

Report of the President 2007/2008

Sep 2007 - Aug 2008

Research Publications for Conway Institute

Professor Mohamed Al-Rubeai

Books Edited

Chaudhuri J. and M. Al-Rubeai (Ed.). (2007) *Bioreactors for Tissue Engineering*. Dordrecht: Springer.

Peer Reviewed Journals

Krampe, B., Swiderek, H., Al-Rubeai, M. (2008) 'Transcriptome and proteome analysis of antibody-producing mouse myeloma NS0 cells cultivated at different cell densities in perfusion culture'. *Biotechnology and Applied Biochemistry*, 50 :133-141.138.

Naciri M., Kuystermans D., Al-Rubeai M. (2008) 'Monitoring pH and dissolved oxygen in mammalian cell culture using optical sensors'. *Cytotechnology*, 57:245-250.

Astley, K., Al-Rubeai, M., (2008) 'The role of Bcl-2 and its combined effect with p21(CIP1) in adaptation of CHO cells to suspension and protein-free culture'. *Applied Microbiology and Biotechnology*, 78 (3):391-399.

Sandhu, K. S., Al-Rubeai, M. (2008) 'Monitoring of the adenovirus production process by flow cytometry'. *Biotechnology Progress*, 24 (1):250-261.

Swiderek, H., Al-Rubeai, M. (2008) 'Functional genome-wide analysis of antibody producing NSO cell line cultivated at different temperatures (vol 98, pg 616, 2007)'. *Biotechnology and Bioengineering*, 100 (4):838-838.

Swiderek, H., Logan, A., Al-Rubeai, M. (2008) 'Cellular and transcriptomic analysis of NS0 cell response during exposure to hypoxia'. *Journal of Biotechnology*, 134 (1-2):103-111.

Swiderek, H. and Al-Rubeai, M. (2007) 'Functional genome-wide analysis of antibody producing NS0 cell line cultivated at different temperatures'. *Biotechnology and Bioengineering*, 98 (3):616-630.

Browne, S.M. and Al-Rubeai, M. (2007) 'Selection methods for high-producing mammalian cell lines'. *Trends in Biotechnology*, 25 (9):425-432.

Conference Publications

Al-Rubeai M. (2008) In vitro expansion of chondroprogenitor cells in 2D and 3D culture *XIIth BELACT meeting*.

Al-Rubeai M., Sandhu K., Naciri M. (2008) Multiparametric flow cytometry for process monitoring and prediction of virus and protein expression *Cell Culture Engineering XI*.

Al-Rubeai M. (2008) Cell engineering strategy to improve stability, adaptation and growth of cell lines *BioProcess International Conference*.

Boehm D., Murphy W., Al-Rubeai M. (2008) Ex-vivo production of red blood cells from peripheral blood derived CD34+ cells *Cell Culture Engineering XI*.

Krampe B. and Al-Rubeai M. (2008) Transcriptional profiling of NS0-GS and NS0-Bcl-2 cells producing antibody at different steady states in chemostat culture *Cell Culture Engineering XI*.

Al-Rubeai M (2008) Suppression of apoptosis *Cell Line Development and Engineering*.

Al-Rubeai M (2007) Cell line development and cell engineering strategies for the production of biopharmaceuticals from mammalian cells *2nd Asian Biomanufacturing Conference. Kuala Lumpur, Malaysia*.

Al-Rubeai M. (2007) Cell engineering of apoptosis *Optimizing Cell Culture Development, CHI's Third Annual Meeting, Boston USA*.

Professor Alan Baird

Peer Reviewed Journals

Bolan, T. M., Hayes, L., Sweeney, T., Callan, J. J., Baird, A. W., Keely, S., Crosby, T. F. (2008) 'The effects of cobalt and iodine supplementation of the pregnant ewe diet on immunoglobulin G, vitamin E, T-3 and T-4 levels in the progeny'. *Animal*, 2 (2):197-206.

