

Maternal and Fetal Health Research Group

Monthly Newsletter

Issue 24
September 2009

In this issue...

Page 1: New MRes Course

Page 2: John's Trip to Japan

Page 3: HTA Inspection-
message from Jo Glazier

Page 4: Phil's Trip to the Dogs

Pages 5: Funding Successes

Page 6: Other Successes

Pages 7/8: Publication Successes

Page 9: Faculty News

Pages 10/11: Dates for your diary

Pages 12/13: Regular Meetings

STOP PRESS!!!

Human Tissue Authority inspection likely! Read all about it on Page 3!



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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

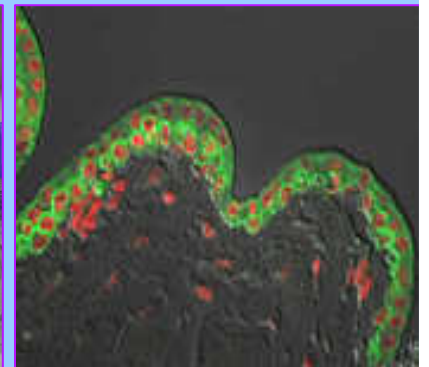
Page 1: New Mres Course

New Mres in Maternal and Fetal Health

September sees the start of the new MRes in Maternal and Fetal Health. Led by **John Aplin** and **Rebecca Lee Jones**, it will be a one-year-full-time course providing experience and training in pregnancy-related research.

Students will complete a series of skills workshops, which aim to provide experience and training in a wide range of molecular, histological, physiological and cell biology techniques applicable to pregnancy research. Students will also complete a literature review and research proposal prior to conducting a six-month research project. These will be complemented by tutorials and seminars to cover broader aspects of Maternal and Fetal Health, including major landmarks in pregnancy research, clinical trials, topical developments, and ethical and social issues.

The 7 new students will be joining MFHRC mid-September and there will be a beer and curry night to welcome the New Starters (more information to follow).



Page 2: John's trip to Japan

John Aplin visited Japan in July and co-organised the 'Endometrial Receptivity and Blastocyst Implantation IUPS Satellite Symposium' at the International Union of Physiological Societies, with Dr Jayashree Sengupta (Head of the Physiology Department at the All India Institute of Medical Sciences) and other colleagues in Kyoto.

As well as chairing the meeting, John gave talks on implantation biology and IGF effects in placental development, and delivered an introductory address about the valedictory speaker, Professor Allen Enders from the University of California at Davis. Later John visited the laboratory of Dr Tetsuo Maruyama at Keio University, Tokyo and gave a talk on work in the MFHRC.



Left: John with his co-organiser Jayashree Sengupta from Delhi



Right: John with his host Tetsuo Maruyama (third from right) and his research group.

Page 3: HTA Inspection- A message from Jo Glazier

We are likely to be inspected soon by the HTA to ensure that all our research activities are compliant with the Human Tissue Act 2004. The inspection will focus on (i) reviewing our operational policies and procedures, (ii) our premises and (iii) scrutiny of our practices. They will interview a range of staff, possibly you so be prepared for this! We are currently formulating plans to ensure we are compliant with respect to aspects (i)-(iii) above and that new work practices are implemented smoothly.

If we don't pass this inspection, we risk the Authority imposing conditions on us, or worse, suspending or revoking the Trust HTA Research Licence. We therefore ask for your forbearance and full co-operation regarding this highly important matter. Further information about what you have to do and when it has to be done by will be provided shortly.

Any intact cellular material (e.g. tissue biopsies, whole blood, urine, saliva, intact cells) which is currently stored, being obtained under any Tissue Bank Ethics (e.g. both Early and Late Pregnancy Tissue Banks), or for which the specific-project ethics has now expired, has to be declared under HTA.

If you are collecting samples under current project-specific ethics then we need to know when that approval expires and where those samples are stored.

We will systematically be going through all repositories (together with appropriate accompanying staff who are the 'owners') to ensure that all stored cellular material is accounted for. The time has come to sort out all your stored material.

