

Recent Publications – Faculty of Engineering, Mathematics and Science

BY MEMBERS OF THE STAFF AND BY RESEARCH STUDENTS WORKING UNDER THEIR SUPERVISION

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School of Biochemistry and Immunology

BIOCHEMISTRY

Caffrey, Martin, 'Structural insights into the mechanism of the membrane integral N-acyltransferase step in bacterial lipoprotein synthesis', *Nature Communications*, 8 (2017), 15952 [M. Wiktor, D. Weichert, N. Howe (...), M. Wang, M. Caffrey]

'Editorial overview: Membranes', *Current Opinion in Structural Biology*, 45 (2017), vii-ix [M. Caffrey, D. Drew]

'The cubicon method for concentrating membrane proteins in the cubic mesophase', *Nature Protocols*, 12, 9 (2017), 1745-1762 [P. Ma, D. Weichert, L.A. Aleksandrov, T.J. Jensen, J.R. Riordan, X. Liu, B.K. Kobilka, M. Caffrey]

'Proton movement and coupling in the POT family of peptide transporters', *Proceedings of the National Academy of Sciences of the United States of America*, 114, 50 (2017), 13182-13187 [J.L. Parker, C. Li, A. Brinth (...), M. Caffrey *et al.*]

Creagh, Emma, 'Emerging methods in colorectal cancer screening', *British Journal of Surgery*, 105, 2 (2018), 16-18 [E.J. Ryan, E.M. Creagh]

Cunningham, Colm, 'Differential response of hippocampal and prefrontal oscillations to systemic LPS application', *Brain Research*, 1681 (2018), 64-74 [O. Mamad, M.N. Islam, C. Cunningham, M. Tsanov]

'The intensive care delirium research agenda: a multinational, interprofessional perspective', *Intensive Care Medicine*, 43, 9 (2017), 1329-1339 [P.P. Pandharipande, E.W. Ely, R.C. Arora (...), C. Cunningham *et al.*]

'Association of postoperative delirium with markers of neurodegeneration and brain amyloidosis: a pilot study', *Neurobiology of Aging*, 61 (2018), 93-101 [E. Rolandi, E. Cavedo, M. Pievani (...), C. Cunningham *et al.*]

Davey, Gavin, 'Human dopamine transporter: the first implementation of a combined in silico/in vitro approach revealing the substrate and inhibitor specificities', *Journal of Biomolecular Structure and Dynamics* (2018), 1-16 [T. Djikic, Y. Marti, F. Spyrikis (...), P. Schloss, K. Yelekcij]

Fayne, Darren, ' β -lactam analogues of combretastatin A-4 prevent metabolic inactivation by glucuronidation in chemoresistant HT-29 colon cancer cells', *European Journal of Medicinal Chemistry*, 130 (2017), 261-285 [A.M. Malebari, L.M. Greene, S.M. Nathwani (...), D. Fayne *et al.*]

'Lead optimization of benzoxepin-type selective estrogen receptor (ER) modulators and downregulators with subtype-specific ER α and ER β activity', *Journal of Medicinal Chemistry*, 61, 2 (2018), 514-534 [N.M. O'Boyle, I. Barrett, L.M. Greene (...), D. Fayne *et al.*]

