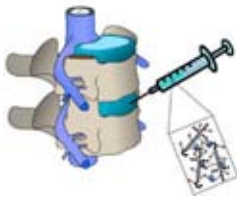


TRENDS AND TECHNOLOGY

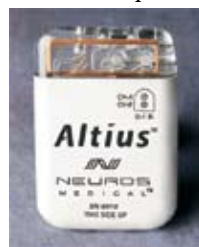
Regenerating Back Discs

Lower back pain is an all-too-common occurrence, and for many the pain is due to degenerative disc disease. The holy grail of preventing and treating disc degeneration is the use of cell therapies to restore the cushion-like functionality of the discs. The biomaterial is a gel that consists of three components: chemically modified laminin-111 protein and two polyethylene glycol (PEG) hydrogels. Separately, these substances are in a liquid state, but combine them like epoxy in the IVD space, and they become a gel that can hold NP cells in place.

<http://www.pratt.duke.edu/node/4206>



The Altius Implantable Generator



The Altius consists of an implantable generator that has an integrated rechargeable battery, a cuff electrode, lead extension, and external control devices.

The generator uses the firm's proprietary Electrical Nerve Block technology to disrupt nerve pain signals from reaching the brain.

<http://neurosmmedical.com/aboutus/products.html>

Docphin: Doctor's Personalized Health Information Network

Docphin's vision is to improve health care quality by accelerating the application of the evidence-based medicine in the clinical setting. Docphin's provider platform streamlines access to medical research from over 5000 journals and recommends content that's relevant to the user's interests and trending among peers. Providers save their subscription credentials to the device and quickly access PDFs that can be saved for later or shared with colleagues, all from their mobile device.

<https://www.docphin.com/>



SMARTPATCH™

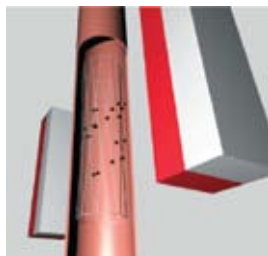


PNS System is aimed at treating shoulder pain in patients post stroke. The device utilizes percutaneous leads to stimulate muscle activity and reduce pain.

From *MedCity News*

Magnetically Guided Drug Delivery Systems

Researchers at Lund University in Sweden successfully used magnets to guide fibrinolytics directly to the site of a thrombus stuck within a coronary stent. They did this by attaching the drugs to magnetic nanoparticles and using external magnets to move them to the right spot. Nanotechnology has made the particles tiny enough to pass through the smallest arteries and partly because the target has been a metallic



stent. When the stent is placed in a magnetic field, the magnetic force becomes sufficiently strong to attract the magnetic nanoparticles.

Press release: [Medicine rea](#)

ProSim SPOT Light

15-Second SpO₂ Tester

SPOT Light is lightweight and flexible with three custom presets specially-designed to make it the fastest and easiest-to-use device on the market today for pulse oximeter functional testing. Preset programs test any combination of saturation, heart rate, perfusion, transmission, artifact noise, and r-curve in 15 seconds or less.

<http://www.flukebiomedical.com>



ProSim 8 Vital Signs Simulators

The new ProSim 8 Vital Signs Simulator is capable of performing a complete patient monitor PM in just 5 minutes.

ProSim 8 provides pre-sets for the six most commonly used parameters:

- Electrocardiograph (ECG simulator)
- Non-invasive blood pressure (NIBP simulator)
- Invasive blood pressure (IBP patient simulator)
- Oxygen saturation (SpO₂ Analyzer)
- Respiration patient simulator
- Temperature patient simulator

<http://www.flukebiomedical.com>

IDA 4 Plus - Infusion Device Analyzer

This digital infusion pump tester uses fundamental measurement technology integrated with sophisticated electronics to ensure accuracy and reduce risk of human error during infusion pump testing. The IDA 4 Plus infusion pump analyzer maximizes productivity by testing up to four infusion pumps or channels at once, allowing you to move on to other tasks while letting the IDA 4 Plus take care of infusion pump testing and documentation.

<http://www.flukebiomedical.com>



MAQUET's futuristic-looking, advanced FLOW-i anesthesia system has been given 510(k) marketing clearance by the FDA (C20, C30 and C40 models). The anesthesia machine has advanced monitoring and respiratory controls, features the company's proprietary MAQUET VOLUME REFLECTOR (VR), a re-breathing device that allows partial re-circulation of exhaled gases.

<http://www.maquet.com/int/product/FLOW-i-C20?parentNodeId=hae11gnj>

