

ARMI Research Publications for 2013

1. Allen, J.M., **E. McGlinn**, A. Hill and M.L. Warman, *Autopodial development is selectively impaired by misexpression of chordin-like 1 in the chick limb*. Dev Biol, 2013. **381**(1): p. 159-169. Category: Development Biology **Impact Factor: 3.868** Ranking: 11/41
2. Apostolou, E., F. Ferrari, R.M. Walsh, O. Bar-Nur, M. Stadtfeld, S. Cheloufi, H.T. Stuart, **J.M. Polo**, T.K. Ohsumi, M.L. Borowsky, P.V. Kharchenko, P.J. Park and K. Hochedlinger, *Genome-wide Chromatin Interactions of the Nanog Locus in Pluripotency, Differentiation, and Reprogramming*. Cell Stem Cell, 2013. **12**(6): p. 699-712. Category: Cell Biology **Impact Factor: 25.315** Ranking: 3/184 [**ANT,ARMI**]
3. **Berger, J.** and **P.D. Currie**, *TECHNOLOGY REPORT: 503unc, a small and muscle-specific zebrafish promoter*. Genesis, 2013. **51**(6): p. 443-447. Category: Genetics & Heredity **Impact Factor: 2.584** Ranking: 80/161
4. Biasoli, D., S.A. Kahn, T.A. Cornelio, **M. Furtado**, L. Campanati, H. Chneiweiss, V. Moura-Neto and H.L. Borges, *Retinoblastoma protein regulates the crosstalk between autophagy and apoptosis, and favors glioblastoma resistance to etoposide*. Cell Death Dis, 2013. **4**: p. e767.1-11. Category: Cell Biology **Impact Factor: 6.044** Ranking: 35/185
5. Bladen, C.L., K. Rafferty, V. Straub, S. Monges, A. Moresco, H. Dawkins, A. Roy, T. Chamova, V. Guergueltcheva, L. Korngut, C. Campbell, Y. Dai, N. Barisic, T. Kos, P. Brabec, J. Rahbek, J. Lahdetie, S. Tuffery-Giraud, M. Claustres, F. Leturcq, R. Ben Yaou, M.C. Walter, O. Schreiber, V. Karcagi, A. Herczegfalvi, V. Viswanathan, F. Bayat, I. de la Caridad Guerrero Sarmiento, A. Ambrosini, F. Ceradini, E. Kimura, J.C. van den Bergen, M. Rodrigues, R. Roxburgh, A. Lusakowska, J. Oliveira, R. Santos, E. Neagu, N. Butoianu, S. Artemieva, V.M. Rasic, M. Posada, F. Palau, B. Lindvall, C. Bloetzer, A. Karaduman, H. Topaloglu, S. Inal, P. Oflazer, A. Stringer, A.V. Shatillo, A.S. Martin, H. Peay, K.M. Flanigan, **D. Salgado**, B. von Rekowski, S. Lynn, E. Heslop, S. Gainotti, D. Taruscio, J. Kirschner, J. Verschuuren, K. Bushby, C. Beroud and H. Lochmuller, *DATABASES: The TREAT-NMD Duchenne Muscular Dystrophy Registries: Conception, Design, and Utilization by Industry and Academia*. Hum Mutat, 2013. **34**(11): p. 1449-1457. Category: Genetics & Heredity **Impact Factor: 5.213** Ranking: 22/161
6. Boglev, Y., A.P. Badrock, A.J. Trotter, Q. Du, E.J. Richardson, A.C. Parslow, S.J. Markmiller, N.E. Hall, T.A. de Jong-Curtain, A.Y. Ng, H. Verkade, E.A. Ober, H.A. Field, D. Shin, C.H. Shin, K.M. Hannan, R.D. Hannan, R.B. Pearson, S.H. Kim, K.C. Ess, **G.J. Lieschke**, D.Y. Stainier and J.K. Heath, *Autophagy induction is a Tor- and Tp53-independent cell survival response in a zebrafish model of disrupted ribosome biogenesis*. PLoS Genet, 2013. **9**(2): p. e1003279.1-18. Category: Genetics & Heredity **Impact Factor: 8.517** Ranking: 12/161
7. **Boisvert, C.A.**, J.M. Joss and P.E. Ahlberg, *REPORT: Comparative pelvic development of the axolotl (Ambystoma mexicanum) and the Australian lungfish (Neoceratodus forsteri): conservation and innovation across the fish-tetrapod transition*. EvoDevo, 2013. **4**(1): p. 160-164. Category: Developmental Biology **Impact Factor: 3.914** Ranking: 16/47
