

Report of the President 2009/2010

Sep 2009 - Aug 2010

Research Publications for Conway Institute

Professor Mohamed Al-Rubeai

Book Chapters

Naciri M. and Al-Rubeai M. (2010) 'Cell Cycle' In: *Encyclopedia of Industrial Biotechnology* . USA: John Wiley & Sons, Ltd.

Naciri M., Holmes P., Al-Rubeai M. (2010) 'Cell Cycle Synchronization' In: *Encyclopedia of Industrial Biotechnology* . USA: John Wiley & Sons, Ltd.

Khoo S. H. G., Singh R. P., Al-Rubeai M. (2010) 'Apoptosis' In: *Encyclopedia of Industrial Biotechnology* . USA: John Wiley & Sons, Ltd.

Peer Reviewed Journals

Kuystermans D., Dunn M. J. and Al-Rubeai M. (2010) 'A proteomic study of cMyc improvement of CHO culture'. *BMC Biotechnology*, 10 . <http://www.biomedcentral.com/1472-6750/10/25>

Boehm, D., Murphy, WG, Al-Rubeai, M (2009) 'The potential of human peripheral blood derived CD34+ cells for ex vivo red blood cell production'. *Journal of Biotechnology*, 144 :127-134.

Professor Alan Baird

Peer Reviewed Journals

Morrissey, P.E.W., Folan, M.A., Baird A.W., Irwin, J.A. (2010) 'Effect of a partially digested whey concentrate on Salmonella enterica serotype Typhimurium adhesion to Caco-2 cells'. *Food Control*, 21 (8):1113-1120.

Collins, D., Winter, D.C., Hogan, A.M., Schirmer, L., Baird, A.W. and Stewart, G.S. (2010) 'Differential protein abundance and function of UT-B urea transporters in human colon'. *American Journal of Physiology Gastrointestinal Physiology*, 298 :G345-G351.

Collins, D, Winter, DC, Hogan, AM, Schirmer, L, Baird, AW, Stewart, GS (2010) 'Differential protein abundance and function of UT-B urea transporters in human colon'. *The Journal of physiology*, 298 :345-351.

Hogan, AM, Collins, D, Sheehan, K, Zierau, O, Baird, AW, Winter, DC (2010) 'Rapid effects of phytoestrogens on human colonic smooth muscle are mediated by oestrogen receptor beta'. *Cell*, 320 :106-110.

Brayden DJ, Maher S, Kennelly R, Bzik VA, Baird AW, Wang X, Winter D, (2009) 'Evaluation of intestinal absorption enhancement and local mucosal toxicity of two promoters. I. Studies in isolated rat and human colonic mucosae'. *European journal of pharmaceutical sciences : official journal of the European Federation for Pharmaceutical Sciences*, 38 (4):291-300.

Maher, S, Kennelly, R, Bzik, VA, Baird, AW, Wang, XX, Winter, D, Brayden, DJ (2009) 'Evaluation of intestinal absorption enhancement and local mucosal toxicity of two promoters. I. Studies in isolated rat and human colonic mucosae'. *European journal of pharmaceutical sciences : official journal of the European Federation for Pharmaceutical Sciences*,

Collins, D,Hogan, AM,Skelly, MM,Baird, AW,Winter, DC (2009) 'Cyclic AMP-mediated chloride secretion is induced by prostaglandin F-2 alpha in human isolated colon'. *British Journal of Pharmacology*, 158 :1771-1776.

Dr John Andrew Baugh

Peer Reviewed Journals

Watson JA, Watson CJ, McCann A, Baugh J (2010) 'Epigenetics, the epicenter of the hypoxic response'. *Epigenetics : official journal of the DNA Methylation Society*, 5 (4):293-296.

Mak, GJ,Ledwidge, MT,Watson, CJ,Phelan, DM,Dawkins, IR,Murphy, NF,Patle, AK,Baugh, JA,McDonald, KM (2009) 'Natural History of Markers of Collagen Turnover in Patients With Early Diastolic Dysfunction and Impact of Eplerenone'. *Journal of the American College of Cardiology*, 54 :1674-1682.

Dr Orina Belton

Peer Reviewed Journals

McCarthy C, O'Gaora P, James WG, McClelland S, Fitzgerald DJ, Belton O (2010) 'SorLA modulates atheroprotective properties of CLA by regulating monocyte migration'. *Atherosclerosis* .

McClelland S, Cox C, O'Connor R, de Gaetano M, McCarthy C, Cryan L, Fitzgerald D, Belton O (2010) 'Conjugated linoleic acid suppresses the migratory and inflammatory phenotype of the monocyte/macrophage cell'. *Atherosclerosis*, 211 (1):96-102.

Belton O, McClelland S, Gawaz M, Kennerknecht E, Konrad CS, Sauer S, Schuerzinger K, Massberg S, Fitzgerald DJ, (2009) 'Contribution of cyclooxygenase-1 to thromboxane formation, platelet-vessel wall interactions and atherosclerosis in the ApoE null mouse'. *Atherosclerosis*, 202 (1):84-91.

Conference Publications

McCarthy C, James W, Fitzgerald DJ, Belton O (2010) Novel regulation and recognition of the role of SorLA in atherosclerotic vasculature *Keystone Symposia Advances in Molecular Mechanisms in Atherosclerosis 2010* ,

McCarthy C, Mooney D, Fitzgerald DJ, Belton O (2010) Identification of a PGC1a regulated network induced by conjugated linoleic acid in the regression of atherosclerosis *In Atherosclerosis Thrombosis and Vascular Biology* ,

Dr Oliver Blacque

Peer Reviewed Journals

Kimura Y, Kurabe N, Ikegami K, Tsutsumi K, Konishi Y, Kaplan OI, Kunitomo H, Iino Y, Blacque OE, Setou M. (2010) 'Identification of tubulin deglutamylase among *Caenorhabditis elegans* and mammalian cytosolic carboxypeptidases (CCPs)'. *Journal of Biological Chemistry* . <http://www.jbc.org/content/early/2010/06/02/jbc.C110.128280.long>

Cevik S, Hori Y, Kaplan OI, Kida K, Toivenon T, Cottell D, Katada T, Kontani K, Blacque OE. (2010) 'Joubert Syndrome Arl13b functions at ciliary membranes and stabilizes protein transport in *C. elegans*'. *Journal of Cell Biology* .

Inglis, N., Blacque OE, Leroux MR (2009) 'Functional genomics of intraflagellar transport-associated proteins in *C. elegans*'. *Methods in Cell Biology* .

Professor Billy Bourke

Peer Reviewed Journals

Rowland M, Fleming P, Bourke B (2010) 'Looking in the mouth for Crohn's disease'. *Inflammatory bowel diseases*, 16 :332-337.

2. Pawlikowska L, Strautnieks S, Jankowska I, Czubkowski P, Emerick K, Antoniou A, Wanty C, Fischler B, Jacquemin E, Wali S, Blanchard S, Nielsen IM, Bourke B, McQuaid S, Lacaille F, Byrne JA, van Eerde AM, Kolho KL, Klomp L, Houwen R, Bacchetti P, Lobritto S, Hupertz V, McClean P, Mieli-Vergani G, Shneider B, Nemeth A, Sokal E, Freimer NB, Knisely AS, Rosenthal P, Whittington PF, Pawlowska J, Thompson RJ, Bull LN. (2010) 'Differences in presentation and progression between severe FIC1 and BSEP deficiencies'. *Journal of Hepatology*, 53 :170-178.

4. Alemka A, Clyne M, Shanahan F, Tompkins T, Corcionivoschi N, Bourke B. (2010) 'Probiotic colonisation of mucus-adherent HT29MTXE12 cells attenuates *Campylobacter jejuni* virulence properties'. *Infection and Immunity*, 78 :2812-2822.

3. Alemka A, Whelan S, Gough R, Clyne M, Gallagher ME, Carrington SD, Bourke B. (2010) 'Purified chicken intestinal mucin attenuates *Campylobacter jejuni* pathogenicity in vitro'. *Journal of Medical Microbiology*, 59 :898-903.

Bartlett JR, Friedman KJ, Ling SC, Pace RG, Bell SC, Bourke B, Castaldo G, Castellani C, Cipolli M, Colombo JL, Debray D, Fernandez A, Lacaille F, Macek M Jr, Rowland M, Salvatore F, Taylor C,J, Wainwright C, Wilschanski M, Zemkova D, Hannah WB, Philips MJ, Corey M, Zielenski J, Dorfman R, Wang Y, Zou F, Silverman LM, Drumm ML, Wright FA, Lange EM, Durie PR, Knowles MR, (2009) 'Genetic modifiers of liver disease in cystic fibrosis'. *JAMA*, :1076-1083.

Professor David Brayden

Peer Reviewed Journals

Wang, X., Maher, S., & Brayden D. J. (2010) 'Restoration of rat colonic epithelium after in situ intestinal instillation of the absorption promoter, sodium caprate'. *Therapeutic Delivery*, 1 (1):75-82.

Brayden, D. J. & Maher, S (2010) 'Oral absorption enhancement: taking the next steps in therapeutic delivery'. *Therapeutic Delivery*, 1 (1):5-10.

Rawlinson, L. B., O'Brien. P.J. & Brayden, D. J. (2010) 'High content analysis of cytotoxic effects of pDMAEMA on human intestinal epithelial and monocyte cultures'. *Journal of controlled release : official journal of the Controlled Release Society*, 146 (6):82-94.

Rawlinson, LAB,Ryan, SM,Mantovani, G,Syrett, JA,Haddleton, DM,Brayden, DJ (2010) 'Antibacterial Effects of Poly(2-(dimethylamino ethyl)methacrylate) against Selected Gram-Positive and Gram-Negative Bacteria'. *Biomacromolecules*, 11 (2):443-453. <http://pubs.acs.org/articlesonrequest/AOR-57gq5FaF4WYZC3r3pY4r>

Maher, S,Devocelle, M,Ryan, S,McClean, S,Brayden, DJ (2010) 'Impact of amino acid replacements on in vitro permeation enhancement and cytotoxicity of the intestinal absorption promoter, melittin'. *International Journal of Pharmaceutics*, 387 ((1-2)):154-160. <http://preview.ncbi.nlm.nih.gov/pubmed/20025949>

Maher, S., Leonard, T.W., Jacobsen, J., Brayden D. J. (2009) 'Safety and efficacy of sodium caprate in promoting oral

drug absorption: from in vitro to the clinic'. *ADVANCED DRUG DELIVERY REVIEWS*, 61 (15):1427-1429.
http://preview.ncbi.nlm.nih.gov/pubmed/19800376?itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum&ordinalpos=1

Maher, S., Wang, X., Bzik, V, McClean, S. & Brayden, D. J. (2009) 'Evaluation of intestinal absorption and mucosal toxicity using two promoters. II. Rat instillation and perfusion studies'. *European Journal of Pharmaceutical Sciences*, 38 (4):301-311.
http://preview.ncbi.nlm.nih.gov/pubmed/19664704?itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum&ordinalpos=4

Maher S, Kennelly R, Bzik VA, Baird AW, Wang X, Winter D, Brayden, DJ (2009) 'Evaluation of intestinal absorption enhancement and local mucosal toxicity of two promoters. I. Studies in isolated rat and human colonic mucosae'. *European journal of pharmaceutical sciences : official journal of the European Federation for Pharmaceutical Sciences*, 38 (4):291-300.

Rathbone, MR & Brayden D (2009) 'Controlled release drug delivery in farmed animals: commercial challenges and academic opportunities'. *Current Drug Delivery*, 6 (4):383-390.

Conference Publications

Ahmad, T., Ostroff, G. R., Wang, M., Czech, M. P., & Brayden, D. J. (2010) Uptake and translocation of yeast-derived glucan microparticles across an vitro M-cell model *Transactions of the 37th Int. Soc. Controlled Release Society, Portland, Oregon* , Abstract 251

Bzik, V., Sheridan, C., & Brayden, D. J. (2010) Inhibition of electrogenic ion transport in rat colonic mucosae by zinc is enabled by the tight junction opener, cytochalasin D *Transactions of the 37th Int. Soc. Controlled Release Society, Portland, Oregon* , Abstract 543

D. J. Brayden (2010) Intestinal Permeation Enhancement for Poorly Absorbed Drugs: Matching Mechanism of Action with Biological Assessment *Transactions of the 37th Int. Soc. Controlled Release Society, Portland* , Abstract 22

Ryan, S. M., McMorrow, J. P., Murphy, E. P. & Brayden, D. J. (2010) Salmon calcitonin reduces expression of a novel biomarker family in inflammatory arthritis:a new target for controlled release formulations? *Transactions of the 37th Int. Soc. Controlled Release Society, Portland, Oregon* , Abstract 24

Dr Lorraine Brennan

Peer Reviewed Journals

Wallace M, Hashim YZ, Wingfield M, Culliton M, McAuliffe F, Gibney MJ, Brennan L, (2010) 'Effects of menstrual cycle phase on metabolomic profiles in premenopausal women'. *HUM REPROD*, 25 (4):949-956.

Carmody, S,Brennan, L (2010) 'Effects of pentylenetetrazole-induced seizures on metabolomic profiles of rat brain'. *NEUROCHEMISTRY INTERNATIONAL*, 56 :340-344.

Bender, K,Walsh, S,Evans, ACO,Fair, T,Brennan, L (2010) 'Metabolite concentrations in follicular fluid may explain differences in fertility between heifers and lactating cows'. *Reproduction*, 139 :1047-1055.

Kandil, S,Brennan, L,McBean, GJ (2010) 'Glutathione depletion causes a JNK and p38(MAPK)-mediated increase in expression of cystathionine-gamma-lyase and upregulation of the transsulfuration pathway in C6 glioma cells'. *NEUROCHEMISTRY INTERNATIONAL*, 56 :611-619.

Professor Geraldine Butler

Book Chapters

David A. Fitzpatrick and Geraldine Butler (2010) ' *Comparative genomic analysis of pathogenic yeasts and the evolution of virulence* ' In: H. Ruth Asbee and Elanine M. Bignell (eds). *The Yeast Handbook: Pathogenic Yeasts* . Berlin: Springer.

Peer Reviewed Journals

Lynch DB, Logue ME, Butler G, Wolfe KH. (2010) 'Chromosomal G + C Content Evolution in Yeasts: Systematic Interspecies Differences, and GC-Poor Troughs at Centromeres'. *Genome Biology and Evolution*, 2 :572-583.

Fitzpatrick DA, O'Gaora P, Byrne KP, Butler G (2010) 'Analysis of gene evolution and metabolic pathways using the Candida Gene Order Browser'. *BMC Genomics*, 11 .

Morrissey JP, Holcombe LJ, McAlester G, Munro CA, Enjalbert B, Brown AJ, Gow NA, Ding C, Butler G, O'Gara F, (2010) 'Pseudomonas aeruginosa secreted factors impair biofilm development in Candida albicans'. *Microbiology (Reading, England)*, 156 :1476-1486.

Butler G, (2010) 'Fungal sex and pathogenesis'. *Clinical Microbiology Reviews*, 23 (1):140-159.

Haynes K, Stead DA, Walker J, Holcombe L, Gibbs SR, Yin Z, Selway L, Butler G, Brown AJ, (2010) 'Impact of the transcriptional regulator, Ace2, on the Candida glabrata secretome'. *Proteomics*, 10 :212-223.

Berriman M, Jackson AP, Gamble JA, Yeomans T, Moran GP, Saunders D, Harris D, Aslett M, Barrell JF, Butler G, Citiulo F, Coleman DC, de Groot PW, Goodwin TJ, Barrell B, Quail MA, McQuillan J, Munro CA, Pain A, Poulter RT, Rajandream MA, Renauld H, Spiering MJ, Tivey A, Gow NA, Sullivan DJ, (2009) 'Comparative genomics of the fungal pathogens Candida dubliniensis and Candida albicans'. *Genome Research*, 19 (12):2231-2244.

Dr Gerard Cagney

Peer Reviewed Journals

O'Connor, R, Ryan, LM, Wynne, K, de Stefani, A, Fitzgerald, D, O'Brien, C, Cagney, G (2010) 'Proteomics Strategy for Identifying Candidate Bioactive Proteins in Complex Mixtures: Application to the Platelet Releasate'. *Journal Of Biomedicine And Biotechnology* .

Ryan, C, Greene, D, Cagney, G, Cunningham, P (2010) 'Missing value imputation for epistatic MAPs'. *BMC Bioinformatics*, 11 .

Lenassi, M, Cagney, G, Liao, MF, Vaupotic, T, Bartholomeeusen, K, Cheng, YF, Krogan, NJ, Plemenitas, A, Peterlin, BM (2010) 'HIV Nef is Secreted in Exosomes and Triggers Apoptosis in Bystander CD4(+) T Cells'. *Traffic*, 11 :110-122.

Walker, E, Chang, WY, Hunkapiller, J, Cagney, G, Garcha, K, Torchia, J, Krogan, NJ, Reiter, JF, Stanford, WL (2010) 'Polycomb-like 2 Associates with PRC2 and Regulates Transcriptional Networks during Mouse Embryonic Stem Cell Self-Renewal and Differentiation'. *Stem*, 6 :153-166.

O'Connor KE, Nikodinovic-Runic J, Flanagan M, Hume AR, Cagney G, (2009) 'Analysis of the Pseudomonas putida CA-3 proteome during growth on styrene under nitrogen-limiting and non-limiting conditions'. *Microbiology (Reading, England)*, 155 (Pt 10):3348-3361.

O'Connor KE, Nikodinovic-Runic J, Flanagan M, Hume AR, Cagney G, (2009) 'Analysis of the *Pseudomonas putida* CA-3 proteome during growth on styrene under nitrogen-limiting and non-limiting conditions'. *Microbiology (Reading, England)*, 155 (Pt 10):3348-3361.

Cagney G, (2009) 'Interaction networks: Lessons from large-scale studies in yeast'. *Proteomics*, 9 (20):4799-4811.

Professor Dolores Cahill

Peer Reviewed Journals

O'Connell DJ, Bauer MC, O'Brien J, Johnson WM, Divizio CA, O'Kane SL, BerggA¸rd T, Merino A, Akerfeldt KS, Linse S, Cahill DJ (2010) 'Integrated protein array screening and high throughput validation of 70 novel neural calmodulin binding proteins'. *Molecular and Cellular Proteomics* .

Professor Sean Callanan

Peer Reviewed Journals

Shiel RE, Mooney CT, Brennan SF, Nolan CM, Callanan JJ. (2010) 'Clinical and clinicopathological features of non-suppurative meningoencephalitis in young greyhounds in Ireland'. *Veterinary Record*, 167 (9):333-337.

Greer KA, Daly P, Murphy KE, Callanan JJ. (2010) 'Analysis of gene expression in brain tissue from Greyhounds with meningoencephalitis'. *American Journal of Veterinary Research*, 71 (5):547-554.

Mally A, Adler M, Hoffmann D, Ellinger-Ziegelbauer H, Hewitt P, Matheis K, Mulrane L, Gallagher WM, Callanan JJ, Suter L, Fountoulakis MM, Dekant W, (2010) 'Assessment of candidate biomarkers of drug-induced hepatobiliary injury in preclinical toxicity studies'. *Toxicology Letters*, 196 :1-11.

Fanning S, Healy B, Cooney S, O'Brien S, Iversen C, Whyte P, Nally J, Callanan JJ, (2010) 'Cronobacter (*Enterobacter sakazakii*): an opportunistic foodborne pathogen'. *Foodborne Pathogens and Disease*, 7 (4):339-350.

O'Farrelly C, Chapwanya A, Meade KG, Narciandi F, Stanley P, Mee JF, Doherty ML, Callanan JJ, (2010) 'Endometrial biopsy: a valuable clinical and research tool in bovine reproduction'. *Theriogenology*, 73 (7):988-994.

Callanan JJ, Jahns H, Daly P, McElroy MC, Sammin DJ, Bassett HF, (2010) 'Neuropathologic features of Aleutian disease in farmed mink in Ireland and molecular characterization of Aleutian mink disease virus detected in brain tissues'. *Journal of veterinary diagnostic investigation : official publication of the American Association of Veterinary Laboratory Diagnosticians, Inc*, 22 (1):101-105.

Mally A, Hoffmann D, Adler M, Vaidya V, Rached E, Mulrane L, Gallagher WM, Callanan JJ, Gautier JC, Matheis K, Staedtler F, Dieterle F, Brandenburg A, Sposny A, Hewitt P, Ellinger-Ziegelbauer H, Bonventre JV, Dekant W, (2010) 'Performance of novel kidney biomarkers in preclinical toxicity studies'. *Toxicological sciences : an official journal of the Society of Toxicology* .

