

Publications for the period Apr 2012-Sep 2012

Vaughan EE, Liew A, Mashayekhi K, Dockery P, McDermott J, Kealy B, Flynn A, Duffy A, Coleman C, O'Regan A, Barry FP, O'Brien T. Pre-treatment of Endothelial Progenitor Cells with Osteopontin Enhances Cell Therapy for Peripheral Vascular Disease. *Cell Transplant.* 2012. 21(6):1095-107.PMID:22304991

Moriarty MA, Ryan R, Lalor P, Dockery P, Byrnes L, Grealy M. Loss of plakophilin 2 disrupts heart development in zebrafish. *Int J Dev Biol.* 2012 Sep 14. PubMed PMID: 23124967.

Anita Ventekanayran, A. Devdoss, T.E. Keyes, R.J. Forster, High Sensitivity Carbon Nanotube Based Electrochemiluminescence Sensor Array . *Biosensors and Bioelectronics*, 2012, 31(1), 233–239.

Daly, S. M. and Leahy, M. J., 'Go with the flow': A review of methods and advancements in blood flow imaging. *J. Biophoton* June 2012 Mar;6(3):217-55. PMID 22711377

E. Spain, Brianna Miner, T.E. Keyes, R.J. Forster. Regio Selective Functionalisation of Gold Nanoparticles with DNA, *Chem. Comm.* 2012, 48 Issue: 6 Pages: 838-840.

James J. Walsh, Colm Mallon, Alan M. Bond, Tia E. Keyes and Robert J. Forster. Enhanced Photocurrent Production from Thin Films of Ru(II) Metallopolymer/Dawson Polyoxotungstate Adducts Under Visible Irradiation, *Chem. Comm.* 2012, 48, 3593-3595.

Aaron Martin ,Conor Longb, Robert J. Forster, Tia E. Keyes. Near IR Emitting BODIPY Fluorophores with Mega-Stokes Shifts *Chem Comm*, 2012, Jun 7;48(45):5617-9.

A. Venkatanarayanan, A. Martin, T. E. Keyes, R. J. Forster, Electrochemiluminescence Properties of a Carboxy Functionalised BODIPY, *Electrochem. Comm.* 21 46-49 Jul 2012

Roy S, Dixit CK, Woolley R, O'Kennedy R, McDonagh C. Synthesis and characterisation of a noble metal-enhanced optical nanohybrid (NEON): A high brightness detection platform based on a dye-doped silica nanoparticle, *Langmuir.* 2012 May 29;28(21):8244-50

O'Driscoll Stephen; McEvoy Helen M.; McDonagh Colette; et al. Enhanced Fluorescence-Based Optical Sensor Performance Using a Simple Optical Collection Strategy. *IEEE PHOTONICS TECHNOLOGY LETTERS* Volume: 24 Issue: 6 Pages: 425-427

Schulz Anja; McDonagh Colette. Intracellular sensing and cell diagnostics using fluorescent silica nanoparticles: *SOFT MATTER* Volume: 8 Issue: 9 Pages: 2579-2585

F. Lordan, J. H. Rice, B. Jose, R. J. Forster, Tia E. Keyes, Effect of Cavity Architecture on the Surface-Enhanced Emission from Site-Selective Nanostructured Cavity Arrays *J. Phys Chem C.*, 2012, 16, 1784-1788.

Lindsay L. McManus, Franck. Bonnier, George. A. Burke, Brian. J. Meenan, Adrian. R. Boyd and Hugh. J. Byrne, Assessment of an osteoblast-like cell line as a model for human primary osteoblasts using Raman spectroscopy *Analyst*, Apr 137, 1559-1569 (2012)

Anastasiia Aleksandrova, Andras Czirok, Andras Szabo, Michael B. Filla, M. Julius Hossain, Paul F. Whelan, Rusty D. Lansford and Brenda J. Rongish (2012); Convective tissue movements play a major role in avian endocardial morphogenesis; *Developmental Biology*; 363 (2012) 348–361.

