Art Advancing Science

Filmmaking Leads to Deep Insights into Nanomedicine
AN ENTERTAINING SHORT FILM

: The nanoparticle-mediated drug delivery process within human body
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: The nanoparticle-mediated drug delivery process within human body

: The targeted drug delivery across multiple spatial scales
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: The drug delivery vehicles circulate with blood flow in the human vasculature network
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: The targeted drug delivery across multiple spatial scales

: The drug delivery vehicles circulate with blood flow in the human vasculature network

: Deep insights into biological system at multiple scales
Mediated drug delivery process
Mediated drug delivery process: Drug $\rightarrow$ Tumor
MultiScale Models

(a) Blood vasculature model

(b) Blood flow simulation

(c) NP diffusion in tumor stroma
Self assembly of Nanoparticle
Surface Modification
Circulation in blood flow
Penetrating into tumor microenvironment
Relative Audience Attention VS Time
Endocytosis: after penetration
Drug Release
Innovation

A new synergistics approach to integrate art and science
Innovation

: A new synergistics approach to integrate art and science

: Advanced scientific visual communication
Innovation

- A new synergistics approach to integrate art and science
- Advanced scientific visual communication
Impact and Outcomes

: An impactful educational film
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: An impactful educational film

: An factor articles
Impact and Outcomes

- An impactful educational film
- An factor articles
- Internal multidisciplinary collaboration
Impact and Outcomes

- An impactful educational film
- An factor articles
- Internal multidisciplinary collaboration
- Possible external funding search
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: Leadership in science research and scientific filmmaking
Thank you