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- Finlay, David**, 'Glucose represses dendritic cell-induced T cell responses', *Nature Communications*, 8 (2017), 15620 [S.J. Lawless, N. Kedia-Mehta, J.F. Walls (...), J. Murray, D.K. Finlay]
- 'Srebp-controlled glucose metabolism is essential for NK cell functional responses', *Nature Immunology*, 18, 11 (2017), 1197-1206 [N. Assmann, K.L. O'Brien, R.P. Donnelly (...), K. Dettmer, D.K. Finlay]
- 'NK cells in childhood obesity are activated, metabolically stressed, and functionally deficient', *JCI insight*, 2, 24 (2017), e94939 [L.M. Tobin, M. Mavinkurve, E. Carolan (...), D.K. Finlay *et al.*]
- 'Sugar or fat? Metabolic requirements for immunity to viral infections', *Frontiers in Immunology*, 8 (2017), 1311 [H.M. Shehata, A.J. Murphy, M.K.S. Lee (...), D.K. Finlay, C.S. Palmer]
- Hayes, Jerrard**, 'Metabolic flux control in glycosylation', *Current opinion in structural biology*, 40 (2016), 97-103 [A.G. McDonald, J.M. Hayes, G.P. Davey]
- 'Fc gamma receptors: glycobiology and therapeutic prospects', *Journal of Inflammation Research*, 9 (2016), 209-219 [J.M. Hayes, M.R. Wormald, P.M. Rudd, G.P. Davey]
- Kelly, Vincent**, '5-aminolevulinic acid (ALA) deficiency causes impaired glucose tolerance and insulin resistance coincident with an attenuation of mitochondrial function in aged mice', *PLoS ONE*, 13, 1 (2018), <http://dx.doi.org/10.1371/journal.pone.0189593>. eCollection 2018 [S. Saitoh, S. H. Okano (...), V.P. Kelly *et al.*]
- Khan, Amir**, 'Identification of α -helix 4 ($\alpha 4$) of Rab11a as a novel Rab11-binding domain (RBD): interaction of Rab11a with the prostacyclin receptor', *Biochimica et Biophysica Acta - Molecular Cell Research*, 1864, 10 (2017), 1819-1832 [E.P. Mulvaney, F. O'Meara, A.R. Khan, D.J. O'Connell, B.T. Kinsella]
- 'An interaction domain in human SAMD9 is essential for myxoma virus host-range determinant M062 antagonism of host anti-viral function', *Virology*, 503 (2017), 94-102 [B. Nounamo, Y. Li, P. O'Byrne, A.M. Kearney, A. Khan, J. Liu]
- 'Selective recognition of biologically important anions using a diblock polyfluorene-polythiophene conjugated polyelectrolyte', *Polymer Chemistry*, 8 (2017), 7151-7159 [N. Willis-Fox, A. Gutacker, M.P. Browne, A.R. Khan, M.E.G. Lyons, U. Scherf, R.C. Evans]
- 'Rab11 family expression in the human placenta: localization at the maternal-fetal interface', *PLoS ONE*, 12, 9 (2017), <http://hdl.handle.net/2262/82667> [E.S. Taglauer, P.A. Artemiuk, S.R. Hanscom (...), A.R. Khan, M.W. McCaffrey]
- Knox, Andrew**, 'Development of the β -lactam type molecular scaffold for selective estrogen receptor α modulator action: synthesis and cytotoxic effects in MCF-7 breast cancer cells', *Journal of Enzyme Inhibition and Medicinal Chemistry*, 31 (2016), 117-130 [M. Carr, A.J. Knox, D.G. Lloyd, D.M. Zisterer, M.J. Meegan]
- 'Synthesis and evaluation of 1,2,3-triazole-containing vinyl and allyl sulfones as anti-trypanosomal agents', *European Journal of Organic Chemistry*, 1 (2017), 175-185 [W. Doherty, N. Adler, A. Knox (...), A. Sarkate, P. Evans]
- 'Lead optimization of benzoxepin-type selective estrogen receptor (ER) modulators and downregulators with subtype-specific ER α and ER β activity', *Journal of Medicinal Chemistry*, 61, 2 (2018), 514-534 [N.M. O'Boyle, I. Barrett, L.M. Greene (...), A.J.S. Knox *et al.*]
- Lalor, Stephen**, 'Memory $\gamma\delta$ T cells - newly appreciated protagonists in infection and immunity', *Trends in Immunology*, 37, 10 (2016), 690-702 [S.J. Lalor, R.M. McLoughlin]
- 'The circadian protein BMAL1 in myeloid cells is a negative regulator of allergic asthma', *American Journal of Physiology Lung Cellular and Molecular Physiology* (2017), L855-L860 [Z. Zaslona, S. Case, J.O. Early, S.J. Lalor, R.M. McLoughlin, A.M. Curtis, L.A. O'Neill]
- 'The *Staphylococcus aureus* cell wall-anchored protein clumping factor A is an important T cell antigen', *Infection and Immunity*, 85, 12 (2017), e00549-17 [K.A. Lacey, J.M. Leech, S.J. Lalor, N. McCormack, J.A. Geoghegan, R.M. McLoughlin]