Gallagher WM, Byrne AT, O'Connor AE, Hall M, Murtagh J, O'Neill K, Curran KM, Mongrain K, Rousseau JA, Lecomte R, McGee S, Callanan JJ, O'Shea DF, (2009) 'Vascular-targeted photodynamic therapy with BF2-chelated Tetraaryl-Azadipyromethene agents: a multi-modality molecular imaging approach to therapeutic assessment'. *Cancer* .

Nally JE, Monahan AM, Callanan JJ, (2009) 'Review paper: Host-pathogen interactions in the kidney during chronic leptospirosis'. *Veterinary Pathology*, 5 (NA):792-799.

Shaughnessy, RG, Meade, KG, Cahalane, S, Allan, B, Reiman, C, Callanan, JJ, O'Farrelly, C (2009) 'Innate immune gene expression differentiates the early avian intestinal response between Salmonella and Campylobacter'. *VET IMMUNOL IMMUNOP*, 132 :191-198.

Dr Marguerite Clyne

Peer Reviewed Journals

Alemka, A, Clyne, M, Shanahan, F, Tompkins, T, Corcionivoschi, N, Bourke, B (2010) 'Probiotic Colonization of the Adherent Mucus Layer of HT29MTXE12 Cells Attenuates Campylobacter jejuni Virulence Properties'. *Infection and Immunity*, 78 :2812-2822.

3. Alemka A, Whelan S, Gough R, Clyne M, Gallagher ME, Carrington SD, Bourke B. (2010) 'Purified chicken intestinal mucin attenuates Campylobacter jejuni pathogenicity in vitro'. *Journal of Medical Microbiology*, 59 :898-903.

4. Alemka A, Clyne M, Shanahan F, Tompkins T, Corcionivoschi N, Bourke B. (2010) 'Probiotic colonisation of mucus-adherent HT29MTXE12 cells attenuates Campylobacter jejuni virulence properties'. *Infection and Immunity*, 78 :2812-2822.

Dr John Crean

Peer Reviewed Journals

Rooney B, O'Donovan, H., Browne, M., Gaffney, A., Curran, SP., Brazil, DP, Godson, C., Sadlier, D and Crean, JK. (2010) 'CTGF/CCN2 activates canonical Wnt signaling in mesangial cells through LRP6; implications for the pathogenesis of diabetic nephropathy'. *European journal of biochemistry / FEBS* .

Nyhan KC, Faherty N, Murray G, Coeey LB, Godson C, Crean JK, Brazil DP. (2010) 'Jagged/Notch signalling is required for a subset of TGFβ1 responses in human kidney epithelial cells'. *Biochimica Et Biophysica Acta - Molecular Cell Research*, 1803 :1386-1395.

Browne, JG., Ho, SL., Kadare, SJ., Kane, R., Oliver, N., Clark, AF., O'Brien, CJ., Crean, JK. (2010) 'The Effect Of CTGF On Trabecular Meshwork Cells And The Implications For Pseudoexfoliative Syndrome'. *IOVS* .

Brennan EP, Ehrich M, Brazil DP, Crean JK, Murphy M, Sadlier DM, Martin F, Godson C, van den Boom D, Maxwell AP, Savage DA. (2010) 'DNA methylation profiling in cell models of diabetic nephropathy'. *Epigenetics : official journal of the DNA Methylation Society*, 16 (5).

Brennan EP, Ehrich M, Brazil DP, Crean JK, Murphy M, Sadlier DM, Martin F, Godson C, McKnight AJ, van den Boom D, Maxwell AP, Savage DA. (2009) 'Comparative analysis of DNA methylation profiles in peripheral blood leukocytes versus lymphoblastoid cell lines'. *Epigenetics : official journal of the DNA Methylation Society*, 1 (4).

Conference Publications

Rooney B, Gaffney, A., Godson, C., Sadlier, D and Crean, JK. (2010) CTGF/CCN2 activates canonical Wnt signaling in mesangial cells through LRP6; implications for the pathogenesis of diabetic nephropathy *J Am Soc Nephrol* ,

O'Donovan, H. 1, Xu, L.3, Oliver, N.3, Godson, C.2, and Crean, JK (2010) CTGF/CCN2 and TGFβ Superfamily signalling: Implications for therapeutic intervention *J Am Soc Nephrol* ,

Browne, M., Faherty, N.1, Xu, L., Oliver, N., Brazil, D. , Godson, C. and Crean, J. (2010) Connective Tissue Growth

Factor (CTGF) causes Cdc42 activation and altered actin binding protein expression in the glomerular podocyte *J Am Soc Nephrol* ,

Dr Paul Crossey

Peer Reviewed Journals

Duncan E, Crossey PA, Walker S, Anilkumar N, Poston L, Douglas G, Ezzat V, Wheatcroft SB, Shah AM and Kearney MT (2009) 'The effects of endothelium specific insulin resistance on endothelial function in vivo'. *Diabetes*, 57 (12):3307-3314 Insulin resi.

Professor Mark Crowe

Peer Reviewed Journals

Allbrahim RM, Crowe MA, Duffy P, O'Grady L, Beltman ME, Mulligan FJ (2010) 'The effect of body condition at calving and supplementation with *Saccharomyces cerevisiae* on energy status and some reproductive parameters in early lactation dairy cows'. *Animal Reproduction Science*, 121 (1-2):63-71.

Okumu LA, Forde N, Fahey AG, Fitzpatrick E, Roche JF, Crowe MA, Lonergan P. (2010) 'The effect of elevated progesterone and pregnancy status on mRNA expression and localisation of progesterone and oestrogen receptors in the bovine uterus'. *Reproduction*, 140 (1):143-153.

Pang WY, Earley B, Murray M, Sweeney T, Gath V, Crowe MA (2010) 'Banding or Burdizzo castration and carprofen administration on peripheral leukocyte inflammatory cytokine transcripts'. *Research in Veterinary Science* .

Beltman ME, Forde N, Furney P, Carter F, Roche JF, Lonergan P, Crowe MA. (2010) 'Characterisation of endometrial gene expression and metabolic parameters in beef heifers yielding viable or non-viable embryos on Day 7 after insemination'. *Reproduction Fertility and Development*, 22 (6):987-99.

Pang WY, Earley B, Sweeney T, Pirani S, Gath V and Crowe MA (2009) 'Effects of banding or burdizzo castration of bulls on neutrophil phagocytosis and respiratory burst, CD62-L expression, and serum interleukin-8 concentration'. *Journal of Animal Science*, 87 (10):3187-3195.

Pang WY, Earley B, Sweeney T, Gath V and Crowe MA (2009) 'Temporal patterns of inflammatory gene expression in local tissues after banding or burdizzo castration in cattle'. *BMC Veterinary Research*, 5 .

Beltman, ME, Roche, JF, Lonergan, P, Forde, N, Crowe, MA (2009) 'Evaluation of models to induce low progesterone during the early luteal phase in cattle'. *Theriogenology*, 72 (NA):986-992.

Forde, N, Carter, F, Fair, T, Crowe, MA, Evans, ACO, Spencer, TE, Bazer, FW, McBride, R, Boland, MP, O'Gaora, P, Lonergan, P, Roche, JF (2009) 'Progesterone-Regulated Changes in Endometrial Gene Expression Contribute to Advanced Conceptus Development in Cattle'. *Biology of Reproduction*, 81 (NA):784-794.

Conference Publications

Beltman ME, Forde N, Duffy P, Roche JF, Lonergan P, Crowe MA (2010) Effect of PGF2a administration on days 3, 3.5 and 4 of the oestrous cycle in cattle on corpus luteum blood flow, endometrial density and conceptus elongation following multiple embryo transfer *European Society for Domestic Animal Reproduction, Reproduction in Domestic Animals 45 (Suppl. 3) 58 (Abstract OC1-2)* ,

Herlihy MM, Crowe MA, Diskin MG, and Butler ST (2010) Comparison of estrus and ovulation synchronization protocols: effects on ovarian follicular dynamics, corpus luteum growth, and circulating steroid concentrations in lactating dairy cows *Annual meeting of the American Society of Animal Science, J. Anim. Sci. Vol. 88, E-Suppl. 2: 218-219 (Abstract 163)* ,

Forde N, Beltman ME, Duffy G, Lee A, Roche JF, Lonergan P, and Crowe MA (2010) Regulation of the Nuclear Progesterone Receptor from the Luminal Epithelium in Heifers with Low Progesterone (P4), Alters the Temporal Expression Pattern of Genes That Are Known to Enhance Conceptus Development *43rd annual meeting of the Society for the Study of Reproduction, Biology of reproduction 83: 78 (Abstract 347)* ,

Al Ibrahim RM, Crowe MA, Duffy P, O`Grady L, Beltman ME, and Mulligan FJ (2010) The effect of body condition at calving and supplementation with *Saccharomyces cerevisiae* on energy status and some reproductive parameters in early lactation dairy cows *Annual meeting of the American Society of Animal Science, J. Anim. Sci. Vol. 88, E-Suppl. 2: 227 (Abstract T369)* ,

52. Law RA, Williams EJ, Gilmore HS, Carter F, Young FJ, Lonergan P, Crowe MA, Diskin MG, Ferris CP, Evans A (2010) Incidence of fertilization failure and embryo loss in Holstein Friesian heifers and postpartum dairy cows *Proceedings of the British Society of Animal Science and the Irish Agricultural Research Forum 2010: 162* ,

Parr MH, Mullen MP, Crowe MA, Roche JF, Lonergan P, Evans ACO, Diskin MG (2010) The relationship between plasma progesterone concentration during the early luteal phase and embryo survival in dairy heifers *Proceedings of the British Society of Animal Science and the Irish Agricultural Research Forum 2010:160* ,

Prof Michael Duffy

Peer Reviewed Journals

Duffy MJ, O'Donovan N, Crown J (2010) 'Use of molecular markers for predicting therapy response in cancer patients'. *Cancer treatment reviews* .

Browne BC, Crown J, Venkatesan N, Duffy MJ, Clynes M, Slamon D, O'Donovan N (2010) 'Inhibition of IGF1R activity enhances response to trastuzumab in HER-2-positive breast cancer cells'. *Annals of Oncology* .

Sturgeon CM, Duffy MJ, Hofmann BR, Lamerz R, Fritsche HA, Gaarenstroom K, Bonfrer J, Ecker TH, Grossman HB, Hayes P, Hoffmann RT, Lerner SP, Löhe F, Louhimo J, Sawczuk I, Taketa K, Diamandis EP; National Academy of Clinical Biochemistry. (2010) 'National Academy of Clinical Biochemistry Laboratory Medicine Practice Guidelines for use of tumor markers in liver, bladder, cervical, and gastric cancers'. *Clinical Chemistry*, 56 :e1-48.

<http://www.ncbi.nlm.nih.gov/pubmed/20207771>

Duffy MJ, Sturgeon C, Lamerz R, Haglund C, Holubec VL, Klapdor R, Nicolini A, Topolcan O, Heinemann V. (2010) 'Tumor markers in pancreatic cancer: a European Group on Tumor Markers (EGTM) status report'. *Annals of Oncology*, 21 :441-447. <http://www.ncbi.nlm.nih.gov/pubmed/19690057>

Gallagher WM, Lau TY, Power KA, Dijon S, de Gardelle I, McDonnell S, Duffy MJ, Pennington SR, (2010) 'Prioritization of candidate protein biomarkers from an in vitro model system of breast tumor progression toward clinical verification'. *Journal of Proteome Research*, 9 (3):1450-1459.

Sturgeon CM, Lai LC, Duffy MJ. (2009) 'Serum tumour markers: how to order and interpret them'. *BMJ (Clinical research ed.)*, 339 . <http://www.ncbi.nlm.nih.gov/pubmed/19773328>

Duffy MJ, Sturgeon CM, Lai LC, (2009) 'Serum tumour markers: how to order and interpret them'. *BMJ (Clinical research ed.)*, 339 .

Professor Michael J. Dunn

Peer Reviewed Journals

Munkonge, F. M., Amin, V., Hyde, S. C., Green, A. M., Pringle, I. A., Gill, D. R., Smith, J. W., Hooley, R. P., Xenariou, S., Ward, M. A., Leeds, N., Leung, K. Y., Chan, M., Hillery, E., Geddes, D. M., Griesenbach, U., Postel, E. H., Dean, D. A., Dunn, M. J., Alton, E. W. (2009) 'Identification and functional characterization of cytoplasmic determinants of plasmid DNA nuclear import'. *J Biol Chem*, 284 (39):26978-87.
http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=19638341

Robinson, A. A., Westbrook, J. A., English, J. A., Boren, M., Dunn, M. J. (2009) 'Assessing the use of thermal treatment to preserve the intact proteomes of post-mortem heart and brain tissue'. *Proteomics*, 9 (19):4433-44.
http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=19688732

Dr Giuliano Elia

Peer Reviewed Journals

Elia G (2010) 'Protein biotinylation'. *Current Protocols in Protein Science*, Chapter 3 .

Professor Paul C Engel

Books

Paul C. Engel (2009) *Pain-free Biochemistry*. Chichester: Wiley-Blackwell.

Book Chapters

Engel, P.C and Paradisi, F. (2010) ' *Novel enzymes for biotransformation and resolution of alpha-amino acids* ' In: J.C Vederas (eds). *Comprehensive Natural Product 2 Chemistry and Biology* . Oxford: Elsevier.

Conway,P. and Paradisi, F. and Engel, P.C. (2010) ' *Synthesis of substituted derivatives of L-phenylalanine and of other non-natural L-amino acids using engineered mutants of phenylalanine dehydrogenase* ' In: John Whittal & Peter W. Sutton (eds). *Practical Methods in Biocatalysis and Biotransformations* . Oxford: John Wiley.

Peer Reviewed Journals

J. Griffin & P.C. Engel (2010) 'The -SH Protection Method for Determining Accurate K_d Values for Enzyme-coenzyme Complexes of a Series of Mutant Variants of NAD⁺-dependent Glutamate Dehydrogenase and Engineered Mutants: Evidence for Non-productive NADPH Complexes'. *Enzyme Research*, 5 .

X.-G. Wang, P. Zhang, S. Lynch and P. C. Engel (2010) 'Forced Evolution of E. coli Cells with the Ability to Effectively Utilise Non-natural Amino Acids L-tert-leucine;L-norleucine and β -methyl-L-leucine'. .

Aparicio, IM,Marin-Menendez, A,Bell, A,Engel, PC (2010) 'Susceptibility of Plasmodium falciparum to glutamate dehydrogenase inhibitors-A possible new antimalarial target'. *Molecular and Biochemical Parasitology*, 172 :152-155.

Oliveira, TF, Carrigan, JB, Hamza, MA, Sharkey, MA, Engel, PC, Khan, AR (2010) 'Crystallization and preliminary structural analyses of glutamate dehydrogenase from *Peptoniphilus asaccharolyticus*'. *Graph*, 66 :523-526.

Sharkey, M. A., Engel, P. C. (2009) 'Modular coenzyme specificity: A domain-swapped chimera of glutamate dehydrogenase'. *Proteins-Structure Function and Bioinformatics*, 77 (2):268-278.

Frigerio, C. S., Kukar, T. L., Fauq, A., Engel, P. C., Golde, T. E., Walsh, D. M. (2009) 'An NSAID-like Compound, FT-9, Preferentially Inhibits gamma-Secretase Cleavage of the Amyloid Precursor Protein Compared to Its Effect on Amyloid Precursor-like Protein 1'. *Biochemistry*, 48 (46):10894-10904.

Chen, S. H., Engel, P. C. (2009) 'Efficient screening for new amino acid dehydrogenase activity: Directed evolution of *Bacillus sphaericus* phenylalanine dehydrogenase towards activity with an unsaturated non-natural amino acid'. *Journal of Biotechnology*, 142 (2):127-134.

Wang, X. T., Engel, P. C. (2009) 'An optimised system for refolding of human glucose 6-phosphate dehydrogenase'. *Bmc Biotechnology*, 9 .

Wang, X. T., Engel, P. C. (2009) 'Clinical mutants of human glucose 6-phosphate dehydrogenase: Impairment of NADP(+) binding affects both folding and stability'. *Biochimica Et Biophysica Acta-Molecular Basis of Disease*, 1792 (8):804-809.

Professor Paul Engel

Peer Reviewed Journals

Walsh DM, Sala Frigerio C, Kukar TL, Engel PC, Golde TE, (2009) 'An NSAID-like compound, FT-9, preferentially inhibits gamma-secretase cleavage of APP compared to its effect on APLP1'. *Biochemistry*, (NA).

Professor Alexander Evans

Peer Reviewed Journals

T Suveevun-Phermthai, CL Curchoe, ACO Evans, E Boland, D Rizos, T Fair, P Duffy, LY Sung, F Du, S Chaubal, J Xu, T Wechayant, X Yang, P Lonergan, R Parnpai, XC Tian. (2009) 'Allelic switching of the imprinted IGF2R gene in cloned bovine fetuses and calves'. *Animal Reproduction Science*, 116 (1-2):19-27.

N Forde, F Carter, T Fair, MA Crowe, ACO Evans, TE Spencer, FW Bazer, R McBride, MP Boland, P O'Gaora, P Lonergan, JF Roche (2009) 'Progesterone-regulated changes in endometrial gene expression contribute to advanced conceptus development in cattle'. *Biology of Reproduction*, 81 (4):784-794.

Conference Publications

JJ Ireland, DM Scheetz, F Jimenez-Krassel, JK Folger, GW Smith, F Mossa, ACO Evans (2010) Evidence that mammary gland infection/injury during pregnancy in dairy cows may have a negative impact on size of the ovarian reserve in their daughters *43rd Annual Meeting of the Society for the Study of Reproduction* ,

MP Mullen, N Forde, MH Parr, MG Diskin, ACO Evans, DG Morris, JE Nally, MA Crowe (2010) Effect of systemic progesterone on retinol binding protein gene expression and secretion in the bovine uterus *International Society for Animal Genetics Conference* ,

M Parr, M Mullen, MA Crowe, JF Roche, P Lonergan, ACO Evans, MG Diskin (2010) The relationship between

progesterone during the early luteal phase and embryo survival in dairy heifers *British Society of Animal Science and the Agriculture Research Forum* ,

ACO Evans (2010) Reproduction and fertility in cattle; basic research for applied problems *UK Animal Science Forum* ,

ACO Evans, F Mossa, P Lonergan, S Butler, D Berry, J Ireland (2010) Causes and consequences of the variation in ovarian follicle numbers *Reproductive Sciences and Medicine Research Symposium* ,

CM Blake, A-M Martin, N Forde, ACO Evans, BA Murphy (2010) Evidence of molecular circadian clock in the ovine periovulatory ovary *Plant and Animal Genome XVII Conference* ,

I Hutchinson, P Lonergan, ACO Evans, RJ Dewhurst, ST Butler (2010) The effect of supplementation with conjugated linoleic acid on the reproductive performance of lactating dairy cows *American Dairy Science Association Meeting 2010* ,

ACO Evans (2009) Ovarian follicle development and consequences for fertility in cattle *Octavo Simposio Internacional de Reproducción Animal, Cordoba, Argentina* ,

E Williams, HS Gilmore, F Carter, MA Crowe, ACO Evans, P Lonergan, MG Diskin, CP Ferris, FJ Young, RA Law. (2009) Live weight at calving as a predictor of the post-partum energy status and uterine infection in dairy cows *13th Annual Conference of the European Society for Domestic Animals (ESDAR)* , Ghent, 131

ACO Evans (2009) Ovarian follicle development and consequences for fertility in cattle *Octavo Simposio Internacional de Reproducción Animal, Cordoba, Argentina* ,

Dr Paul Evans

Peer Reviewed Journals

Evans P, Klein JE, Geoghegan K, MA©ral N, (2010) 'Selective generation of quaternary all-carbon-centres through Heck-cyclisations: synthesis of mesembrane'. *Chemical Communications*, 46 (6):937-939.

Morgan BS, O'Byrne A, Murray C, Keegan D, Palacio C, Evans P, (2010) 'The thio-adduct facilitated, enzymatic kinetic resolution of 4-hydroxycyclopentenone and 4-hydroxycyclohexenone'. *Organic and Biomolecular Chemistry*, 8 (3):539-545.

Evans P, McLaughlin NP, (2010) 'Dihydroxylation of vinyl sulfones: stereoselective synthesis of (+)- and (-)-febrifugine and halofuginone'. *Journal of Organic Chemistry*, 75 (2):518-521.

Evans P, Kelleher S, Quesne PY, (2009) 'Diastereoselective functionalisation of benzo-annulated bicyclic sultams: Application for the synthesis of cis-2,4-diarylpyrrolidines'. *Journal of Organic Chemistry*, 5 .

