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Newsletter gets a makeover

To coincide with a new academic year and the new Research Group website, we have relaunched the Research Group newsletter with a fresh, colourful image! This will include a new series of Staff Features to improve communication within the Group and increase collaborations within the School. This month we have launched with a feature on **Jenny Myers** who has recently been awarded a Blair Bell Lectureship – but don't worry there will still be the usual grant and publication news as well as details of the meetings and seminars we are holding!



There is a number of new staff and new students joining us this year so see pages 4 and 5 for details. There is a Welcome Night arranged for 31st October. We hope that all of our new comers feel welcome and have a successful time within the Group. Attached to the end of this newsletter is a group diagram to help you.

Produced by Administrator Martyn Johnson
Martyn.johnson@manchester.ac.uk

Maternal and Fetal Health Research Group

part of the

Research School of Clinical and Laboratory Sciences *in the*
School of Medicine *within the*
Faculty of Medical and Human Sciences.

www.medicine.manchester.ac.uk/research/groups/maternalfetalhealth

Page 2: News – New Websites

New website goes live!

The new Maternal and Fetal Health website has gone live. The new site details information about each of the research teams within the Group and provides information on research projects under the headings of normal and complicated pregnancies, as well as postgraduate and undergraduate information for potential new students.

Martyn Johnson, Melissa Westwood and Colin Sibley have been working with Paul Tam in the Faculty office, and an External Journalist, Rachel Pugh, to design the website from a “web search” friendly perspective. Anyone doing a search on “*maternal and fetal health research*” in Google will now come across us first!



Lay summaries of each project have also been uploaded in order to inform the general population about our research. We are hopeful that this might then encourage the local community to get involved in our research and increase our numbers of potential study volunteers and tissue collection.

If you have any comments or would like to upload text email martyn.johnson@manchester.ac.uk

Tommy's rebranding

Tommy's have also had a makeover!

Their new look is aimed at providing up-to-date information that is easy to understand, simple and practical.

Their new image is fun-loving, supportive, open and respectful and the website is user friendly and informative.

<http://www.tommys.org/Page.aspx?pid=191>



Research shows that 1 in 3 women have been embarrassed by elements of their pregnancy so Tommy's have also launched a brand new campaign - Let's Talk Baby! The aim is to empower pregnant women by bringing the realities of pregnancy into the open, and making impartial, expert pregnancy health information available to all.

Maternal & Fetal Health Research Biobank

To help facilitate our research into understanding how the human placenta functions in normal pregnancy and to identify what happens to the placenta in serious pregnancy complications we are planning to set up a Biobank.



Subject recruitment and tissue collection

Subject recruitment will be carried out by a Research Midwife who will be responsible for controlling the database linked to the Biobank.

We will aim to approach subjects much earlier in pregnancy using the current antenatal clinics; the new placental clinic and for complicated pregnancies recruitment will occur on the antenatal wards or on CDU.

The bank will cover a number of general research themes:

1. Trophoblast turnover
2. Nutrient transport across the placenta
3. Placental vascular function
4. Preterm labour
5. Placental endocrinology

How will the MFHRG Biobank work?

You will need submit a request to the Tissue Bank Committee (chaired by Colin Sibley). Applications for access to tissue will not be considered unless supported by a valid NRES (for UK) or IRB (international) approval covering the study for which the samples are being requested. You can speak to Mark Wareing about submitting your request



When will the Biobank be activated?

We hope that the appointment of a Research Midwife, purchase of software and storage equipment will be completed by the end of the year and we can begin tissue collection in January 2009.

Page 4: New Students

New PhD Students



Melissa Brereton

Melissa is joining us on a University of Manchester Strategic Studentship (50% MRC, 50% Tommy's) to work on a project with Mark Wareing and Sue Greenwood - 'An in vitro model to study the effects of altitude on human placental vascular smooth muscle function in normal pregnancy and pregnancies complicated by fetal growth restriction'.



Zoe Darwin

Zoe will be working on a project on "Psychosocial stress and pregnancy: The role of maternal health advocates" with Leroy Edozien and Helen Lester in Primary Care. She is also funded by a University of Manchester Strategic Studentship (50% MRC, 50% Tommy's)



Andrea Ditchfield

Andrea will be working with Sue Greenwood, Tracey Mills and Colin Sibley on a Tommy's projects "Exploring whether altered placental development and function link maternal obesity to fetal overgrowth."



