ABSTRACT
This collection describes the procedures required to visualise and characterize synaptic boutons associated with functionally classified pelvic ganglion autonomic neurons of adult male and female Sprague-Dawley rats. This collection includes protocols for:

STAGE 1: Surgery to micro-inject fluorescent retrograde tracer dyes into one or more sites within the lower urinary tract

STAGE 2: Intracardiac perfusion with fixative to preserve neural tissues of interest

STAGE 3: Immunohistochemical labeling of thick cryosections of pelvic ganglia

STAGE 4: Confocal microscopy and image analysis of synaptic boutons associated with ganglion neurons.

License: This is an open access collection 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: Dec 17, 2019
**Last Modified:** Apr 23, 2020

**COLLECTION integer ID:**
31082

**Keywords:**
Immunohistochemistry, immunofluorescence, retrograde tracing, tract tracing, synapse
Use of tracer dyes to label neural projections to lower urinary tract organs

Intracardiac perfusion with fixative for anatomical studies

Immunohistochemical labeling of thick cryosections from pelvic ganglia

Confocal microscopy and characterization of synaptic boutons associated with ganglion neurons