Dr Neil Ferguson

Peer Reviewed Journals

Dodson, C. A., Ferguson, N, Rutherford, T. J., Johnson, C. M., Freund, S. M. V. & Fersht, A. R. (2010) 'Engineering a two-helix bundle protein for folding studies'. *Protein Engineering Design and Selection*, 23 (5):357-364.

Professor Oliver Fitzgerald

Peer Reviewed Journals

Connolly, M,Marrelli, A,Blades, M,McCormick, J,Maderna, P,Godson, C,Mullan, R,FitzGerald, O,Bresnihan, B,Pitzalis, C,Veale, DJ,Fearon, U (2010) 'Acute Serum Amyloid A Induces Migration, Angiogenesis, and Inflammation in Synovial Cells In Vitro and in a Human Rheumatoid Arthritis/SCID Mouse Chimera Model'. *J IMMUNOL*, 184 :6427-6437.

Martin, J,Walsh, C,Gibbs, A,McDonnell, T,Fearon, U,Keane, J,Codd, MB,Dodd, J,Veale, D,FitzGerald, O,Bresnihan, B (2010) 'Comparison of interferon gamma release assays and conventional screening tests before tumour necrosis factor alpha blockade in patients with inflammatory arthritis'. *Annals of Rheumatic Diseases*, 69 :181-185.

Aherne CM, McMorow J, Kane D, FitzGerald O, Mix KS and Murphy EP. (2009) ' Identification of the orphan receptor NR4A2 as a transcriptional regulator of IL-8 expression in human inflammatory arthritis'. *Molecular immunology*, 46 :3345-3357.

Professor William Gallagher

Peer Reviewed Journals

Lau, T. Y., Power, K. A., Dijon, S, de Gardelle, I., McDonnell, S., Duffy, M., Pennington, S., and Gallagher, W. M. (2010) 'Prioritization of candidate protein biomarkers from an in vitro model system of breast tumor progression towards clinical verification'. *Journal of Proteome Research*, 9 :1450-1459.

Collins, B. C., Sposny, A., McCarthy, D., Brandenburg, A., Woodbury, R., Pennington, S. R., Gautier, J. C., Hewitt, P., and Gallagher, W. M (2010) '. Use of SELDI MS to discover and identify potential biomarkers of toxicity in InnoMed PredTox: A multi-site, multi-compound study'. *Proteomics*, 10 (8):1592-1608.

Ryan, D., Rafferty, M., Hegarty, S., Leary, P. O., Faller, W., Gremel, G., Bergqvist, M., Agnarsdottir, M., Strömberg, S., Kampf, C., Pontén, F., Millikan, R. C., Dervan, P. A., and Gallagher, W. M (2010) 'Topoisomerase I amplification in melanoma is associated with more advanced tumours and poor prognosis'. *Pigment Cell & Melanoma Research*, 23 (4):542-553.

Hoffmann, D., Adler, M., Vaidya, V., Rached, E., Mulrane, L., Gallagher, W. M., Callanan, J. J., Gautier, J. C., Matheis, K., Staedtler, F., Dieterle, F., Brandenburg, A., Sposny, A., Hewitt, P., Ellinger-Ziegelbauer, H., Bonventre, J. V., Dekant, W., and Mally, A. (2010) 'Performance of novel kidney biomarkers in preclinical toxicity studies'. *Toxicological sciences : an official journal of the Society of Toxicology*, 116 (1):8-22.

Brennan, D. J., Brandstedt, J., Rexhepaj, E., Foley, M., Ponten, F., Uhlen, M., Gallagher, W. M., O'Connor, D. P., O'Herlihy, C., and Jirstrom, K (2010) '. Tumour-specific HMG-CoAR is an independent predictor of recurrence free survival in epithelial ovarian cancer'. *BMC Cancer*, 10 .

van der Meel, R., Gallagher, W. M., Oliveira, S., O'Connor, A. E., Schiffelers, R., and Byrne, A. T (2010) 'Recent advances in molecular imaging biomarkers in cancer: application of bench to bedside technologies'. *Drug Discovery Today*, 15 (3/4):102-114.

Lanigan, F., Gremel, G., Hughes, R., Brennan, D. J., Martin, F., Jirstrom, K., and Gallagher, W. M. (2010) 'Homeobox transcription factor Msx2 correlates with good prognosis in breast cancer patients and induces apoptosis in vitro'. *Breast Cancer Research*, 12 (4).

Gallagher WM, Lau TY, Power KA, Dijon S, de Gardelle I, McDonnell S, Duffy MJ, Pennington SR, (2010) 'Prioritization of candidate protein biomarkers from an in vitro model system of breast tumor progression toward clinical verification'. *Journal of Proteome Research*, 9 (3):1450-1459.

Mally A, Hoffmann D, Adler M, Vaidya V, Rached E, Mulrane L, Gallagher WM, Callanan JJ, Gautier JC, Matheis K, Staedtler F, Dieterle F, Brandenburg A, Sposny A, Hewitt P, Ellinger-Ziegelbauer H, Bonventre JV, Dekant W, (2010)

'Performance of novel kidney biomarkers in preclinical toxicity studies'. *Toxicological sciences : an official journal of the Society of Toxicology* .

Miller, I. S., Lynch, I., Dowling, D. P., Dawson, K. A. and Gallagher, W. M. (2010) 'Surface-induced cell signaling events control actin rearrangements and motility'. *Journal of Biomedical Materials Research Part A*, 93A (2):493-504.
<http://<Go to ISI>://000276351300010>

Byrne, A. T., O'Connor, A. E., Hall, M., Murtagh, J., O'Neill, K., Curran, K. M., Mongrain, K., Rousseau, J. A., Lecomte, R., McGee, S., Callanan, J. J., O'Shea, D. F., and Gallagher, W. M. (2009) 'Vascular targeted photodynamic therapy with BF2-chelated tetraaryl-azadipyromethene agents: A multi-modality molecular imaging approach to therapeutic assessment'. *British Journal of Cancer*, 101 (9):1565-1573.

O'Connor, A. E., Byrne, A. T., and Gallagher, W. M. (2009) 'Porphyrin and non-porphyrin photosensitizers in oncology: pre-clinical and clinical advances in photodynamic therapy'. *Photochemistry and photobiology*, 85 (5):1053-1074.

McSherry, E. A., McGee, S. F., Jirstrom, K., Doyle, E. M., Brennan, D. J., Landberg, G., Dervan, P. A., Hopkins, A. M., and Gallagher, W. M. (2009) 'JAM-A expression positively correlates with poor prognosis in breast cancer patients'. *International Journal of Cancer*, 125 (6):1343-1351.

Patel, K. D., Duggan, S. P., Currid, C. A., Gallagher, W. M., McManus, R., Kelleher, D., Murphy, R. T., and Ryan, A. W. (2009) 'High sensitivity cytokine detection in acute coronary syndrome reveals up-regulation of interferon gamma and interleukin-10 post myocardial infarction'. *Clinical Immunology*, 133 (2):251-256.

Gremel, G., Rafferty, M., Lau, T. Y. K., and Gallagher, W. M. (2009) 'Identification and functional validation of therapeutic targets for malignant melanoma'. *Critical Reviews in Oncology Hematology*, 72 :194-214.

Ryan AW, Patel KD, Duggan SP, Currid CA, Gallagher WM, McManus R, Kelleher D, Murphy RT, (2009) 'High sensitivity cytokine detection in acute coronary syndrome reveals up-regulation of Interferon Gamma and Interleukin-10 post Myocardial Infarction'. *Clinical Immunology*, 133 (2):251-256.

Gallagher WM, Byrne AT, O'Connor AE, Hall M, Murtagh J, O'Neill K, Curran KM, Mongrain K, Rousseau JA, Lecomte R, McGee S, Callanan JJ, O'Shea DF, (2009) 'Vascular-targeted photodynamic therapy with BF2-chelated Tetraaryl-Azadipyromethene agents: a multi-modality molecular imaging approach to therapeutic assessment'. *Cancer* .

O'Neill K, Lyons SK, Gallagher, W, Curran KM, Byrne AT (2009) 'Bioluminescent Imaging: A Critical Tool in Pre-clinical Oncology Research'. *The Journal of pathology* .

Byrne AT, O'Connor AE, Gallagher WM, (2009) 'Porphyrin and nonporphyrin photosensitizers in oncology: preclinical and clinical advances in photodynamic therapy'. *Photochemistry and photobiology*, 85 (5):1053-1074.

McSherry, EA, McGee, SF, Jirstrom, K, Doyle, EM, Brennan, DJ, Landberg, G, Dervan, PA, Hopkins, AM, Gallagher, WM (2009) 'JAM-A expression positively correlates with poor prognosis in breast cancer patients'. *International Journal of Cancer*, 125 (NA):1343-1351.

Professor Declan Gerard Gilheany

Peer Reviewed Journals

Rafter, E, Gilheany, DG, Reek, JNH, van Leeuwen, PWNM (2010) 'Rhodium-Catalyzed Hydroformylation Using Hindered Phosphine Ligands: An In Situ Study'. *Chemcatchem*, 2 :387-391.

Professor Catherine Godson

Book Chapters

Ryan A, Sadlier, DM and Godson C Animal models of glomerulonephritis. In Fundamentals of Inflammation, Serhan, Ward and Gilroy (Eds.) Cambridge University Press, In press 2009 (2010) 'Animal models of glomerulonephritis' In: *Fundamentals of Inflammation* . NY: Cambridge University Press.

Peer Reviewed Journals

Nyhan KC, Faherty N, Murray G, Cooney LB, Godson C, Crean JK, Brazil DP. (2010) 'Jagged/Notch signalling is required for a subset of TGFβ1 responses in human kidney epithelial cells'. *Biochimica Et Biophysica Acta - Molecular Cell Research*, 1803 :1386-1395.

Rooney B, O'Donovan, H., Browne, M., Gaffney, A., Curran, SP., Brazil, DP. Godson, C., Sadlier, D and Crean, JK. (2010) 'CTGF/CCN2 activates canonical Wnt signaling in mesangial cells through LRP6; implications for the pathogenesis of diabetic nephropathy'. *European journal of biochemistry / FEBS* .

Brennan EP, Ehrich M, Brazil DP, Crean JK, Murphy M, Sadlier DM, Martin F, Godson C, van den Boom D, Maxwell AP, Savage DA. (2010) 'DNA methylation profiling in cell models of diabetic nephropathy'. *Epigenetics : official journal of the DNA Methylation Society*, 16 (5).

Maderna P, Cottell DC, Toivonen T, Dufton N, Dalli J, Perretti M, Godson C. (2010) 'FPR2/ALX receptor expression and internalization are critical for lipoxin A4 and annexin-derived peptide-stimulated phagocytosis'. *FASEB Journal* .

Duffy, CD, Maderna, P, McCarthy, C, Loscher, CE, Godson, C, Guiry, PJ (2010) 'Synthesis and Biological Evaluation of Pyridine-Containing Lipoxin A(4) Analogues'. *Chemmedchem*, 5 :517-522.

Connolly, M, Marrelli, A, Blades, M, McCormick, J, Maderna, P, Godson, C, Mullan, R, FitzGerald, O, Bresnihan, B, Pitzalis, C, Veale, DJ, Fearon, U (2010) 'Acute Serum Amyloid A Induces Migration, Angiogenesis, and Inflammation in Synovial Cells In Vitro and in a Human Rheumatoid Arthritis/SCID Mouse Chimera Model'. *J IMMUNOL*, 184 :6427-6437.

Ryan, A., Murphy, M., Godson, C., Hickey, F. B. (2009) 'Diabetes mellitus and apoptosis: inflammatory cells'. *Apoptosis*, 14 (1212):1435-501435.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=19360474
http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=19360474

Maderna, P., Godson, C. (2009) 'Lipoxins: resolutionary road'. *Br J Pharmacol*, 158 (44):947-59947.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=19785661
http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=19785661

Brennan EP, Ehrich M, Brazil DP, Crean JK, Murphy M, Sadlier DM, Martin F, Godson C, McKnight AJ, van den Boom D, Maxwell AP, Savage DA. (2009) 'Comparative analysis of DNA methylation profiles in peripheral blood leukocytes versus lymphoblastoid cell lines'. *Epigenetics : official journal of the DNA Methylation Society*, 1 (4).

Conference Publications

Rooney B, Gaffney, A., Godson, C., Sadlier, D and Crean, JK. (2010) CTGF/CCN2 activates canonical Wnt signaling in mesangial cells through LRP6; implications for the pathogenesis of diabetic nephropathy *J Am Soc Nephrol* ,

O'Donovan, H. 1, Xu, L.3, Oliver, N.3, Godson, C.2, and Crean, JK (2010) CTGF/CCN2 and TGFβ Superfamily signalling: Implications for therapeutic intervention *J Am Soc Nephrol* ,

Browne, M., Faherty, N.1, Xu, L., Oliver, N., Brazil, D. , Godson, C. and Crean, J. (2010) Connective Tissue Growth Factor (CTGF) causes Cdc42 activation and altered actin binding protein expression in the glomerular podocyte *J Am Soc Nephrol* ,

Professor Stephen Gordon

Peer Reviewed Journals

Schiller I, Vordermeier HM, Waters WR, Kyburz A, Cagiola M, Whelan A, Palmer MV, Thacker TC, Meijlis J, Carter C, Gordon S, Egnuni T, Hardegger R, Marg-Haufe B, Raeber A, Oesch B (2010) 'Comparison of tuberculin activity using the interferon-gamma assay for the diagnosis of bovine tuberculosis'. *Veterinary Record*, 167 (9):322-326.

Ojo OO, Sheehan S, Corcoran DG, Nikolayevsky V, Brown T, O'Sullivan M, O'Sullivan K, Gordon SV, Drobniowski F, Prentice MB (2010) 'Molecular epidemiology of Mycobacterium tuberculosis clinical isolates in Southwest Ireland'. *Infection, Genetics and Evolution* .

Ameni G, Vordermeier M, Firdessa R, Aseffa A, Hewinson G, Gordon SV, Berg S (2010) 'Mycobacterium tuberculosis infection in grazing cattle in central Ethiopia'. *Veterinary Journal* .

Mendoza Lopez P, Golby P, Wooff E, Garcia JN, Garcia Pelayo MC, Conlon K, Gema Camacho A, Hewinson RG, Polaina J, SuA;rez GarcA-a A, Gordon SV (2010) 'Characterisation of the transcriptional regulator Rv3124 of Mycobacterium tuberculosis identifies it as a positive regulator of molybdopterin biosynthesis and defines the functional consequences of a nonsynonymous SNP in the Mycobacterium bovis BCG orthologue'. *Microbiology (Reading, England)* .

Whelan AO, Coad M, Cockle PJ, Hewinson G, Vordermeier M, Gordon SV (2010) 'Revisiting host preference in the Mycobacterium tuberculosis complex: experimental infection shows M. tuberculosis H37Rv to be avirulent in cattle'. *PLoS ONE*, 5 (1).

Jones GJ, Gordon SV, Hewinson RG, Vordermeier HM (2010) 'Screening of Predicted Secreted Antigens from Mycobacterium bovis Reveals the Immunodominance of the ESAT-6 Protein Family'. *Infection and Immunity* .

Chavadi S, Wooff E, Coldham NG, Sritharan M, Hewinson RG, Gordon SV, Wheeler PR (2009) 'Global effects of inactivation of the pyruvate kinase gene in the Mycobacterium tuberculosis complex'. *Journal of Bacteriology*, 191 (24):7545-7553.

Blanco FC, Nunez-GarcA-a J, GarcA-a-Pelayo C, Soria M, Bianco MV, ZumA;rraga M, Golby P, Cataldi AA, Gordon SV, Bigi F (2009) 'Differential transcriptome profiles of attenuated and hypervirulent strains of Mycobacterium bovis'. *Microbes and Infection*, 11 (12):956-963.

Professor Andrew Green

Peer Reviewed Journals

Hoornaert KP, Vereecke I, Dewinter C, Rosenberg T, Beemer FA, Leroy JG, Bendix L, Björck E, Bonduelle M, Boute O, Cormier-Daire V, De Die-Smulders C, Dieux-Coeslier A, Dollfus H, Elting M, Green A, Guerci VI, Hennekam RC, Hillhorts-Hofstee Y, Holder M, Hoyng C, Jones KJ, Josifova D, Kaitila I, Kjaergaard S, Kroes YH, Lagerstedt K, Lees M, Lemerrer M, Magnani C, Marcelis C, Martorell L, Mathieu M, McEntagart M, Mendicino A, Morton J, Orazio G, Paquis V, Reish O, Simola KO, Smithson SF, Temple KI, Van Aken E, Van Bever Y, van den Ende J, Van Hagen JM, Zelante L, Zordania R, De Paepe A, Leroy BP, De Buyzere M, Coucke PJ, Mortier GR (2010) 'Stickler syndrome caused by COL2A1 mutations: genotype-phenotype correlation in a series of 100 patients'. *European Journal of Human Genetics*, 18 (8):872-880.

Pinto D, Pagnamenta AT, Klei L, Anney R, Merico D, Regan R, Conroy J, Magalhaes TR, Correia C, Abrahams BS, Almeida J, Bacchelli E, Bader GD, Bailey AJ, Baird G, Battaglia A, Berney T, Bolshakova N, Bölte S, Bolton PF, Bourgeron T, Brennan S, Brian J, Bryson SE, Carson AR, Casallo G, Casey J, Chung BH, Cochrane L, Corsello C, Crawford EL, Crossett A, Cytrynbaum C, Dawson G, de Jonge M, Delorme R, Drmic I, Duketis E, Duque F, Estes A, Farrar P, Fernandez BA, Folstein SE, Fombonne E, Freitag CM, Gilbert J, Gillberg C, Glessner JT, Goldberg J, Green A, Green J, Guter SJ, Hakonarson H, Heron EA, Hill M, Holt R, Howe JL, Hughes G, Hus V, Iqbal R, Kim C, Klauck SM, Kolevzon A, Korvatska O, Kustanovich V, Lajonchere CM, Lamb JA, Laskawiec M, Leboyer M, Le Couteur A, Leventhal BL, Lionel AC, Liu XQ, Lord C, Lotspeich L, Lund SC, Maestrini E, Mahoney W, Mantoulan C, Marshall CR, McConachie H, McDougle CJ, McGrath J, McMahon WM, Merikangas A, Migita O, Minshew NJ, Mirza GK, Munson J, Nelson SF, Noakes C, Noor A, Nygren G, Oliveira G, Papanikolaou K, Parr JR, Parrini B, Paton T, Pickles A, Pilorge M, Piven J, Ponting CP, Posey DJ, Poustka A, Poustka F, Prasad A, Raqoussis J, Renshaw K, Rickaby J, Roberts W, Roeder K, Roge B, Rutter ML, Bierut LJ, Rice JP, Salt J, Sansom K, Sato D, Segurado R, Sequeira AF, Senman L, Shah N, Sheffield VC, Soorya L, Sousa I, Stein O, Sykes N, Stoppioni V, Strawbridge C, Tancredi R, Tansey K, Thiruvahindrapuram B, Thompson AP, Thomson S, Tryfon A, Tsiantis J, Van Engeland H, Vincent JB, Volkmar F, Wallace S, Wang K, Wang Z, Wassink TH, Webber C, Weksberg R, Wing K, Wittemeyer K, Wood S, Wu J, Yaspan BL, Zurawiecki D, Zwaigenbaum L, Buxbaum JD, Cantor RM, Cook EH, Coon H, Cuccaro ML, Devlin B, Ennis S, Gallagher L, Geschwind DH, Gill M, Haines JL, Hallmayer J, Miller J, Monaco AP, Nurnberger JI Jr, Paterson AD, Pericak-Vance MA, Schellenberg GD, Szatmari P, Vicente AM, Vieland VJ, Wijsman EM, Scherer SW, Sutcliffe JS, Betancur C. (2010) 'Functional impact of global rare copy number variation in autism spectrum disorders'. *Nature*, 15 (466):368-372.

Kagami M, O'Sullivan MJ, Green AJ, Watabe Y, Arisaka O, Masawa N, Matsuoka K, Fukami M, Matsubara K, Kato F, Ferguson-Smith AC, Ogata T (2010) 'The IG-DMR and the MEG3-DMR at human chromosome 14q32.2: hierarchical interaction and distinct functional properties as imprinting control centers'. *PLoS Genetics*, 6 (6).