Chris Fisher

Christal will be working with Jenny Myers and Phil Baker on a University of Manchester Strategic Studentship (50% BBSRC, 50% Tommy's) to study "Quantitative analysis of the plasma proteome in pre-eclampsia."



James Newham

James will be working with John Aplin and Melissa Westwood in collaboration with Anja Wittkowski from the School of Psychological Sciences on "Interventions to reduce maternal stress during pregnancy and its effect on pregnancy outcome."



Deidre Thajam

Deidre has been successful in her application for a BRC Fellowship to work with Diane Atkinson, Colin Sibley and Sue Greenwood on "The role of placental multi-drug resistant proteins (MDRP) in determining fetal susceptibility of drugs and abuse."



Louise Taylor

Louise will be supervised by Diane Atkinson and Jeff Penny in the School of Pharmacy & Pharmaceutical Sciences on a project exploring the "Interaction of placenta efflux transporters with xenobiotics".

Other Students



Imogen Butcher

Imogen is in her second year and has previously been working with Peter Clayton, Professor of Child Health & Paediatric Endocrinology. Imogen's PhD studies, funded by Novo Nordisk, focus on "an integrated functional genomics and metabolomics approach for characterisation of post-natal catch-up growth". She will be doing more work in our labs with her other supervisor Melissa Westwood.

New MRes Students



Miles Kiernan

Miles will be working with Mark Wareing and Sue Greenwood, concentrating on placental potassium channels.



Sitara Kuruvilla

Sitara will be working with Phil Baker and Ian Crocker and Rick Dunn in the MIB. She will be undertaking metabolomic investigations on samples collected from placental perfusions.



Matthew Stubbs

Matthew will be working with Jayne Fitzsimmons, John Aplin and Melissa Westwood on the role of macrophages in the development of the human placenta.

Page 5: Staff Changes

New Staff



Sarah Lawson

Although Sarah has been working one day a week with us since January 2008, on 15th September she became a full time **Research Midwife** working on the MAPS study with Research Midwife Suzanne Moody. She will be working closely with Suzanne, who will be spending more time on the wards and her MPhil.



Lucy Higgins

Lucy has been offered an honorary **Academic Clinical Fellow** position. Initially, her programme of research will be around obesity in pregnancy. She will be investigating whether placental changes are important in the aetiology of poor pregnancy outcome in women who are obese.

People Moving On



Nikki Hudson

Post Doctoral Research Associate. Nikki is leaving to join Professor Robert Hawkins in Medical Oncology as a Research Manager. She will continue to work closely with the NHS and will be based at the Paterson Centre at Christie Hospital in Withington.



Harmeet Singh

Post Doctoral Research Associate. Harmeet will be returning to India where he will decide on where his next steps take him – he has Australia and France in mind!



Carolyn Jones

Our **Research Fellow** Carolyn Jones retired at the end of September. Having completed a PhD on placental ultrastructure, Carolyn worked in the Stopford building, later moving to St Mary's where she has continued her work on comparative placentology and glycogenetics. We wish her a long, happy and healthy retirement. Meanwhile, do not despair: despite her change of status Carolyn will continue to make herself available to advise on research problems.



Olivia Clancy

MRes Student

Having completed a year with Phil Baker, Olivia has now returned to complete her medical training.



Steph Worton

MRes Student

Steph has also returned to her medical training, and will work towards her foundation position in the University of Oxford.

Page 6: Staff Feature

Jenny Myers – Clinical Lecturer

For the first Newsletter Staff Feature we have chosen Dr Jenny Myers who has been invited to deliver the Blair Bell Memorial Lecture next year. This annual lecture is given at the Royal College of Obstetricians and Gynaecologists by a promising investigator.

Jenny graduated from Nottingham University in 1997 having completed her Bachelor Medical Sciences and Medical degrees. Following completion of her pre-registration house officer posts, she undertook a senior house rotation in Obstetrics & Gynaecology in Derby and Nottingham. In 2001, she moved to Manchester to work as a Clinical Research Fellow in the new Maternal & Fetal Health Research Centre with Professor Phil Baker.



