8 TBq  $^{99m}\text{Tc}$  generators, 512 Ci  $^{131}\text{I}$ , 77 Ci  $^{125}\text{I}$ , 73 Ci  $^{153}\text{Sm}$  are used annually.

$^{99m}\text{Tc}$ -MIBI, CPI, HMPAO, ECD,  $\text{MAG}_3$ , EC,  $^{201}\text{Tl}$ ,  $^{67}\text{Ga}$ ,  $^{131}\text{I}$ -MIBG,  $^{131}\text{I}$  labeled monoclonal antibodies for tumor markers are available. Over 120 important biologically active materials have been measured by RIA.  $^{99m}\text{Tc}$ -MIBI SPECT has been widely used in clinical and research work of myocardium and tumors.  $^{99m}\text{Tc}$ -HMPAO, ECD have also been used for brain studies.  $^{131}\text{I}$ -6-Iodocholesterol was first synthesised and labeled in 1964 in China, for cholesterol metabolism study and later on (1974) for adrenocortical imaging.  $^{153}\text{Sm}$ -EDTMP,  $^{131}\text{I}$ , and labeled AM have been used for treatment of bone metastases, thyroid disease and tumors. About 20 million people gain the benefit from Nuclear Medicine studies annually in China.