O'Riordan JM, O'Donoghue D, Green A, Keegan D, Hawkes LA, Payne SJ, Sheahan K, Winter DC (2010) 'Hereditary mixed polyposis syndrome due to a BMPR1A mutation'. *Colorectal Disease*, 12 (6):570-573.

Wormald R, Viani L, Lynch SA, Green AJ (2010) 'Sensorineural hearing loss in children'. *Irish Medical Journal*, 103 (2):51-54.

van der Klift, HM, Tops, CMJ, Bik, EC, Boogaard, MW, Borgstein, AM, Hansson, KBM, Aulsems, MGEM, Garcia, EG, Green, A, Hes, FJ, Izatt, L, van Hest, LP, Alonso, AM, Vriends, AHJT, Wagner, A, van Zelst-Stams, WAG, Vasen, HFA, Morreau, H, Devilee, P, Wijnen, JT (2010) 'Quantification of Sequence Exchange Events between PMS2 and PMS2CL Provides a Basis for Improved Mutation Scanning of Lynch Syndrome Patients'. *Human Mutation*, 31 :578-587.

Weiss LA, Arking DE; Gene Discovery Project of Johns Hopkins & the Autism Consortium, Daly MJ, Chakravarti A (2009) 'A genome-wide linkage and association scan reveals novel loci for autism'. *Nature*, 461 (7265):802-808.

Professor Patrick Guiry

Peer Reviewed Journals

S. Singh, P. J. Guiry (2010) 'A Short And Efficient Asymmetric Synthesis Of (α)-Frontalin, (α)-Exo- Isobrevicomin And Volatile Contributor Of Beer-Aroma'. *Tetrahedron*, 66 (30):5701-5706.

A. C. Maxwell; S. P. Flanagan; R. Goddard; P. J. Guiry (2010) 'Rhodium-Catalysed Hydroboration Employing New Quinazolinap Ligands; an Investigation into Electronic Effects'. *Tetrahedron- Asymmetry*, 21 (11-12):1458-1473.

Duffy, CD, Maderna, P, McCarthy, C, Loscher, CE, Godson, C, Guiry, PJ (2010) 'Synthesis and Biological Evaluation of Pyridine-Containing Lipoxin A(4) Analogues'. *Chemmedchem*, 5 :517-522.

Coeffard, V, Guiry, PJ (2010) 'Recent Advances in Ligand Design for the Intermolecular Asymmetric Mizoroki-Heck Reaction'. *Current Organic Chemistry*, 14 :212-229.

McKeon, S. C., Muller-Bunz, H., Guiry, P. J. (2009) 'New Thiazoline-Oxazoline Ligands and Their Application in the Asymmetric Friedel-Crafts Reaction'. *European Journal of Organic Chemistry*, (28):4833-4841. <http://www.rsc.org/journals-books-and-databases/content-article.cfm?id=C6000270500300012>

P. J. Guiry (2009) 'Expanding the Substrate Scope for Metal Catalyzed Asymmetric Carbon-Boron Bond Formation'. *Chemcatchem*, 1 (2):233-235.

Dr Jana Haase

Peer Reviewed Journals

Pfeiffer S, Boyle J, Daly S, Dowd E, Haase J, McLaughlin D. (2010) 'Human amniocytes regulate serotonin levels by active uptake, and express genes suggestive of a wider role in facilitating neurotransmitter regulation in the foetal environment'. *Stem cells and development*, epub .

Dr Chandralal Hewage

Peer Reviewed Journals

Subasinghage AP, Conlon JM, Hewage CM (2010) 'Development of potent anti-infective agents from *Silurana tropicalis*: conformational analysis of the amphipathic, alpha-helical antimicrobial peptide XT-7 and its non-haemolytic analogue [G4K]XT-7'. *Biochimica et biophysica acta*, 1804 (4):1020-1028.

Professor Desmond Gerard Higgins

Peer Reviewed Journals

Murphy KJ, Ter Horst JP, Cassidy AW, DeSouza IE, Morgunova M, Li C, Connole LM, O'Sullivan NC, Loscher JS, Brady AT, Rombach N, Connellan J, McGettigan PA, Scully D, Fedriani R, Lukasz B, Moran MP, McCabe OM, Wantuch CM, Hughes ZA, Mulvany SK, Higgins DG, Pangalos MN, Marquis KL, O'Connor WT, Ring RH, von Schack D, Regan CM (2010) 'Temporal dysregulation of cortical gene expression in the isolation reared Wistar rat'. *Neurochemistry*, 113 (3):601-614.

Yin, J, McLoughlin, S, Jeffery, IB, Glaviano, A, Kennedy, B, Higgins, DG (2010) 'Integrating multiple genome annotation databases improves the interpretation of microarray gene expression data'. *Genomics*, 11 .

Higgins DG, Yin J, McLoughlin S, Jeffery IB, Glaviano A, Kennedy B, (2010) 'Integrating multiple genome annotation databases improves the interpretation of microarray gene expression data'. *BMC Genomics*, 11 .

Higgins DG, Yin J, McLoughlin S, Jeffery IB, Glaviano A, Kennedy B, (2010) 'Integrating multiple genome annotation databases improves the interpretation of microarray gene expression data'. *Genomics*, 11 .

Murphy, KJ, ter Horst, JPF, Cassidy, AW, DeSouza, IEJ, Morgunova, M, Li, C, Connole, LM, O'Sullivan, NC, Loscher, JS, Brady, AT, Rombach, N, Connellan, J, McGettigan, PA, Scully, D, Fedriani, R, Lukasz, B, Moran, MP, McCabe, OM, Wantuch, CM, Hughes, ZA, Mulvany, SK, Higgins, DG, Pangalos, MN, Marquis, KL, O'Connor, WT, Ring, RH, von Schack, D, Regan, CM (2010) 'Temporal dysregulation of cortical gene expression in the isolation reared Wistar rat'. *Neurochemistry*, 113 :601-614.

Murphy KJ, ter Horst JPF, Cassidy AW, DeSouza IEJ, Morgunova M, Li C, Connole LM, O'Sullivan NC, Loscher JS, Brady AT, Rombach N, Connellan J, McGettigan PA, Scully D, Fedriani R, Lukasz B, Moran MP, McCabe OM, Wantuch CM, Hughes ZA, Mulvany SK, Higgins DG, Pangalos MN, Marquis KL, William T. O'Connor WT, Ring RH, von Schack

D, Regan CM (2010) 'Temporal dysregulation of cortical gene expression in the isolation reared Wistar rat'. *Journal of Neurochemistry*, 113 :601-614.

Dineen, DG, Wilm, A, Cunningham, P, Higgins, DG (2009) 'High DNA melting temperature predicts transcription start site location in human and mouse'. *Nucleic Acids Research*, 37 :7360-7367. <http://nar.oxfordjournals.org/cgi/reprint/gkp821>

Murphy, DM, Buckley, PG, Bryan, K, Das, S, Alcock, L, Foley, NH, Prenter, S, Bray, I, Watters, KM, Higgins, D, Stallings, RL (2009) 'Global MYCN Transcription Factor Binding Analysis in Neuroblastoma Reveals Association with Distinct E-Box Motifs and Regions of DNA Hypermethylation'. *PLoS ONE*, 4 .

Professor Michael Keane

Peer Reviewed Journals

O'Beirne S, Counihan IP, Keane MP (2010) 'Interstitial lung disease and lung transplantation'. *Critical Care Medicine*, 31 (2):139-146.

Belperio JA, Busuttill A, Weigt SS, Keane MP, Xue YY, Palchevskiy V, Burdick MD, Huang C, Zisman DA, Fishbein M, Lynch JP 3rd, Strieter RM, Elashoff RM, (2009) 'CXCR3 ligands are augmented during the pathogenesis of pulmonary sarcoidosis'. *EUR RESPIR J*, 34 (3):676-686.

Conference Publications

Costello, CM, Howell K, Doherty S, Martin, F, Belperio J, Keane MP, Gaine, S, McLoughlin, P (2010) CXCL12 signalling in hypoxic pulmonary hypertension *American Thoracic Society International Conference* ,

Dr Breandán Kennedy

Peer Reviewed Journals

Atzei P, Yang F, Collery R, Kennedy BN, Moynagh PN (2010) 'Characterisation of expression patterns and functional role of Cactin in early zebrafish development'. *Gene expression patterns : GEP*, 10 (4-5):199-206.

Alvarez Y, Chen K, Reynolds AL, Waghorne N, O'Connor JJ, Kennedy BN, (2010) 'Predominant cone photoreceptor dysfunction in a hyperglycaemic model of non-proliferative diabetic retinopathy'. *Disease models & mechanisms*, 3 (3-4):236-245.

Kennedy BN, Collery RF, (2010) 'Photoreceptor Guanylate Cyclases and cGMP Phosphodiesterases in Zebrafish'. *Advances in Experimental Medical Biology*, 664 :55-61.

Higgins DG, Yin J, McLoughlin S, Jeffery IB, Glaviano A, Kennedy B, (2010) 'Integrating multiple genome annotation databases improves the interpretation of microarray gene expression data'. *BMC Genomics*, 11 .

Kennedy BN, Alvarez Y, Astudillo O, Jensen L, Reynolds AL, Waghorne N, Brazil DP, Cao Y, O'Connor JJ, (2009) 'Selective inhibition of retinal angiogenesis by targeting PI3 kinase'. *PLoS ONE*, 4 (11).

Professor Boris Kholodenko

Peer Reviewed Journals

Muñoz-García J, Kholodenko BN, Neufeld Z. (2010) 'Formation of intracellular concentration landscapes by multisite protein modification'. *Biophysical Journal* .

Kholodenko, B. N.Kholodenko, B. N.,Hancock, J. F.Hancock, J. F.,Kolch, W.Kolch, W. (2010) 'Signalling ballet in space and time'. *Nat Rev Mol Cell Biol*, 11 (66):414-26414.

Kholodenko BN, Hancock JF, Kolch W (2010) 'Signalling ballet in space and time'. *Nature reviews. Molecular cell biology*, 11 (6):414-426.

Nakakuki T, Birtwistle MR, Saeki Y, Yumoto N, Ide K, Nagashima T, Bruschi L, Ogunnaike BA, Okada-Hatakeyama M, Kholodenko BN (2010) 'Ligand-specific c-Fos expression emerges from the spatiotemporal control of ErbB network dynamics'. *Cell*, 141 (5):884-896.

Kholodenko, B. N.Kholodenko, B. N. (2009) 'Spatially distributed cell signalling'. *FEBS LettFEBS LettFEBS Lett*, 583 (2424):4006-124006.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=19800332
http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=19800332

Professor Therese Kinsella

Peer Reviewed Journals

Helen M. Reid, Eamon P Mulvaney, Elizebeth C. Turner and B. Therese Kinsella. (2010) 'Interaction of the human Prostacyclin Receptor with Rab11: Characterization of a novel Rab11 binding domain (RBD) within a-Helix 8 that is regulated by Palmitoylation'. *Journal of Biological Chemistry*, 285 (24):18709-18726.

Elizebeth C. Turner & B. Therese Kinsella (2010) 'Estrogen increases expression of the human prostacyclin receptor within the vasculature through an ERa-dependent mechanism'. *Journal of Molecular Biology*, 396 :473-486.

AnneMarie M.Gannon & B. Therese Kinsella. (2009) 'The Wilms' Tumour suppressor protein WT1 acts as a key Transcriptional Repressor of the Human Thromboxane A2 Receptor Gene in Megakaryocytes'. *Journal of cellular and molecular medicine*, 13 (11-12):4571-4586.

Reid HM, Kinsella BT. (2009) 'Intermolecular cross-talk between the prostaglandin E receptor (EP) subtype and thromboxane A(2) receptor signalling in human erythroleukaemic cells'. *British Journal of Pharmacology*, 158 (3):830-847.

Gannon AM, Turner EC, Reid HM, Kinsella BT. (2009) 'Regulated expression of the alpha isoform of the human thromboxane A2 receptor during megakaryocyte differentiation: a coordinated role for WT1, Egr1, and Sp1'. *Journal of Molecular Biology*, 394 (1).

Conference Publications

B. Therese Kinsella (2010) Biochemistry of the Prostacyclin Receptor *Bioactive Lipids: Biochemistry and Diseases. Keystone Symposia on Molecular and Cellular Biology* , Kyoto, Japan,

Reid HR, Mulvaney EP. Turner EC & Kinsella BT. (2010) Characterization of a novel Rab11 binding domain (RBD) within the human prostacyclin receptor that is regulated by palmitoylation . In: FASEB J. 2010. 24:771.9 eds. *Experimental Biology 2010, Anaheim, CA, USA. April 24th & 28th 2010* , Anaheim, CA, USA,

Professor Ulla Knaus

Peer Reviewed Journals

Loehneysen, K, Noack, D, Wood, MR, Friedman JS, Knaus, UG (2010) 'Structural Insights into Nox4 and Nox2 - Motifs Involved in Function and Cellular Localization'. *Molecular and Cellular Biology*, 30 (4):961-975.

Professor Walter Kolch

Peer Reviewed Journals

Xu, T. R., Xu, T. R., Vyshemirsky, V., Vyshemirsky, V., Gormand, A., Gormand, A., von Kriegsheim, A., von Kriegsheim, A., Girolami, M., Girolami, M., Baillie, G. S., Baillie, G. S., Ketley, D., Ketley, D., Dunlop, A. J., Dunlop, A. J., Milligan, G., Milligan, G., Houslay, M. D., Houslay, M. D., Kolch, W., Kolch, W. (2010) 'Inferring signaling pathway topologies from multiple perturbation measurements of specific biochemical species'. *Sci Signal*, 3 (113113).

Xu TR, Vyshemirsky V, Gormand A, von Kriegsheim A, Girolami M, Baillie GS, Ketley D, Dunlop AJ, Milligan G, Houslay MD, Kolch W (2010) 'Inferring signaling pathway topologies from multiple perturbation measurements of specific biochemical species'. *Science signaling*, 3 (134).

Mischak H, Allmaier G, Apweiler R, Attwood T, Baumann M, Benigni A, Bennett SE, Bischoff R, Bongcam-Rudloff E, Capasso G, Coon JJ, D'Haese P, Dominiczak AF, Dakna M, Dihazi H, Ehrich JH, Fernandez-Llama P, Fliser D, Frokiaer J, Garin J, Girolami M, Hancock WS, Haubitz M, Hochstrasser D, Holman RR, Ioannidis JP, Jankowski J, Julian BA, Klein JB, Kolch W, Luidert T, Massy Z, Mattes WB, Molina F, Monsarrat B, Novak J, Peter K, Rossing P, Sánchez-Carbayo M, Schanstra JP, Semmes OJ, Spasovski G, Theodorescu D, Thongboonkerd V, Vanholder R, Veenstra TD, Weissinger E, Yamamoto T, Vlahou A. (2010) 'Recommendations for biomarker identification and qualification in clinical proteomics'. *science translational medicine*, (2(46):46ps42).

Kholodenko, B. N., Kholodenko, B. N., Hancock, J. F., Hancock, J. F., Kolch, W., Kolch, W. (2010) 'Signalling ballet in space and time'. *Nat Rev Mol Cell Biol*, 11 (66):414-26414.

Kholodenko BN, Hancock JF, Kolch W (2010) 'Signalling ballet in space and time'. *Nature reviews. Molecular cell biology*, 11 (6):414-426.

Preisinger, C., Preisinger, C., Kolch, W., Kolch, W. (2010) 'The Bcr-Abl kinase regulates the actin cytoskeleton via a GADS/Slp-76/Nck1 adaptor protein pathway'. *Cell Signal*, 22 (55):848-56848.

Lock, F. E., Lock, F. E., Underhill-Day, N., Underhill-Day, N., Dunwell, T., Dunwell, T., Matallanas, D., Matallanas, D., Cooper, W., Cooper, W., Hesson, L., Hesson, L., Recino, A., Recino, A., Ward, A., Ward, A., Pavlova, T., Pavlova, T., Zabarovsky, E., Zabarovsky, E., Grant, M. M., Grant, M. M., Maher, E. R., Maher, E. R., Chalmers, A. D., Chalmers, A. D., Kolch, W., Kolch, W., Latif, F., Latif, F. (2010) 'The RASSF8 candidate tumor suppressor inhibits cell growth and regulates the Wnt and NF-kappaB signaling pathways'. *Oncogene* .

Stocki, P., Stocki, P., Morris, N. J., Morris, N. J., Preisinger, C., Preisinger, C., Wang, X. N., Wang, X. N., Kolch, W., Kolch, W., Multhoff, G., Multhoff, G., Dickinson, A. M., Dickinson, A. M. (2010) 'Identification of potential HLA class I and class II epitope precursors associated with heat shock protein 70 (HSPA)'. *Cell Stress Chaperones* .

Xu TR, Vyshemirsky V, Gormand A, von Kriegsheim A, Girolami M, Baillie GS, Ketley D, Dunlop AJ, Milligan G, Houslay MD, Kolch W (2010) 'Inferring signaling pathway topologies from multiple perturbation measurements of specific biochemical species'. *Science signaling*, 3 (113).

Rauch J, O'Neill E, Mack B, Matthias C, Munz M, Kolch W, Gires O (2010) 'Heterogeneous nuclear ribonucleoprotein H blocks MST2-mediated apoptosis in cancer cells by regulating A-Raf transcription'. *Cancer Research*, 70 (4):1679-1688.

Romano, D., Romano, D., Matallanas, D., Matallanas, D., Weitsman, G., Weitsman, G., Preisinger, C., Preisinger, C., Ng, T., Ng, T.

T.,Kolch, W.Kolch, W. (2010) 'Proapoptotic kinase MST2 coordinates signaling crosstalk between RASSF1A, Raf-1, and Akt'. *Cancer Res*, 70 (33):1195-2031195.

Romano, D,Matallanas, D,Weitsman, G,Preisinger, C,Ng, T,Kolch, W (2010) 'Proapoptotic Kinase MST2 Coordinates Signaling Crosstalk between RASSF1A, Raf-1, and Akt'. *Cancer*, 70 :1195-1203.

Preisinger, C,Kolch, W (2010) 'The Bcr-Abl kinase regulates the actin cytoskeleton via a GADS/Slp-76/Nck1 adaptor protein pathway'. *Cell*, 22 :848-856.

von Kriegsheim A, Baiocchi D, Birtwistle M, Sumpton D, Bienvenut W, Morrice N, Yamada K, Lamond A, Kalna G, Orton R, Gilbert D, Kolch W (2009) 'Cell fate decisions are specified by the dynamic ERK interactome'. *Cell*, 11 (12):1458-1464.

von Kriegsheim, A.von Kriegsheim, A.,Baiocchi, D.Baiocchi, D.,Birtwistle, M.Birtwistle, M.,Sumpton, D.Sumpton, D.,Bienvenut, W.Bienvenut, W.,Morrice, N.Morrice, N.,Yamada, K.Yamada, K.,Lamond, A.Lamond, A.,Kalna, G.Kalna, G.,Orton, R.Orton, R.,Gilbert, D.Gilbert, D.,Kolch, W.Kolch, W. (2009) 'Cell fate decisions are specified by the dynamic ERK interactome'. *Nat Cell Biol*, 11 (1212):1458-641458.

Professor Brendan Loftus

Peer Reviewed Journals

Machugh DE, Edwards CJ, Magee DA, Park SD, McGettigan PA, Lohan AJ, Murphy A, Finlay EK, Shapiro B, Chamberlain AT, Richards MB, Bradley DG, Loftus BJ, (2010) 'A complete mitochondrial genome sequence from a mesolithic wild aurochs (*Bos primigenius*)'. *PLoS ONE*, 5 (2).

Edwards CJ, Magee DA, Park SD, McGettigan PA, Lohan AJ, Murphy A, Finlay EK, Shapiro B, Chamberlain AT, Richards MB, Bradley DG, Loftus BJ, Machugh DE. (2010) 'A complete mitochondrial genome sequence from a mesolithic wild aurochs (*Bos primigenius*)'. *PLoS ONE* .

<http://www.plosone.org/article/info:doi/10.1371/journal.pone.0009255>

McGivney, B.A., McGettigan, P.A., Browne, J.A., Evans, A.C., Fonseca, R.G., Loftus, B.J., Lohan, A., MacHugh, D.E., Murphy, B.A., Katz, L. M., Hill, E.W. (2010) 'Characterization of the equine skeletal muscle transcriptome identifies novel functional responses to exercise training'. *BMC Genomics*, 11 .

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=20573200
http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=20573200

Professor Patrick Lonergan

Peer Reviewed Journals

Bermejo-Alvarez, P.,Rizos, D.,Rath, D.,Lonergan, P.,Gutierrez-Adan, A. (2010) 'Sex determines the expression level of one third of the actively expressed genes in bovine blastocysts'. *Proceedings of the National Academy of Sciences of the United States of America*, 107 (8):3394-3399.

