

### **Professor Andrew Horne MB ChB, PhD, FRCOG, FRCP Edin, FRSE.**



#### **Biodata:**

Andrew is a Consultant Gynaecologist at the Royal Infirmary of Edinburgh, Professor of Gynaecology and Reproductive Sciences at the University of Edinburgh. He is co-director of the EXPPECT Centre for Pelvic Pain and Endometriosis in Edinburgh. Andrew is an experienced researcher in women's health problems, with a focus on endometriosis and pelvic pain, and has published over 150 peer-reviewed scientific papers. He is UK Representative for ESHRE, WES Ambassador, Member of the SEUD Scientific Board, Trustee and Medical Advisor to Endometriosis UK, Medical Advisor to the Pelvic Pain Support Network, and Associate Fellow of the Faculty of Pain Medicine of the Royal College of Anaesthetists. He is also a member of the NICE and ESHRE Endometriosis Guideline Committees, and the co-Editor-in-chief of Reproduction and Fertility. He has co-authored a book on endometriosis for patients called "The Experts' Guide to Treat, Manage and Live Well with Your Symptoms".

#### **Topic of Presentation:**

Drug repurposing to treat women with endometriosis



# 1st East African Endometriosis Conference (EAEC, 2021)

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## Outline:

All endometriosis drug approvals to date have been contraceptive, limiting their long-term use. Our objective was to determine whether it is possible to reverse the aberrantly increased glycolysis observed in peritoneal mesothelial cells (HPMC) of women with endometriosis with dichloroacetate (DCA), a non-hormonal clinically available inhibitor of glycolysis. The bioenergetic phenotype of HPMC from women with and without endometriosis was compared. The impact of DCA on energy metabolism was studied using HPMC and a HPMC-endometrial stromal cell co-culture model. The impact of DCA on peritoneal lactate concentrations and lesion size was studied in a mouse model of endometriosis. The results of these preclinical studies have provided the basis for an exploratory phase clinical trial in women with endometriosis. If effectiveness and acceptability is demonstrated in women, DCA would be the first non-hormonal treatment for women with endometriosis and/or to prevent recurrence after surge.