

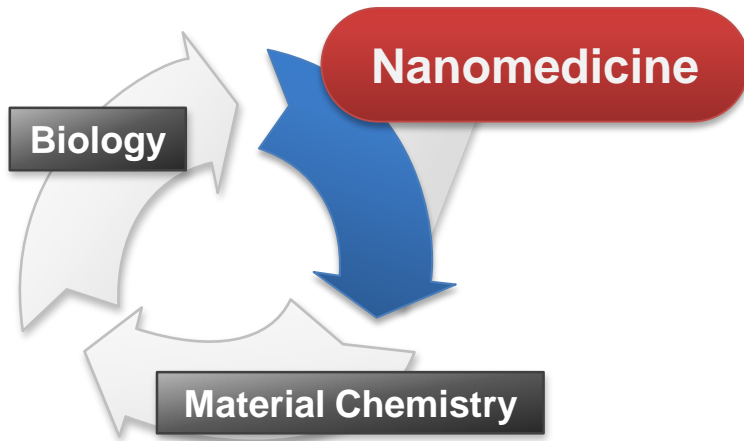
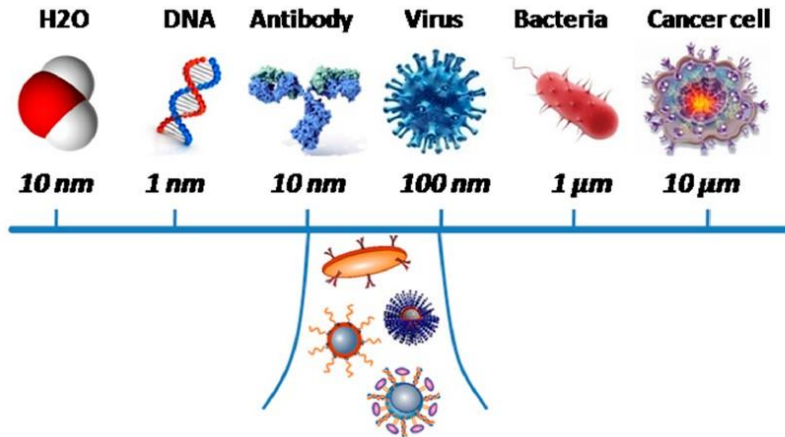
Prodrug based Carrier-free Drug Delivery System for Tumor-specific Anticancer Therapy

Jooho Park

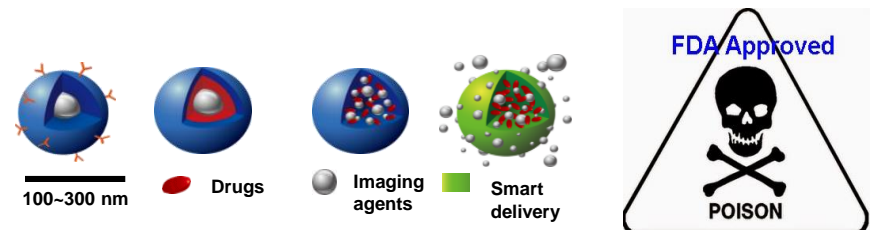
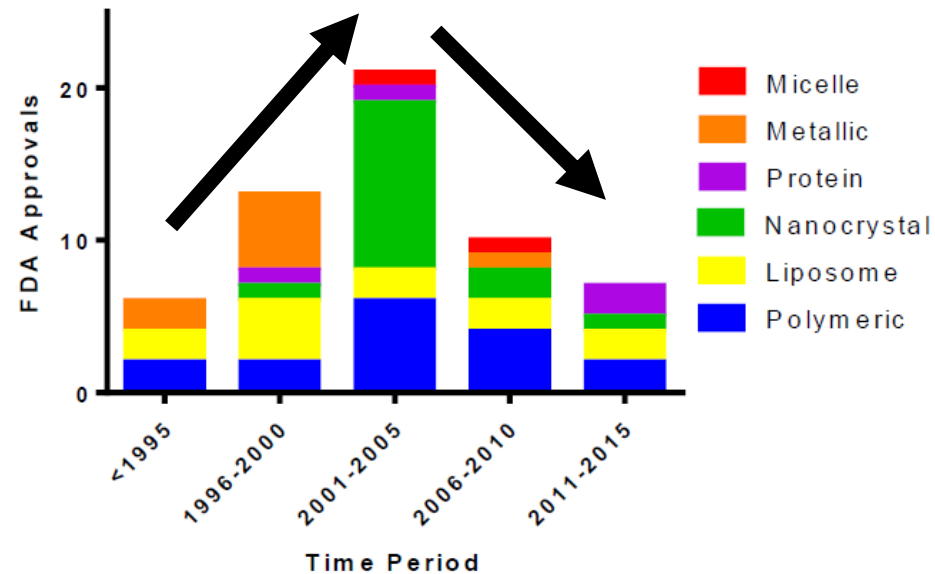
Post-doc fellow (Ph.D. and Pharmacist)
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Introduction