Roche JF, Forde N, Carter F, Fair T, Crowe MA, Evans AC, Spencer TE, Bazer FW, McBride R, Boland MP, O'Gaora P, Lonergan P, (2009) 'Progesterone-regulated changes in endometrial gene expression contribute to advanced conceptus development in cattle'. *Biology of Reproduction*, 81 (4):784-794.

Fair T, Doyle J, Ellis SA, O'Gorman GM, Aparicio Donoso IM, Lonergan P, (2009) 'Classical and non-classical Major Histocompatibility Complex class I gene expression in in vitro derived bovine embryos'. *JOURNAL OF REPRODUCTIVE IMMUNOLOGY*, 82 (1):48-56.

Beltman, ME, Roche, JF, Lonergan, P, Forde, N, Crowe, MA (2009) 'Evaluation of models to induce low progesterone during the early luteal phase in cattle'. *Theriogenology*, 72 (NA):986-992.

Professor David MacHugh

Peer Reviewed Journals

Magee, D.A., Park, S.D., Scraggs, E., Murphy, A.M., Doherty, M.L., Kijas, J.W., International Sheep Genomics Consortium, Machugh, D.E. (2010) 'Technical note: High fidelity of whole-genome amplified sheep (*Ovis aries*) DNA using a high-density single nucleotide polymorphism array-based genotyping platform'. *Journal of Animal Science* . http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=20562352
http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=20562352

Waters, S.M., McCabe, M.S., Howard, D.J., Giblin, L., Magee, D.A., Machugh, D.E., Berry, D.P. (2010) 'Associations between newly discovered polymorphisms in the *Bos taurus* growth hormone receptor gene and performance traits in Holstein-Friesian dairy cattle'. *Animal Genetics* . http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=20528848
http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=20528848

Machugh DE, Edwards CJ, Magee DA, Park SD, McGettigan PA, Lohan AJ, Murphy A, Finlay EK, Shapiro B, Chamberlain AT, Richards MB, Bradley DG, Loftus BJ, (2010) 'A complete mitochondrial genome sequence from a mesolithic wild aurochs (*Bos primigenius*)'. *PLoS ONE*, 5 (2).

Eivers SS, McGivney BA, Fonseca RG, MacHugh DE, Menson K, Park SD, Rivero JLL, Taylor CT, Katz LM, Hill EW (2010) 'Alterations in oxidative gene expression in equine skeletal muscle following exercise and training'. *Physiological Genomics*, 40 (2):83-93. <http://www.ncbi.nlm.nih.gov/pubmed/19861432>

Hill EW, Gu J, Eivers SS, Fonseca RG, McGivney BA, Govindarajan P, Orr N, Katz LM, MacHugh DE (2010) 'A sequence polymorphism in *MSTN* predicts sprinting ability and racing stamina in thoroughbred horses'. *PLoS ONE*, 5 (1).

Hill, E.W., Eivers, S.S., McGivney, B.A., Fonseca, R.G., Gu, J., Smith, N.A., Browne, J.A., MacHugh, D.E., Katz, L.M. (2010) 'Moderate and high intensity sprint exercise induce differential responses in *COX4I2* and *PDK4* gene expression in Thoroughbred horse skeletal muscle'. *Equine Veterinary Journal*, 42 :576-581576. <http://dx.doi.org/10.1111/j.2042-3306.2010.00206.x>
<http://dx.doi.org/10.1111/j.2042-3306.2010.00206.x>

Magee, D.A., Sikora, K.M., Berkowicz, E.W., Berry, D.P., Howard, D.J., Mullen, M.P., Evans, R.D., Spillane, C., MacHugh, D.E. (2010) 'DNA sequence polymorphisms in a panel of eight candidate bovine imprinted genes and their association with performance traits in Irish Holstein-Friesian cattle'. *BMC Genetics*, 11 . <http://www.ncbi.nlm.nih.gov/pubmed/20942903>
<http://www.ncbi.nlm.nih.gov/pubmed/20942903>

Gu, J., MacHugh, D.E., McGivney, B.A., Park, S.D.E., Katz, L.M., Hill, E.W. (2010) 'Association of sequence variants in *CKM* (creatine kinase, muscle) and *COX4I2* (cytochrome c oxidase, subunit 4, isoform 2) genes with racing performance in Thoroughbred horses'. *Equine Veterinary Journal*, 42 :569-575569. <http://dx.doi.org/10.1111/j.2042-3306.2010.00181.x>
<http://dx.doi.org/10.1111/j.2042-3306.2010.00181.x>

McGivney, B.A., McGettigan, P.A., Browne, J.A., Evans, A.C., Fonseca, R.G., Loftus, B.J., Lohan, A., MacHugh, D.E., Murphy, B.A., Katz, L. M., Hill, E.W. (2010) 'Characterization of the equine skeletal muscle transcriptome identifies novel functional responses to exercise training'. *BMC Genomics*, 11 . http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=20573200
http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=20573200

McGivney BA, Eivers SS, MacHugh DE, MacLeod JN, O'Gorman GM, Park SD, Katz LM, Hill EW (2009) 'Transcriptional adaptations following exercise in thoroughbred horse skeletal muscle highlights molecular mechanisms that lead to

muscle hypertrophy'. *BMC Genomics*, 10 .

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=20042072

Meade KG, O'Gorman GM, Hill EW, Narciandi F, Agaba M, Kemp SJ, O'Farrelly C, MacHugh DE (2009) 'Divergent antimicrobial peptide (AMP) and acute phase protein (APP) responses to *Trypanosoma congolense* infection in trypanotolerant and trypanosusceptible cattle'. *Molecular immunology*, 47 :196-204.

<http://www.ncbi.nlm.nih.gov/pubmed/19889461>

Dr Patricia Maguire

Peer Reviewed Journals

Steele BM, Harper MT, Macaulay IC, Morrell CN, Perez-Tamayo A, Foy M, Habas R, Poole AW, Fitzgerald DJ, Maguire PB (2009) 'Canonical Wnt signaling negatively regulates platelet function'. *Proceedings of the National Academy of Sciences USA*, 106 (47):19836-19841.

Dr Gethin McBean

Peer Reviewed Journals

Kandil, S., Brennan, L. and McBean, GJ (2010) 'Glutathione depletion causes a JNK and p38MAPK-mediated increase in expression of cystathionine-gamma-lyase and upregulation of the transsulfuration pathway in C6 glioma cells'. *Neurochemistry International*, 56 :611-619.

Dr Amanda McCann

Peer Reviewed Journals

Prencipe M, McGoldrick A, Perry AS, O'Grady A, Phelan S, McGrogan B, Fitzpatrick P, Watson JA, Furlong F, Brennan DJ, Lawler M, Kay E, McCann A. (2010) 'MAD2 downregulation in hypoxia is independent of promoter hypermethylation'. *Cell cycle (Georgetown, Tex.)*, 9 (14):2856-2865.

Watson JA, Watson CJ, McCann A, Baugh J (2010) 'Epigenetics, the epicenter of the hypoxic response'. *Epigenetics : official journal of the DNA Methylation Society*, 5 (4):293-296.

Prencipe M, Fitzpatrick P, Gorman S, Tosetto M, Klinger R, Furlong F, Harrison M, O'Connor D, Roninson IB, O'Sullivan J, McCann A (2009) 'Cellular senescence induced by aberrant MAD2 levels impacts on paclitaxel responsiveness in vitro'. *British journal of cancer*, 101 (11):1900-1908.

McCann A, Watson JA, Watson CJ, McCrohan AM, Woodfine K, Tosetto M, McDaid J, Gallagher E, Betts D, Baugh J, O'Sullivan J, Murrell A, Watson RW, (2009) 'Generation of an epigenetic signature by chronic hypoxia in prostate cells'. *Human Molecular Genetics*, 18 (19):3594-3604.

Professor Michael James McGlinchey

Peer Reviewed Journals

Oulie, P, Altes, L, Milosevic, S, Bouteille, R, Muller-Bunz, H, McGlinchey, MJ (2010) 'Different Reactivity Patterns of Trimethylsilyl- and Phenyl-Substituted Propargylallenes: Fe-2(CO)(9)- and [Ag](+)-Promoted Cyclizations'. *Meta*, 29 :676-686.

Nikitin, K,Ortin, Y,Muller-Bunz, H,Plamont, MA,Jaouen, G,Vessieres, A,McGlinchey, MJ (2010) 'Organometallic SERMs (selective estrogen receptor modulators): Cobaltifens, the (cyclobutadiene)cobalt analogues of hydroxytamoxifen'. *J ORGANOMET CHEM*, 695 :595-608.

S. Brusey, E. V. Banide, S. Dörrich, P. O'Donohue, C. Long, Y. Ortin, H. Müller-Bunz, P. Evans and M. J. McGlinchey (2009) 'An X-Ray Crystallographic and NMR Spectroscopic Study of η^5 -2-alkene) η^5 -alkyne)pentacarbonyldicobalt complexes: Arrested Pauson-Khand Reaction Intermediates'. *Organometallics*, 28 :6308-6319.

Y. L. K. Tan, P. Pigeon, E. A. Hillard, S. Top, A. Vessières, M. J. McGlinchey, H. Müller-Bunz and Gérard Jaouen (2009) 'Synthesis, oxidation chemistry and cytotoxicity studies on ferrocene derivatives of diethylstilbestrol'. *Dalton Transactions*, :10871-10881.

Dr Edward McKone

Peer Reviewed Journals

Siklosi K, Gallagher CG, McKone EF (2010) 'Development, validation, and implementation of a questionnaire assessing disease knowledge and understanding in adult cystic fibrosis patients in Ireland'. *Journal of Cystic Fibrosis*, epub .

Darrah, R,McKone, E,O'Connor, C,Rodgers, C,Genatossio, A,McNamara, S,Gibson, R,Elborn, JS,Ennis, M,Gallagher, CG,Kalsheker, N,Aitken, M,Wiese, D,Dunn, J,Smith, P,Pace, R,Londono, D,Goddard, KAB,Knowles, MR,Drumm, ML (2010) 'EDNRA variants associate with smooth muscle mRNA levels, cell proliferation rates, and cystic fibrosis pulmonary disease severity'. *Physiological genomics*, 41 :71-77.

Professor Paul McLoughlin

Peer Reviewed Journals

Nichol AD, O'Cronin D F, Naughton F, Hopkins N, Boylan J, McLoughlin P. (2010) 'Hypercapnic acidosis reduces oxidative reactions in endotoxin-induced lung injury'. *Anesthesiology*, 113 (1):116-125.

McLoughlin P, Costello CM, Cahill E, Martin F, Gaine S, (2010) 'Role of Gremlin in the Lung: Development and Disease'. *American Journal of Respiratory Cell and Molecular Biology*, 42 (5):517-523.

Hsia CC, Hyde DM, Ochs M, Weibel ER on behalf of ATS/ERS Joint Task Force on Quantitative Assessment of Lung Structure. (2010) 'An official research policy statement of the American Thoracic Society/European Respiratory Society: standards for quantitative assessment of lung structure'. *American Journal of Respiratory and Critical Care Medicine*, 181 (4):394-418.

Nichol, AD,O'Cronin, DF,Howell, K,Naughton, F,O'Brien, S,Boylan, J,O'Connor, C,O'Toole, D,Laffey, JG,McLoughlin, P (2009) 'Infection-induced lung injury is worsened after renal buffering of hypercapnic acidosis'. *Critical Care Medicine*, 37 :2953-2961.

Conference Publications

Costello, CM, Howell K, Doherty S, Martin, F, Belperio J, Keane MP, Gaine, S, McLoughlin, P (2010) CXCL12 signalling in hypoxic pulmonary hypertension *American Thoracic Society International Conference* ,

Cahill E, Costello CM, Howell K, Harkin S, Leonard MO, Southwood M, Morrell NW, McLoughlin P (2010) Novel Autocrine Function of the BMP Antagonist Gremlin: a Key Role in Hypoxic Pulmonary Hypertension *American Thoracic*

Society International Conference 2010 ,

Cahill E, Costello CM, Howell K, Southwood M, Leonard, M.O., Morrell NW, McLoughlin P (2010) Lung-Selective Hypoxia-Induced Secretion of the BMP Antagonist Gremlin in Pulmonary Hypertension *Keystone Symposium* ,

Dr. Brian McCullagh, Christine Costello, christine.costello@ucd.ie, Sean Gaine, sgaine@mater.ie, Paul McLoughlin (2010) CXCL12 as a potential disease marker for pulmonary hypertension *European Respiratory Society Annual Congress* ,

BN McCullagh, CM Costello, K Howell, M Leonard, P McLoughlin, S Gaine (2010) Lung selective hypoxia response pathways predict changes in cognate ligands in the plasma of pulmonary arterial hypertensive patients *American Thoracic Society International Conference 2010* ,

Dr Hilary McMahon

Peer Reviewed Journals

McEvoy K. and McMahon H.E.M. (2009) 'Antiprion action of new cyclodextrin analogues'. *Biochimica et Biophysica Acta*, 1790 (10):1382-1386.

Dr Tara McMorrow

Peer Reviewed Journals

Martin-Martin N, Ryan G, McMorrow T, Ryan MP (2010) "Sirolimus and cyclosporine A alter barrier function in renal proximal tubular cells through stimulation of ERK1/2 signaling and claudin-1 expression". *American Journal of Physiology-Renal Physiology*, 293 (3):672-682.

Jennings P, Aydin S, Bennett J, McBride R, Weiland C, Tuite N, Gruber LN, Perco P, Gaora PO, Ellinger-Ziegelbauer H, Ahr HJ, Kooten CV, Daha MR, Prieto P, Ryan MP, Pfaller W, McMorrow T (2009) 'Inter-laboratory comparison of human renal proximal tubule (HK-2) transcriptome alterations due to Cyclosporine A exposure and medium exhaustion'. *Toxicology in Vitro*, 23 (3):486-499.

Conference Publications

H. Cassidy, O. Johnston, L. Brennan, A. O'Riordan, P. Conlon, M.P. Ryan and T. McMorrow (2010) Metabolomic Analysis of Human Immunosuppressant Nephropathy Post Renal Transplantation . In: Irish Journal of Medical Science eds. *Proceedings of the Royal Academy of Medicine in Ireland* , Dublin, Ireland, 179

H. Cassidy, O. Johnston, L. Brennan, A. O'Riordan, P. Conlon, M.P. Ryan and T. McMorrow (2010) Metabolomic Analysis in Immunosuppressant Nephropathy *Irish Nephrological Society Conference, Dublin, Ireland* ,

Bloch K., Lock E.A., Jennings P., Limonciel A., Aschauer L., Boei J., Radford R., McMorrow T., Slattery C., Ryan M.P. (2009) Cytotoxicity Studies With Two Renal Carcinogens In Human And Rat Renal Tubule Epithelial Cells *In Vitro Toxicology Society Meeting, Liverpool, United Kingdom* , Liverpool, United Kingdom,

Professor Walter McNicholas

Peer Reviewed Journals

McNicholas WT, (2009) 'Chronic obstructive pulmonary disease and obstructive sleep apnea: overlaps in pathophysiology, systemic inflammation, and cardiovascular disease'. *AMERICAN JOURNAL OF RESPIRATORY AND CRITICAL CARE MEDICINE*, 180 (8):692-700.

Professor Wim Meijer

Peer Reviewed Journals

Dawson, T. R. M. Y., D.W. Horohov, W.G. Meijer, and G. Muscatello. (2010) 'Current understanding of the equine immune response to *Rhodococcus equi*: potential impact on immunoprophylaxis'. *Veterinary Immunology and Immunopathology*, 135 (1-2):1-11.

Higgins, RM, Danilowicz, BS, Balbuena, JA, Danielsdottir, AK, Geffen, AJ, Meijer, WG, Modin, J, Montero, FE, Pampoulie, C, Perdiguero-Alonso, D, Schreiber, A, Stefansson, MO, Wilson, B (2010) 'Multi-disciplinary fingerprints reveal the harvest location of cod *Gadus morhua* in the northeast Atlantic'. *Marine Ecology Progress Series*, 404 :197-206.

Dr Evelyn Murphy

Peer Reviewed Journals

Zocco D, McMorro JP and Murphy EP (2010) 'Histamine modulation of peripheral CH receptor 1a expression is dependent on calcium signalling and NF-kB/p65 transcriptional activity'. *Molecular immunology*, 47 :1426-1437.

Aherne CM, McMorro J, Kane D, FitzGerald O, Mix KS and Murphy EP. (2009) ' Identification of the orphan receptor NR4A2 as a transcriptional regulator of IL-8 expression in human inflammatory arthritis'. *Molecular immunology*, 46 :3345-3357.

Conference Publications

Jason P. McMorro, Ursula Fearon, Douglas Veale, Oliver Fitzgerald and Evelyn P. Murphy. (2010) Contribution of NR4A2 Gene Expression in the Modulation of Thrombospondin-1 in Human Joint Disease *Arthritis and Rheumatism* ,

Ryan SM, McMorro JP, Murphy EP and Brayden DJ (2009) Salmon calcitonin as a potential therapeutic for osteoarthritis and rheumatoid arthritis *Proc. Intern. Symposium. Control. Rel. Bioact. Mat* , 36, 91

Dr Keith J Murphy

Peer Reviewed Journals

O'Sullivan, Niamh C. and Croydon, Lawrence and McGettigan, Paul A. and Pickering, Mark and Murphy, Keith J. (2010) 'Hippocampal region-specific regulation of NF-kappa B may contribute to learning-associated synaptic reorganisation'. *BRAIN RESEARCH BULLETIN*, 81 (4-5):385-390.

Cassidy AW, Mulvany SK, Pangalos MN, Murphy KJ, Regan CM (2010) 'Reduced reelin protein synthesis in ventral hippocampus of isolation reared Wistar rats accompanies impaired avoidance conditioning'. *Behavioural Brain Research*, 213 (1):130-134.

Murphy KJ, Ter Horst JP, Cassidy AW, DeSouza IE, Morgunova M, Li C, Connole LM, O'Sullivan NC, Loscher JS, Brady AT, Rombach N, Connellan J, McGettigan PA, Scully D, Fedriani R, Lukasz B, Moran MP, McCabe OM, Wantuch CM, Hughes ZA, Mulvany SK, Higgins DG, Pangalos MN, Marquis KL, O'Connor WT, Ring RH, von Schack D, Regan CM

(2010) 'Temporal dysregulation of cortical gene expression in the isolation reared Wistar rat'. *Neurochemistry*, 113 (3):601-614.

McKee AG, Loscher JS, O'Sullivan NC, Chadderton N, Palfi A, Batti L, Sheridan GK, O'Shea S, Moran M, McCabe O, Fernández AB, Pangalos MN, O'Connor JJ, Regan CM, O'Connor WT, Humphries P, Farrar GJ, Murphy KJ (2010) 'AAV-mediated chronic over-expression of SNAP-25 in adult rat dorsal hippocampus impairs memory-associated synaptic plasticity'. *Journal of Neurochemistry*, 112 :991-1004.

Cassidy AW, Mulvany SK, Pangalos MN, Murphy KJ, Regan CM (2010) 'Developmental emergence of reelin deficits in the prefrontal cortex of Wistar rats reared in social isolation'. *Neuroscience*, 166 :377-385.

Murphy KJ, ter Horst JPF, Cassidy AW, DeSouza IEJ, Morgunova M, Li C, Connole LM, O'Sullivan NC, Loscher JS, Brady AT, Rombach N, Connellan J, McGettigan PA, Scully D, Fedriani R, Lukasz B, Moran MP, McCabe OM, Wantuch CM, Hughes ZA, Mulvany SK, Higgins DG, Pangalos MN, Marquis KL, William T. O'Connor WT, Ring RH, von Schack D, Regan CM (2010) 'Temporal dysregulation of cortical gene expression in the isolation reared Wistar rat'. *Journal of Neurochemistry*, 113 :601-614.

Dr Jarlath Nally

Peer Reviewed Journals

J. Gutierrez, J. O'Donovan, E. Williams, A. Proctor, C. Brady, P.X. Marques, S. Worrall, J.E. Nally, M. McElroy, H. Bassett, D. Sammin, D. Buxton, S. Maley, and B.K. Markey (2010) 'Detection and quantification of *Toxoplasma gondii* in ovine maternal and foetal tissues from experimentally infected pregnant ewes using real-time PCR'. *Veterinary Parasitology* .