Ovidiu Ghita, Dana Ilea, Antonio Fernandez and Paul F. Whelan (2012); Local binary patterns versus signal processing texture analysis: a study from a performance evaluation perspective; *Sensor Review*; Volume 32 issue 2, 149-162.

Fernando López-Caamal, Míriam R. García, Richard H. Middleton, Heinrich J. Huber. Bonnier F., Ali S.M., Knief P., Lambkin H., Flynn K., McDonagh V., Healy C., Lee T.C., Lyng F.M., Byrne H.J., Analysis of human skin tissue by Raman microspectroscopy: Dealing with the background, *Vibrational Spectroscopy* 61 (2012) 124– 132.

Kelvin W. C. Poon, Fiona M. Lyng, Peter Knief, Orla Howe, Aidan D. Meade, James F. Curtin, Hugh J. Byrne, and Joe Vaughan. Quantitative reagent-free detection of fibrinogen levels in human blood plasma using Raman spectroscopy, *Analyst*, 137, 1807-1814 (2012).

Dooley R, Harvey BJ, Thomas W. Non-genomic actions of aldosterone: From receptors and signals to membrane targets. *Molecular and Cellular Endocrinology* 350 (2012) 223–234; PMID: 21801805

Neuronal glycosylation differentials in normal, injured and chondroitinase-treated environments Kilcoyne M, Sharma S, McDevitt N, O'Leary C, Joshi L, McMahon SS *Biochemical and Biophysical Research Communications*. 2012, 420(3), 616–622.

Dugon, M. M., Black, A. and Arthur, W. (2012). Variation and specialisation of the forcipular apparatus of centipedes (Arthropoda: Chilopoda): a comparative morphometric and microscopic investigation of an evolutionary novelty. *Arthropod Evolution & Development*. 41(3); 231-243

Stein et al., ENIGMA Collaboration. Common genetic polymorphisms are associated with human hippocampal and intracranial volumes *Nature Genetics* 2012 Apr 15;44(5):552-61

Monojit Debnath, Karen M. Doyle, Camilla Langan, Colm McDonald, Brian Leonard, Dara M. Cannon. Recent Advances in Psychoneuroimmunology: Inflammation in Psychiatric Disorders. *Translational Neuroscience* 2(2), 2011, 121-137

Savitz J, Nugent AC, Cannon DM, Carlson PJ, Davis R, Neumeister A, Rallis-Frutos D, Fromm S, Herscovitch P, Drevets WC. Effects of arterial cannulation stress on regional cerebral blood flow in major depressive disorder *Sci Rep.* 2012;2:308.

Jimenez-Mateos E.M., Engel T., Merino-Serrais P., McKiernan R.C., Tanaka K., Mouri G., Sano T., Prenter S., O'Tuathaigh C., Waddington J.L., Delanty N., Farrell M.A., O'Brien D.F., Stallings R.L., deFelipe J., Henshall D.C. Silencing microRNA-134 produces neuroprotective and prolonged seizure-suppressive effects. *Nat. Med.* 18, 1087-1093 (2012)

McKiernan R.C., Jimenez-Mateos E.M., Sano T., Bray I., Stallings R.L., Simon R.P. Henshall D.C. Expression profiling the microRNA response to epileptic preconditioning identifies miR-184 as a modulator of seizure-induced neuronal death. *Exp. Neurol.* 237, 346-354 (2012)

Mollard P, Hodson DJ, Lafont C, Rizzoti K, Drouin J. A tridimensional view of pituitary development and function *Trends Endocrinol Metab.* 2012 Jun;23(6):261-9

Le Tissier PR, Hodson DJ, Lafont C, Fontanaud P, Schaeffer M, Mollard P. Anterior pituitary cell networks. *Front Neuroendocrinol.* 2012 Aug;33(3):252-66. 11.42

Ciarán Dolan, Roisin D. Moriarty, Elena Lestini, Marc Devocelle, Robert J. Forster, Tia E. Keyes. Cell uptake and cytotoxicity of a novel cyclometalated iridium(III) complex and its octaarginine peptide conjugate. *Journal of Inorganic Biochemistry*, 119, pp. 65–74