If you are uncertain about any aspect of this, then please contact Jo Glazier.

Hopefully we can collectively demonstrate that we are an exemplary research group with the highest standards with respect to legislative compliance.

Phil Baker's leaving do to Belle Vue Dogs

Phil Baker left the department this month to take up his new post as Dean of the Faculty of Medicine and Dentistry (Honorary Consultant in Obstetrics) in Alberta, Canada!

To celebrate this exciting move, members from MFHRC and some of Phil's other colleagues spent a night at the Belle Vue Dogs.

Phil was presented with a photo album filled with memories from his time here as well as some Canadian Dollars which he says he will spend on a much-needed new winter coat!

Although this is not goodbye (Phil will hold a Honorary Contract with the University of Manchester and will be keeping a watchful eye on his projects and students!) we would all like to wish Phil very good luck with this new adventure!



Page 5: Funding Successes

Very many congratulations to **Caroline Wright** who has been awarded a Wellcome Trust Clinical Training Fellowship! With Andy Sharp this is the second such highly prestigious fellowship to come to the MFHRC in the last year!

Congratulations to **Lynda Harris** who has received travel grants from The Biochemical Society (£500), The British Society for Developmental Biology (£400) and the Society for Endocrinology (£750) to attend the forthcoming IFPA conference in Adelaide.

Congrats to **Karen Forbes** who has received a £750 travel grant to attend the American Society for Cell Biology Annual Meeting 2009

Congratulations to **Deirdre Thajam** who has secured a further 2 years funding from the BRC to complete her PhD on 'the role of placental multi drug resistance proteins in protection from drugs of misuse'.

Well done to **Carolyn Jones** and **Luciano Nardo** who have received a donation of €10,000 comprising €5000 from Genico (Switzerland) and €5000 from Dr Pietro Litta (University of Padua, Italy) with whom they have been collaborating for 3 years.

This money is to be used to further their ongoing research into the biology of endometriosis and the endometrium.

Mark Wareing, Tracey Mills, Colin Sibley and **Phil Baker** have been awarded a 3 year grant of £171,535 for their study, 'Altered Omental Adipokine Secretion: A Cause Vascular Endothelial Dysfunction in Maternal Obesity?' by the British Heart Foundation! Well done!



Well done to **M Westwood, C Sibley, J Aplin, J Gibson, P Baker and S Davidge** who have been awarded a 2 year grant of £130,443 from Diabetes UK, 'Does administration of statins during pregnancy complicated by maternal diabetes reduce the incidence of macrosomia and long term metabolic abnormalities in the offspring?'

Zoe Darwin has been awarded a bursary from the Society of Reproductive and Infant Psychology (SRIP) to attend their conference in September where she will be presenting a poster. Congratulations Zoe!

Page 6: Other Successes

Jo Glazier presented an oral presentation on "Homocysteine transport across the microvillous plasma membrane of human placenta" at the 7th International Conference on Homocysteine Metabolism (Prague, Czech Republic, June 2009). Well done Jo!

Very many congratulations **Laura Kusinski** who won the 1st Poster Prize Awarded to for her poster at the School Research Showcase Day

Congratulations to **Rich Blankley** and his wife who had their first baby (a girl) at St Mary's on July 2nd!

Congratulations to **Lizzie Hutchinson**, who has found employment with a medical publishing company called Wishawack in Knutsford. She starts on 7th September.

Lizzie H was also entered for the CF Trust "Breathing Life Award - Academic Life Award 2009". Although she did not win, her story was posted on youtube by the film production company and can be viewed at:

<http://www.youtube.com/watch?v=D9Uyxq5Vir4>

It's amazing how clean and glamorous the old St. Mary's lab looked - and they say the camera never lies?

Melissa Brereton won the prize for best dataflash presentation at The AMC 2009 (Alternative Muscle Club) held in Manchester (24-26th June). Congratulations Melissa!