Fanning S, Healy B, Cooney S, O'Brien S, Iversen C, Whyte P, Nally J, Callanan JJ, (2010) 'Cronobacter (*Enterobacter sakazakii*): an opportunistic foodborne pathogen'. *Foodborne Pathogens and Disease*, 7 (4):339-350.

Jorge Gutierrez, Erin J Williams, Jim O'Donovan, Colm Brady, Aisling F Proctor, Patricia X Marques, Sheila Worrall, Jarlath Nally, M. McElroy, Hugh F Bassett, Donal J Sammin, and Bryan K Markey. (2010) 'Monitoring clinical outcomes, pathological changes and shedding of *Chlamydia abortus* following experimental challenge of periparturient ewes utilizing the natural route of infection'. *Veterinary Microbiology* .

Marques P.X., Puneet Souda, O'Donovan J., Gutierrez J., Williams E.J., Worrall S., McElroy M., Proctor A., Brady C., Sammin, D., Bassett, H., Julian P. Whitelegge, Markey B.E. and Nally J.E. (2010) 'Identification of immunologically relevant proteins of *Chlamydia abortus* using sera from experimentally infected pregnant ewes'. *Clinical Vaccine and Immunology* .

Rojas P, Monahan AM, Schuller S, Miller IS, Markey BK, Nally JE. (2010) 'Detection and quantification of leptospires in urine of dogs: a maintenance host for the zoonotic disease leptospirosis'. *European Journal for Clinical Microbiology and Infectious diseases* .

Nally JE, Monahan AM, Callanan JJ, (2009) 'Review paper: Host-pathogen interactions in the kidney during chronic leptospirosis'. *Veterinary Pathology*, 5 (NA):792-799.

Nally JE, Monahan AM, Miller IS, (2009) 'Leptospirosis: risks during recreational activities'. *Journal of Applied Microbiology*, 107 (3):707-716.

Professor Philip Newsholme

Book Chapters

Newsholme P., Gaudel C. and McClenaghan N.H. (2010) 'Nutrient Regulation of Insulin Secretion and beta cell functional integrity' In: *The Islets of Langerhans* . Netherlands: Springer Book Series: Advances in Experimental Medicine and Biology 654: 91-114.

Peer Reviewed Journals

Michalska M, Wolf G, Walther R and Newsholme P (2010) 'of the effects of pharmacologic inhibition of NADPH oxidase and iNOS on pro-inflammatory cytokine, palmitic acid or H₂O₂ -induced mouse islet or clonal pancreatic beta cell dysfunction'. *Bioscience Reports*, 30 :445-453.

Newsholme P., Morgan D., Rebelato, E., Oliveira-Emilio H.C., Procopio J., Curi R. and Carpinelli A (2009) 'Insights into the critical role of NADPH oxidase(s) in the normal and dysregulated pancreatic beta cell'. *Diabetologia*, 52 :2489-2498.

Bender K., Maechler P., McClenaghan N.H., Flatt P.R. and Newsholme P (2009) 'Overexpression of the Malate-Aspartate NADH shuttle member Aralar1 in the clonal beta cell line BRIN BD11 enhances amino acid stimulated insulin secretion and cell metabolism'. *Clinical Science*, 117 :321-330.

Newsholme P, Homem De Bittencourt PI, O' Hagan C, De Vito G, Murphy C, Krause M. (2009) 'Exercise and possible molecular mechanisms of protection from vascular'. *Clinical science (London, England : 1979)*, 118 (5):341-349.

Other Journals

. Newsholme P, Homem De Bittencourt PI, O' Hagan C, De Vito G, Murphy C, Krause MS (2010) 'Exercise and possible molecular mechanisms of protection from vascular disease and diabetes: the central role of ROS and nitric oxide' *Clinical Science Lon*, 118 .

Conference Publications

Farrelly M, Murphy C and Newsholme P (2010) Effects of pro-inflammatory cytokines on pancreatic alpha cell response to glucose, Zn²⁺ and Insulin *Diabetologia* ,

Krause M, Homem de Bittencourt PI and Newsholme P. (2010) Exercise-Associated concentrations of IL-6 exerts a positive modulation of insulin secretion, signal transduction, nitric oxide release and redox status in a clonal pancreatic beta cell line. OP-BC01-1 *15th annual Congress of the European College of Sports Science* , Turkey,

Rodrigues-Krause JC, Krause MS, Newsholme P, Cunha GS, Perin DS, Schaun MI, Bijoldo MJ, Alberton CL, Fernandes JR, Oliveira AR (2010) Ballet Dancer Cardiorespiratory, Oxidative and Muscle Responses to Classes and Rehearsals. PP-SM09-5 *15th annual Congress of the European College of Sports Science* , Turkey,

M. Salvucci, Z. Neufeld and P. Newsholme (2009) Developing a mathematical model of insulin release from pancreatic beta cells: The importance of glutamate *Physiology 2009 Poster Communications* ,

Dr Jens Erik Nielsen

Peer Reviewed Journals

Farrell F., O'Meara F., Johnston M., Bradley J., Søndergaard C.R., Georgi N., Webb H., Tynan-Connolly B.M.,

Bjarnadottir U., Carstensen T., Nielsen, J. E. (2010) 'Capturing, sharing and analysing biophysical data from protein engineering and protein characterisation studies'. *Nucleic Acids Research* .

Kukic, P. and Nielsen, J.E. (2010) 'Electrostatics in proteins and protein-ligand complexes'. *Future Medicinal Chemistry*, 2 (4):647-666. <http://www.future-science.com/doi/pdf/10.4155/fmc.10.6>

Higgins WJ, Fox DM, Kowalski PS, Nielsen JE, Worrall DM (2010) 'Heparin enhances serpin inhibition of the cysteine protease cathepsin L'. *Journal of Biological Chemistry*, 285 (6):3722-3729.

Farrell, D, Miranda, ES, Webb, H, Georgi, N, Crowley, PB, McIntosh, LP, Nielsen, JE (2010) 'Titration_DB: Storage and analysis of NMR-monitored protein pH titration curves'. *Proteins*, 78 :843-857.

Kukic, P, Farrell, D, Sondergaard, CR, Bjarnadottir, U, Bradley, J, Pollastri, G, Nielsen, JE (2010) 'Improving the analysis of NMR spectra tracking pH-induced conformational changes: Removing artefacts of the electric field on the NMR chemical shift'. *Proteins*, 78 :971-984.

Dr Peter O'Brien

Peer Reviewed Journals

Lieggi NT, Edvardsson A, O'Brien PJ (2010) 'Translation of novel anti-cancer cytotoxicity biomarkers detected with high content analysis from an in vitro predictive model to an in vivo cell model'. *Toxicology in Vitro* .
<http://www.ncbi.nlm.nih.gov/pubmed/20670680>

Rawlinson L-AB, O'Brien PJ, Brayden DJ (2010) 'High content analysis of cytotoxic effects of pDMAEMA on human intestinal epithelial and monocyte cultures'. *Journal of Controlled Release*, 146 :84-92.

Serra M, Papakonstantinou S, Adamcova M, O'Brien PJ (2010) 'Veterinary and toxicological applications for the detection of cardiac injury using cardiac troponin'. *The Veterinary Journal*, 185 :50-57.

Other Journals

24. O'Brien PJ, Domingos MC (2010) 'Use of high content analysis in toxicologic clinical pathology for identification and monitoring of translational safety biomarkers' *International Drug Discovery*, 5 :50-55.

Professor Ronan O'Connell

Book Chapters

Joyce M, O'Connell PR (2010) 'ANO-RECTAL STENOSIS' In: Clavien JC, Mortensen NMCC, Roche B (eds). *ANORECTAL AND COLONIC DISEASES: A PRACTICAL GUIDE TO THEIR MANAGEMENT* . Heidelberg: Springer-Verlag.

Docherty NG, O'Connell PR (2009) 'TNF a neutralization in the medical management of Crohn's Disease' In: Columbus F (eds). *Tumour Necrosis Factor Alpha* . New York: Nova Science.

Peer Reviewed Journals

Cunningham MF, Docherty NG, Burke JP, O'Connell PR (2010) 'S100A4 expression is increased in stricture fibroblasts from patients with fibrostenosing Crohn's disease and promotes intestinal fibroblast migration'. *American Journal of*

Physiology Gastrointestinal Physiology, 299 (2):457-466.

Burke JP, Cunningham MF, Watson RWG, , Docherty NG, Coffey JC, O'Connell PR (2010) 'Bacterial lipopolysaccharide promotes profibrotic activation of intestinal fibroblasts'. *British Journal of Surgery*, 97 (7):1126-1134.

O'Connell PR, Heeney A, Mulsow J, (2010) 'Vacuum-assisted closure of chronic anorectal fistula'. *Colorectal disease : the official journal of the Association of Coloproctology of Great Britain and Ireland* .

O'Connell PR, Cunningham MF, Docherty NG, Coffey JC, Burke JP, (2010) 'Postsurgical Recurrence of Ileal Crohn's Disease: An Update on Risk Factors and Intervention Points to a Central Role for Impaired Host-Microflora Homeostasis'. *World journal of surgery* .

Griffin, KM,Blau, CW,Kelly, ME,O'Herlihy, C,O'Connell, PR,Jones, JFX,Kerskens, CM (2010) 'Propofol allows precise quantitative arterial spin labelling functional magnetic resonance imaging in the rat'. *Neuroimage*, 51 (4):1395-1404.

Burke, JP,Watson, RWG,Mulsow, JJ,Docherty, NG,Coffey, JC,O'Connell, PR (2010) 'Endoglin negatively regulates transforming growth factor beta 1-induced profibrotic responses in intestinal fibroblasts'. *British Journal of Surgery*, 97 :892-901.

Peirce, C,Alexander, LE,O'Herlihy, C,O'Connell, PR,Jones, JFX (2010) 'Central Representation of the Inferior Rectal Nerve of the Rat'. *Diseases of the Colon & Rectum*, 53 :315-320.

Shields CJ, Tirt E, Winter DC, Baum RP, Mortensen N, Fazio VW, Stocchi L, Sheahan K, O'Keane C, Brannigan A, O'Connell PR, Parc Y, Mourra N,Garcia-Olmo D, Soreide K, Prasad V, Kaemmerer D, Flemming M, Sagar P. (2010) 'CARCINOID TUMOURS OF THE RECTUM : A MULTI-INSTITUTIONAL INTERNATIONAL COLLABORATION'. *Annals of Surgery*, 252 :750-755.

O'Connell PR, Coffey JC, Docherty NG, (2009) 'Hydrogen sulphide: an increasing need for scientific equipoise'. *Gastroenterology*, 137 (6):2181-211.

Dr John O'Connor

Peer Reviewed Journals

Batti L, Taylor CT, O'Connor JJ (2010) 'Hydroxylase inhibition reduces synaptic transmission and protects against a glutamate-induced ischemia in the CA1 region of the rat hippocampus'. *Neuroscience*, 167 (4):1014-1024.

Alvarez Y, Chen K, Reynolds AL, Waghorne N, O'Connor JJ, Kennedy BN, (2010) 'Predominant cone photoreceptor dysfunction in a hyperglycaemic model of non-proliferative diabetic retinopathy'. *Disease models & mechanisms*, 3 (3-4):236-245.

McKee AG, Loscher JS, O'Sullivan NC, Chadderton N, Palfi A, Batti L, Sheridan GK, O'Shea S, Moran M, McCabe O, Fernández AB, Pangalos MN, O'Connor JJ, Regan CM, O'Connor WT, Humphries P, Farrar GJ, Murphy KJ. (2010) 'AAV-mediated chronic over-expression of SNAP-25 in adult rat dorsal hippocampus impairs memory-associated synaptic plasticity'. *Journal of Neurochemistry*, 112 (4):991-1004.

Batti, L., O'Connor, J.J. (2010) 'Tumor necrosis factor- α ; impairs the recovery of synaptic transmission from hypoxia in rat hippocampal slices'. *Journal of Neuroimmunology*, 218 (1-2):21-27.

Alvarez, Y,Astudillo, O,Jensen, L,Reynolds, AL,Waghorne, N,Brazil, DP,Cao, YH,O'Connor, JJ,Kennedy, BN (2009) 'Selective Inhibition of Retinal Angiogenesis by Targeting PI3 Kinase'. *PLoS ONE*, 4 (11):1-10.

Dr James O'Gara

Peer Reviewed Journals

Cotter JJ, O'Gara JP, Stewart PS, Pitts B, Casey E. (2010) 'Characterization of a modified rotating disk reactor for the cultivation of Staphylococcus epidermidis biofilm'. *Journal of Applied Microbiology*, 109 (6):2105-2117.
<http://dx.doi.org/10.1111/j.1365-2672.2010.04842.x>

Collins, J., Rudkin, J., Recker, M., Pozzi, C., O'Gara, J. P. and Massey, R. C. (2010) 'Offsetting virulence and antibiotic resistance costs by MRSA'. *The ISME Journal*, 4 :577-584.

Oduwole KO, Glynn AA, Molony DC, Murray D, Rowe S, Holland LM, McCormack DJ, O'Gara JP (2010) 'Anti-biofilm activity of sub-inhibitory povidone-iodine concentrations against Staphylococcus epidermidis and Staphylococcus aureus'. *Journal of Orthopaedic Research*, 28 :1252-1256.

Cue, D., Lei, M.G., Luong, T.T., Kuechenmeister, L., Dunman, P.M., O'Donnell, S., Rowe, S., O'Gara, J.P. and C.Y. Lee (2009) 'Rbf promotes biofilm formation by Staphylococcus aureus via repression of icaR, a negative regulator of icaADBC'. *Journal of Bacteriology*, 191 (20):6363-6373.

Cotter, J.J., O'Gara, J. P. and E. Casey (2009) 'Rapid depletion of dissolved oxygen in 96 well microtitre plate Staphylococcus epidermidis biofilm assays promotes biofilm development and is influenced by inoculum cell concentration'. *Biotechnology and Bioengineering*, 103 (5):1042-1047.

Stevens, N., Greene, C.M., O'Gara, J. P. and Humphreys, H. (2009) 'Biofilm characteristics of Staphylococcus epidermidis isolates associated with device-related meningitis'. *Journal of Medical Microbiology*, 58 (7):855-862.

Professor Donal O'Shea

Peer Reviewed Journals

Tasior, M, Murtagh, J, Frimannsson, DO, McDonnell, SO, O'Shea, DF (2010) 'Water-solubilised BF₂-chelated tetraarylazadipyrromethenes'. *Org Biomol Chem*, 8 :522-525.

Murtagh, J, Frimannsson, DO, O'Shea, DF (2009) 'Azide Conjugatable and pH Responsive Near-Infrared Fluorescent Imaging Probes'. *Organic Letters*, 11 :5386-5389.

Palma, A, Gallagher, JF, Muller-Bunz, H, Wolowska, J, McInnes, E, O'Shea, DF (2009) 'Co(II), Ni(II), Cu(II) and Zn(II) complexes of tetraphenylazadipyrromethene'. *Dalton*, :273-279.

Professor Stefan Oscarson

Peer Reviewed Journals

Fourniere, Viviane, Skantz, Linnea, Sajtos, Ferenc, Oscarson, Stefan, Lahmann, Martina (2010) 'Synthesis of the Lewis b pentasaccharide and a HSA-conjugate thereof'. *Tetrahedron FIELD Full Journal Title:Tetrahedron*, 66 (3939):7850-78557850.

Adrian Meredith, Jenny, Wallberg, Hans, Vrang, Lotta, Oscarson, Stefan, Parkes, Kevin, Hallberg, Anders, Samuelsson, Bertil (2010) 'Design and synthesis of novel P2 substituents in diol-based HIV protease inhibitors'. *Eur. J. Med. Chem. FIELD Full Journal Title:European Journal of Medicinal Chemistry*, 45 (11):160-170160.

Andre, Sabine, Lahmann, Martina, Gabius, Hans-Joachim, Oscarson, Stefan (2010) 'Glycocluster Design for Improved

Avidity and Selectivity in Blocking Human Lectin/Plant Toxin Binding to Glycoproteins and Cells'. *Mol. Pharmaceutics FIELD Full Journal Title:Molecular Pharmaceutics* .

Sundgren, Andreas, Lahmann, Martina, Oscarson, Stefan (2010) 'Synthesis of 6-PEtN- α -D-GalpNAc-(1 \rightarrow 6)- β -D-Galp-(1 \rightarrow 4)- β -D-GlcpNAc-(1 \rightarrow 3)- β -D-Galp-(1 \rightarrow 4)- β -D-Glcp, a Haemophilus influenzae lipopolysaccharide structure, and biotin and protein conjugates thereof'. *Beilstein J. Org. Chem. FIELD Full Journal Title:Beilstein Journal of Organic Chemistry*, 6 .

Olsson JD, Oscarson S (2010) 'Synthesis of phosphorylated 3,4-branched trisaccharides corresponding to LPS inner core structures of Neisseria meningitidis and Haemophilus influenzae'. *Carbohydrate research*, 345 (10):1331-1338.

Nurisso A, Blanchard B, Audfray A, Rydner L, Oscarson S, Varrot A, Imberty A (2010) 'Role of water molecules in structure and energetics of Pseudomonas aeruginosa lectin I interacting with disaccharides'. *Journal of Biological Chemistry*, 285 (26):20316-20327.

Meredith, JA, Wallberg, H, Vrang, L, Oscarson, S, Parkes, K, Hallberg, A, Samuelsson, B (2010) 'Design and synthesis of novel P2 substituents in diol-based HIV protease inhibitors'. *Journal of medicinal chemistry*, 45 :160-170.

Andersson, CH, Lahmann, M, Oscarson, S, Grennberg, H (2009) 'Reversible non-covalent derivatisation of carbon nanotubes with glycosides'. *Soft Matter*, 5 :2713-2716.

Dr Francesca Paradisi

Book Chapters

Engel, P.C and Paradisi, F. (2010) ' *Novel enzymes for biotransformation and resolution of alpha-amino acids* ' In: J.C Vederas (eds). *Comprehensive Natural Product 2 Chemistry and Biology* . Oxford: Elsevier.

Conway, P. and Paradisi, F. and Engel, P.C. (2010) ' *Synthesis of substituted derivatives of L-phenylalanine and of other non-natural L-amino acids using engineered mutants of phenylalanine dehydrogenase* ' In: John Whittall & Peter W. Sutton (eds). *Practical Methods in Biocatalysis and Biotransformations* . Oxford: John Wiley.

Peer Reviewed Journals

Patil, S et al. (2010) 'Synthesis, Cytotoxicity and Antibacterial Studies of p-Methoxybenzyl-Substituted and Benzyl-Substituted N-Heterocyclic Carbene-Silver Complexes'. *European Journal of Inorganic Chemistry*, :1020-1031.

O'Reilly, E and Pes, L. and Paradisi, F. (2010) 'From amines to diketopiperazines: a one-pot approach'. *Tetrahedron Letters*, 51 :1696-1697.

Moran, S. et al. (2010) 'Production of lipopeptides in Bacillus sp. CS93 isolated from Pozzol'. *FEMS Microbiol Letters*, 304 :69-73.

Professor William Powderly

Book Chapters

Powderly WG (2010) 'Opportunistic Infections' In: J. Cohen, WG Powderly, S Opal (eds). *Infectious Diseases* . London: Mosby Elsevier.

Books Edited

Cohen J, Powderly WG, Opal S (Ed.). (2010) *Infectious Diseases* . London: Mosby Elsevier.

Peer Reviewed Journals

Grant PM, Komarow L, Andersen J, Sereti I, Pahwa S, Lederman MM, Eron J, Sanne I, Powderly W, Hogg E, Suckow C, Zolopa A (2010) 'Risk Factor Analyses for Immune Reconstitution Inflammatory Syndrome in a Randomized Study of Early vs. Deferred ART during an Opportunistic Infection'. *PLoS ONE*, 5 .

Perfect JR, Dismukes WE, Dromer F, Goldman DL, Graybill JR, Hamill RJ, Harrison TS, Larsen RA, Lortholary O, Nguyen MH, Pappas PG, Powderly WG, Singh N, Sobel JD, Sorrell T. (2010) 'Clinical practice guidelines for the management of cryptococcal disease: 2010 update by the infectious diseases society of america'. *Clinical Infectious Diseases*, 50 (3):291-322.

Kuhne, FC,Chancellor, J,Mollon, P,Myers, DE,Louie, M,Powderly, WG (2010) 'A Microsimulation of the Cost-effectiveness of Maraviroc for Antiretroviral Treatment-Experienced HIV-Infected Individuals'. *Hiv Clinical Trials*, 11 :80-99.

Powderly WG, Cotter EJ, Doran PP, (2009) 'Progenitor Cell Types in HIV-1 Infection; Bioactivity and Emerging Targets for Treatment'. *Current HIV research*, 7 (NA):508-518.