Cox, A. B., Rawlinson, L. A., Baird, A. W., Bzik, V., Brayden, D. J., (2008) 'In vitro interactions between the oral absorption promoter, sodium caprate (C-10) and S-Typhimurium in rat intestinal ileal mucosae'. *Pharmaceutical Research*, 25 (1):114-122.

Morrissey, N. K., Bellenger, C. R., Baird, A. W., (2008) 'Bradykinin stimulates prostaglandin E-2 production and cyclooxygenase activity in equine nonglandular and glandular gastric mucosa in vitro'. *Equine Veterinary Journal*, 40 (4):332-336.

Nemeth, F., Hopkins, A. M., Baird, A. W., (2008) 'Neuroimmunology of the liver - Methodology in intact organs'. *Journal of Neuroimmunology*, 197 (2):171-171.

Campion DP, O'Brien LM, Fitzpatrick E, Baird AW, (2008) 'Eosinophil-nerve interactions and neuronal plasticity in rat gut associated lymphoid tissue (GALT) in response to enteric parasitism'. *Journal of neuroimmunology*, 197 (1):1-9.

O'Brien, L. M., Fitzpatrick, E., Baird, A. W., Campion, D. P., (2008) 'Eosinophil-nerve interactions and neuronal plasticity in rat gut associated lymphoid tissue (GALT) in response to enteric parasitism'. *Immunology*, 197 (1):1-9.

Campion DP, O'Brien LM, Fitzpatrick E, Baird AW, (2008) 'Eosinophil-nerve interactions and neuronal plasticity in rat gut associated lymphoid tissue (GALT) in response to enteric parasitism'. *Journal of neuroimmunology*, (NA).

Feighery, L. M., Cochrane, S.W., Quinn, T., Baird, A. W., O'Toole, D., Owens, S-E., O'Donoghue, D., Mrsny, R. J. & Brayden, D. J. (2008) 'Myosin light chain kinase inhibition: attempts to correct increased intestinal epithelial permeability in vitro'. *Pharmaceutical Research*.

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Feighery, L., Smyth, A, Keely, S., Baird, A. W., O'Connor, W. T., Callanan, J. J., & Brayden, D. J. (2008) 'Increased intestinal permeability in rats subjected to traumatic frontal lobe percussion brain injury'. *Journal of Trauma, Injury, Infection and Critical Care*, 64 (1):131-137.

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Conference Publications

Gallagher, T.K., Baird, A.W. and Winter, D.C. (2007) Altered human small bowel contractility in obesity *American College of Surgeons*.

Professor John Bannigan

Peer Reviewed Journals

Sato, H., Murphy, P., Giles, S., Bannigan, J., Takayasu, H., Puri, P., (2008) 'Visualizing expression patterns of Shh and Foxf1 genes in the foregut and lung buds by optical projection tomography'. *Pediatric Surgery International*, 24 (1):3-11.

Gillick, J., Mortell, A., Dawrant, M., Giles, S., Bannigan, J., Puri, P., (2008) 'The Adriamycin rat/mouse model and its importance to the paediatric surgeon'. *Pediatric Surgery International*, 24 (1):113-118.

Thompson, J., Wong, L., Lau, P. S., Bannigan, J., (2008) 'Adherens junction breakdown in the periderm following cadmium administration in the chick embryo: distribution of cadherins and associated molecules'. *Reproductive Toxicology*, 25 (1):39-46.

Thompson, J., Bannigan, J., (2008) 'Cadmium: Toxic effects on the reproductive system and the embryo'. *Reproductive Toxicology*, 25 (3):304-315.

Puri P, Montedonico S, Sugimoto K, Felle P, Bannigan J, (2008) 'Prenatal treatment with retinoic acid promotes pulmonary alveologenesis in the nitrofen model of congenital diaphragmatic hernia'. *J Pediatr Surg*, 3 (NA):500-507.