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- 'Antibodies to the RNA-binding protein hnRNP A1 contribute to neurodegeneration in a model of central nervous system autoimmune inflammatory disease', *Journal of Neuroinflammation*, 13, 1 (2016), <http://dx.doi.org/10.1186/s12974-016-0647-y> [J.N. Douglas, L.A. Gardner, H.E. Salapa (...), S.J. Lalor *et al.*]
- Mok, Kenneth**, 'Changes in urinary metabolomic profile during relapsing renal vasculitis', *Scientific Reports*, 6 (2016), 38074 [B. Al-Ani, M. Fitzpatrick, H. Al-Nuaimi (...), K.H. Mok *et al.*]
- 'NMR studies on mechanism of isomerisation of fructose 6-phosphate to glucose 6-phosphate catalysed by phosphoglucose isomerase from *Thermococcus kodakarensis*', *Bioorganic Chemistry*, 66 (2016), 41-45 [S.N. Abbas, K.H. Mok, N. Rashid, Y. Xie, M. Ruether, J. O'Brien, M. Akhtar]
- 'Thermodynamic analysis of ANS binding to partially unfolded α -lactalbumin: correlation of endothermic to exothermic changeover with formation of authentic molten globules', *Journal of Molecular Recognition*, 29 (2016), 446-451 [K.H. Kim, S. Yun, K.H. Mok, E.K. Lee]
- 'Energetic basis on interactions between ferredoxin and ferredoxin NADP+ reductase at varying physiological conditions', *Biochemistry Biophysics Research Communications*, 482, 4 (2017), 909-915 [M. Kinoshita, J.Y. Kim, S. Kume (...), K.H. Mok *et al.*]
- 'The *Trypanosoma brucei* metabolite indolepyruvate decreases HIF-1 and glycolysis in macrophages as a mechanism of innate immune evasion', *Proceedings of the National Academy of Sciences, U.S.A.*, 113, 48 (2016), E7778-E7787 [A.F. McGettrick, S.E. Corcoran, P.J.G. Barry (...), K.H. Mok *et al.*]
- Murray, James**, 'Glucose represses dendritic cell-induced T cell responses', *Nature Communications*, 8 (2017), 15620 [S.J. Lawless, N. Kedia-Mehta, (...), J. Murray, D.K. Finlay]
- 'Oncogenic signalling through mechanistic target of rapamycin (mTOR): a driver of metabolic transformation and cancer progression', *Cancers*, 10, 1 (2018), <http://dx.doi.org/10.3390/cancers10010005> [E. Rad, J.T. Murray, A.R. Tee]
- 'Signalling mechanisms in autophagy: an introduction to the issue', *Essays in Biochemistry*, 61, 6 (2017), 561-563 [J.D. Lane, V.I. Korolchuk, J.T. Murray]
- 'Induction of the cell survival kinase Sgk1: a possible novel mechanism for α -phenyl-N-tert-butyl nitrene in experimental stroke', *Journal of Cerebral Blood Flow and Metabolism*, (2017), 271678X17746980 [C. McCaig, P. Ataliotis, A. Shtaya (...), J.T. Murray, A.H. Hainsworth]
- Nathwani, Seema**, 'Synthesis and biochemical evaluation of 3-phenoxy-1,4-diarylazetidino-2-ones as tubulin-targeting antitumor agents', *Journal of Medicinal Chemistry*, 59, 1 (2016), 90-113 [T.F. Greene, S. Wang, L.M. Greene (...), S.M. Nathwani *et al.*]
- 'Lead optimization of benzoxepin-type selective estrogen receptor (ER) modulators and downregulators with subtype-specific ER α and ER β activity', *Journal of Medicinal Chemistry*, 61, 2 (2018), 514-534 [N.M. O'Boyle, I. Barrett, L.M. Greene (...), D.M. Zisterer, M.J. Meegan]
- Nolan, Derek**, 'Metabolic reprogramming during the *Trypanosoma brucei* life cycle', *F1000 Research* (2017), 683 [T.K. Smith, F. Bringaud, D.P. Nolan, L.M. Figueiredo]
- O'Neill, Luke**, 'Erratum: MyD88 adapter-like (Mal) is phosphorylated by Bruton's tyrosine kinase during TLR2 and TLR4 signal transduction (*Journal of Biological Chemistry*, (2006), 281, 10489-10495) DOI: 10.1074/jbc.M508892200', *Journal of Biological Chemistry*, 291, 50 (2016), 26240 [P. Gray, A. Dunne, C. Brikos, C.A. Jefferies, S.L. Doyle, L.A.J. O'Neill]
- 'Immunometabolism and the land of milk and honey', *Nature Reviews Immunology*, 17, 4 (2017), 217 [L.A.J. O'Neill]
- 'The hunger games: *Salmonella*, anorexia, and NLRP3', *Cell Metabolism*, 25, 2 (2017), 225-226 [L.A.J. O'Neill]
- 'A metabolic roadblock in inflammatory macrophages', *Cell Reports*, 17, 3 (2016), 625-626 [L.A.J. O'Neill]

