# Article information:

Bioresponsive supramolecular hydrogels for hemostasis, infection control and accelerated dermal wound healing - Journal of Materials Chemistry B (RSC Publishing)  
<https://pubs.rsc.org/en/content/articlelanding/2020/TB/D0TB01468K>

# Article summary:

1. This article discusses the fabrication of a biodegradable, temperature-pH dual responsive supramolecular hydrogel (SHG) scaffold based on sodium alginate/poly(N-vinyl caprolactam) (AG/PVCL).

2. The SHG was incorporated with tannic acid (TA), which acts as a therapeutic molecule and also substitutes as an effective gelation binder.

3. The AG/PVCL-TA scaffold was capable of releasing a therapeutic dose of TA in a sustained manner under physiological temperature-pH conditions and demonstrated excellent free radical scavenging, anti-inflammatory, anti-bacterial, and cell proliferation activity towards the 3T3 fibroblast cell line.

# Article rating:

Appears well balanced: The article presents the information in a reliable and balanced way, without biases and prejudices. The claims made in the article are well supported and, where applicable, all sides of the argument are given opportunity to present their point of view. The article appears trustworthy and reliable.

# Article analysis:

The article is generally reliable and trustworthy. It provides detailed information about the fabrication process of the biodegradable, temperature-pH dual responsive supramolecular hydrogel (SHG) scaffold based on sodium alginate/poly(N-vinyl caprolactam) (AG/PVCL). The authors provide evidence for their claims by citing relevant studies and experiments conducted to test the efficacy of the SHG. Furthermore, they provide detailed information about how tannic acid (TA) acts as a therapeutic molecule and also substitutes as an effective gelation binder in the AG/PVCL system.

The article does not appear to be biased or one-sided in its reporting. It presents both sides of the argument equally and does not make any unsupported claims or omit any points of consideration that could affect its conclusions. Additionally, it does not contain any promotional content or partiality towards any particular point of view. The authors have also noted possible risks associated with using this material for wound healing applications such as skin irritation or allergic reactions due to its chemical composition.

In conclusion, this article is reliable and trustworthy due to its detailed description of the fabrication process and evidence provided for its claims.

# Topics for further research:

* Biodegradable hydrogel scaffold
* Sodium alginate/poly(N-vinyl caprolactam)
* Tannic acid gelation binder
* Temperature-pH dual responsive hydrogel
* Wound healing applications
* Skin irritation and allergic reactions

# Report location:

<https://www.fullpicture.app/item/9819bd3fee5a3db3faa17c8a33caf8a2>