Bannigan J, Giles S, Boehm P, Brogan C, (2008) 'The effects of ethanol on CNS development in the chick embryo'. *Reproductive toxicology (Elmsford, N.Y.)*, 2 (NA):224-230.

Dr John Andrew Baugh

Peer Reviewed Journals

Armstrong, M. E., Gantier, M., Li, L. L., Chung, W. Y., McCann, A., Baugh, J. A., Donnelly, S. C., (2008) 'Small interfering RNAs induce macrophage migration inhibitory factor production and

proliferation in breast cancer cells via a double-stranded RNA-dependent protein kinase-dependent mechanism'. *Journal of Immunology*, 180 (11):7125-7133.

Baugh JA, Byrne JD, (2008) 'The significance of nanoparticles in particle-induced pulmonary fibrosis'. *McGill journal of medicine : MJM : an international forum for the advancement of medical sciences by students*, 11 (1):43-50.

Kevill, K. A., Bhandari, V., Kettunen, M., Leng, L., Fan, J., Mizue, Y., Dzuira, J. D., Reyes-Mugica, M., McDonald, C. L., Baugh, J. A., O'Connor, C. L., Aghai, Z. H., Donnelly, S. C., Bazzi-Asaad, A., Bucala, R. J., (2008) 'A role for macrophage migration inhibitory factor in the neonatal respiratory distress syndrome'. *Journal of Immunology*, 180 (1):601-608.

Dr Orina Belton

Peer Reviewed Journals

Belton O, McClelland S, Gawaz M, Kennerknecht E, Konrad CS, Sauer S, Schuerzinger K, Massberg S, Fitzgerald DJ, (2008) 'Contribution of cyclooxygenase-1 to thromboxane formation, platelet-vessel wall interactions and atherosclerosis in the ApoE null mouse'. *Atherosclerosis*, (NA).

Conference Publications

Belton O, McClelland S, Gawaz M, Kennerknecht E, Konrad CS, Sauer S, Schuerzinger K, Massberg S, Fitzgerald DJ, (2008) *Atherosclerosis Contribution of cyclooxygenase-1 to thromboxane formation, platelet-vessel wall interactions and atherosclerosis in the ApoE null mouse*.

Dr Oliver Blacque

Peer Reviewed Journals

Blacque OE, Cevik S, Kaplan OI (2008) 'Intraflagellar transport: from molecular characterisation to mechanism'. *Frontiers in Bioscience*, 13 :2633-2652.

Professor Maurice Boland

Peer Reviewed Journals

Boland, M., Daly, L., Staines, A., (2008) 'Methodological issues in inclusive intellectual disability research: A health promotion needs assessment of people attending Irish disability services'. *Journal of Applied Research in Intellectual Disabilities*, 21 (3):199-209.

Lonergan P, Rizos D, Kenny DA, Griffin W, Quinn KM, Duffy P, Mulligan FJ, Roche JF, Boland MP, (2008) 'The effect of feeding propylene glycol to dairy cows during the early postpartum period on follicular dynamics and on metabolic parameters related to fertility'. *Theriogenology*, 6 (NA):688-699.

Dr Billy Bourke

Book Chapters

Marion Rowland, Billy Bourke, Brendan Drumm (2008) 'Helicobacter pylori and Peptic Ulcer Disease' In: Kleinman, Goulet, Mieli-Vergani, Sanderson, Sherman, Shneider (eds). *Walker's Pediatric Gastrointestinal Disease 5*. Canada: BC Decker Inc.

Peer Reviewed Journals

McDermott M, Hussey S, Bourke B, Broderick A, Phelan E, (2008) 'Cryptogenic, multifocal, ulcerous, and stenosing enteritis as a manifestation of enterocolic venopathy'. *Journal of Pediatric Gastroenterology and Nutrition*, 47 (1):107-109.

