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Nanomedicine and molecular imaging

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Abstract:

Nanomedicine's ability to improve the pharmacokinetics, stability and toxicity profile of certain drugs, potentially augmenting their therapeutic index, has made it an attractive field of research. The first US FDA approved nanodrug became available for clinical cancer care in 1995. Nanomedicine is also being explored in a range of other diseases but despite its potential, successful stories of clinical translation are sparse[1,2]. Here, I will present how preclinical imaging-guided evaluation to optimize nanotherapeutics, based on their in vivo behavior[3], can help to bridge the gap between benchtop and bedside, and how, in a clinical setting, noninvasive imaging could allow identifying patients amenable to nanotherapy based on quantitative information in an inherently personalized manner[4].

References:

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