Development of nanomedicine and its current challenges



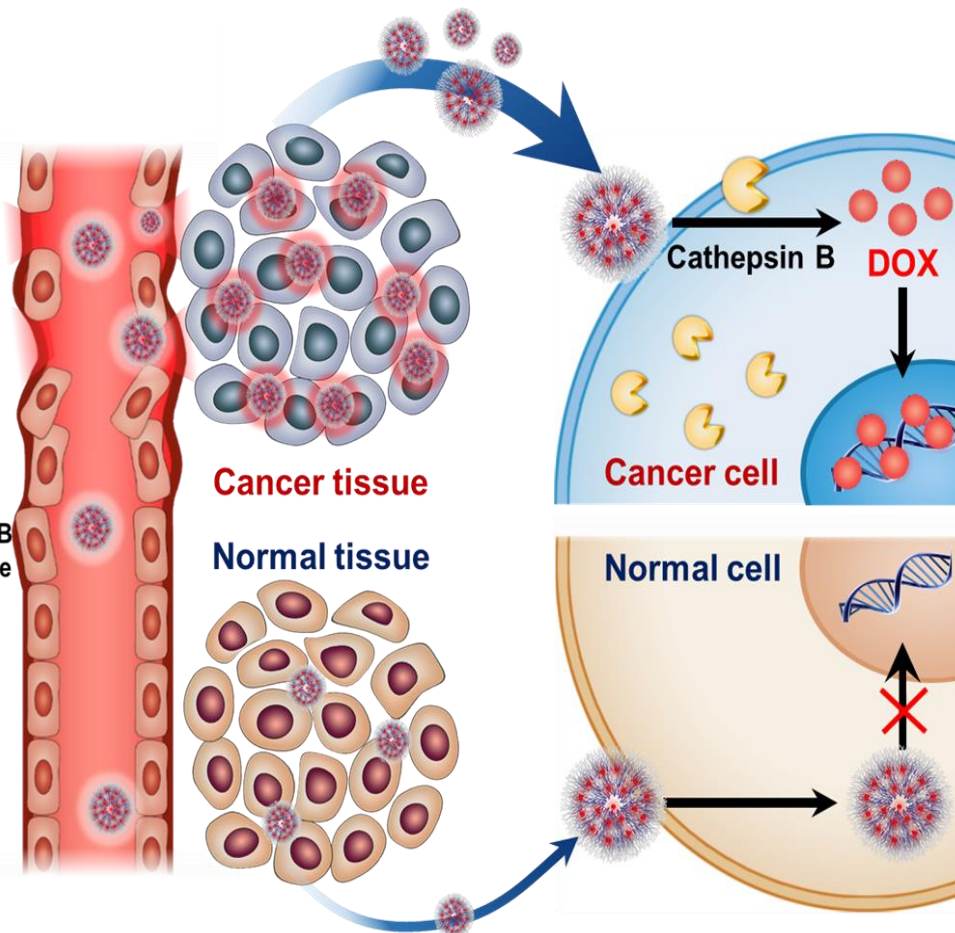
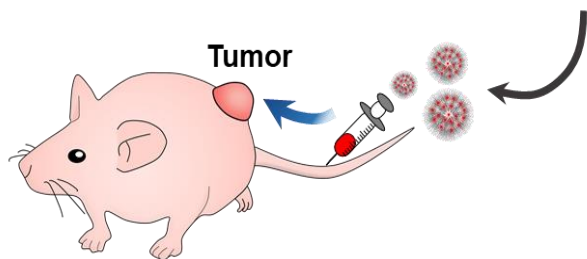
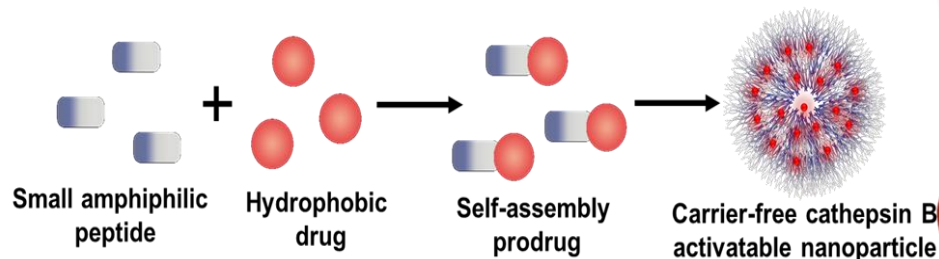
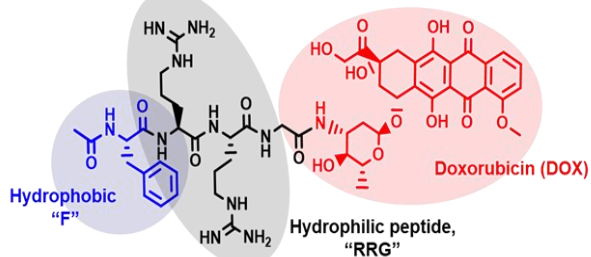
FDA approved nanomedicines