8. Cervelli, M., G. Bellavia, M. D'Amelio, V. Cavallucci, S. Moreno, **J. Berger**, R. Nardacci, M. Marcoli, G. Maura, M. Piacentini, R. Amendola, F. Cecconi and P. Mariottini, *A New Transgenic Mouse Model for Studying the Neurotoxicity of Spermine Oxidase Dosage in the Response to Excitotoxic Injury*. PLoS One, 2013. **8**(6): p. e64810.1-16. Category: Multidisciplinary Sciences **Impact Factor: 3.730** Ranking: 7/56
9. **Chen, X.**, **J. Kezic**, **C. Bernard** and **P.G. McMenamin**, *Rd8 mutation in the Crb1 gene of CD11c-eYFP transgenic reporter mice results in abnormal numbers of CD11c-positive cells in the retina*. J Neuropathol Exp Neurol, 2013. **72**(8): p. 782-790. Category: Clinical Neurology **Impact Factor: 4.345** Ranking: 29/193 [**ANT,ARMI**]

10. **Costa, M., K. Sourris, S.M. Lim, Q.C. Yu, C.E. Hirst, H.C. Parkington, V.J. Jokubaitis, A.E. Dear, H.B. Liu, S.J. Micallef, K. Koutsis, A.G. Elefanty and E.G. Stanley**, *Derivation of endothelial cells from human embryonic stem cells in fully defined medium enables identification of lysophosphatidic acid and platelet activating factor as regulators of eNOS localization*. *Stem Cell Res*, 2013. **10**(1): p. 103-117. Category: Cell Biology **Impact Factor: 4.467** Ranking: 58/184 [**ANT,PHY,ARMI**]
11. **Costa, M.W.**, G. Guo, O. Wolstein, M. Vale, M.L. Castro, L. Wang, R. Otway, P. Riek, N. Cochrane, **M. Furtado**, C. Semsarian, R.G. Weintraub, T. Yeoh, C. Hayward, A. Keogh, P. Macdonald, M. Feneley, R.M. Graham, J.G. Seidman, C.E. Seidman, **N. Rosenthal**, D. Fatkin and R.P. Harvey, *Functional Characterization of a Novel Mutation in NKX2-5 Associated With Congenital Heart Disease and Adult-Onset Cardiomyopathy*. *Circ Cardiovasc Genet*, 2013. **6**(3): p. 238-247. Category: Genetics & Heredity **Impact Factor: 6.728** Ranking: 17/181
12. de Oliveira-Carlos, V., J. Ganz, S. Hans, **J. Kaslin** and M. Brand, *Notch receptor expression in neurogenic regions of the adult zebrafish brain*. *PLoS One*, 2013. **8**(9): p. e73384.1-21. Category: Multidisciplinary Sciences **Impact Factor: 3.730** Ranking: 7/56
13. Don, E.K., **P.D. Currie** and N.J. Cole, *REVIEW: The evolutionary history of the development of the pelvic fin/hindlimb*. *J Anat*, 2013. **222**(1): p. 114-133. Category: Anatomy & Morphology **Impact Factor: 2.357** Ranking: 5/20
14. Dooley, C.M., C. Scahill, **F. Fenyes**, R.N. Kettleborough, D.L. Stemple and E.M. Busch-Nentwich, *Multi-allelic phenotyping - A systematic approach for the simultaneous analysis of multiple induced mutations*. *Methods*, 2013. **62**(3): p. 197-206. Category: Biochemistry & Molecular Biology **Impact Factor: 3.641** Ranking: 94/290
15. **Fierro-Gonzalez, J.C., M.D. White, J.C. Silva and N. Plachta**, *Cadherin-dependent filopodia control preimplantation embryo compaction*. *Nat Cell Biology*, 2013. **15**(12): p. 1424-1433. Category: Cell Biology **Impact Factor: 20.761** Ranking: 6/185
