„MRI contrast agents”

prof. Robert N. Muller
Center for Microscopy and Molecular Imaging , University of Mons, Belgium

Very soon after the introduction of MRI as a clinical tool, contrast agents were proposed and then widely used to improve its diagnostic capabilities. Based on the paramagnetic properties of the gadolinium ion, the development of MRI contrats agents has been a multidisciplinary adventure gathering chemists, physicists, toxicologists and biologists. After the first phase which produced useful but non-specific agents, research has been actively pursued and offered new molecules with increased relaxivity and specificity. A few of them have reached the clinical market while others still remain at the preclinical level where they are very useful to researchers. Currently, new tracers for molecular imaging are under development. Some adverse effects have been observed in clinics and some intriguing observations have been reported recently which raise the issue of the risk/benefit evaluation.
This presentation will give an overview on the history of contrast agents development as well as a perspective to the future…