Jenny completed her PhD in 2005, which was entitled "Circulating Factors in Pre-eclampsia" and included research focusing on vascular biology and plasma proteomics. She is now a Clinical lecturer and combines clinical work as a Specialist Registrar at St Mary's Hospital with her research.

Jenny has been involved in several research projects within the Maternal and Fetal Health Research Centre since it opened in 2001 and has received a number of awards including a Young Investigator Award from the International Society for Hypertension in Pregnancy.

We are thrilled that Jenny has been awarded this prestigious opportunity to showcase her clinical and academic aptitude at this national meeting and congratulate her on this success.

[Jenny's Research Profile](#)

www.manchester.ac.uk/research/Jenny.Myers/personaldetails

If you would like to nominate someone for next month's feature – please email Martyn.Johnson@manchester.ac.uk

Page 7: Publications



Please include: **Maternal and Fetal Health Research Group, University of Manchester** when papers are submitted.

X. Wu a, K. G. Morgan b, **C. J. Jones** a, R. M. Tribe, **M. J. Taggart** d, Myometrial mechanoadaptation during pregnancy: implications for smooth muscle plasticity and remodeling J. Cell. Mol. Med. Vol 12, No 4, 2008 pp. 1360-1373

Journal Impact Factor: 6.807

Coan, P.M., Fowden, A.L., Constancia, M., Ferguson Smith, A.C., Burton, G.J. & **Sibley, C.P.** (2008) Disproportional effects of Igf2 knockout on placental morphology and diffusional exchange characteristics in the mouse. J. Physiol. (in press)

Journal Impact Factor: 4.580

Brownbill, P, Mills, TA, Soydemir, DF, Sibley, CP (2008). Vasoactivity to and endogenous release of vascular endothelial growth factor in the

in vitro perfused human placental lobule from pregnancies complicated by preeclampsia. Placenta (in press).

Journal Impact Factor: 3.238

Chibuikwe G Iruloh, Stephen W D'souza, William D Fergusson, Philip N **Baker**, Colin P **Sibley** And Jocelyn D **Glazier** (2008) Amino Acid Transport Systems And A In Fetal T Lymphocytes In Intrauterine Growth Restriction And With Tnf- Treatment. Pediatric Research (in press; epub ahead of print)

Journal Impact Factor: 2.839

Frøen JF, **Heazell AE**, Tveit JV, Saastad E, Fretts RC, Flenady V. Fetal movement assessment. Semin Perinatol. 2008 Aug;32(4):243-6.

Journal Impact Factor: 2.477

Forbes K, Hurst L, Gibson JM, Aplin JD, Westwood M, "Statins are detrimental to human placental development and function; use of statins during early pregnancy is inadvisable" Journal of Cellular and Molecular Medicine (in press)

Journal Impact Factor: 6.807

Williams JLR, Fyfe GK, Sibley CP, Baker PN, Greenwood SL. 'K⁺ channel inhibition modulates the biochemical and morphological differentiation of human placental cytotrophoblast cells in vitro'. American Journal of Physiology - Regulatory, Integrative and Comparative Physiology. In press. 2008

Journal Impact Factor: 3.661

Heazell AE, Crocker IP. Live and let die - regulation of villous trophoblast apoptosis in normal and abnormal pregnancies. Placenta. 2008 Sep;29(9):772-83.

Journal Impact Factor: 3.238

Heazell, A. E. P., Brown, M., Dunn, W. B., Worton, S. A., Crocker, I.

P., Baker, P. N. & Kell, D. B. (2008). Analysis of the metabolic footprint and tissue metabolome of placental villous explants cultured at different oxygen tensions reveals novel redox biomarkers. Placenta, 29(8):691-698 Journal Impact Factor: 3.238

Frøen JF, Tveit JV, Saastad E, Bør Dahl PE, Stray-Pedersen B, **Heazell AE**, Flenady V, Fretts RC. Management of decreased fetal movements. Semin Perinatol. 2008 Aug;32(4):307-11.

Journal Impact Factor: 2.477

If you have an abstract accepted for publication please email martyn.johnson@manchester.ac.uk a copy of the publication for the **newsletter**, but also so that the information can be passed on to the **Press Officer** Aeron Howarth who will contact local/national press.