Introduction of tumor-specific prodrug

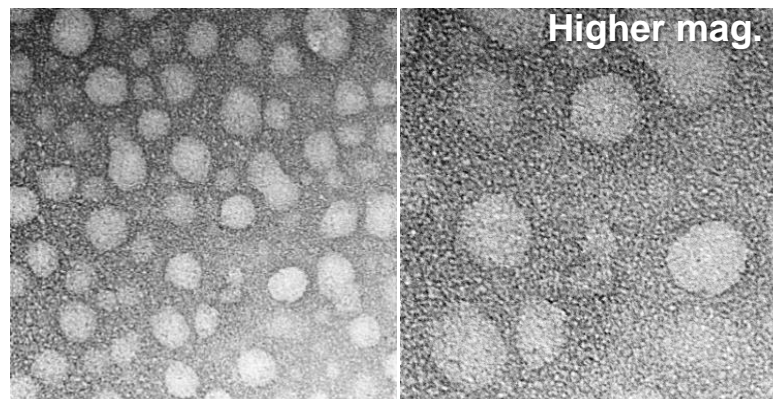
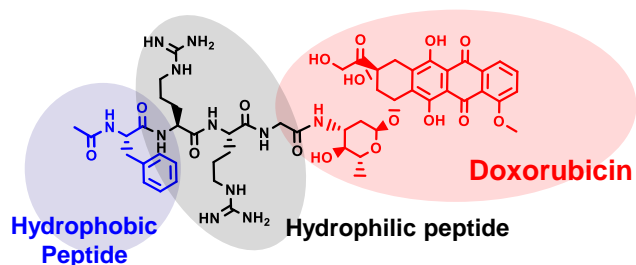
Development of a tumor-specific and self-assembly prodrug (A simple and short peptide based doxorubicin prodrug)

Doxorubicin (DOX) is a cytotoxic anticancer drug approved by the FDA for **11 indications**.