Rowland M, Fitzpatrick E, Bourke B, Drumm B, (2008) 'The incidence of cyclic vomiting syndrome in children: population-based study'. *American Journal of Gastroenterology*, 103 (4):991-91.

Fitzpatrick, E., Bourke, B., Drumm, B., Rowland, M. (2007) 'Outcome for children with cyclical vomiting syndrome'. *Arch Dis Child*, 92 (11):1001-4.

Rowland M, Fitzpatrick E, Bourke B, Drumm B, (2007) 'Outcome for children with cyclical vomiting syndrome'. *Archives of Disease in Childhood*, 92 (11):1001-1004.

Professor David Brayden

Books

Brayden, D.J. and Martinez, M.N. (2007) *Advanced Drug delivery Reviews Theme Issue (Prediction of therapeutic and drug delivery outcomes using animal models)*. New York: Elsevier.
http://www.sciencedirect.com/science?_ob=PublicationURL&_tockey=%23TOC%234953%232007%23999409988%23671731%23FLA%23&_cdi=4953&_pubType=J&_auth=y&_acct=C000007921&_version=1&_urlVersion=0&_userid=103682&md5=1bc97cb0f09f4d3f68d8c9411e453b03

Peer Reviewed Journals

Feighery, L. M., Cochrane, S. W., Quinn, T., Baird, A. W., O'Toole, D., Owens, S. E., O'Donoghue, D., Mrsny, R. J., Brayden, D. J., (2008) 'Myosin light chain kinase inhibition: Correction of increased intestinal epithelial permeability in vitro'. *Pharmaceutical Research*, 25 (6):1377-1386.

Keely, S., Brayden, D. J., Rawlinson, L. A. B., Haddleton, D. M., (2008) 'A tertiary amino-containing polymethacrylate polymer protects mucus-covered intestinal epithelial monolayers against pathogenic challenge'. *Pharmaceutical Research*, 25 (5):1193-1201.

Brayden, D. J., Griffin, J., (2008) 'Avermectin transepithelial transport in MDR1- and MRP-transfected canine kidney monolayers'. *Veterinary Research Communications*, 32 (1):93-106.

Cox, A. B., Rawlinson, L. A., Baird, A. W., Bzik, V., Brayden, D. J., (2008) 'In vitro interactions between the oral absorption promoter, sodium caprate (C-10) and S-Typhimurium in rat intestinal ileal mucosae'. *Pharmaceutical Research*, 25 (1):114-122.

Fletcher, N. F., Bexiga, M., Brayden, D. J., Brankin, B., Willett, B. J., Hosie, M. J., Jacque, J. M., Callanan, J. J., (2008) 'Cell migration through the blood brain barrier (BBB) in feline immunodeficiency virus infection is significantly influenced by the pre-existence of virus and trn-alpha within the CNS: studies using an in vitro feline BBB model'. *Journal of Neuroimmunology*, 197 (2):161-161.

Maher, S., Brayden, D. J., Feighery, L. M. & McClean, S. (2008) 'Cracking the Junction: Update on the Progress of Gastrointestinal Absorption Enhancement in the Delivery of Poorly Absorbed Drugs'. *Critical Reviews in Therapeutic Drug Carrier Systems*, 25 (2):117-168.

<http://www.begellhouse.com/journals/3667c4ae6e8fd136,56f8b04417929fcd.html>

Ryan SM, Mantovani G, Wang X, Haddleton DM, Brayden DJ. (2008) 'Advances in PEGylation of important biotech molecules: delivery aspects'. *Expert Opinion in Drug Delivery*, 5 (4):371-383.

