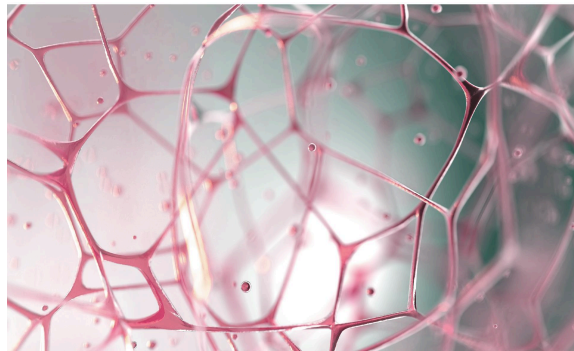
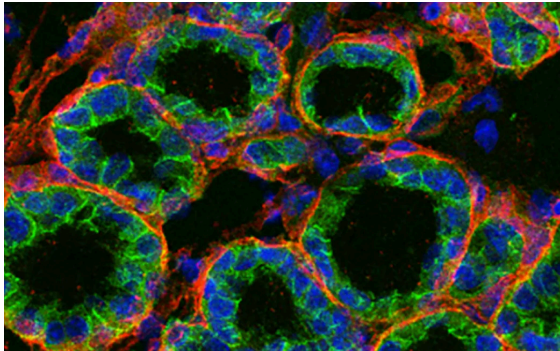


Groundbreaking Biomaterial Heals Tissues From The Inside Out



Source: ScienceDaily: <https://www.sciencedaily.com/releases/2023/01/230130144805.htm>

Summary:

A team of bioengineers and physicians conducted a study on extracellular matrix (ECM) - a complex network of proteins and other molecules that exist outside of cells and provide structural and biochemical support to them. It is composed of a variety of proteins, glycoproteins, proteoglycans, and other molecules. The ECM serves to maintain the shape and integrity of cells and tissues, provides physical and biochemical support for cells, and helps to regulate cell behaviour.

The ECM is made up of a variety of components, including collagen, proteoglycans, glycoproteins, and other molecules. Collagen is the most abundant protein in the ECM and provides a strong scaffold that helps to maintain the shape and structure of cells and tissues. Proteoglycans and glycoproteins are important for providing physical and biochemical support and helping to regulate cell behaviour. ECM helps to heal tissues from the inside out by providing physical and biochemical support to cells, helping to ensure that they remain healthy and functioning properly. Additionally, the ECM helps to promote the growth and repair of damaged tissues by providing the necessary building blocks for new tissue growth. It also helps to protect cells and tissues from damage and infection by acting as a physical barrier.

Although the heart was the focus of the study for the most part, one of the researchers stated that the potential for treating other hard-to-access organs and tissues can open up the field of biomaterials/tissue engineering into treating new disorders.

Why I chose this and implications:

I chose to talk about this groundbreaking biomaterial because it has the potential to revolutionise the way we treat a variety of medical conditions. This material has the ability to heal tissues from the inside out, meaning that it can be used to repair and regenerate damaged tissues without the need for invasive surgery. The implications of this are immense, as it could potentially reduce recovery times and improve the quality of life for those affected by chronic or long-term illnesses. Furthermore, it could open the door to new treatments and therapies which would not have been possible before.