16. Frisca, F., D.E. Crombie, M. Dottori, **Y. Goldshmit** and A. Pebay, *Rho/ROCK pathway is essential to the expansion, differentiation, and morphological rearrangements of human neural stem/progenitor cells induced by lysophosphatidic acid*. *J Lipid Res*, 2013. **54**(5): p. 1192-1206. Category: Biochemistry & Molecular Biology **Impact Factor: 4.386** Ranking: 69/290
17. **Gertow, K., C.E. Hirst, Q.C. Yu, E.S. Ng, L.A. Pereira, R.P. Davis, E.G. Stanley and A.G. Elefanty**, *WNT3A Promotes Hematopoietic or Mesenchymal Differentiation from hESCs Depending on the Time of Exposure*. *Stem Cell Reports*, 2013. **1**(1): p. 53-65
18. Giacomotto, J., Brouilly, N., Walter, L., Mariol, M. C., **Berger, J.**, Ségalat, L., Becker, T. S., Currie, P. D., Gieseler, K. (2013) *Chemical genetics unveils a key role of mitochondrial dynamics, cytochrome c release and IP3R activity in muscular dystrophy*, *Hum Mol Genet*, 22, 4562-4578 (IF: 7.7, cited: 2)
19. **Godwin, J.W., A.R. Pinto and N.A. Rosenthal**, *Macrophages are required for adult salamander limb regeneration*. *Proc Natl Acad Sci U S A*, 2013. **110**(23): p. 9415-9420. Category: Multidisciplinary Sciences **Impact Factor: 9.737** Ranking: 4/56
20. Haas, M., Z. Qu, T.H. Kim, E. Vargas, K. Campbell, S. Petrou, S.S. Tan, C.A. Reid and **J. Heng**, *Perturbations in cortical development and neuronal network excitability arising from prenatal exposure to benzodiazepines in mice*. *Eur J Neurosci*, 2013. **E-pub**: p. 1-10. Category: Neurosciences **Impact Factor: 3.753** Ranking: 79/251
21. Hall, C.J., R.H. Boyle, J.W. Astin, M.V. Flores, S.H. Oehlers, L.E. Sanderson, **F. Ellett, G.J. Lieschke**, K.E. Crosier and P.S. Crosier, *Immunoresponsive gene 1 augments bactericidal activity of macrophage-lineage cells by regulating beta-oxidation-dependent mitochondrial ROS production*. *Cell Metab*, 2013. **18**(2): p. 265-278. Category: Cell Biology **Impact Factor: 14.619** Ranking: 9/184
22. Harvey, S.A., I. Sealy, R. Kettleborough, **F. Fenyes**, R. White, D. Stemple and J.C. Smith, *Identification of the zebrafish maternal and paternal transcriptomes*. *Development*, 2013. **140**(13): p. 2703-2710. Category: Developmental Biology **Impact Factor: 6.208** Ranking: 5/41
23. Hatzi, K., Y. Jiang, C. Huang, F. Garrett-Bakelman, M.D. Gearhart, E.G. Giannopoulou, P. Zumbo, K. Kirouac, S. Bhaskara, **J.M. Polo**, M. Kormaksson, A.D. MacKerell, Jr., F. Xue, C.E. Mason, S.W. Hiebert, G.G. Prive, L. Cerchiatti, V.J. Bardwell, O. Elemento and A. Melnick, *A hybrid mechanism of action for BCL6 in B cells defined by formation of functionally distinct complexes at enhancers and promoters*. *Cell Rep*, 2013. **4**(3): p. 578-588. Category: Cell Biology [**ANT,ARMI**]

24. Henry, K.M., L. Pase, C.F. Ramos-Lopez, **G.J. Lieschke**, S.A. Renshaw and C.C. Reyes-Aldasoro, *PhagoSight: an open-source MATLAB(R) package for the analysis of fluorescent neutrophil and macrophage migration in a zebrafish model*. PLoS One, 2013. **8**(8): p. e72636.1-11. Category: Multidisciplinary Sciences **Impact Factor: 3.730** Ranking: 7/56
25. Hou, Z.L., Y. Liu, X.H. Mao, C.Y. Wei, M.Y. Meng, Y.H. Liu, **Z. Zhuyun Yang, H. Zhu, M. Short, C. Bernard** and **Z.C. Xiao**, *Transplantation of umbilical cord and bone marrow-derived mesenchymal stem cells in a patient with relapsing-remitting multiple sclerosis*. Cell Adh Migr, 2013. **7**(5): p. 404-407. Category: Cell Biology **Impact Factor: 2.336** Ranking: 125/185 [ANT,ARMI]
