

# **Nuclear Medicine, Positron Emission Tomography and Nanomedicine: Potential Opportunities.**

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Nuclear medicine and positron emission tomography (PET) are routinely used imaging techniques that target molecular and functional characteristics in health and in many diseases for diagnosis, prognostication and therapy guidance. Nuclear medicine also has therapeutic applications and there is a long history of theranostics with nuclear medicine. This presentation will review the principles of nuclear medicine and PET, provide examples of current diagnostic and therapeutic applications of nuclear medicine and PET (including using nanomaterials) and explore potential synergies between nuclear medicine, PET and nanomedicine in addressing diagnostic and therapeutic clinical challenges.