## PLEASE ADHERE TO ALL OF THE GUIDELINES AS DETAILED:

Your abstract **should not exceed 250words** excluding the title, author(s) name(s), address(es), references and acknowledgement of any external funding. The text should be single spaced, Times New Roman, font size 11 and justified. The abstract must have no more than **ONE** table that fits on the same page as your abstract and figures are <u>NOT</u> <u>allowed</u>. When using abbreviations, spell out the full name on first mention. Avoid excessive use of abbreviations.

#### YOUR ABSTRACT SHOULD BE STRUCTURED AS FOLLOWS:

- A descriptive title in **BOLD CAPITAL LETTERS (NOT UNDERLINED)**
- The initials and surname of the author(s) without titles or degrees should appear below the title.
- The department(s), institution(s) and city(ies) /town(s) should be listed next. (Not written in *italics* or **BoLD**)
- The text should be single spaced, Times New Roman, font size 11 and justified.

The abstract should be of the informative type containing <u>four</u> paragraphs but <u>without</u> <u>any</u> subtitles or paragraph headings:

- Brief Background and specify the purpose of the study
- Outline the methods used, for example study design, study population, statistical test(s).
- Results of the study and include key statistical data.
- Outline the main implication(s) of the study.

Up to two references in the Vancouver style can be included (See examples provided below) References: (YOU ARE ONLY ALLOWED TO HAVE 2); Please adhere to the following format

## JOURNAL ARTICLE:

Drummond PD. Triggers of motion sickness in migraine sufferers. Headache. 2005; 45(6):653-6.

- 1. Halpern SD, Ubel PA, Caplan AL. Solid-organ transplantation in HIVinfected patients. N Engl J Med. 2002; 347(7):284-7.
- 2. Geck MJ, Yoo S, Wang JC. Assessment of cervical ligamentous injury in trauma patients using MRI. J Spinal Disord. 2001; 14(5):371-7.

### MORE THAN SIX AUTHORS:

Gillespie NC, Lewis RJ, Pearn JH, Bourke ATC, Holmes MJ, Bourke JB, et al. Ciguatera in Australia: occurrence, clinical features, pathophysiology and management. Med J Aust. 1986; 145:584-90.

#### SUBMITTING:

The abstract should be submitted through Brightspace Assignment 1.

## PLEASE NOTE:

Only Abstracts submitted in using **WORD Doc.** and submitted to Brightspace Assignment 1 can be reviewed.

### EXACT EXAMPLE OF WHAT YOUR ABSTRACT SHOULD LOOK LIKE

#### SERUM NETOSIS EXPRESSION AND RECURRENCE RISK AFTER REGIONAL OR VOLATILE ANAESTHESIA DURING BREAST CANCER SURGERY: A PILOT, PROSPECTIVE, RANDOMISED SINGLE-BLIND CLINICAL TRIAL

Aghamelu O<sup>1</sup>, Buggy P<sup>2</sup>, Smith G<sup>3</sup>, Inzitari R<sup>3</sup>, Wall T<sup>4</sup>, Buggy DJ<sup>1, 3, 4, 5, 6</sup>

<sup>1</sup>UCD School of Medicine, University College Dublin, Belfield, Dublin 4, Ireland

<sup>2</sup>School of Medicine, University College Cork

<sup>3</sup>Clinical Research Centre, School of Medicine, University College Dublin

<sup>4</sup>Department of Anaesthesiology & Perioperative Medicine, Mater University Hospital, University College Dublin

<sup>5</sup>Outcomes Research, Cleveland Clinic, OH, USA

<sup>6</sup>EU COST Action 15204 Euro-Periscope

Some experimental and retrospective clinical studies signal an association between certain anaesthetic techniques and tumour metastasis following breast cancer surgery<sup>1,2</sup>. Neutrophil Extracellular Trapping (NETosis) is an immunological process whereby neutrophils engulf tumour antigen then degranulate, leaving serologic markers. NETosis expression among breast cancer patients is associated with an increased risk of metastasis. We investigated the effect of two distinct anaesthetic techniques on the expression of NETosis in women who underwent potentially curative breast cancer surgery.

In a large clinical trial, women undergoing breast cancer surgery were randomly assigned to receive volatile general anaesthesia (GA) or propofol combined with paravertebral regional anaesthesia (PPA) for their surgery. Serum was taken preoperatively and 24 hours postoperatively. A subset of women (n=40) from this larger clinical trial were randomly selected and their serum was examined for two particular NETosis biomarkers, Neutrophil Myeloperoxidase (MPO) and citrullinated histone H3 (CitH3). NETosis was measured by ELISA using MPO and CitH3 biomarkers, which were the co-primary end-points.

Patient and breast cancer characteristics did not differ significantly between groups. Recurrence occurred in 7.5% patients. There was no difference in postoperative MPO in GA vs PPA ( $10.5\pm6.6$  vs  $11.5\pm4.7$  ng ml<sup>-1</sup>, p=0.60). Regarding CitH3, there was no difference postoperatively in GA vs PPA ( $3.6\pm2.3$  vs  $4.0\pm5.9$ , p=0.80). NETosis expression did not differ before or after anaesthesia and surgery in either group.

Anaesthetic technique did not affect NETosis expression in breast cancer patients, indicating that it is not a viable marker of the effect of anaesthetic technique on breast cancer recurrence.

#### Acknowledgements:

# We would like to thank the patients who kindly participated in this study and Helen Keane, Clinical Research Nurse.

#### **References:**

- 1. Jaura A, Flood G, Gallagher H, Buggy D. Differential effects of serum from patients administered distinct anaesthetic techniques on apoptosis in breast cancer cells in vitro: a pilot study. British Journal of Anaesthesia. 2014;113:i63-i67.
- 2. Buckley A, McQuaid S, Johnson P, Buggy D. Effect of anaesthetic technique on the natural killer cell anti-tumour activity of serum from women undergoing breast cancer surgery: a pilot study. British Journal of Anaesthesia. 2014;113:i56-i62.

Presenting Author:	Onyinye Aghamelu
Supervisor:	Prof Donal J Buggy
Co-Supervisors:	Dr Rosanna Inzitari, Ms Genevieve Smith