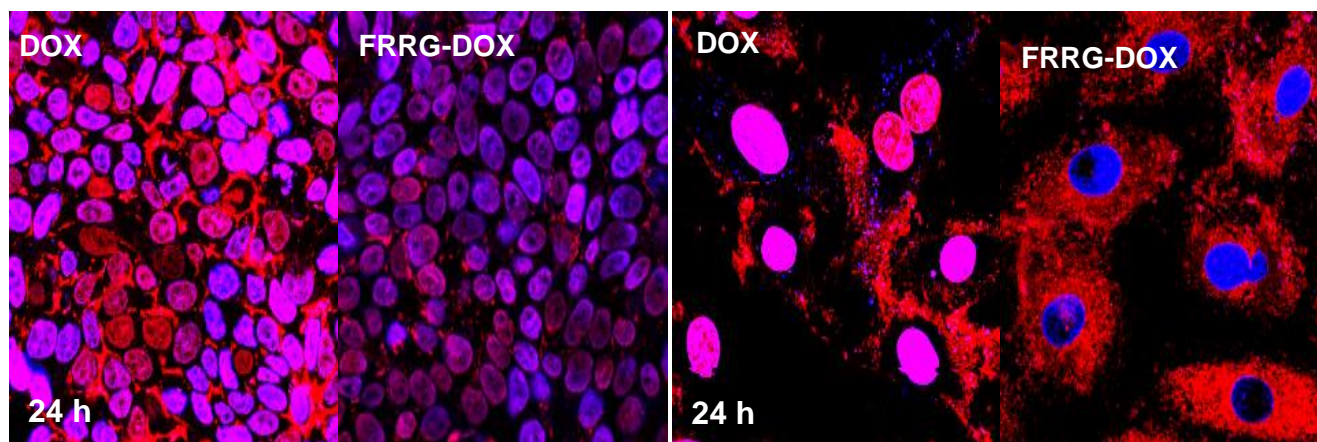
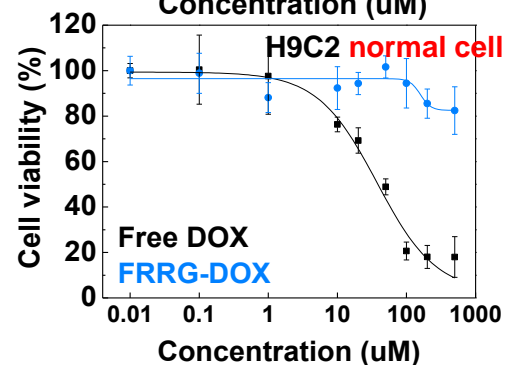
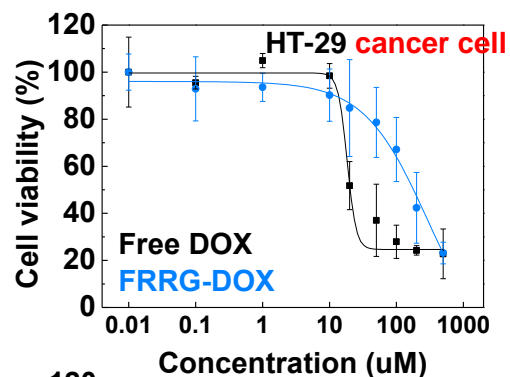
The tumor-specific effect of the self-assembly prodrug

