

**Keywords:** smart biomaterials, drug delivery, controlled drug delivery, smart biomaterials, drug delivery, controlled drug delivery

## Introduction

Smart biomaterials are a class of materials that can respond to external stimuli and change their properties accordingly. They have a wide range of applications in medicine, particularly in drug delivery. This paper discusses the current state of smart biomaterials and their potential for controlled drug delivery.

### 1.

## Understanding smart biomaterials

Smart biomaterials are materials that can respond to external stimuli and change their properties accordingly. They are typically made of polymers, metals, or ceramics. The stimuli can be light, heat, pH, or magnetic fields. The response can be a change in shape, size, or chemical composition. This property makes them ideal for drug delivery, as they can be designed to release drugs only when they are needed.

### 2.

## Applications in controlled drug delivery

Smart biomaterials have a wide range of applications in controlled drug delivery. They can be used to create drug delivery systems that release drugs in a controlled manner, over a long period of time, or in response to a specific stimulus.

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