Page 8: Our Successes

Honor Fell Travel Award



PhD Student **Beth Holder** was awarded an Honor Fell Travel Award of £400.00 from the British Society for Cell Biology. This was to support her costs whilst attending IFPA in September 2008.



Research Grant awarded

Consultant Obstetrician & Gynaecologist, and Honorary Senior Lecturer, **Leroy Edozien** has been awarded a Central Manchester and Manchester Children's University NHS Trust research grant of £20,668.00 to do some work on involving partners in pregnancy care. The project entitles "Engaging Partners in Childbirth: a feasibility study for a national programme of work" will enable his team do some preliminary work in anticipation of developing the research for future proposals



Left to Right: Janet Scott (Director of Operations), Alex Hezell, Charlotte Bevan (Parent) and Neal Long (Chief Exec) on a visit round the new research facilities in the new hospital.

The UK-Stillbirth and Neonatal Death Society (UK-SANDS) have agreed to provide start-up funding for two projects. The UK-SANDS aim to support anyone affected by the death of a baby and promote research to reduce the loss of babies' lives. They are particularly interested in the role that the placenta might play in the cause of stillbirth and have agreed to provide start-up funding for two projects in Manchester.

The first project starting in January 2009, will investigate placental morphology in cases of stillbirth (£3,000), and the second is a questionnaire study to determine attitudes of obstetricians, midwives and perinatal pathologists towards post-mortem investigations after stillbirth (£1,500). Both these studies will be coordinated by **Alex Hezell**. Thanks to all those who contributed to the success of their visit earlier in September.

Page 9: Conference Successes

Physiology 2008

At Physiology 2008, The Society's Main Meeting in Cambridge, 14-16 July 2008, 155 posters entered the Blue Riband Prize. Posters were judged on the calibre and clarity of scientific data; the communication of the content; and the ability of the presenter to answer questions concerning the research and findings.

Blue Riband Prizes:



Joanna Williams was chosen as the winner of the poster session on Monday 14 July! With her poster on "Tetraethylammonium and 4-aminopyridine-sensitive K⁺ channels regulate hCG secretion from human term placental villous explants".

Jemma Corcoran was chosen as the winner on Wednesday 16 July with her poster "17 β oestradiol-dependent acute relaxations of human arteries in vitro: a role for ER β ?"



Congratulations to Jemma and Joanna for their superb effort. To see their prize winning posters visit

: <http://www.physoc.org/site/cms/contentCategoryView.asp?category=420>

IFPA 2008



Over 20 people from the Research Group attended the recent International Placenta Meeting in Austria and, as befitting the largest pregnancy research group in Europe, were the largest single group out of over 400 delegates!

Elsevier Prize:

Everyone presented superbly, especially **Sam Smith** who won the Elsevier New Investigator Prize for the best oral presentation by a young investigator (out of over 200 such people at the meeting).



New President Elected:



Congratulations also go to Colin Sibley who was elected as the next President of the International Federation of Placenta Associations to serve a four year term.

Page 10: Meetings

Development of the human adrenal cortex and sex differentiation: the tricky business of being female

Friday 03rd October
G50 Stopford Building

13:00 – 14:00

Part of the Endocrine Sciences Research Group & Centre for Molecular Medicine Seminar Series

Professor Neil Hanley, Professor of Medicine.

Maternal and Fetal Health Research Showcase

St Mary's Hospital
Research Floor
Seminar Room
07th October 2008

10:00 – 13:00

A showcase of research into finding solutions to pregnancy problems – aimed at clinical staff getting more involved in our research.

All welcome.

Clare.Tower@manchester.ac.uk
for more information

Research and Innovation Exhibition 2008

Postgraduate Centre
17th November

09:00 – 17:00

Celebrating excellence in healthcare research. Guest speaker Professor Ian Jacobs (Director of the UCLH/UCL Comprehensive Biomedical Research Centre).

All welcome

Benjamin.kisaka@cmmc.nhs.uk
to confirm your attendance.

