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Creative biomaterials for tissue regeneration

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Choi, Cho-E, "Creative biomaterials for tissue regeneration" (2022). *Inspiring Minds – A Digital Collection of Western's Graduate Research, Scholarship and Creative Activity.* 358. https://ir.lib.uwo.ca/inspiringminds/358 Inspiring Minds – Cho-E Choi, PhD, Chemical and Biochemical Engineering

Title: Creative biomaterials for tissue regeneration

Biomaterials are cell-friendly substances that can interact with biological systems for a medical purpose and therapeutic applications. It is so exciting to be able to create new biomaterials-based therapeutic platforms taking inspiration from different areas of expertise, including chemistry, physics, and biology for applications in medicine, pharmacy, and all other fields to which biomaterials can be applied. Biomaterial science research allows us to test new strategies to produce materials with customized and improved properties to enhance therapeutic treatments. Indeed, engineered biomaterials play an increasingly important role as biomedical therapeutics in clinical applications. To this, I am working on developing novel designs of drug-loaded nanobiomaterials for tissue regeneration such as biomimetic nano-materials to allow for controlled drug release and spatial targeting so that this advance in biomaterial technology reaches patients.