A simple tumor-specific and self-assembly peptide-drug conjugate



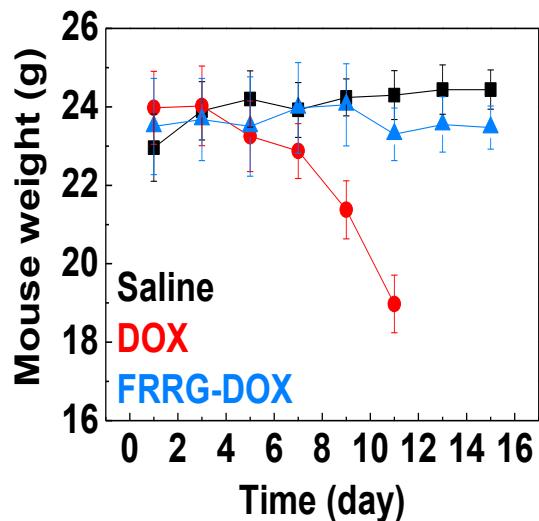
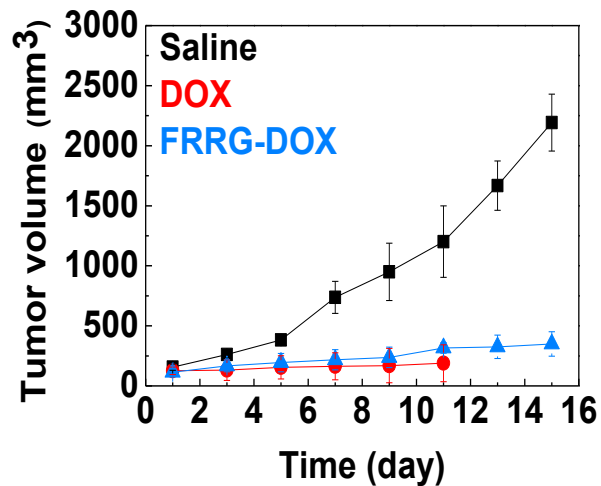
HT-29 tumor cell

H9C2 normal cell

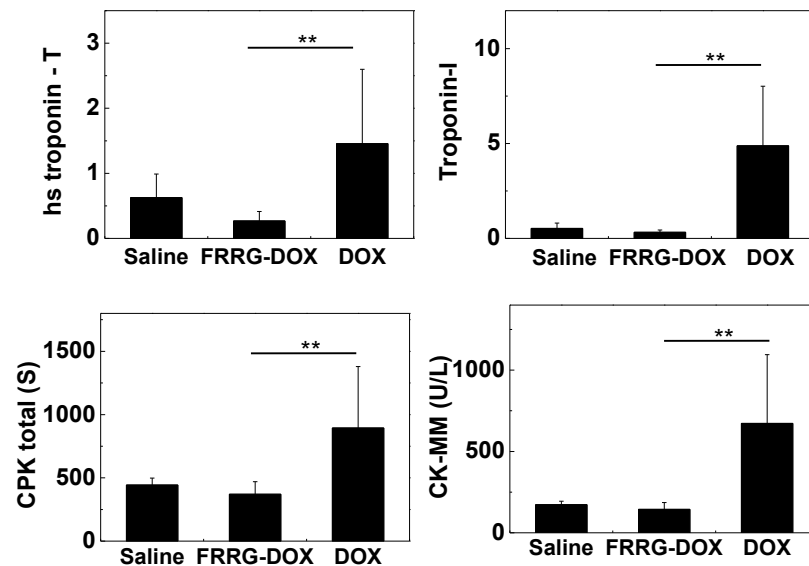


Low toxic anticancer effect of the prodrug

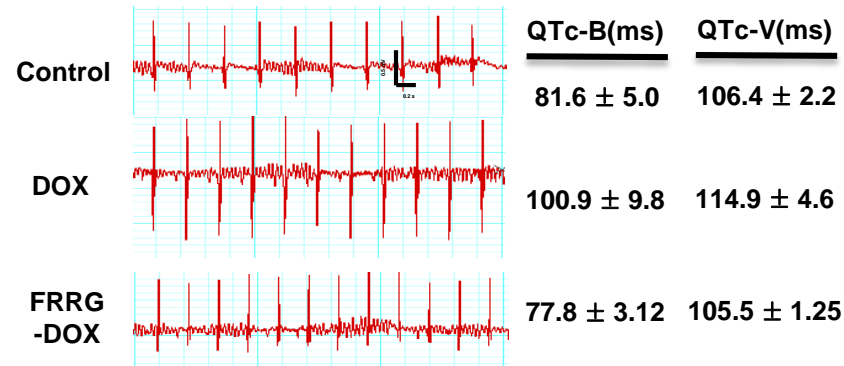
Anticancer effect in HT29- tumor bearing mice



Cardiac toxicity indicators in blood (rats)



Electrocardiography (ECG) in mice after treatment



Thank you for your attention.