26. **Kaslin, J.**, V. Kroehne, F. Benato, F. Argenton and M. Brand, *Development and specification of cerebellar stem and progenitor cells in zebrafish: from embryo to adult*. Neural Dev, 2013. **8**: p. 1-14. Category: Developmental Biology **Impact Factor: 3.549** Ranking: 13/41
27. **Kaur, G., M.W. Costa, C.M. Nefzger, J. Silva, J.C. Fierro-Gonzalez, J.M. Polo**, T.D. Bell and **N. Plachta**, *Probing transcription factor diffusion dynamics in the living mammalian embryo with photoactivatable fluorescence correlation spectroscopy*. Nat Commun, 2013. **4**(Article #1637). Category: Multidisciplinary Sciences **Impact Factor: 10.015** Ranking: 3/56 [ARMI,ANT]
28. **Keightley, M.C.**, M.O. Crowhurst, J.E. Layton, **T. Beilharz**, S. Markmiller, **S. Varma**, B.M. Hogan, T.A. de Jong-Curtain, J.K. Heath and **G.J. Lieschke**, *In vivo mutation of pre-mRNA processing factor 8 (Prpf8) affects transcript splicing, cell survival and myeloid differentiation*. FEBS Lett, 2013. **587**(14): p. 2150-2157. Category: Biochemistry & Molecular Biology **Impact Factor: 3.582** Ranking: 97/290 [ARMI,BCH]
29. **Keightley, M.C.**, B.B. Wong and **G.J. Lieschke**, *Immune priming: mothering males modulate immunity*. Curr Biol, 2013. **23**(2): p. R76-78. Category: Biochemistry & Molecular Biology **Impact Factor: 9.494** Ranking: 19/290
30. Kim, T.H., K. Richards, **J. Heng**, S. Petrou and C.A. Reid, *Two lines of transgenic mice expressing cre-recombinase exhibit increased seizure susceptibility*. Epilepsy Res, 2013. **104**(1-2): p. 11-16. Category: Clinical Neurology **Impact Factor: 2.241** Ranking: 90/191
31. Kwek, J.H., A. Wynne, **C. Lefevre**, M. Familiar, K.R. Nicholas and J.A. Sharp, *Molecular evolution of a novel marsupial S100 protein (S100A19) which is expressed at specific stages of mammary gland and gut development*. Mol Phylogenet Evol, 2013. **69**(1): p. 4-16. Category: Evolutionary Biology **Impact Factor: 4.066** Ranking: 15/47 [MICRO,ARMI]
32. **Lui, L.L., J.A. Bourne** and **M.G. Rosa**, *Relationship between Size Summation Properties, Contrast Sensitivity and Response Latency in the Dorsomedial and Middle Temporal Areas of the Primate Extrastriate Cortex*. PLoS One, 2013. **8**(6): p. e68276.1-14. Category: Multidisciplinary Sciences **Impact Factor: 3.730** Ranking: 7/56 [PHY,ARMI]
33. **Mathias, L.J., S.M. Khong, L. Spyroglou, N.L. Payne, C. Siatskas, A.N. Thorburn, R.L. Boyd** and **T.S. Heng**, *Alveolar Macrophages Are Critical for the Inhibition of Allergic Asthma by Mesenchymal Stromal Cells*. J Immunol, 2013. **E-pub**: p. 1-12. Category: Immunology **Impact Factor: 5.520** Ranking: 24/137 [ANT,ARMI,IMM-C]

34. **Mengarelli, I.** and **T. Barberi**, *Derivation of multiple cranial tissues and isolation of lens epithelium-like cells from human embryonic stem cells*. Stem Cells Transl Med, 2013. **2**(2): p. 94-106. Category: Cell Tissue & Engineering
