**Current EXTERNAL Funding - AUSTRALIA-

2014-2016 National Health & Medical Research Council (NH&MRC) – project grant 1067335 ($570,558 AUD**Title: Imaging the activation of spinal afferent nerve endings that detect pain inthe colorectum.
**N.J Spencer (CIA)**, S.J. Brookes (CIA) & V.P. Zagorodnyuk (CIC):– Flinders University.
Aim: Understanding how inflammatory bowel disease causes hypersensitivity of colonic sensory nerve endings and increased abdominal pain.

**2014-2016 National Health & Medical Research Council (NH&MRC) – project grant 1067317 ($342,111 AUD).**
Title: Use of a novel technique to identify the sensory nerve endings that detect painful stimuli in the upper gastrointestinal tract and characterize their mechanisms of activation.
**N.J Spencer (CIA) &** V.P. Zagorodnyuk (CIB): – Flinders University.
Aim: To determine how inflammation of the colon leads to hypersensitivity of spinal afferent nerve endings that underlie pain perception.

**2014-2016 National Health & Medical Research Council (NH&MRC) – project grant ($629,286 AUD).**Title: Mechanical factors in normal human colonic motility.
P. Dinning (CIA), **N. J Spencer (CIB)**, M. Costa **(**CIC), T.Omari (CID), S.J Brookes (CIE), D.A. Wattchow (CIF) & P.Bampton (CIG): – Flinders University.
Aim: To determine the normal patterns of colonic motility in human colon.

**2012-2014 National Health & Medical Research Council (NH&MRC) – project grant ($551,500 AUD).**Title: Imaging the activation of spinal afferent nerve endings that detect pain in the colorectum.
**N.J Spencer (CIA - sole CI)**: – Flinders University.
Aim: Determine mechanisms underlying transduction of visceral pain in the large intestine.  **2013-2015 National Health & Medical Research Council (NH&MRC) – project grant ($545,000 AUD).**Title: How movements of the gut activate sensory nerve cells.
S. Brookes (CIA), P. Dinning (CIB), **N. Spencer (CIC)** & V.P. Zagorodnyuk (CID): – Flinders University.
Aim: Determine how inflammation influences pain pathways in the colorectum.
 **2013-2015 National Health & Medical Research Council (NH&MRC) – programme grant ($377,000 AUD).**
Title: Mechanisms of overactive obstructive bladder.
V. Zagorodnyuk (CIA), R. Haberbeger (CIB), S. Brookes (CIC) & **N. Spencer (CID):** – Flinders University.
Aim: Determine the mechanisms by which cystitis influences bladder function.

**2012-2014 Australian Research Council (ARC) – project grant ($303,000 AUD).**Title: Neurogenic motor patterns in the distal bowel.
M. Costa (CIA), P. J. Dinning (CIB), **N.J Spencer (CIC)** & S.J. Brookes (CID): – Flinders University
Aim: To characterize the different motor patterns in the colorectum.

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**N.J Spencer (CIA)**, S.J. Brookes (CIA) & V.P. Zagorodnyuk (CIC):– Flinders Universitu.
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