

## In vivo Molecular Imaging for Biomedical Research

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In vivo molecular imaging is a rapidly emerging biomedical research discipline that aims to provide disease-specific cellular and molecular information through diagnostic studies. There has been used variable imaging modality (ie, magnetic resonance imaging, computed tomography, ultrasound, positron emission tomography, and optical imaging) for in vivo imaging. Because each imaging modality has unique strengths and limitations, it is often through the compound use of multiple modalities.

Here, in vivo micro imaging including micro CT, micro-MRI, US biomicroscopy, intravital microscopy and nano-tomography will be introduced and the future prospects for application in field of biomedical research will be discussed.