Tabarin, T.; Martin, A.; Forster, R.J.; Keyes, T.E.; 2012. Poly-Ethylene Glycol Induced Super-Diffusivity in Lipid Bilayer Membranes. *Soft Matter*, 8, 33, pp8743-875

F. Bonnier, S.M. Ali, P. Knief, H. Lambkin, K. Flynn, V. McDonagh, C. Healy, T.C. Lee, F.M. Lyng, H.J. Byrne. 2012. Analysis of human skin tissue by Raman microspectroscopy: Dealing with the background. *Vibrational Spectroscopy*, 61, pp124-132

Woolley, R.; Roy, S.; Prendergast, U.; Panzera, A.; Basabe-Desmonts, L.; Kenny, D.; McDonagh, C. 2012 From particle to platelet: Optimization of a stable, high brightness fluorescent nanoparticle based cell detection platform. *Nanomedicine: Nanotechnology, Biology and Medicine*, DOI:10.1016/j.nano.2012.10.001

Roy, S.; Dixit, C.K.; Woolley, R. 2012. Synthesis and characterization of model silica-gold core-shell nanohybrid systems to demonstrate plasmonic enhancement of fluorescence *Nanotechnology*, 23, 32, pp325603

Spain, E.; Brennan, E.; McArdle, H.; Keyes, T.E.; Forster, R.J. 2012. High Sensitivity DNA Detection Based on Regioselectively Decorated Electrocatalytic Nanoparticles. *Analytical Chemistry*, 84, 15, pp6471-6476.

Devdoss, A.; Dennany, L.; Dickenson, C.; Keyes, T.E.; Forster, R.J. 2012. Highly Sensitive Detection of NADH Using Electrochemiluminescent Nanocomposites *Electrochemistry Communications*, 2012 19, pp43-45.

McCawley N, Conlon S, Hector S, Cummins RJ, Dicker P, Johnston PG, Kay EW, McNamara DA, Prehn JH, Concannon CG. Analysis of proteasomal subunit expression reveals Rpt4 as a prognostic marker in stage II colorectal cancer. *Int J Cancer*. 2011 Aug 15;131(4):E494-500

Weisová P, Anilkumar U, Ryan C, Concannon CG, Prehn JH, Ward MW. 'Mild mitochondrial uncoupling' induced protection against neuronal excitotoxicity requires AMPK activity. *Biochim Biophys Acta*. 2012 May;1817(5):744-53.

Laussmann MA, Passante E, Hellwig CT, Tomiczek B, Flanagan L, Prehn JH, Huber HJ, Rehm M. Proteasome inhibition can impair caspase-8 activation upon sub-maximal stimulation of apoptotic tumour necrosis factor-related apoptosis inducing ligand (TRAIL) signalling. *J Biol Chem*. 2012 Apr 27;287(18):14402-11.

Saint-Criq V, Rapetti-Mauss R, Robles MYY, Harvey BJ. Estrogen regulation of epithelial ion transport: Implications in health and disease. *Steroids* (2012), 2012 Aug;77(10):918-23.

Chotirmall SH, Smith SG, Gunaratnam C, Cosgrove S, Dimitrov BD, O'Neill SJ, Harvey BJ, Greene CM, McElvaney NG. Effect of estrogen on pseudomonas mucoidy and exacerbations in cystic fibrosis. *N Engl J Med*. 2012 May 24;366(21):1978-86.

Lombardi F, De Chaumont C, Shields DC, Moran N. Platelet signalling networks: pathway perturbation demonstrates differential sensitivity of ADP secretion and fibrinogen binding *Platelets*. 2012;23(1):17-25.

Mroz MS, Keely SJ. Epidermal growth factor chronically upregulates Ca²⁺-dependent Cl⁻ conductance and TMEM16A expression in intestinal epithelial cells. *J Physiol*. 2012 Apr 15;590(Pt 8):1907-20.