EDINBURGH PREGNANCY RESEARCH TEAM

NEWSLETTER

Welcome...

... to the Spring 2024 Edinburgh Pregnancy Research Team Newsletter.



The Edinburgh Pregnancy Research Team (EPRT) have quite a few projects running at the moment. We hope you enjoy reading about them on pages 4-8!

Congratulations to **Dianne** from the Tollcross Community Midwives team who **won** our Competition!

Be sure to check out **page 3 for upcoming EPRT events**. We're excited to be part of the **Edinburgh Science Festival on Thursday 4th April** - tickets available on the Edinburgh Science Festival website, <u>https://tinyurl.com/y7b7hkvf</u>, we hope to see you there!

Thank you for all your support, and we hope you enjoy the longer spring days!

The Edinburgh Pregnancy Research Team







IN THIS ISSUE

EPRT UPDATE PAGES 2 & 3



EPRT STUDIES PAGES 4-8

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Lothian



Edinburgh Pregnancy Research Team News

A big welcome to our new Research Midwives, Annie and Marie! Also a huge welcome back to Jess!

We said goodbye to our **Research Midwife Anna** and to our **Research Fellow Fabienne** at the end of 2023. Congratulations to both Anna and Fabienne on the birth of their babies!

EPRT are delighted to be working on some new studies which are now recruiting **i-Test, SimPreg** and **FERN.** All EPRT studies are detailed on the next few pages.

EPRT was at the NHS Lothian Nursing, Midwifery, Allied Health Professions, Psychology, Pharmacy, and Health Care Science Research Conference on 7th November presenting a Born in Scotland poster. It was great to see how much research is happening and that there are more options available for those wishing to pursue a research career. We were delighted to meet other healthcare professionals and talk about Born in Scotland and some of our other research projects.

Thank you to everyone for helping with recruitment to our studies - we really do appreciate your contribution to improving maternity care in Scotland in the future!



Coming Up...

for the Edinburgh Pregnancy Research Team

We've got some great events coming up in 2024 that our team is involved with - please join us!



Edinburgh Science Festival Event: Healthy Pregnancies, Healthy Lives

4th April

Flash talks from interdisciplinary researchers will show how health in pregnancy builds lifelong health for parents, children and communities. For more info scan the QR code to the right or visit: <u>https://tinyurl.com/y7b7hkvf</u>





Red4Research Day

7th June

#Red4Research Day in NHS Lothian Celebrate research in the Royal Infirmary of Edinburgh concourse. For more information, scan the QR code to the right or visit: <u>https://t.ly/8CIJg</u>





GLOW'24 Conference, Edinburgh

23rd-24th September

Rising to the challenge: Women's and newborn's health in the context of global crises. More information in our next Newsletter. For more information, scan QR code or visit: www.glowconference.org/



A quick update on

Our Current Research Projects



Born i

Scotland

Born in Scotland in the 2020s (BiS)

BiS is a cohort study in the pilot phase. It is currently recruiting in NHS Lothian, with plans to recruit participants from across Scotland. BiS is going very well and **we now have over 800 participants!** We hope that we will be able to understand more about how our time in the womb affects our long term health. By linking routine maternal health data with routine childhood health data we hope to be able to see patterns and answer questions like how does pollution exposure in pregnancy affect long term health for babies?

Find out more by visiting our website below, or scan the QR code to the right: <u>https://edin.ac/4344R8B</u>





Born in Scotland

Data Trust

Born in Scotland Data Trust Project

The **Born in Scotland Data Trust project** is linked to **Born in Scotland**. We want to test how a new, different model for looking after data (called a data trust) could work in practice using BiS as a case study. By speaking to Born in Scotland participants who are interested in participating in further research, we hope to be able to understand how databases of health data can be created in ways that can improve health research in the future. We hope to run more **BiS Data Trust** focus groups later this year.

Keep up to date on our website below, or scan the QR code to the right: https://edin.ac/3wFYuMx



I-Test

During pregnancy, the structure and function of the blood vessels throughout the body change. In pregnancy these changes may lead to complications, such as conditions like pre-eclampsia. The I-Test study is using Optical Coherence Tomography (OCT) which is a non-invasive scan of the back of the eye (retina). It is a simple and quick test that you may already have had during a trip to the opticians.