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Feighery, L. M., Smith, P., O'Mahony, L., Fallan, P. G., Brayden, D. J. (2008) 'Effects of Lactobacillus Salivarius 433118 on intestinal inflammation, immunity status and in vitro colon function in two mouse models of inflammatory bowel disease'. *Digestive Diseases and Sciences*, 53 (9):2495-2506.

http://www.ncbi.nlm.nih.gov/pubmed/18157694?ordinalpos=3&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_Results_Panel.Pubmed_RVDocSum

Feighery, L., Smyth, A, Keely, S., Baird, A. W., O'Connor, W. T., Callanan, J. J., & Brayden, D. J. (2008) 'Increased intestinal permeability in rats subjected to traumatic frontal lobe percussion brain injury'. *Journal of Trauma, Injury, Infection and Critical Care*, 64 (1):131-137.

http://www.ncbi.nlm.nih.gov/pubmed/18188111?ordinalpos=1&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_Results_Panel.Pubmed_RVDocSum

Brayden, D.J. and Griffin, J. (2008) 'Avermectin transepithelial transport in MDR1- and MRP-transfected canine kidney monolayers'. *Veterinary Research Communications*, 32 (1):93-106.

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Fletcher, NF, Brayden, DJ, Brankin, B, & Callanan, JJ (2008) 'Feline Immunodeficiency virus infection: a valuable model to study HIV-1 associated encephalitis'. *Veterinary Immunology and Immunopathology*.

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Conference Publications

Bzik, V & Brayden DJ (2008) Comparison of three in vitro intestinal diffusion systems *Transactions of the 35th Int. Soc. Controlled Release Society, New York*.

Maher, S., Wang, X, Bzik, V, McClean, S. & Brayden, D. J. (2008) Increased intestinal permeability induced by the anti-microbial peptide, melittin: in vivo and ex vivo studies *Transactions of the 35th Int. Soc. Controlled Release Society, Abstract 912*.

Wang, X. & Brayden, DJ (2008) Improved absorption of salmon calcitonin from rat intestine in vivo with sodium caprate and a mucolytic, n-acetyl cysteine *Transactions of the 35th Int. Soc. Controlled Release Society*

Wang, X, Tambuwala, M., & Brayden, D. J. (2008) Investigation of the absorption-enhancing effects of ethanol in rats *Transactions of the 35th Int. Soc. Controlled Release Society*.

Fletcher, N.F., Bexiga, M., Brayden, D. J., Brankin, B., Willett, B. J., Hosie, M. J., Jacque, J. M. & Callanan, J. J. (2008) Cell migration through the blood-brain barrier in FIV virus infection is significantly influenced by the pre-existence of virus and TNF- α within the CNS: studies using an in vitro feline BBB model *J. Immunology, 197: p. 161, Abstract 3*.

Ryan, S., Wang, X., Mantovani, G, Haddleton, D. M. & Brayden, D.J. (2008) Enhanced intestinal delivery and stability both in vivo and in vitro of site-specific PEGylation of salmon calcitonin to different molecular sizes of POLYPEG® *Transactions of the 35th Int. Soc. Controlled Release Society, Abstract 918*.

Rawlinson, LB & Brayden DJ (2008) A methacrylate polymer is bactericidal to Gram-positive and Gram-negative bacteria *Society for General Microbiology*.

Haddleton, D. M., Mantovani, G. & Brayden, D. J. (2007) Synthetic glycopolymers and protein bioconjugates from living radical polymerization *235th American Chemical Society meeting*.

Dr Derek P Brazil

Peer Reviewed Journals

Brazil DP, Kattla JJ, Carew RM, Heljic M, Godson C, (2008) 'Protein kinase B/Akt activity is involved in renal TGF- β 1-driven epithelial-mesenchymal transition in vitro and in vivo'. *American journal of physiology. Renal physiology*, 295 (1):1-25.

Martin F, Walsh DW, Roxburgh SA, McGettigan P, Berthier CC, Higgins DG, Kretzler M, Cohen CD, Mezzano S, Brazil DP, (2008) 'Co-regulation of Gremlin and Notch signalling in diabetic nephropathy'. *Biochimica et biophysica acta*, 1782 (1):10-21.