The **MAPS study** will be featuring in an exhibition at the Museum of Science and Industry. It is one of three projects selected to showcase and publicise research from the UoM and something they should all be proud of.

Congratulations to **Jo Stanley** who passed her Viva this month!

Congratulations to **Jo Williams, Eleni Tsitsiou and Lizzie Hutchinson** who all graduated in July!



Daniel Brison's application for promotion to Honorary Professor was approved by the Faculty and University Promotions Committees. Well done Daniel!

Page 7: Publication Successes



Please include: **Maternal and Fetal Health Research Group, Manchester Academic Health Sciences Centre, University of Manchester** when papers are submitted. You should also acknowledge that the Group is supported by the NIHR Biomedical Research Centre and (if appropriate for your study) the Greater Manchester Local Comprehensive Research Network.

Bai X, Williams JL, Greenwood SL, Baker PN, Aplin JD, Crocker IP. A Placental Protective Role for Trophoblast-Derived TNF-Related Apoptosis-Inducing Ligand (TRAIL). *Placenta*. 2009 Aug 10. [Epub ahead of print]

Journal Impact Factor: 2.775

Ball M, Carmody M, Wynne F, Dockery P, Aigner A, Cameron I, Higgins J, Smith SD, Aplin JD, Moore T. Expression of pleiotrophin and its receptors in human placenta suggests roles in trophoblast life cycle and angiogenesis. *Placenta*. 2009 Jul;30(7):649-53.

Journal Impact Factor: 2.775

Ben-Nagi J, Walker A, Jurkovic D, Yazbek J, Aplin JD. Effect of cesarean delivery on the endometrium. *Int J Gynaecol Obstet*. 2009 Jul;106(1):30-4. Epub 2009 Apr 7.

Journal Impact Factor: 1.228

Blankley R, Gaskell SJ, Whetton AD, Dive C, Baker PN and Myers JE. A proof-of-principle study demonstrates a gel-free proteomics strategy which could be applied to the identification of predictive biomarkers for the onset of pre-eclampsia. *BJOG* 2009. (Epub ahead of print)

Journal Impact Factor: 3.101

Burton, GJ, Jones CJP. (2009) Syncytial knots, sprouts, apoptosis and trophoblast deportation from the human placenta. *Taiwanese Journal of Obstetrics and Gynaecology* 48(1):28-37

Dilworth, MR, Glazier, JD, (2009). Parathyroid hormone-related protein (PTHrP): a modulator of fetal growth and development.

Physiology News 75: 22-24.

D'Souza, Y, Jones, CJP, Bonshek, R, (2009) Comparison of lectin-binding of drusen, RPE, Bruch's membrane and photoreceptors. *Mol Vision* 15: 906-911

Journal Impact Factor: 2.464

Enders, AC, Jones, CJP, Taylor PJ, Carter AM. "Placentation in the Egyptian Slit-faced Bat *Nycteris thebaica* (Chiroptera: Nycteridae)" *Placenta* (In Press)

Journal Impact Factor: 2.775

Forbes, K, West, G, Garside, R, Aplin, JD, Westwood, M. The Protein-Tyrosine Phosphatase, Shp-2, Is a Crucial Mediator of Exogenous IGF Signalling to Human Trophoblast. *Endocrinology* (in press)

Journal Impact Factor: 4.945

Jones, CJP, Nardo, LG, Litta, P and Fazleabas, AT. (2009) Ectopic Lesions from Women with Endometriosis show Abnormalities in Progesterone-dependent Glycan Expression. *Fertil Steril* 91: 1608-10

Journal Impact Factor: 4.167

If you have an abstract accepted for publication please email lauren.moss@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: Publication Successes



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Jones, CJP, Nardo, LG, Litta, P and Fazleabas, AT. (2009) Eutopic endometrium from women with endometriosis shows altered ultrastructure and glycosylation compared to that from healthy controls. *Reprod. Sci* 16: 559-572
[Journal Impact Factor: 1.951](#)

