CPD EVENT RECORD

BIOELECTRONICS AND SPINAL IMPLANTS

with Ben Woodington PhD



Summary

This discussion concerned the latest developments in neural engineering: the creation of ultra-thin electronic devices which could be inserted into the spinal canal or cranium using a hypodermic needle. Once inside the body, the device unfurls (inflates) and bonds closely to the surface of the spinal cord or brain. This minimally invasive approach also results in much better electrical contact than currently available devices. The devices are powered and controlled through a subdermal power pack with a battery life of several years. At present, the new implants are not available and have not been tested on humans, but offer many advantages over those currently in use: the surgery is much less invasive, the devices are more flexible, they move with the spinal cord, and are easier to remove when necessary.

The purpose of the devices is primarily control of chronic, severe pain. They provide an effective alternative to opiates, with none of the



Evaluation, Reflection and Impact on Practice (this part of the certificate is **not** automatically generated - it has been entered by the participant)