Dr Lorraine Brennan

Peer Reviewed Journals

McClenaghan NH, Scullion SM, Mion B, Hewage C, Malthouse JP, Flatt PR, Newsholme P, Brennan L, (2008) 'Prolonged L-alanine exposure induces changes in metabolism, Ca²⁺ handling and desensitization of insulin secretion in clonal pancreatic beta-cells'. *Clinical Science*.

Jin Y, Brennan L, (2008) 'Effects of homocysteine on metabolic pathways in cultured astrocytes'. *Neurochemistry International*, 52 (8):1410-1415.

Gibney MJ, Walsh MC, Brennan L, Pujos-Guillot E, SÁ©dio JL, Scalbert A, Fagan A, Higgins DG, (2007) 'Influence of acute phytochemical intake on human urinary metabolomic profiles'. *Am J Clin Nutr*, 6 (NA):1687-1693.

Conference Publications

Kandil, S., Brennan, L., McBean, G., (2008) *Journal of Neuroimmunology Differential effects of two gliotoxins on glutathione content in rat C6 glioma cells*, 169 – 169.

Professor Geraldine Butler

Peer Reviewed Journals

Butler G, Fitzpatrick DA, Logue ME, (2008) 'Evidence of recent interkingdom horizontal gene transfer between bacteria and *Candida parapsilosis*'. *BMC Evolutionary Biology*, 8 (1).

Roetzer A, Gregori C, Jennings AM, Quintin J, Ferrandon D, Butler G, Kuchler K, Ammerer G, Schüller C. (2008) '*Candida glabrata* environmental stress response involves *Saccharomyces cerevisiae* Msn2/4 orthologous transcription factors'. *Molecular Microbiology*, 69: 603-620.

Dr Paula Byrne

Peer Reviewed Journals

Zuechner S, Beetz C, Schuele R, Deconinck T, Tran-Viet KN, Zhu H, Kremer BP, Frints SG, van Zelst-Stams WA, Byrne P, Otto S, Nygren AO, Baets J, Smets K, Ceulemans B, Dan B, Nagan N, Kassubek J, Klimpe S, Klopstock T, Stolze H, Smeets HJ, Schrandt-Stumpel CT, Hutchinson M, van de Warrenburg BP, Braastad C, Deufel T, Pericak-Vance M, Schols L, de Jonghe P, (2008) 'REEP1 mutation spectrum and genotype/phenotype correlation in hereditary spastic paraplegia type 31'. *Brain: a journal of neurology*, 131 (Pt 4):1078-1086.

Stevanin G, Hanein S, Martin E, Boukhris A, Byrne P, Goizet C, Hamri A, Benomar A, Lossos A, Denora P, Fernandez J, Elleuch N, Forlani S, Durr A, Feki I, Hutchinson M, Santorelli FM, Mhiri C, Brice A, (2008) 'Identification of the SPG15 gene, encoding spastizin, as a frequent cause of complicated autosomal-recessive spastic paraplegia, including Kjellin syndrome'. *American Journal of Human Genetics*, 82 (4):992-1002.

Dr Gerard Cagney

Peer Reviewed Journals

Cunningham P, Greene D, Cagney G, Krogan N, (2008) 'Ensemble non-negative matrix factorization methods for clustering protein-protein interactions'. *Bioinformatics*, 24 (15):1722-1728.

Cagney, G., McRedmond, J. (2008) 'A central resource for platelet proteomics'. *Arteriosclerosis Thrombosis and Vascular Biology*, 28 (7):1214-1215.

Wong, J. W. H., Sullivan, M. J., Cagney, G., (2008) 'Computational methods for the comparative quantification of proteins in label-free LCn-MS experiments'. *Briefings in Bioinformatics*, 9 (2):156-165.

Cotter DR, Behan A, Byrne C, Dunn MJ, Cagney G, (2008) 'Proteomic analysis of membrane microdomain-associated proteins in the dorsolateral prefrontal cortex in schizophrenia and bipolar disorder reveals alterations in LAMP, STXBP1 and BASP1 protein expression'. *Molecular psychiatry*, (NA).

