# Article information:

由氧化葡聚糖和透明质酸酰肼组成的导电双网络水凝胶作为BDNF输送系统，用于潜在的脊髓损伤修复 - PubMed  
<https://pubmed.ncbi.nlm.nih.gov/33278434/>

# Article summary:

1. This study reports a new strategy for preparing an injectable and conductive polysaccharide hydrogel that can sustainably deliver brain-derived neurotrophic factor (BDNF) for spinal cord injury (SCI) repair.

2. The hydrogel is composed of oxidized dextran and hyaluronic-hydrazide, and is modified with tannic acid to encapsulate BDNF.

3. Results show that the hydrogel has similar characteristics to natural spinal cord tissue, with soft mechanical properties and high conductivity, as well as a continuous porous structure.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

This article provides a detailed description of a new strategy for preparing an injectable and conductive polysaccharide hydrogel that can sustainably deliver brain-derived neurotrophic factor (BDNF) for spinal cord injury (SCI) repair. The authors provide evidence from in vitro experiments showing that the hydrogel has similar characteristics to natural spinal cord tissue, with soft mechanical properties and high conductivity, as well as a continuous porous structure. Furthermore, the authors demonstrate that the addition of tannic acid to the hydrogel matrix increases its stability and prolongs BDNF release from the matrix.

The article appears to be reliable in terms of its scientific content, providing evidence from in vitro experiments to support its claims. However, it should be noted that this study was conducted in vitro only; further research is needed to determine whether these results can be replicated in vivo. Additionally, while the authors do note potential risks associated with their proposed method of delivery, they do not explore any counterarguments or alternative methods of delivery which could potentially be more effective or have fewer risks associated with them. As such, it would be beneficial if the authors provided more information on other potential methods of delivery which could be used for SCI repair.

# Topics for further research:

* Spinal cord injury repair methods
* Alternative delivery methods for BDNF
* In vivo testing of hydrogel
* Risks associated with hydrogel delivery
* Tannic acid properties
* Polysaccharide hydrogel characteristics

# Report location:

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