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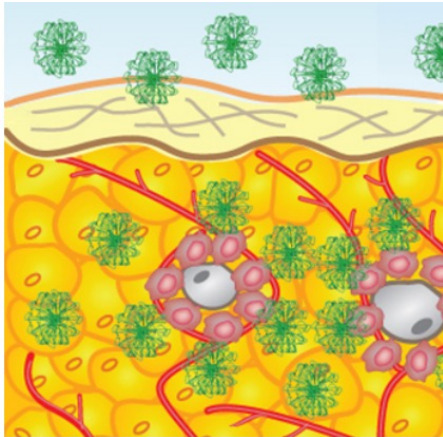
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My research aims to develop nanomaterials for diagnostic, imaging, and therapeutic applications. A primary emphasis is on the analysis and modulation of macrophage phenotype and inflammation using targeted nanocarriers.



Keywords

Nanotechnology, targeted drug delivery, quantitative molecular imaging, single molecule imaging, obesity, type 2 diabetes, cancer, inflammation

Research Interests

- Macrophage targeted therapies
- Targeted anti-inflammatory agents
- Quantum dot molecular probes
- Single biomolecule counting assays
- Live-cell single biomolecule imaging

Current Projects

- Targeted Drug Delivery to Adipose Tissue Macrophages in Obesity
- Nanomedicine-Based Targeting of Inflammatory Macrophages in Diabetic Wound Repair
- Cell Classification in Intact Tissue using Quantum Dots
- Multiplexed Analysis of Circulating Nucleic Acids in Small-Volume Blood

Interest Areas for Collaboration/Future Work

- Targeted drug delivery in diverse animal models of disease
- Mechanisms of drug delivery
- Single-protein imaging in living cells