We have now demonstrated proof-of-principle (indicating that new retinal biomarkers may be able to be used for early detection of pregnancy complications). These could then potentially be integrated into models that are predictive of the risk of stillbirth. We are recruiting from 9+0 weeks of pregnancy and already have over 130 participants!

Keep up to date on our website below, or scan the QR code to the right: https://edin.ac/3VdM9cR

SIMPREG

SIMPREG is exploring whether continuous monitoring in pregnancy using 'smart wearable technology' can be used to identify risk of stillbirth. Participants are asked to wear different types of 'wearable technology' which look at different measures of the heart (for example, pulse rate) to try and identify whether these measures differ in complicated pregnancies.

Keep up to date on our website below, or scan the QR code to the right: https://edin.ac/49npvCh



-test

Recruiting

now!



SIMPREG





Recruiting now!



Edinburgh Reproductive Tissue Bio Bank (ERTBB)

ERTBB was set up to aid medical & scientific researchers working in the field of reproductive biology, with the long term goal of improving the health, diagnosis & treatment of women/gestational parents and their un-born infants.

The Bank provides anonymised, high quality tissue samples & matched medical data for researchers working on projects which have already obtained ethical approval from an appropriate ethics committee.

Keep up to date on our website below, or scan the QR code to the right: <u>https://edin.ac/3PrdPal</u>

ROTATE Trial

The **ROTATE Trial** is a randomised controlled trial comparing manual rotation (where the doctor uses their hands) to instrumental rotation (using an instrument such as forceps or a vacuum cup) to see which of these methods is the safest and most effective at rotating a baby into optimal position for birth.

Participants will be randomly allocated to either trying manual or instrumental rotation as the *first* approach to try and deliver the baby.

There are several outcomes including perineal trauma and psychological wellbeing.

RIE recruited the 100th participant (and received some delicious brownies to say thank you)!

Find out more by visiting the websites below, or scan the QR code to the right:

https://shorturl.at/eiKZ1 https://edin.ac/3TOCYyr



Recruiting now!









STOPPIT-3 and STOPPIT-M

STOPPIT-3 is a double-blind, randomised, placebo-controlled STOPPIT study which aims to resolve uncertainty about whether antenatal corticosteroids (ACS) reduces respiratory morbidity and NNU STOPPIT-N admission for twins.

In the UK roughly 50% of women/people pregnant with twins are routinely offered steroids prior to birth at the recommended gestation for birth (36+0-36+6 for MCDA, 37+0-37+6 for DCDA). This means either half of all twins are given steroids unnecessarily, or half miss out on medicine that could prevent neonatal unit admission and morbidity.

In STOPPIT-3 we hope to find out whether steroids should be offered in twin pregnancies prior to planned birth. Twin mums/gestational parents having IOL or ELCS at 35+0-38+6 who meet the eligibility criteria can sign up, and those who have an elective caesarean birth can also sign up to **STOPPIT-M**.

In **STOPPIT-M** we collect samples at the time of caesarean birth and want to find out why ACS work in some babies, but other babies still develop problems.

Edinburgh is the top recruiter for both STOPPIT-3 and STOPPIT-M, so thank you for all your help with this!

Find out more by visiting the websites below, or scan the QR code to the right: https://edin.ac/3IMV9xY https://stoppitstudy.co.uk/

Recruiting now!

Recruiting

now!



FERN

FERN is looking at how twin pregnancies complicated by selective fetal growth restriction (sFGR) are cared for and the pregnancy outcomes across different hospitals in the UK.

To be eligible, sFGR needs to be identified by 23+6 weeks gestation, with the smaller twin measuring <10th centile with a 25% discordancy in estimated fetal weight. Data is collected from routine care and outcomes. In the future it is hoped this will lead to further research into sFGR so these pregnancies can receive the best care.

Find out more by visiting the websites below, or scan the QR code to the right:

https://edin.ac/4aa4X15 or https://shorturl.at/pxFL1









Small Baby Research Clinic

At birth, 8-10% babies are small. Most babies who measure small are growing normally (ie they are genetically small and their size is appropriate). However, we cannot always distinguish on ultrasound between a baby that is small but appropriately grown, and a baby who has a small size due to their placenta not working as well. In the Small Baby Research Clinic we hope to improve on this, and those who attend can participate in research if they want to.

