

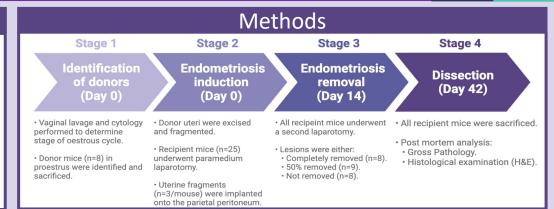
**Establishing and validating a murine model of endometriosis recurrence JTraynor**, DFischer, ASaiani, AMiller, MHarte and KMarshall. The University of Manchester, Oxford Road, Manchester, UK, M13 9PT

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## Introduction

- Currently the only curative option for endometriosis is surgical removal of the lesions.
- Whilst conservative surgery is preferable for women hoping to conceive, re-operation rates are high due to lesion recurrence.
- Despite this, there are very few pre-clinical models of endometriosis recurrence.
- The aim of this study is to establish and validate a clinically relevant murine model of endometriosis recurrence.



## Results Discussion To the best of our knowledge this is the first *in* Figure 2: **Histological staining Lesion volume** H&E staining of a vivo model of endometriosis recurrence without R recurred lesion after the requirement of exogenous oestrogen. 80 80 Figure 1: 50% lesion removal. Similar to clinical observation, lesions reformed The lesion with key aspects - 60 Mulume (mm<sup>3</sup>) 40 70 00 (mm<sup>3</sup>) 60 at the excision site [1]. highlighted. A) volume Omental adhesions, (Mean±SEM) at This study suggests that incomplete excision is 40 B) Vasculature, C) Day 14 and Day an important factor of endometriosis 42. A) Leukocytes, red 20 recurrence. Complete blood cells. These data suggest there is a 'threshold theory' macrophages and removal; B) No secretions and D) of endometriosis recurrence – the degree of removal and C) Davs Dave Endometrial glands. 50% removal. residual tissue dictates the risk/rate of lesion D growth. Figure 3: Figure 4: D) Relative 80 H&E staining of This model can be used to test the efficacy of H&E staining of 400 change in a small cyst that the peritoneal peri- and post-operative treatment for 60 -40 -40 -20 60 300 volume from reformed after excision site 200 dav 14 preventing lesion recurrence. full removal. after complete compared to 100 Histological removal. References dav 42 when examination Endometrial lesions were 1) Nirgianakis et al. Recurrence Patterns after Surgery in revealed the epithelial and fully, partially hallmarks of an Patients with Different Endometriosis Subtypes: A Longstromal cells or not endometriotic Term Hospital-Based Cohort Study. J Clin Med. are present. removed. Davs lesions. 2020;9(2):496.