CGA/17/29 - FABRICATION AND VALIDATION OF A REMOTE CONTROLLED CARDIOVASCULAR BIOSENSOR.

Cardiovascular disease and blocked heart arteries are common in Scotland and responsible for the majority of heart attacks and strokes. Medical stents are devices used to reopen these sites which often silently re-block. Our aim is to develop a new self-reporting stent[1,2] that senses these changes and clears the blockage to improve their effectiveness and benefit to patients. We have a well-developed model that can detect and invoke the necessary cell changes however the bulky electronics now need to be miniaturised into a device that can report this information wirelessly. A self-reporting stent would be transformative to Scottish healthcare.