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- 'Mitochondria are the powerhouses of immunity', *Nature Immunology*, 18, 5 (2017), 488-498 [E.L. Mills, B. Kelly, L.A.J. O'Neill]
- 'Succinate dehydrogenase supports metabolic repurposing of mitochondria to drive inflammatory macrophages', *Cell*, 167, 2 (2016), 457-470.e13 [E.L. Mills, B. Kelly, A. Logan (...), M.P. Murphy, L.A.J. O'Neill]
- 'The RNA-binding protein tristetrapiroin (TTP) is a critical negative regulator of the NLRP3 inflammasome', *Journal of Biological Chemistry*, 292, 17 (2017), 6869-6881 [M. Haneklaus, J.D. O'Neil, A.R. Clark, S.L. Masters, L.A.J. O'Neill]
- 'Inflammasomes in the lung', *Molecular Immunology*, 86 (2017), 44-55 [J.W. Pinkerton, R.Y. Kim, A.A.B. Robertson (...), L.A.J. O'Neill]
- 'A guide to immunometabolism *et al.* for immunologists', *Nature Reviews Immunology*, 16, 9 (2016), 553-565 [L.A.J. O'Neill, R.J. Kishton, J. Rathmell]
- 'Glutathione and glutathione transferase omega 1 as key posttranslational regulators in macrophages', *Microbiology Spectrum*, 5, 1 (2017), 0044 [M.M. Hughes, A.F. McGettrick, L.A.J. O'Neill]
- 'The induction of Pro-IL-1 β by lipopolysaccharide requires endogenous prostaglandin E₂ production', *Journal of Immunology*, 198, 9 (2017), 3558-3564 [Z. Zaslon, E.M. Palssson-McDermott, D. Menon (...), M. Peters-Golden, L.A.J. O'Neill]
- 'Glutaminolysis and fumarate accumulation integrate immunometabolic and epigenetic programs in trained immunity', *Cell Metabolism*, 24, 6 (2016), 807-819 [R.J.W. Arts, B. Novakovic, R. Ter Horst (...), L.A.J. O'Neill *et al.*]
- 'The NLRP3 inflammasome functions as a driver of the myelodysplastic syndrome phenotype', *Blood*, 128, 25 (2016), 2960-2975 [A.A. Basiorka, K.L. McGraw, E.A. Eksioglu, J.L. Cleveland, L.A.J. O'Neill, S. Wei, A.F. List]
- 'Immunology gets out of the box', *Cell*, 165, 4 (2016), 763-764 [R. Medzhitov, Y. Belkaid, M.M. Davis, L. Glimcher, L.A.J. O'Neill, F. Sallusto]
- 'HIF1 α and metabolic reprogramming in inflammation', *Journal of Clinical Investigation*, 126, 10 (2016), 3699-3707 [S.E. Corcoran, L.A.J. O'Neill]
- 'Erratum: Schlafen-1 causes a cell cycle arrest by inhibiting induction of cyclin D1 (*Journal of Biological Chemistry*, (2005), 280, 30723-30734, DOI: 10.1074/jbc.M500435200)', *Journal of Biological Chemistry*, 291, 48 (2016), 25278 [G. Brady, L. Boggan, A. Bowie, L.A.J. O'Neill]
- 'Myeloid-derived miR-223 regulates intestinal inflammation via repression of the NLRP3 inflammasome', *Journal of Experimental Medicine*, 214, 6 (2017), 1737-1752 [V. Neudecker, M. Haneklaus, O. Jensen, L. Khailova, L.A.J. O'Neill, H.K. Eltzschig, S.L. Masters, E.N. McNamee]
- 'Macrophage immunometabolism: where are we (going)?', *Trends in Immunology*, 38, 6 (2017), 395-406 [J. Van den Bossche, L.A.J. O'Neill, D. Menon]
- 'MicroRNA-21 limits uptake of *Listeria monocytogenes* by macrophages to reduce the intracellular niche and control infection', *Frontiers in Cellular and Infection Microbiology*, 7 (2017), 201 [D.G.W. Johnston, J. Kearney, Z. Zaslon, M.A. Williams, L.A.J. O'Neill, S.C. Corr]
- 'MyD88 is an essential component of retinoic acid induced differentiation in human pluripotent embryonal carcinoma cells', *Cell Death and Differentiation*, 24, 11 (2017), 1975-1986 [G. Sulaiman, A. Cooke, B. Ffrench, C. Gasch, L.A.J. O'Neill, M.F. Gallagher]
- 'Loss of the molecular clock in myeloid cells exacerbates T cell-mediated CNS autoimmune disease', *Nature Communications*, 8, 1 (2017), 1923 [C.E. Sutton, C.M. Finlay, M. Raverdeau, L.A.J. O'Neill, K.H.G. Mills, A.M. Curtis]
- 'Pyruvate kinase M2 is required for the expression of the immune checkpoint PD-L1 in immune cells and tumors', *Frontiers in Immunology*, 8, October (2017), <http://dx.doi.org/10.3389/fimmu.2017.01300> [E.M. Palssson-McDermott, L. Dyck, Z. Zaslon, D. Menon, A.F. McGettrick, K.H.G. Mills, L.A.J. O'Neill]