Professor Prem Puri

Peer Reviewed Journals

Keijzer R, Puri P. (2010) 'Congenital diaphragmatic hernia'. *Semin Pediatr Surg*, 19 (3):180-185.

Doi T, Puri P, Bannigan J, Thompson J. (2010) 'Disruption of noncanonical Wnt/CA2+ pathway in the cadmium-induced omphalocele in the chick model'. *Journal of Pediatric Surgery*, 45 (8):1645-1649.

Doi T, Sugimoto K, Ruttenstock E, Dingemann J, Puri P. (2010) 'Prenatal retinoic acid upregulates pulmonary gene expression of PI3K and AKT in nitrofen-induced pulmonary hypoplasia'. *Pediatr Surg Int* .

Doi T, Puri P, Bannigan J, Thompson J. (2010) 'HoxB2, HoxB4 and Alx4 genes are downregulated in the cadmium-induced omphalocele in the chick model'. *Pediatr Surg Int* .

Hunziker M, Mohanan N, D'Asta F, Puri P. (2010) 'Endoscopic treatment of primary grade V vesicoureteral reflux using hyaluronic acid copolymer (DX/HA)'. *Pediatr Surg Int* .

Doi T, Puri P, Bannigan J, Thompson J. (2010) 'Msx1 and Msx2 gene expression is downregulated in the cadmium-induced omphalocele in the chick model'. *J Pediatr Surg*, 45 (6):1187-1191.

Ruttenstock E, Doi T, Dingemann J, Puri P. (2010) 'Insulinlike growth factor receptor type 1 and type 2 are downregulated in the nitrofen-induced hypoplastic lung'. *J Pediatr Surg*, 45 (6):1349-1353.

Doi T, Puri P, Bannigan J, Thompson J. (2010) 'The role of transforming growth factor-beta 2 and 3 in formation of ventral body wall in the cadmium-induced omphalocele chick model'. *J Pediatr Surg*, 45 (5):989-902.

Ruttenstock E, Doi T, Dingemann J, Puri P. (2010) 'Insulin receptor is downregulated in the nitrofen-induced hypoplastic lung'. *J Pediatr Surg*, 45 (5):948-952.

Hajduk P, Murphy P, Puri P. (2010) 'Mesenchymal expression of Tbx4 gene is not altered in Adriamycin mouse model'.

Pediatr Surg Int, 26 (4):407-411.

Doi T, Ruttenstock E, Dingemann J, Puri P. (2010) 'Spatiotemporal alteration in phosphatidylinositide 3-kinase-serine/threonine protein kinase B signaling in the nitrofen-induced hypoplastic lung'. *J Pediatr Surg*, 45 (2):366-371.

Hunziker M, Mohanan N, Menezes M, Puri P. (2010) 'Prevalence of duplex collecting systems in familial vesicoureteral reflux'. *Pediatr Surg Int*, 26 (1):115-117.

Kutasy B, Laxamanadass G, Puri P. (2010) 'Is C-reactive protein a reliable test for suspected appendicitis in extremely obese children?'. *Pediatr Surg Int*, 26 (1):123-125.

Puri P. (2010) 'The 22nd international symposium on paediatric surgical research'. *Pediatr Surg Int*, 26 (1).

Ruttenstock, E, Doi, T, Dingemann, J, Puri, P (2010) 'Downregulation of insulin-like growth factor binding protein 3 and 5 in nitrofen-induced pulmonary hypoplasia'. *Pediatr Surg Int*, 26 :59-63.

Thompson, J, Doi, T, Power, E, Balasubramanian, I, Puri, P, Bannigan, J (2010) 'Evidence against a direct role for oxidative stress in cadmium-induced axial malformation in the chick embryo'. *Toxicology*, 243 :390-398.

O'Donnell AM, Puri P. (2010) 'The development of excitatory neurons in the chick cloaca'. *Pediatr Surg Int*, 26 (1):111-114.

Hajduk P, Murphy P, Puri P. (2010) 'Fgf10 gene expression is delayed in the embryonic lung mesenchyme in the adriamycin mouse model'. *Pediatr Surg Int* .

Doi, T, Lukosiute, A, Ruttenstock, E, Dingemann, J, Puri, P (2010) 'Disturbance of parathyroid hormone-related protein signaling in the nitrofen-induced hypoplastic lung'. *Pediatr Surg Int*, 26 :45-50.

Doi, T, Puri, P, Bannigan, J, Thompson, J (2010) 'Disruption of calreticulin-mediated cellular adhesion signaling in the cadmium-induced omphalocele in the chick model'. *Pediatr Surg Int*, 26 :91-95.

Dingemann, J, Doi, T, Ruttenstock, E, Puri, P (2010) 'Upregulation of Endothelin Receptors A and B in the nitrofen induced hypoplastic lung occurs early in gestation'. *Pediatr Surg Int*, 26 :65-69.

Doi T, Puri P (2009) 'Up-regulation of Wnt5a gene expression in the nitrofen-induced hypoplastic lung'. *J Pediatr Surg*, 44 (12):2302-2306.

Sato H, Murphy P, Hajduk P, Takayasu H, Kitagawa H, Puri P. (2009) 'Sonic hedgehog gene expression in nitrofen induced hypoplastic lungs in mice'. *Pediatr Surg Int*, 25 (11):967-971.

Doodnath R, Puri P. (2009) 'Internal anal sphincter achalasia'. *Semin Pediatr Surg*, 18 (4):246-248.

Menezes M, Puri P. (2009) 'Familial vesicoureteral reflux--is screening beneficial?'. *J Urol* .

Doodnath R, Puri P. (2009) 'Long-term outcome of internal sphincter myectomy in patients with internal anal sphincter achalasia'. *Pediatr Surg Int*, 25 (10):869-871.

Doi T, Sugimoto K, Puri P. (2009) 'Prenatal retinoic acid up-regulates pulmonary gene expression of COUP-TFII, FOG2, and GATA4 in pulmonary hypoplasia'. *J Pediatr Surg*, 44 (10):1933-1937.

Ruttenstock E, Doi T, Dingemann J, Puri P. (2009) 'Downregulation of insulin-like growth factor binding protein 3 and 5 in nitrofen-induced pulmonary hypoplasia'. *Pediatr Surg Int* .

Ruttenstock E, Puri P. (2009) 'A meta-analysis of clinical outcome in patients with total intestinal aganglionosis'. *Pediatr*

Surg Int, 25 (10):833-839.

Doi, T, Hajduk, P, Puri, P (2009) 'Upregulation of Slit-2 and Slit-3 gene expressions in the nitrofen-induced hypoplastic lung'. *Pediatrics*, 44 :2092-2095.

Sri Paran T, Rolle U, Puri P. (2009) 'Age-related changes in the myenteric plexus of the porcine bowel'. *J Pediatr Surg*, 44 (9):1771-1777.

Kelly, H, Barton, D, Molony, C, Puri, P (2009) 'Linkage Analysis of Candidate Genes in Families With Vesicoureteral Reflux'. *Journal of Urology*, 182 :1669-1672.

O'Donnell, AM, Puri, P (2009) 'Hypoganglionic colorectum in the chick embryo: a model of human hypoganglionosis'. *Pediatr Surg Int*, 25 :885-888.

Professor Ciaran Regan

Peer Reviewed Journals

Freir DB, Fedriani R, Scully D, Smith IM, Selkoe DJ, Walsh DM, Regan CM (2010) 'Aβ oligomers inhibit synapse remodelling necessary for memory consolidation'. *Neurobiology of Aging* .

Cassidy AW, Mulvany SK, Pangalos MN, Murphy KJ, Regan CM (2010) 'Reduced reelin protein synthesis in ventral hippocampus of isolation reared Wistar rats accompanies impaired avoidance conditioning'. *Behavioural Brain Research*, 213 (1):130-134.

McKee AG, Loscher JS, O'Sullivan NC, Chadderton N, Palfi A, Batti L, Sheridan GK, O'Shea S, Moran M, McCabe O, Fernández AB, Pangalos MN, O'Connor JJ, Regan CM, O'Connor WT, Humphries P, Farrar GJ, Murphy KJ (2010) 'AAV-mediated chronic over-expression of SNAP-25 in adult rat dorsal hippocampus impairs memory-associated synaptic plasticity'. *Journal of Neurochemistry*, 112 :991-1004.

Murphy KJ, ter Horst JPF, Cassidy AW, DeSouza IEJ, Morgunova M, Li C, Connole LM, O'Sullivan NC, Loscher JS, Brady AT, Rombach N, Connellan J, McGettigan PA, Scully D, Fedriani R, Lukasz B, Moran MP, McCabe OM, Wantuch CM, Hughes ZA, Mulvany SK, Higgins DG, Pangalos MN, Marquis KL, William T. O'Connor WT, Ring RH, von Schack D, Regan CM (2010) 'Temporal dysregulation of cortical gene expression in the isolation reared Wistar rat'. *Journal of Neurochemistry*, 113 :601-614.

Cassidy AW, Mulvany SK, Pangalos MN, Murphy KJ, Regan CM (2010) 'Developmental emergence of reelin deficits in the prefrontal cortex of Wistar rats reared in social isolation'. *Neuroscience*, 166 :377-385.

Regan CM, Foley AG, Prendergast A, Barry C, Scully D, Upton N, Medhurst AD, (2009) 'H3 receptor antagonism enhances NCAM PSA-mediated plasticity and improves memory consolidation in odor discrimination and delayed match-to-position paradigms'. *Neuropsychopharmacology*, 34 (12):2585-2600.

Professor Helen Roche

Peer Reviewed Journals

Hartwich, J, Leszczynska-Golabek, I, Kiec-Wilk, B, Siedlecka, D, Perez-Martinez, P, Marin, C, Lopez-Miranda, J, Tierney, A, Mc Monagle, J, Roche, HM, Defoort, C, Wolkow, P, Dembinska-Kiec, A (2010) 'Lipoprotein profile, plasma Ischemia Modified Albumin and LDL density change in the course of postprandial lipemia. Insights from the LIPGENE study'. *Scand J Clin Lab Invest*, 70 :201-208.

Roche HM, Phillips CM, Goumidi L, Bertrais S, Field MR, Ordovas JM, Cupples LA, Defoort C, Lovegrove JA, Drevon CA, Blaak EE, Gibney MJ, Kiec-Wilk B, Karlstrom B, Lopez-Miranda J, McManus R, Hercberg S, Lairon D, Planells R, (2010) 'Leptin receptor polymorphisms interact with polyunsaturated fatty acids to augment risk of insulin resistance and metabolic syndrome in adults'. *The Journal of nutrition*, 140 (2):238-244.

Ferguson, JF, Phillips, CM, Tierney, AC, Perez-Martinez, P, Defoort, C, Helal, O, Lairon, D, Planells, R, Shaw, DI, Lovegrove, JA, Gjelstad, IMF, Drevon, CA, Blaak, EE, Saris, WHM, Leszczynska-Golabek, I, Kiec-Wilk, B, Riserus, U, Karlstrom, B, Lopez-Miranda, J, Roche, HM (2010) 'Gene-nutrient interactions in the metabolic syndrome: single nucleotide polymorphisms in ADIPOQ and ADIPOR1 interact with plasma saturated fatty acids to modulate insulin resistance'. *American Journal of Clinical Nutrition*, 91 :794-801.

Phillips, CM, Goumidi, L, Bertrais, S, Ferguson, JF, Field, MR, Kelly, ED, Mehegan, J, Peloso, GM, Cupples, LA, Shen, J, Ordovas, JM, McManus, R, Hercberg, S, Portugal, H, Lairon, D, Planells, R, Roche, HM (2010) 'Additive Effect of Polymorphisms in the IL-6, LTA, and TNF-alpha Genes and Plasma Fatty Acid Level Modulate Risk for the Metabolic Syndrome and Its Components'. *J Clin Endocrinol Metab*, 95 :1386-1394.

Perez-Martinez, P, Moreno-Conde, M, Cruz-Teno, C, Ruano, J, Fuentes, F, Delgado-Lista, J, Garcia-Rios, A, Marin, C, Gomez-Luna, MJ, Perez-Jimenez, F, Roche, HM, Lopez-Miranda, J (2010) 'Dietary fat differentially influences regulatory endothelial function during the postprandial state in patients with metabolic syndrome: From the LIPGENE study'. *Atherosclerosis*, 209 :533-538.

Phillips, CM, Goumidi, L, Bertrais, S, Field, MR, Cupples, LA, Ordovas, JM, Defoort, C, Lovegrove, JA, Drevon, CA, Gibney, MJ, Blaak, EE, Kiec-Wilk, B, Karlstrom, B, Lopez-Miranda, J, McManus, R, Hercberg, S, Lairon, D, Planells, R, Roche, HM (2010) 'Gene-nutrient interactions with dietary fat modulate the association between genetic variation of the ACSL1 gene and metabolic syndrome'. *Journal of lipid research*, 51 :1793-1800.

van Hees, AMJ, Saris, WHM, Hul, GB, Schaper, NC, Timmerman, BE, Lovegrove, JA, Roche, HM, Blaak, EE, LIPGENE Consortium (2010) 'Effects of dietary fat modification on skeletal muscle fatty acid handling in the metabolic syndrome'. *Int J Obesity*, 34 :859-870.

O'Connor, A, Phelan, N, Tun, TK, Boran, G, Gibney, J, Roche, HM (2010) 'High-Molecular-Weight Adiponectin Is Selectively Reduced in Women with Polycystic Ovary Syndrome Independent of Body Mass Index and Severity of Insulin Resistance'. *J Clin Endocrinol Metab*, 95 :1378-1385.

Gulseth, HL, Gjelstad, IMF, Tierney, AC, Lovegrove, JA, Defoort, C, Blaak, EE, Lopez-Miranda, J, Kiec-Wilk, B, Riserus, U, Roche, HM, Drevon, CA, Birkeland, KI (2010) 'Serum Vitamin D Concentration Does Not Predict Insulin Action or Secretion in European Subjects With the Metabolic Syndrome'. *Diabetes Care*, 33 :923-925.

Roche HM, Phillips CM, Goumidi L, Bertrais S, Field MR, Peloso GM, Shen J, McManus R, Hercberg S, Lairon D, Planells R, (2009) 'Dietary saturated fat modulates the association between STAT3 polymorphisms and abdominal obesity in adults'. *Journal of Nutrition*, 139 (11):2011-2017.

Roche HM, Reynolds CM, Draper E, Keogh B, Rahman A, Moloney AP, Mills KH, Loscher CE, (2009) 'A Conjugated Linoleic Acid-Enriched Beef Diet Attenuates Lipopolysaccharide-Induced Inflammation in Mice in Part through PPAR{gamma}-Mediated Suppression of Toll-Like Receptor 4'. *Journal of Nutrition* .

Roche HM, Phillips CM, Goumidi L, Bertrais S, Ferguson JF, Field MR, Kelly ED, Peloso GM, Cupples LA, Shen J, Ordovas JM, McManus R, Hercberg S, Portugal H, Lairon D, Planells R, (2009) 'Complement component 3 polymorphisms interact with polyunsaturated fatty acids to modulate risk of metabolic syndrome'. *American Journal of Clinical Nutrition* .

Dembinska-KieAż A, Hartwich J, Malec MM, Partyka L, PA©rez-Martinez P, Marin C, LA³pez-Miranda J, Tierney AC, Mc Monagle J, Roche HM, Defoort C, Wolkow P, (2009) 'The effect of the plasma n-3/n-6 polyunsaturated fatty acid ratio on the dietary LDL phenotype transformation - insights from the LIPGENE study'. *Clinical Nutrition*, 28 (5):510-515.

McGillicuddy, FC, Chiquoine, EH, Hinkle, CC, Kim, RJ, Shah, R, Roche, HM, Smyth, EM, Reilly, MP (2009) 'Interferon gamma Attenuates Insulin Signaling, Lipid Storage, and Differentiation in Human Adipocytes via Activation of the JAK/STAT Pathway'. *J BIOL CHEM*, 284 :31936-31944.

Phillips, CM, Goumidi, L, Bertrais, S, Ferguson, JF, Field, MR, Kelly, ED, Peloso, GM, Cupples, LA, Shen, J, Ordovas, JM, McManus, R, Hercberg, S, Portugal, H, Lairon, D, Planells, R, Roche, HM (2009) 'Complement component 3 polymorphisms interact with polyunsaturated fatty acids to modulate risk of metabolic syndrome'. *American Journal of Clinical Nutrition*, 90 :1665-1673.

Hartwich, J, Malec, MM, Partyka, L, Perez-Martinez, P, Marin, C, Lopez-Miranda, J, Tierney, AC, Mc Monagle, J, Roche, HM, Defoort, C, Wolkowe, P, Dembinska-Kiec, A (2009) 'The effect of the plasma n-3/n-6 polyunsaturated fatty acid ratio on the dietary LDL phenotype transformation - Insights from the LIPGENE study'. *Nutrition*, 28 :510-515.

Conference Publications

Oliver E, McGillicuddy F, Philips C, Toomey S, Roche HM (2010) (2010) The role of inflammation and macrophage accumulation in the development of obesity induced type 2 diabetes mellitus and the possible therapeutic effects of LC n-3 PUFA *Nutrition Society Conference* ,

Professor Pauline Rudd

Peer Reviewed Journals

Knezevic, A., Gornik, O., Polasek, O., Pucic, M., Redzic, I., Novokmet, M., Rudd, P. M., Wright, A. F., Campbell, H., Rudan, I., Lauc, G. (2010) 'Effects of aging, body mass index, plasma lipid profiles, and smoking on human plasma N-glycans'. *Glycobiology*, 20 (8):959-969.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=20356825
http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=20356825

Ercan, A., Cui, J., Chatterton, D. E., Deane, K. D., Hazen, M. M., Brintnell, W., O'Donnell, C. I., Derber, L. A., Weinblatt, M. E., Shadick, N. A., Bell, D. A., Cairns, E., Solomon, D. H., Holers, V. M., Rudd, P. M., Lee, D. M. (2010) 'Aberrant IgG galactosylation precedes disease onset, correlates with disease activity, and is prevalent in autoantibodies in rheumatoid arthritis'. *Arthritis and Rheumatism*, 62 (88):2239-2248.