Find out more by visiting the websites below, or scan the QR code to the right: <u>https://edin.ac/4cgFogp</u>

Research Fellow and PhD Researcher Projects

In addition to our Current Studies, there are also a number of interesting projects being undertaken by the research fellows within our team, visit the website or scan the QR code: <u>https://edin.ac/3xklBwj</u>

• Optimising care for women with Gestational Diabetes Mellitus: a mixed methods evaluation of impact of COVID-19 on management of Gestational Diabetes

- Outcomes after unnecessary and late preterm/early term antenatal corticosteroids
- Machine learning to detect and validate fetal hypoxia using cardiotocography
- Personalised care for Gestational Diabetes: a data driven approach
- Optimizing dietary interventions for women diagnosed with Gestational Diabetes to significantly improve mental and neonatal outcomes
- Modelling Maternal Cardiovascular Adaptation to Pregnancy

• DASHing perspectives - This research aims to explore South Asian women's dietary preferences, readiness to incorporate the DASH diet into their daily lives specifically during pregnancy or planning pregnancy and their beliefs about DASH dietary recommendations. For more info follow the QR code or visit <u>https://edin.ac/4cphdfT</u>

• **DiPPY Baby** - The DiPPy Baby (Digital Phenotyping in PregnancY) project is investigating how smartphone data may help discover associations between environmental factors and health in pregnancy. For more info follow the QR code or visit <u>https://edin.ac/3TvI9Sf</u>









Small Baby Research Clinic

Meet the Team

The Edinburgh Pregnancy Research Team (EPRT) encompasses a diverse group of academic researchers, medics, midwives and laboratory staff. We work together

within NHS Lothian and the University of Edinburgh to improve pregnancy outcomes and experiences through research. We also work collaboratively with many other academic and clinical teams and organisations, with the same shared interest in promoting research in pregnancy.

Centre for Cardiovascular Science



Professor Rebecca Reynolds Professor of Metabolic Medicine, University of Edinburgh; Honorary Consultant Physician, NHS Lothian



Dr Kathryn Hunt Specialty Trainee in Obstetrics and Gynaecology, NHS Lothian; Clinical Research Fellow



Anne-Marie (Annie) .lones **Research Midwife**



Em Thompson Research Midwife

Dr Carlos

Sánchez Soriano

Research Fellow



Dr Marisa Magennis

Research Coordinator;

Project Manager

Indira Kemp Research

Irfa Rizwan

PhD Student

Sarah

Donaldson

Jess Thompson **Research Midwife**

Jazz Kirkwood

PhD Student



Marie Heritage **Research Midwife**



Jayne Brady Senior BioBank Technician

Centre for Reproductive Health

Obstetrics; Subspecialty Trainee in Maternal and Fetal Medicine. NHS Lothian

SCREDS Clinical Lecturer in

Dr Sarah Murray

Edinburgh



Wendy Mak **Research Practitioner**

Rosie Jenks

Research Midwife

Dr Emily Frier

Research Fellow



Bee Nagy **Research Technician**

Research Midwife



Dr Niamh McLellan Research Fellow





Professor Sarah Stock Personal Chair of Maternal and Fetal Health; Consultant Obstetrician, NHS Lothian; Maternal and Fetal Medicine Subspecialist, Royal Infirmary



9

Dr Rosie Townsend Senior Research Fellow; Consultant Obstetrician, NHS Lothian



Farah Francis PhD Student



VOL. 4





Midwife



Shona Low

Senior Research Midwife

Support Us



The Edinburgh Pregnancy Research Team is a group of health and science professionals, working across the University of Edinburgh and NHS. We are committed to promoting and supporting perinatal research in order to improve pregnancy outcomes and experiences for pregnant women and families.



You can help us by fundraising... while you shop!

The easiest way to do this is to go to our website: www.easyfundraising.org.uk/causes/eprt/



Easyfundraising partners with over 7,000 brands who will donate part of what you spend to a cause of your choice. It won't cost you any extra. The cost is covered by the brand.

Brands pay easyfundraising a commission because when you start your shop from the easyfundraising website or app, they can see we sent you to them. If you make a purchase, a commission is generated, and that gets turned into a donation for us - magic!

Keep in Touch!

If you have any questions about our studies, would like further information or references for anything in this newsletter, please don't hesitate in contacting us. We would be delighted to hear from you!



0131 242 2480

https://www.ed.ac.uk/edinburgh-pregnancy-research researchmidwives@nhslothian.scot.nhs.uk.

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@edinburghpregnancyresearchteam