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- 'A guiding map for inflammation', *Nature Immunology*, 18, 8 (2017), 826-831 [M.G. Netea, F. Balkwill, M. Chonchol (...), L.A.J. O'Neill et al.]
- 'Endosomal NOX2 oxidase exacerbates virus pathogenicity and is a target for antiviral therapy', *Nature Communications*, 8, 1 (2017), <http://hdl.handle.net/2262/82256> [E.E. To, R. Vlahos, R. Luong (...), L.A.J. O'Neill et al.]
- 'GSTO1-1 plays a pro-inflammatory role in models of inflammation, colitis and obesity', *Scientific Reports*, 7, 1 (2017), <http://hdl.handle.net/2262/82255> [D. Menon, A. Innes, A.J. Oakley, L.A.J. O'Neill, P.G. Board]
- 'Role for NLRP3 inflammasome-mediated, IL-1 β -dependent responses in severe, steroid-resistant asthma', *American Journal of Respiratory and Critical Care Medicine*, 196, 3 (2017), 283-297 [R.Y. Kim, J.W. Pinkerton, A.T. Essilfie, A.A.B. Robertson, L.A.J. O'Neill, M.A. Cooper, J.C. Horvat, P.M. Hansbro]
- 'Specific inhibition of NLRP3 in chikungunya disease reveals a role for inflammasomes in alphavirus-induced inflammation', *Nature Microbiology*, 2, 10 (2017), 1435-1445 [W. Chen, S.S. Foo, A. Zaid (...), L.A.J. O'Neill et al.]
- 'Krebs cycle rewired for macrophage and dendritic cell effector functions', *FEBS Letters*, 591, 19 (2017), 2992-3006 [D.G. Ryan, L.A.J. O'Neill]
- 'The serine protease homolog CLIPA14 modulates the intensity of the immune response in the mosquito *Anopheles gambiae*', *Journal of Biological Chemistry*, 292, 44 (2017), 18217-18226 [J. Nakhleh, G.K. Christophides, M.A. Osta, L.A.J. O'Neill]
- 'Neutrophil microparticle production and inflammasome activation by hyperglycemia due to cytoskeletal instability', *Journal of Biological Chemistry*, 292, 44 (2017), 18312-18324 [S.R. Thom, V.M. Bhopale, K. Yu, W. Huang, M.A. Kane, D.J. Margolis, L.A.J. O'Neill]
- 'Glycoprotein A repetitions predominant (GARP) positively regulates transforming growth factor (TGF) β 3 and is essential for mouse palatogenesis', *Journal of Biological Chemistry*, 292, 44 (2017), 18091-18097 [B.X. Wu, A. Li, L. Lei, S. Kaneko, C. Wallace, X. Li, Z. Li, L.A.J. O'Neill]
- 'Structural dependence of in vitro cytotoxicity, oxidative stress and uptake mechanisms of poly(propylene imine) dendritic nanoparticles', *Journal of Applied Toxicology*, 36, 3 (2016), 464-473 [H. Khalid, S.P. Mukherjee, L.A.J. O'Neill, H.J. Byrne]
- 'GOTcha: LncRNA-ACOD1 targets metabolism during viral infection', *Cell Research*, 28, 2 (2018), 137-138 [M.C. Runtsch, L.A.J. O'Neill]
- 'A role for the Krebs cycle intermediate citrate in metabolic reprogramming in innate immunity and inflammation', *Frontiers in Immunology*, 9, February (2018), 00141 [N.C. Williams, L.A.J. O'Neill]
- 'A potent anti-inflammatory response in bat macrophages may be linked to extended longevity and viral tolerance', *Acta Chiropterologica*, 19, 2 (2017), 219-228 [J. Kacprzyk, G.M. Hughes, E.M. Palsson-McDermott, S.R. Quinn, S.J. Puechmaille, L.A.J. O'Neill, E.C. Teeling]
- Phelan, Andreea**, 'Human natural killer cell expression of ULBP2 is associated with a mature functional phenotype', *Human Immunology*, 77, 10 (2016), 876-885 [K. Brennan, B.P. McSharry, S. Keating, A. Petrasca, V.P. O'Reilly, J. Keane, D.G. Doherty, C.M. Gardiner]
- 'Human V δ 3+ $\gamma\delta$ T cells induce maturation and IgM secretion by B cells', *Immunology Letters*, 196 (2018), 126-134 [A. Petrasca, A.M. Melo, E.P. Breen, D.G. Doherty]
- Porter, Richard**, 'Neuromedin U alters bioenergetics and expands the cancer stem cell phenotype in HER2-positive breast cancer', *International Journal of Cancer*, 140, 12 (2017), 2771-2784 [V.G. Martinez, J. Crown, R.K. Porter, L. O'Driscoll]
- 'Direct effects of phenformin on metabolism/bioenergetics and viability of SH-SY5Y neuroblastoma cells', *Oncology Letters*, 14, 5 (2017), 6298-6306 [F. Geoghegan, N. Chadderton, G.J. Farrar, D.M. Zisterer, R.K. Porter]