<http://onlinelibrary.wiley.com/doi/10.1002/art.27533/abstract>

Barrabes, S., Sarrats, A., Fort, E., De Llorens, R., Rudd, P. M., Peracaula, R. (2010) 'Effect of sialic acid content on glycoprotein pl analyzed by two-dimensional electrophoresis'. *Electrophoresis*, 31 (17):2903-2912.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=20690144
http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=20690144

Sarrats, A., Saldoval, R., Comet, J., O'Donoghue, N., de Llorens, R., Rudd, P. M., Peracaula, R. (2010) 'Glycan Characterization of PSA 2-DE Subforms from Serum and Seminal Plasma'. *OMICS: A Journal of Integrative Biology*, 14 (4):465-474.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=20726802
http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=20726802

Montesino, R., Gil, J., Gonzalez, L. J., Zamora, Y., Royle, L., Rudd, P. M., Dwek, R. A., Harvey, D. J., Cremata, J. A. (2010) 'The N-glycosylation of classical swine fever virus E2 glycoprotein extracellular domain expressed in the milk of goat'. *Arch Biochem Biophys*, 500 (2):169-180.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=20460099
http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=20460099

- Pucic, M., Pinto, S., Novokmet, M., Knezevic, A., Gornik, O., Polasek, O., Vlahovicek, K., Wang, W., Rudd, P. M., Wright, A. F., Campbell, H., Rudan, I., Lauc, G. (2010) 'Common aberrations from the normal human plasma N-glycan profile'. *Glycobiology*, 20 (8):970-975.
http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=20378934
http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=20378934
- Harvey, D. J., Rudd, P. M. (2010) 'Identification of by-products formed during the release of N-glycans with protein N-glycosidase F in the presence of dithiothreitol'. *Journal of Mass Spectrometry*, 45 (77):815-819.
http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=20623555
http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=20623555
- Tharmalingam, T., Marino, K., Rudd, P. M. (2010) 'Platform technology to identify potential disease markers and establish heritability and environmental determinants of the human serum N-glycome'. *Carbohydrate Research*, 345 (10):1280-1282.
http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=20447618
http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=20447618
- Coman DJ, Murray DW, Byrne JC, Rudd PM, Bagaglia PM, Doran PD, Treacy EP (2010) 'Galactosemia, a Single Gene Disorder With Epigenetic Consequences'. *Pediatric Research*, 67 (3):286-292.
http://journals.lww.com/pedresearch/Fulltext/2010/03000/Galactosemia,_a_Single_Gene_Disorder_With.10.aspx
- Muindi, K., Cernadas, M., Watts, G. F., Royle, L., Neville, D. C., Dwek, R. A., Besra, G. S., Rudd, P. M., Butters, T. D., Brenner, M. B. (2010) 'Activation state and intracellular trafficking contribute to the repertoire of endogenous glycosphingolipids presented by CD1d [corrected]'. *PNAS*, 107 (7):3052-3057.
http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=20133624
http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=20133624
- Artemenko, NV, Campbell, MP, Rudd, PM (2010) 'GlycoExtractor: A Web-Based Interface for High Throughput Processing of HPLC-Glycan Data'. *Journal of Proteome Research*, 9 (4):2037-2041.
<http://pubs.acs.org/doi/abs/10.1021/pr901213u>
- Lauc, G., Rudan, I., Campbell, H., Rudd, P. M. (2010) 'Complex genetic regulation of protein glycosylation'. *Molecular BioSystems*, 6 (22):329-335.
http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=20094651
http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=20094651
- Ahn, J, Bones, J, Yu, YQ, Rudd, PM, Gilar, M (2010) 'Separation of 2-aminobenzamide labeled glycans using hydrophilic interaction chromatography columns packed with 1.7 mu m sorbent'. *J Chromatography B*, 878 (3-4):403-408.
- Sarrats, A, Saldova, R, Pla, E, Fort, E, Harvey, DJ, Struwe, WB, de Llorens, R, Rudd, PM, Peracaula, R (2010) 'Glycosylation of liver acute-phase proteins in pancreatic cancer and chronic pancreatitis'. *Proteomics*, 4 (4):432-448.
<http://onlinelibrary.wiley.com/doi/10.1002/prca.200900150/abstract>
- Ritchie, G, Harvey, DJ, Feldmann, F, Stroehrer, U, Feldmann, H, Royle, L, Dwek, RA, Rudd, PM (2010) 'Identification of N-linked carbohydrates from severe acute respiratory syndrome (SARS) spike glycoprotein'. *Virology*, 399 (2):257-269.
http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=20129637
- Triguero, A, Cabrera, G, Royle, L, Harvey, DJ, Rudd, PM, Dwek, RA, Bardor, M, Lerouge, P, Cremata, JA (2010) 'Chemical and enzymatic N-glycan release comparison for N-glycan profiling of monoclonal antibodies expressed in plants'. *Analytical Biochemistry*, 400 (2):173-183.
http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=20109437
- Ritchie, G, Harvey, DJ, Stroehrer, U, Feldmann, F, Feldmann, H, Wahl-Jensen, V, Royle, L, Dwek, RA, Rudd, PM (2010) 'Identification of N-glycans from Ebola virus glycoproteins by matrix-assisted laser desorption/ionisation time-of-flight and negative ion electrospray tandem mass spectrometry'. *Rapid Communications in Mass Spectrometry*, 24 (5):571-585.

<http://onlinelibrary.wiley.com/doi/10.1002/rcm.4410/abstract>

Harvey, DJ, Jaeken, J, Butler, M, Armitage, AJ, Rudd, PM, Dwek, RA (2010) 'Fragmentation of negative ions from N-linked carbohydrates, Part 4. Fragmentation of complex glycans lacking substitution on the 6-antenna'. *Journal Of Mass Spectrometry*, 45 (5):528-535. <http://onlinelibrary.wiley.com/doi/10.1002/jms.1736/abstract>

McVicar, C. M., Colhoun, L. M., Abrahams, J. L., Kitson, C. L., Hamilton, R., Medina, R. J., Durga, D., Gardiner, T. A., Rudd, P. M., Stitt, A. W. (2010) 'Differential modulation of angiogenesis by erythropoiesis-stimulating agents in a mouse model of ischaemic retinopathy'. *PLoS ONE*, 5 (7):e11870-e11870-16.
http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=20686695
http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=20686695

Dr Noreen Sheehy

Peer Reviewed Journals

Watters KM, Dean J, Gautier V, Hall WW, Sheehy N (2010) 'Tax 1-independent induction of vascular endothelial growth factor in adult T-cell leukemia caused by human T-cell leukemia virus type 1'. *Journal of Virology*, 84 :5222-5228.

Watters KM, Dean J, Hasegawa H, Sawa H, Hall W, Sheehy N (2010) 'Cytokine and growth factor expression by HTLV-1 Lck-tax transgenic cells in SCID mice'. *AIDS Research and Human Retroviruses*, 26 :593-603.

Watters, KM, Dean, J, Hasegawa, H, Sawa, H, Hall, W, Sheehy, N (2010) 'Cytokine and Growth Factor Expression by HTLV-1 Lck-tax Transgenic Cells in SCID Mice'. *AIDS*, 26 :593-603.

Dean J, Hashimoto K, Tsuji T, Gautier V, Hall WW, Sheehy N (2009) 'Functional interaction of HTLV-1 tax protein with the POZ domain of the transcriptional repressor BCL6'. *Oncogene*, 28 (42):3723-3734.

Professor Denis Shields

Peer Reviewed Journals

Davey NE, Haslam NJ, Shields DC, Edwards RJ (2010) 'SLiMFinder: a web server to find novel, significantly over-represented, short protein motifs'. *Nucleic Acids Research*, 38 Suppl :1-9.

Davey NE, Edwards RJ, Shields DC (2010) 'Computational identification and analysis of protein short linear motifs'. *FRONT BIOSCI*, 15 :801-825.

Pushker R., Jacque J.M. and Shields D.C. (2010) 'Meta-analysis to test the association of HIV-1 nef amino acid differences and deletions with disease progression'. *Journal of Virology*, 84 (7):3644-3653.
<http://jvi.asm.org/cgi/content/abstract/84/7/3644>

Pushker, R, Jacque, JM, Shields, DC (2010) 'Meta-Analysis To Test the Association of HIV-1 nef Amino Acid Differences and Deletions with Disease Progression'. *Virology*, 84 :3644-3653.

Maree, AO, Vangjeli, C, Jneid, H, Ryan, J, Cox, D, Cannon, CP, Shields, DC, Fitzgerald, DJ (2010) 'G-protein beta 3 subunit polymorphism and bleeding in the orbofiban in patients with unstable coronary syndromes-thrombolysis in myocardial infarction 16 trial'. *Journal of Thrombosis and Haemostasis*, 8 :934-941.

Davey NE, Edwards RJ, Shields DC. (2010) 'Estimation and efficient computation of the true probability of recurrence of short linear protein sequence motifs in unrelated proteins'. *BMC Bioinformatics*, 11 (1).

Fitzgerald DJ, Maree AO, Vanqjeli C, Jneid H, Ryan J, Cox D, Cannon CP, Shields DC, (2010) 'G-Protein beta3 subunit Polymorphism and Bleeding in the Orbofiban in Patients with Unstable Coronary Syndromes-Thrombolysis In Myocardial Infarction (OPUS-TIMI) 16 Trial'. *Journal of Thrombosis and Haemostasis*, (NA).

Casey FP, Pihan E, Shields DC (2009) 'Discovery of small molecule inhibitors of protein-protein interactions using combined ligand and target score normalization'. *Journal of Chemical Information and Modeling*, 49 (12):2708-2717.

Hunt SW 3rd, Miller J, Agarwal A, Devi LA, Fontanini K, Hamilton JA, Pin JP, Shields DC, Spek CA, Sakmar TP, Kuliopulos A, (2009) 'Insider access: pepducin symposium explores a new approach to GPCR modulation'. *Annals of the New York Academy of Sciences*, 1180 Suppl 1 :1-12.

Hingorani AD, Talmud PJ, Drenos F, Shah S, Shah T, Palmen J, Verzilli C, Gaunt TR, Pallas J, Lovering R, Li K, Casas JP, Sofat R, Kumari M, Rodriguez S, Johnson T, Newhouse SJ, Dominiczak A, Samani NJ, Caulfield M, Sever P, Stanton A, Shields DC, Padmanabhan S, Melander O, Hastie C, Delles C, Ebrahim S, Marmot MG, Smith GD, Lawlor DA, Munroe PB, Day IN, Kivimaki M, Whittaker J, Humphries SE, (2009) 'Gene-centric association signals for lipids and apolipoproteins identified via the HumanCVD BeadChip'. *American Journal of Human Genetics*, 85 (5):628-642.

Talmud, PJ,Drenos, F,Shah, S,Shah, T,Palmen, J,Verzilli, C,Gaunt, TR,Pallas, J,Lovering, R,Li, K,Casas, JP,Sofat, R,Kumari, M,Rodriguez, S,Johnson, T,Newhouse, SJ,Dominiczak, A,Samani, NJ,Caulfield, M,Sever, P,Stanton, A,Shields, DC,Padmanabhan, S,Melander, O,Hastie, C,Delles, C,Ebrahim, S,Marmot, MG,Smith, GD,Lawlor, DA,Munroe, PB,Day, IN,Kivimaki, M,Whittaker, J,Humphries, SE,Hingorani, AD,ASCOT Investigators,NORDIL Investigators,BRIGHT Consortium (2009) 'Gene-centric Association Signals for Lipids and Apolipoproteins Identified via the HumanCVD BeadChip'. *Gene*, 85 :628-642.

Professor Jeremy Charles Simpson

Peer Reviewed Journals

Heinz, S., Schüttrumpf, J., Simpson, J.C., Pepperkok, R., Nicolaes, G.A., Abriss, D., Milanov, P., Roth, S., Seifried, E. and Tonn, T. (2009) 'Factor VIII-eGFP fusion proteins with preserved functional activity for the analysis of the early secretory pathway of factor VIII'. *Thrombosis and Haemostasis*, 102 (5):925-935.

Burgo, A., Sotirakis, E., Simmler, M-C., Chamot, C., Van der Linden, A., Simpson, J.C., Lanzetti, L., Proux-Gillardeaux, V. and Galli, T. (2009) 'Role of Varp, a Rab21 exchange factor and TI-VAMP/VAMP7 partner, in neurite growth'. *Embo Reports*, 10 (10):1117-1124.

Dr Albert Peter Smolenski

Peer Reviewed Journals

Gambaryan, S,Kobsar, A,Rukoyatkina, N,Herterich, S,Geiger, J,Smolenski, A,Lohmann, SM,Walter, U (2010) 'Thrombin and Collagen Induce a Feedback Inhibitory Signaling Pathway in Platelets Involving Dissociation of the Catalytic Subunit of Protein Kinase A from an NF kappa B-I kappa B Complex'. *J BIOL CHEM*, 285 :18352-18363.

Dr Matthias Tacke

Peer Reviewed Journals

A. Deally, J. Claffey, B. Gleeson, M. Hogan, H. Müller-Bunz, S. Patil, D. O'Shea, M. Tacke (2010) 'Synthesis and Preliminary Cytotoxicity Studies of Achiral Pyrrolyl-Substituted Titanocenes'. *Polyhedron*, 29 (12):2445-2453.

- J. Claffey, H. Müller-Bunz, M. Tacke (2010) 'Benzyl-Substituted Titanocene Dichloride Anticancer Drugs: From Lead to Hit'. *Journal of Organometallic Chemistry*, 695 :2105-2117.
- B. Gleeson, J. Claffey, M. Hogan, H. Müller-Bunz, D. Wallis, M. Tacke (2010) 'Novel Benzyl-Substituted Molybdocene Anticancer Drugs'. *Inorganica Chimica Acta*, 363 :1831-1836.
- M. Hogan, B. Gleeson, M. Tacke (2010) 'The Cytotoxicity of Titanocene Y against CAKI-1 Cells: An In Vitro Formulation Study'. *Letters in Drug Design & Discovery*, 7 (5):310-317.
- A. Erxleben, J. Claffey, M. Tacke (2010) 'Binding and hydrolysis studies of antitumoural titanocene dichloride and Titanocene Y with phosphate diesters'. *Journal of Inorganic Biochemistry*, 104 :390-396.
- S. Eger, T. A. Immel, J. Claffey, H. Müller-Bunz, M. Tacke, U. Groth, T. Huhn (2010) 'Titanocene difluorides with improved cytotoxic activity'. *Inorganic Chemistry*, 49 :1292-1294.
- I. Fichtner, D. Behrens, J. Claffey, A. Deally, B. Gleeson, M. Hogan, H. Weber, M. Tacke (2010) 'Antitumor Activity of Vanadocene Y and its Selenocyanate Derivative in Xenografted CAKI-1 Tumors in Mice'. *Journal of Organometallic Chemistry*, 695 :1175-1181.
- S. Patil, J. Claffey, A. Deally, B. Gleeson, M. Hogan, L. M. Menéndez Méndez, H. Müller-Bunz, F. Paradisi, M. Tacke (2010) 'Synthesis, Cytotoxicity and Antibacterial Studies of p-Methoxybenzyl-Substituted and Benzyl-Substituted N-Heterocyclic Carbene-Silver Complexes'. *European Journal of Inorganic Chemistry*, :1020-1031.
- M. Hogan, B. Gleeson, M. Tacke (2010) 'Synthesis and Preliminary Cytotoxicity Studies of Achiral Indolyl-Substituted Titanocenes'. *Organometallics*, 29 :1032-1040.
- J. Claffey, A. Deally, B. Gleeson, M. Hogan, L. M. Menéndez Méndez, H. Müller-Bunz, D. Wallis, S. Patil, M. Tacke (2009) 'Pseudo-Halide Derivatives of Titanocene Y: Synthesis and Cytotoxicity Studies'. *Metallomics*, 1 :511-517.

Professor Cormac Taylor

Peer Reviewed Journals

- Batti L, Taylor CT, O'Connor JJ (2010) 'Hydroxylase inhibition reduces synaptic transmission and protects against a glutamate-induced ischemia in the CA1 region of the rat hippocampus'. *Neuroscience*, 167 (4):1014-1024.
- Eivers SS, McGivney BA, Fonseca RG, MacHugh DE, Menson K, Park SD, Rivero JLL, Taylor CT, Katz LM, Hill EW (2010) 'Alterations in oxidative gene expression in equine skeletal muscle following exercise and training'. *Physiological Genomics*, 40 (2):83-93. <http://www.ncbi.nlm.nih.gov/pubmed/19861432>
- Kennedy A, Ng CT, Biniiecka M, Saber J, Taylor C, O'Sullivan J, Veale DJ, Fearon U. (2010) 'Angiogenesis and Blood Vessel Stability in Inflammatory Synovial Tissue'. *Arthritis and Rheumatism*, 62 (3):711-721.
- Colgan, S.P. and Taylor, C.T. (2010) 'Hypoxia: an alarm signal during intestinal inflammation'. *Journal of Gastroenterology and Hepatology*, 7 (5):281-287.
- Cummins EP, Oliver KM, Lenihan CR, Fitzpatrick SF, Bruning U, Scholz CC, Slattery S, Leonard MO, McLoughlin P and Taylor CT. (2010) 'NF- κ B links CO₂ sensing to innate immunity and inflammation in mammalian cells'. *Immunology*, 185 (7):4439-4445.
- Ward JB, Lawlor K, Amu S, Taylor CT, Fallon PG, and Keely SJ. (2010) 'Hydroxylase Inhibition Attenuates Colonic Epithelial Secretory Function and Ameliorates Experimental Diarrhea'. *FASEB Journal* .
- Ng CT, Biniiecka, M., Kennedy, A., McCormick, K., FitzGerald, O., Bresnihan, B., Buggy, D., Taylor, C.T., O'Sullivan, J.,

Fearon, U., and Veale, D.J: (2010) 'Synovial Tissue Hypoxia and Inflammation in vivo'. *Annals of Rheumatic Diseases*, 69 (7):1389-1395.

Batti, L, Taylor, CT & O'Connor, JJ (2010) 'of prolyl hydroxylase reduces synaptic transmission and protects against a glutamate-induced ischaemic insult in the CA1 region of rat hippocampal slices'. *Journal of Neuroscience*, 67 (4):1014-1024.

Zhdanov AV, Ogurtsov VI, Taylor CT, Papkovsky DB (2010) 'Monitoring of cell oxygenation and responses to metabolic stimulation by intracellular oxygen sensing technique'. *Integrative biology*, 2 (9):443-451.

Schaible, B, Schaffer K & Taylor CT (2010) 'Hypoxia, Innate Immunity and infection in the lung'. *Respiratory Physiology & Neurobiology* .

Taylor, CT & McElwain J (2010) 'Ancient Atmospheres and the evolution of oxygen sensing in the HIF pathway'. 25 (5):272-279.

Eivers SS, McGivney BA, Fonseca RG, Machugh DE, Menson K, Park SD, Rivero JL, Taylor CT, Katz LM, Hill EW (2009) 'Alterations in oxidative gene expression in equine skeletal muscle following exercise and training'. *Genomics* .

Taylor, C. T., Cummins, E. P. (2009) 'The role of NF-kappaB in hypoxia-induced gene expression'. *Ann N Y Acad Sci*, 1177 :178-84178.

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=19845620
http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=19845620

Sebastian, J, Kieran, D, Breen, B, King, MA, Netteland, DF, Joyce, D, Fitzpatrick, SF, Taylor, CT, Prehn, JHM (2009) 'Angiogenin protects motoneurons against hypoxic injury'. *Cell*, 16 :1238-1247.

Dr Emma C Teeling

Peer Reviewed Journals

Puechmaille, S.J., Verdeyroux, P., Fuller, H., Gouilh, M.A., Bekaert, M. and Teeling, E.C. (2010) 'White-nose syndrome fungus (*Geomyces destructans*) in bat, France'. *Emerging infectious diseases*, 16 (2):290-293.

Zhao, H., Ru, B., Teeling, E.C., Faulkes, C.G., Zhang, S. and Rossiter, S.J. (2009) 'Rhodopsin molecular evolution in mammals inhabiting low light environments'. *PLoS ONE*, 4 (12).

Hayden, S., Bekaert, M., Crider, T.A., Mariani, S., Murphy, W.J. and Teeling, E.C. (2009) 'Ecological adaptation determines functional mammalian olfactory subgenomes'. *Genome Research*, 20 (1):1-9.

Genome 10K Community of Scientists (including Teeling, E.C.) (2009) 'Genome 10K: a proposal to obtain whole-genome sequence for 10,000 vertebrate species'. *Heredity*, 100 (6):659-674.

Professor Dominic Walsh

Peer Reviewed Journals

Freir DB, Fedriani R, Scully D, Smith IM, Selkoe DJ, Walsh DM, Regan CM (2010) 'Aβ oligomers inhibit synapse remodelling necessary for memory consolidation'. *Neurobiology of Aging* .

Mc Donald, JM, Savva, GM, Brayne, C, Welzel, AT, Forster, G, Shankar, GM, Selkoe, DJ, Ince, PG, Walsh, DM, Med Res Council Cognitive Function (2010) 'The presence of sodium dodecyl sulphate-stable Aβ dimers is strongly

associated with Alzheimer-type dementia'. *Brain*, 133 :1328-1341.

Hellstrand, E,Boland, B,Walsh, DM,Linse, S (2010) 'Amyloid beta-Protein Aggregation Produces Highly Reproducible Kinetic Data and Occurs by a Two-Phase Process'. *Neuroscience*, 1 :13-18.

Frigerio, CS,Fadeeva, JV,Minogue, AM,Citron, M, Van Leuven, F,Staufenbiel, M,Paganetti, P,Selkoe, DJ,Walsh, DM (2010) 'beta-Secretase cleavage is not required for generation of the intracellular C-terminal domain of the amyloid precursor family of proteins'. *FEBS Journal*, 277 :1503-1518.

Blennow K, Hampel H, Shen Y, Walsh DM, Aisen P, Shaw LM, Zetterberg H, Trojanowski JQ, (2009) 'Biological markers of amyloid beta-related mechanisms in Alzheimer's disease'. *Experimental Neurology* .

Sala Frigerio C, Kukar TL, Engel PC, Golde TE, Walsh DM (2009) 'An NSAID-like compound, FT-9, preferentially inhibits gamma-secretase cleavage of APP compared to its effect on APLP1'. *Biochemistry* .

Professor Matthias Sebastian Wilm

Peer Reviewed Journals

Matthias Wilm (2009) 'Quantitative proteomics in biological research'. *Proteomics*, 9 (20):4590-4605.
http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=19743428

Dr Xiangming Zhu

Peer Reviewed Journals

Zhong, ZY,Wang, XX,Kong, LC,Zhu, XM (2009) 'Trapping of Isocyanates with Benzotriazole in situ - Preparation of Carbamoyl Benzotriazoles as an Isocyanate Alternative via Curtius Rearrangement'. *Synlett*, :2461-2464.