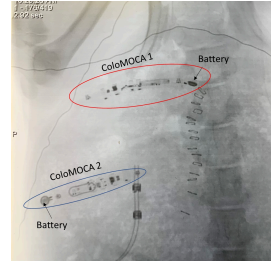


Sep 29, 2025

## Dual coloMOCA implantation protocol

DOI

[dx.doi.org/10.17504/protocols.io.36wgq3535lk5/v1](https://dx.doi.org/10.17504/protocols.io.36wgq3535lk5/v1)



Brett Hanzlicek<sup>1</sup>, Dennis Bourbeau<sup>2</sup>

<sup>1</sup>Advanced Platform Technology Center, Louis Stokes VA Hospital, Cleveland, Ohio;

<sup>2</sup>MetroHealth Medical Center, Cleveland, Ohio

SPARC

Tech. support email: [info@neuinfo.org](mailto:info@neuinfo.org)



Brett Hanzlicek

OPEN  ACCESS



DOI: <https://dx.doi.org/10.17504/protocols.io.36wgq3535lk5/v1>

**Protocol Citation:** Brett Hanzlicek, Dennis Bourbeau 2025. Dual coloMOCA implantation protocol . **protocols.io**  
<https://dx.doi.org/10.17504/protocols.io.36wgq3535lk5/v1>

**License:** This is an open access protocol distributed under the terms of the **Creative Commons Attribution License**, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited

**Protocol status:** Working

**We use this protocol and it's working**

**Created:** June 29, 2023

**Last Modified:** September 29, 2025

**Protocol Integer ID:** 84242

**Keywords:** colomoca implantation protocol, dual colomoca implantation protocol, colomoca, bowel device, implantation, pig, protocol



## Abstract

This protocol describes the implantation of two bowel devices (ColoMOCA) in pigs.

## Anesthesia

- 1 Anesthetize/prep the animal for surgery.

Aseptic procedures by trained personnel are utilized during the surgery. All tools are sterilized prior to insertion. Drapes will be used and personnel performing surgery will wear clean surgical scrubs, and sterile gowns/gloves and masks.

## Laparotomy

- 2 Make a midline suprapubic incision ~9 cm long to expose the peritoneal cavity and viscera.

## Colotomy

- 3 Make two small incision into the colon.

## Insert and anchor ColoMOCA

- 4 Insert devices through the small incision and secure in place with sterile non-absorbable sutures.

## Test Wireless Transmission

- 5 Wake the coloMOCAs with radio if not already awake. Confirm data transmission.

## Close incision

- 6
  - Close the colon with an absorbable suture in an interrupted pattern
  - Close the peritoneum and fascia with absorbable sutures using a continuous suture pattern.
  - Close the subcutaneous tissue and skin with non-absorbable monofilament suture with a cutting needle, using an interrupted suture pattern. Skin staples may also be used.

## Test Wireless Transmission (2)



- 7 Confirm data transmission and then put devices to sleep

## CT-Imaging

- 8 Image to verify placement of the sensors.

## Place jacket on the pig

- 9 Place and zip the jacket on the pig while still anesthetized.

## Wake up the animal

- 10 Stay with the animal until fully awake. Return to pig room.