Jones, CJP, Carter, AM, Bennett, NC, Blankenship, TN, Enders, AC. (2009) Placentation in the Hottentot Golden Mole *Amblysomus hottentotus*. *Placenta* 30: 571-578
[Journal Impact Factor: 2.775](#)

Lynda K. Harris, Olivia H. Clancy, Jenny E. Myers, and Philip N. Baker (2009) Plasma From Women With Preeclampsia Inhibits Trophoblast Invasion *Reproductive Sciences*. Epub ahead of print
[Journal Impact Factor: 2.379](#)

Salgado, RM., Capelo, LP, Favaro, RR, Glazier, JD, Aplin, JD, Zorn, TMT, (2009). Hormone-regulated expression and distribution of versican in mouse uterine tissues. *Reproductive Biology & Endocrinology*, 7: 60.
[Journal Impact Factor: 2.634](#)

Singh H, Aplin JD. Adhesion molecules in endometrial epithelium: tissue integrity and embryo implantation. *J Anat.* 2009 Jul;215(1):3-13. Epub 2009 Apr22.
[Journal Impact Factor: 2.063](#)

Tong, WC, Sweeney, M, Jones, CJP, Zhang, H, O'Neill, SC, Prior, I, Taggart, MT. (2009) Three-dimensional electron microscopic reconstruction of sarcoplasmic reticular arrangement in vascular smooth muscle with respect to mitochondria and the nucleus – further evidence of nanospaces and contacts. *J. Cellular and Molecular Medicine* 13:995-998
[Journal Impact Factor: 5.114](#)

Tsitsiou, E, Sibley, CP, D'Souza, SW, Catanescu, O, Jacobsen, DW, Glazier, JD, (2009). Homocysteine transport by systems L, A and y+L across the microvillous plasma membrane of human placenta. *J Physiol* 587: 4001-4013
[Journal Impact Factor: 4.605](#)

Winterhager, E. Grummer, R. Mavrogianis, PA. Jones, CJP Hastings, JM. Fazleabas. AT. (2009) 'Connexin expression pattern in the endometrium of baboons is influenced by hormonal changes and the presence of endometriotic lesions.' *Molecular Human Reproduction* (In Press)
[Journal Impact Factor: 2.537](#)

If you have an abstract accepted for publication please email lauren.moss@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.

Faculty Launch new Training Website

The Faculty Research Training Team have launched a new website:

www.manchester.ac.uk/mhs/trainingteam

The site has a number of features designed to support the development of researchers and academics within the faculty.

Through this website you can:

- Explore our comprehensive training programmes (for Postgraduate Researchers, Research Staff, Research Team Leaders, New Academics and Existing Academics)
- Book workshops online
- Manage and print course details and records of attendance in the 'My Courses' section.

Introduction of electronic theses and dissertations at UoM

Doctoral-level students notifying their intent to submit are now required to submit an electronic version of their thesis, while Masters-level students who register from September 2009 will be required to submit an electronic version of their dissertation. ETD submissions are in addition to submission of bound print copies. More information can be found at:

<http://www.manchester.ac.uk/escholar/etd>.

<http://www.manchester.ac.uk/escholar/etd/manage>.

Integrative Systems Biology Doctoral Training Centre (DTC) Showcase

As part of the Collaborations across Campus event series, a half-day symposium will take place on 9th September to showcase the Integrative Systems Biology Doctoral Training Centre (DTC). The DTC was launched in 2006 and trains students for a PhD in Systems Biology, with the next step in its evolution being to offer Systems Biology-related, DTC-funded projects at both Masters and PhD level to students across the University's four faculties.

The FMHS-focused event will provide background information on the DTC for FMHS researchers and advice on how to propose and prepare ideas for 3 month rotation and 3 year PhD projects. The session will be chaired by Professor Tony Whetton (Head of School for Cancer and Imaging Sciences) and lead by Professor Hans Westerhoff (Director) and Dr Gerold Baier (Deputy Director) of the DTC.

