

Industry lecture 2018

Radionuclides and cancer treatment: How to succeed

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Radionuclides have been used for cancer treatment for almost a century. Initially gamma and beta emitters were used but later alpha emitters attracted a substantial attention. Criterion for successful product development should be determined before initiation of the clinical phase of product development. The product candidate's chemical and physical properties must be carefully considered, and synthesis route should be adaptable to industrial scale. The product candidate must show consistent antitumor activity and acceptable safety profile in the preclinical tests and dosimetry estimates for human use should indicate appropriate benefit to risk ratio. Sufficient patent protection is needed to attract investors.

Radionuclides and properties are addressed, and examples of clinical products are presented.

Norwegian inventions in the field are presented and the international trends in the field are discussed.