Neurodisability: optimising conditions for brain plasticity

21st November
St Mary's Hospital
Venue TBC

12:45 – 13:45

Maternal and Fetal Health Research Group Invited Speaker Seminar Series
Peter Sullivan – Reader in Paediatric Gastroenterology and Head of the Department of Paediatrics at the University of Oxford and John Radcliffe Hospital.

All welcome

Diane.Atkinson@manchester.ac.uk
For more information

Page 11: Lab Meetings

Maternal and Fetal Health Research Group Tuesday Lab Meetings

Seminar Room
Research Floor
1st Floor
St Mary's Hospital

08:30 – 09:30

07/10/08 PhD Project Introductions
14/10/08 PhD Project Introductions
21/10/08 No Meeting
28/10/08 MRes Student Projects
04/11/08 Peter Sipos Presentation

For more information email mark.wareing@manchester.ac.uk



Maternal and Fetal Health Research Group Wednesday Lab Meetings

Seminar Room
Research Floor
1st Floor
St Mary's Hospital

09:00 – 10:00

08/10/08 Nita Solanky / Paul Brownbill
15/10/08 Christina Hayward / Laura Kusinski
22/10/08 Mark Dilworth / Eleni Tsitiou

For more information email jean.french@manchester.ac.uk



Senior Research Team



John D Aplin Professor of Reproductive Medicine	Philip Baker Tommy's Chair	Ian Crocker Senior Scientist	Leroy Edozien Honorary Senior Lecturer – Maternal and Fetal Health	Jo Glazier Senior Research Fellow	Sue Greenwood Research Fellow	Edward Johnstone Honorary Clinical Senior Lecturer	Rebecca Lee Jones Lecturer
Alex Heazell Honorary Clinical Lecturer	Tina Lavender Professor of Midwifery	Jenny Myers Clinical Lecturer	Clare Tower Clinical Lecturer	Colin Sibley Director	Mark Wareing Senior Scientist	Melissa Westwood Senior Lecturer	Melissa Whitworth Honorary Senior Lecturer

Research Fellows

Diane Atkinson Research Fellow	Helen Bond Research Fellow	Paul Brownbill Research Fellow	Carolyn Jones Research Fellow	Lucy Higgins Honorary Academic Clinical Fellow	Tracey Mills Clinical Research Fellow
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Post Doctoral Research Associates

Richard Blankley	Marie Brown	Michelle Desforges	Mark Dilworth	Karen Forbes	Lynda Harris
Nicola Hudson	Nita Solanky	Yu Zhang			

 Clinical
 Non Clinical

Research Students (PhD, MD, MRes)

1st Year	Melissa Breton PhD Student	Debora Chirico Honorary Clinical Research Fellow	Zoe Darwin PhD Student	Andrea Ditchfield PhD Student	Christal Fisher PhD Student	Sarah Hart Clinical Research Fellow	Christina Hayward PhD Student
	Richard Horgan Honorary Clinical Research Fellow	Laura Kusinski PhD Student	James Newham PhD Student	Andrew Sharp Clinical Research Fellow	Peter Sipos Clinical Research Fellow	Alexandra Solomon Clinical Research Fellow	Diedre Thajam PhD Student
2nd Year	Beth Holder PhD Student	Justine Nugent Clinical Research Fellow					
3rd Year	Jemma Corcoran PhD Student	Jayne Fitzsimmons PhD Student	Elizabeth Hutchinson PhD Student	Samantha Smith PhD Student	Joanna Stanley PhD Student		
	Miles Kiernan MRes	Sitara Kuruvilla MRes	Russal Mohammed MPhil SELF-FUNDED	Matthew Stubbs MRes			

Research Midwives

Jane Guarino	Sarah Lawson	Suzanne Moody	TBA	TBA	TBA	TBA	TBA
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Technical Support

Bernadette Baker Technician Part-time	Nicola Charlesworth Technician Part-time	Liz Cowley Technician Part-time	Mille Cretney Technician Part-time	Rebecca Garside Technician	Sylvia Lui Research Assistant	Kurt Mynett Senior Technician	Alicia Requena Jimenez Technician Part-time
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Administrative Support

Jean French Secretary	Caroline Grimshaw Floor Manager	Martyn Johnson Research Administrator	Tina Anobile Research Facilitator	Inez Phillips Secretary
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Manchester Maternal and Fetal Health Staff and Student List – September 2008