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- 'Bioenergetics of acquired cisplatin resistant H1299 non-small cell lung cancer and P31 mesothelioma cells', *Oncotarget*, 8, 55 (2017), 94711-94725 [F. Geoghegan, R.J. Buckland, E.T. Rogers (...), K. Grankvist, R.K. Porter]
- 'Skeletal muscle mitochondrial bioenergetics and associations with myostatin genotypes in the thoroughbred horse', *PLoS ONE*, 12, 11 (2017), <http://hdl.handle.net/2262/82582> [M.F. Rooney, R.K. Porter, L.M. Katz, E.W. Hill]
- Ryan, Tomas**, 'Memory retrieval by activating engram cells in mouse models of early Alzheimer's disease', *Nature*, 531, 7595 (2016), 508-512 [D.S. Roy, A. Arons, T.I. Mitchell, M. Pignatelli, T.J. Ryan, S. Tonegawa]
- 'Rehabilitating memory', *Neuropsychopharmacology: Official Publication of the American College of Neuropsychopharmacology*, 41, 1 (2016), 370-371 [T.J. Ryan, S. Tonegawa]
- 'What is memory? The present state of the engram', *BMC Biology*, 14 (2016), 40 [M.M. Poo, M. Pignatelli, T.J. Ryan, F.H. Gage, Y. Dan, J. Long, G. Buzsáki, C. Stevens]
- 'NMDA receptors are selectively partitioned into complexes and supercomplexes during synapse maturation', *Nature Communications*, 7 (2016), 11264 [R.A. Frank, N.H. Komiyama, T.J. Ryan, F. Zhu, T.J. O'Dell, S.G. Grant]
- Zisterer, Daniela**, 'β-lactam analogues of combretastatin A-4 prevent metabolic inactivation by glucuronidation in chemoresistant HT-29 colon cancer cells', *European Journal of Medicinal Chemistry*, 130 (2017), 261-285 [A.M. Malebari, L.M. Greene, S.M. Nathwani (...), D.M. Zisterer, M.J. Meegan]
- 'Lead optimization of benzoxepin-type selective estrogen receptor (ER) modulators and downregulators with subtype-specific ERα and ERβ activity', *Journal of Medicinal Chemistry*, 61, 2 (2018), 514-534 [N.M. O'Boyle, I. Barrett, L.M. Greene (...), D.M. Zisterer, M.J. Meegan]
- 'Lead optimization of benzoxepin-type selective estrogen receptor (ER) modulators and downregulators with subtype-specific ERα and ERβ activity', *Proceedings of the 3rd Int. Electron. Conf. Med. Chem., 3rd International Electronic Conference on Medicinal Chemistry* (2017), <http://dx.doi.org/10.3390/ecmc-3-04681> [N.M. O'Boyle, D.M. Zisterer, M.J. Meegan]
- 'Microtubule-destabilising actions of piperlongumine and analogues', *Proceedings of the 3rd Int. Electron. Conf. Med. Chem., 3rd International Electronic Conference on Medicinal Chemistry* (2017), <http://dx.doi.org/10.3390/ecmc-3-04680> [N.M. O'Boyle, D.M. Zisterer, M.J. Meegan]
- 'Involvement of NF-κB in mediating the anti-tumour effects of combretastatins in T cells', *Investigational New Drugs*, (2018), <http://dx.doi.org/10.1007/s10637-017-0543-z> [J.K. Pollock, L.M. Greene, S.M. Nathwani, P. Kinsella, N.M. O'Boyle, M.J. Meegan, D.M. Zisterer]
- 'Direct effects of phenformin on metabolism/bioenergetics and viability of SH-SY5Y neuroblastoma cells', *Oncology Letters*, 14, 5 (2017), 6298-6306 [F. Geoghegan, N. Chadderton, G.J. Farrar, D.M. Zisterer, R.K. Porter]
- 'Novel selective estrogen receptor ligand conjugates incorporating endoxifen-combretastatin and cyclofenil-combretastatin hybrid scaffolds: synthesis and biochemical evaluation', *Molecules (Basel, Switzerland)*, 22, 9 (2017), 1440 [P.M. Kelly, N.O. Keely, S.A. Bright, B. Yassin, G. Ana, D. Fayne, D.M. Zisterer, M.J. Meegan]