Pandey A et al. (2008) 'Human Proteinpedia enables sharing of human protein data'. *Nature biotechnology*, 2 (NA):164-167.

Professor Dolores Cahill

Peer Reviewed Journals

Bauer, M. C., O'Connell, D., Cahill, D. J., Linse, S., (2008) 'Calmodulin binding to the polybasic C-termini of STIM proteins involved in store-operated calcium entry'. *Biochemistry*, 47 (23):6089-6091.

Professor Sean Callanan

Peer Reviewed Journals

Gallagher WM, Mulrane L, Rexhepaj E, Smart V, Callanan JJ, Orhan D, Eldem T, Mally A, Schroeder S, Meyer K, Wendt M, O'Shea D, (2008) 'Creation of a digital slide and tissue microarray resource from a multi-institutional predictive toxicology study in the rat: an initial report from the PredTox group'. *Experimental and toxicologic pathology, official journal of the Gesellschaft fur Toxikologische Pathologie*, 60 (4-5):235-245.

Callanan JJ, Fletcher NF, Brayden DJ, Brankin B, (2008) 'Feline immunodeficiency virus infection: a valuable model to study HIV-1 associated encephalitis'. *Veterinary Immunology and Immunopathology*, 123 (1-2):134-137.

Shiel, R., Callanan, S. (2008) 'Non-suppurative meningoencephalitis of greyhounds'. *Veterinary Record*, 162 (11):356-356.

Taylor CT, Cummins EP, Seeballuck F, Keely SJ, Mangan NE, Callanan JJ, Fallon PG, (2008) 'The hydroxylase inhibitor dimethylallylglycine is protective in a murine model of colitis'. *Gastroenterology*, 134 (1):156-165.

Brayden DJ, Feighery L, Smyth A, Keely S, Baird AW, O'Connor WT, Callanan JJ, (2008) 'Increased intestinal permeability in rats subjected to traumatic frontal lobe percussion brain injury'. *The Journal of trauma*, 64 (1):131-11.

O'Sullivan, F.M., Murphy, S.K., Simel, L.R., McCann, A., Callanan, J.J. and Nolan, C.M. (2007) 'Imprinted expression of the canine IGF2R, in the absence of an anti-sense transcript or promoter methylation'. *Evolution & Development*, 9 (6):579-589.

Conference Publications

Fletcher, N.F., Brayden, D., Brankin, B., Willett, B., Hosie, M. and Callanan, J.J. (2007) Migration of feline immunodeficiency virus infected lymphocytes across an invitro feline blood brain barrier model is promoted by the basolateral presence of FIV and TNF *25th Annual meeting of European Society of Veterinary Pathology*.

Fletcher, N.F., Brayden, D.J., Brankin, B., Willett, B.J., Hosie, M.J. and Callanan, J.J. (2007) Cell migration through the blood brain barrier in feline immunodeficiency virus infection is significantly influenced by the pre-existence of virus and TNF alpha within the CNS: studies using an in vitro felin BBB model *7th Annual UCD Conway Festival of Research*.

Dr Deirdre Campion

Peer Reviewed Journals

Campion DP, O'Brien LM, Fitzpatrick E, Baird AW, (2008) 'Eosinophil-nerve interactions and neuronal plasticity in rat gut associated lymphoid tissue (GALT) in response to enteric parasitism'. *Journal of neuroimmunology*.

Dr Eoin Casey

Book Chapters

E Casey (2008) 'Membrane bioreactors' In: Anil Kumar Pabby, Ana Maria Sastre, and Syed S.H. Rizvi (eds). *Handbook of Membrane Separations: Chemical, Pharmaceutical, and Biotechnological Applications*. USA: CRC Press.