Registrations forms can be completed at the following address:

<http://www.mhs.manchester.ac.uk/surveys/TakeSurvey.aspx?PageNumber=1&SurveyID=762K6n2>

The event will take place between 10:00 and 12:00 (registration from 0930) on 9th September in the Smith Lecture Theatre, Michael Smith Building.

09.30-10.00: Registration and coffee

10.00-10.10: Introduction - Prof Tony Whetton

10.10-10.30: Outline of the DTC Integrative Systems Biology model at the MIB - Prof Hans Westerhoff

10.30-10.50: Involvement of FMHS staff with the DTC Integrative Systems Biology - Dr Gerold Baier

10.50-11.05: Description of Calls and Procedures for Rotation and PhD projects to Medical Systems Biology-focused researchers within FMHS

11.05-12.00: Discussion session - panel comprising Prof Hans Westerhoff, Dr Gerold Baier and 3 DTC student representatives

12.00 - Close - Prof Tony Whetton

Page 11: Dates for your diary

PRISM Free one day conference

PRISM will be holding a free one day conference for postgraduates in healthcare and biomedical research in the North West at The University of Manchester on Friday 30th October.

Participants will have the chance to present their own research, enhance their skills at workshops and network with other researchers and academics. There is a networking reception afterwards and prizes for posters and talks.

The deadline for abstracts is 2nd October, and registration can be found online at

www.vitae.ac.uk/nwhub

Central Manchester Foundation Trust Research and Innovation Exhibition 2009

CMFT have announced that Professor Andrew Hattersley, Chair of Molecular Medicine at the Peninsula Medical School will be delivering the plenary address at this year's annual exhibition. Andrew's title is: 'Maturity Onset Diabetes of the Young: from discovery to the diabetesgenes.org service'.

Andrew has been amongst the most successful of international researchers in driving clinical translation and is an excellent speaker. He will be demonstrating that 'rare' monogenic disorders can actually be more frequent than imagined and that correctly diagnosing diabetes in primary care remains a major challenge of great importance to clinical care and research.'

Tuesday 1st December 2009, Postgraduate Centre

Page 12: Regular Meetings

Maternal and Fetal Health Research Group

Tuesday 'Work in Progress' Meetings

Seminar Room A/B
Research Floor
5th Floor
St Mary's Hospital

08:45 – 09:45

01/09/2009	Donna Miller, Christine Hayward	Michelle Desforges, Andrea Ditchfield
08/09/2009	Sue Woods, Catherine Chmiel, Nicky Sapsford, Alison Cooke	Suzanne Moody, Sarah Lawson, Helen Miller
15/09/2009	Justine Nugent, Sarah Hamilton	Tracey Mills, Debbie Smith
22/09/2009	Samantha Smith, Russal Mohammad	Jayne Fitzsimmons, Yu Zhang
29/09/2009	Christal Fisher, Richard Blankley	Stephania C, Caroline Wright

Maternal and Fetal Health Research Group Wednesday Lab Meetings

Seminar Room A
Research Floor
5th Floor
St Mary's Hospital

09:00 – 09:30

02/09/09 – TBA

09/09/09 - Michelle, Melissa B

16/09/09 - Deirdre, Nita

23/09/09 – TBA

30/09/09- TBA

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



Maternal and Fetal Health Grand Rounds

The Maternal and Fetal Health Research Centre is pleased to announce a series of weekly Grand Rounds, commencing with:

'The roles of insulin-like growth factors in placental development and disease'

Dr. Amanda Sferuzzi-Perri (University of Cambridge)

Wednesday 9th September, 12.45pm-1.30pm

Followed by

'Uteroplacental haemodynamics in human pregnancy and its modelling in pre-eclampsia'

Dr Ian Crocker (University of Manchester)

Wednesday 16th September 2009, 12.45-1.30pm

**Multifunction Meeting Room
5th Floor St Mary's Hospital**

Future dates:

Wednesday 23rd September 2009: Periconceptional and early pregnancy care and research, Dr. Eric Steegers (Erasmus-MC, Rotterdam) ,

All staff from St Mary's and the University of Manchester welcome