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- Bowie, Andrew**, 'A novel anti-viral role for STAT3 in IFN-α signalling responses', *Cellular and Molecular Life Sciences*, 74, 9 (2017), 1755-1764 [R. Mahony, S. Gargan, K.L. Roberts, N. Bourke, S.E. Keating, A.G. Bowie, C. O'Farrelly, N.J. Stevenson]
- 'IFI16 and cGAS cooperate in the activation of STING during DNA sensing in human keratinocytes', *Nature Communications*, 8 (2017), 14392 [J. Almine, C. O'Hare, G. Dunphy (...), A. Bowie et al.]

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- 'Erratum: Schlafen-1 causes a cell cycle arrest by inhibiting induction of cyclin D1 (*Journal of Biological Chemistry*, (2005) 280, 30723-30734, DOI: 10.1074/jbc.M500435200)', *Journal of Biological Chemistry*, 291, 48 (2016), 25278 [G. Brady, L. Boggan, A. Bowie, L.A.J. O'Neill]
- 'Molluscum contagiosum virus protein MC005 inhibits NFκB activation by targeting NEMO-regulated IKK activation', *The Journal of Virology*, 91, 15 (2017), 00545-17 [G. Brady, D.A. Haas, P.F. Farrell, A. Pichlmair, A.G. Bowie]
- 'Alum activates the bovine NLRP3 inflammasome', *Frontiers in Immunology*, 8, November (2017), <http://dx.doi.org/10.3389/fimmu.2017.01494> [C. Harte, A.L. Gorman, S. McCluskey (...), A.G. Bowie *et al.*]
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- 'Malaria parasite DNA-harboring vesicles activate cytosolic immune sensors', *Nature Communications*, 8, 1 (2017), 1985 [X. Sisquella, Y. Ofir-Birin, M.A. Pimentel, L. Cheng, A.F. Hill, A.G. Bowie, N. Regev-Rudzki]
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