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Peer Reviewed Journals

Eoin Syron and Eoin Casey (2008) 'Membrane aerated biofilms for high rate biotreatment: performance appraisal, engineering principles, scale-up and development requirements'. *Environmental Science and Technology*, 42 (6):1833-1844. <http://dx.doi.org/10.1021/es0719428>

E Syron and E Casey (2008) 'Model-based comparative performance analysis of membrane aerated biofilm reactor configurations'. *Biotechnology and Bioengineering*, 99 (6):1361-1373. <http://dx.doi.org/10.1002/bit.21700>

Casey E (2007) 'Tracer measurements reveal experimental evidence of biofilm consolidation'. *Biotechnology and Bioengineering*, 98 (4):913-918. <http://dx.doi.org/10.1002/bit.21456>

Conference Publications

Eoin Casey, Eoin Syron, John Shanahan, Michael Semmens (2008) Comparative economic analysis of full scale MABR configurations *North American Membrane Research Conference*, University of Massachusetts, Amherst, USA.

Safari, A., Karac, A., Walter, M., Casey, E, Ivankovic, A (2008) A two-phase flow model of biofilm detachment *31st Annual Meeting of The Adhesion Society*, Austin, TX. USA.

M. Barrett, E. Casey, B. Glennon (2007) The Impact Of Mixing Times Scales And Process Parameters On The Optimisation And Scale Up Of Anti-Solvent Addition Crystallizations *AIChE Annual meeting*, Salt Lake City, USA.

Dr Michael Casey

Peer Reviewed Journals

Grealis, J. P., Muller-Bunz, H., Ortin, Y., Condell, M., Casey, M., McGlinchey, M. J., (2008) 'Birch reduction of hexaphenyl- and pentaphenylbenzene and an X-ray crystallography and NMR spectroscopy study of cis- and epi-1,2,3,4,5,6-hexaphenylcyclohexane and of 2,3,5,6-tetraphenyl-1,1'-bicyclohexylidene: Cannizzaro's conundrum revisited'. *Chemistry-A European Journal*, 14 (5):1552-1560.

Banide, E. V., Grealis, J. P., Mueller-Bunz, H., Ortin, Y., Casey, M., Mendicute-Fierro, C., Lagunas, M. C., McGlinchey, M. J., (2008) 'Chromium, iron, ruthenium and gold complexes of

3,3-(biphenyl-2,2'-diyl)-1-diphenylphosphino-1-phenylallene: A versatile ligand'. *Journal of Organometallic Chemistry*, 693 (10):1759-1770.

Grealis, J. P., Muller-Bunz, H., Casey, M., McGlinchey, M. J., (2008) 'Cannizzaro's (C₇H₆)_n conundrum resolved: [1.1.1]orthocyclophane was first made 150 years ago'. *Tetrahedron Letters*, 49 (9):1527-1530.

Professor Mark Crowe

Peer Reviewed Journals

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Professor Michael Duffy

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Professor Michael J. Dunn

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Dr Trudee Fair

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Professor Desmond Joseph Fitzgerald

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Professor Oliver Fitzgerald

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Professor William Gallagher

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Dr Seamus Giles

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Professor Brian Glennon

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Dr Caroline Herron

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Dr David MacHugh

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Dr Paola Maderna

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Dr Patricia Maguire

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Dr Tara McMorrow

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Professor Wim Meijer

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Dr Anika Mostaert

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Professor Grace V T Mulcahy

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Dr Cormac Declan Murphy

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Dr Evelyn Murphy

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Professor Paul Murphy

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Professor Philip Newsholme

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Dr Jens Erik Nielsen

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Dr Kathy O'Boyle

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Professor Colm O'Brien

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Dr Peter O'Brien

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Dr Kevin O'Connor

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Dr James O'Gara

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Professor Stefan Oscarson

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Dr Francesca Paradisi

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Professor William Powderly

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Professor Torres Sweeney

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Dr Dominic Walsh

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Professor Bill Watson

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Prof Matthias Sebastian Wilm

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Dr Xiangming Zhu

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