

29th Lecture on Molecular Engine

第29回発動分子科学セミナー

“Nanotheranostics with Designed Drug Carriers and Mass Spectrometry Imaging”

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Over a decade, our group synthesized inorganic (iron oxide, gold, silica) and organic (rotaxane dendrimer) nanomaterials for the purpose of studying their anticancer drug (doxorubicin, chlorambucil, cisplatin) and anti-inflammatory agent (curcumin, baicalein) release profiles with normal, sustained, controlled (pH, ultrasound, small biomolecules), and smart/active releases. The in vitro and in vivo monitoring of these nanomaterials could be realized by magnetic resonance imaging, fluorescence imaging, and state-of-the-art mass spectrometry imaging. Nanomaterials could be organ/tissue targeting selectively in spleen, kidney and epithelial.

References

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