35. Ngo, D., Q. Cheng, **A.E. O'Connor**, **K.D. DeBoer**, **C.Y. Lo**, E. Beaulieu, **M. De Seram**, **R.M. Hobbs**, **M.K. O'Bryan** and E.F. Morand, *Glucocorticoid-induced leucine zipper (GILZ) regulates testicular FOXO1 activity and spermatogonial stem cell (SSC) function*. PLoS One, 2013. **8**(3): p. e59149.1-9. Category: Multidisciplinary Sciences **Impact Factor: 3.730** Ranking: 7/56 **[ANT,MMI,ARMI]**
36. **Niclis, J.C.**, **A. Pinar**, J.M. Haynes, **W. Alsanie**, **R. Jenny**, M. Dottori and **D.S. Cram**, *Characterization of forebrain neurons derived from late-onset Huntington's disease human embryonic stem cell lines*. Front Cell Neurosci, 2013. **7**(37): p. 1-13. Category: Neurosciences **Impact Factor: 4.469** Ranking: 54/251 **[BCH,ANT,ARMI]**
37. Ohtaka-Maruyama, C., S. Hirai, A. Miwa, **J.I. Heng**, H. Shitara, R. Ishii, C. Taya, H. Kawano, M. Kasai, K. Nakajima and H. Okado, *RP58 regulates the multipolar-bipolar transition of newborn neurons in the developing cerebral cortex*. Cell Rep, 2013. **3**(2): p. 458-471. Category: Cell Biology
38. Palha, N., F. Guivel-Benhassine, V. Briolat, G. Lutfalla, M. Sourisseau, **F. Ellett**, **C.H. Wang**, **G.J. Lieschke**, P. Herbomel, O. Schwartz and J.P. Levrard, *Real-time whole-body visualization of Chikungunya Virus infection and host interferon response in zebrafish*. PLoS Pathog, 2013. **9**(9): p. e1003619.1-15. Category: Microbiology **Impact Factor: 8.136** Ranking: 11/116
39. **Payne, N.L.**, **G. Sun**, **C. McDonald**, **D. Layton**, **L. Moussa**, **A. Emerson-Webber**, **N. Veron**, **C. Siatskas**, **D. Herszfeld**, **J. Price** and **C.C. Bernard**, *Distinct immunomodulatory and migratory mechanisms underpin the therapeutic potential of human mesenchymal stem cells in autoimmune demyelination*. Cell Transplant, 2013. **E-pub**: p. 1-50. Category: Medicine, Research & Experimental **Impact Factor: 4.422** Ranking: 24/121 **[ANT,BCH,ARMI]**
40. **Payne, N.L.**, **G. Sun**, **C. McDonald**, **L. Moussa**, **A. Emerson-Webber**, S. Loisel-Meyer, J.A. Medin, **C. Siatskas** and **C.C. Bernard**, *Human adipose-derived mesenchymal stem cells engineered to secrete IL-10 inhibit APC function and limit CNS autoimmunity*. Brain Behav Immun, 2013. **30**: p. 103-114. Category: Neurosciences **Impact Factor: 5.612** Ranking: 35/251 **[ANT,ARMI]**
41. **Picard, C.A.** and **C. Marcelle**, *Two distinct muscle progenitor populations coexist throughout amniote development*. Dev Biol, 2013. **373**(1): p. 141-148. Category: Developmental Biology **Impact Factor: 4.069** Ranking: 7/40
42. **Pinto, A.R.**, **A. Chandran**, **N.A. Rosenthal** and **J.W. Godwin**, *Isolation and analysis of single cells from the mouse heart*. J Immunol Methods, 2013. **393**(1-2): p. 74-80. Category: Biochemical Research Methods **Impact Factor: 2.225** Ranking: 41/75
43. **Serralbo, O.**, **C.A. Picard** and **C. Marcelle**, *Long-term, inducible gene loss-of-function in the chicken embryo*. Genesis, 2013. **51**(5): p. 372-380. Category: Developmental Biology **Impact Factor: 2.584** Ranking: 27/41
44. **Siegel, A.L.**, **D.B. Gurevich** and **P.D. Currie**, *REVIEW: A myogenic precursor cell that could contribute to regeneration in zebrafish and its similarity to the satellite cell*. FEBS J, 2013. **280**(17): p. 4074-4088. Category: Biochemistry & Molecular Biology **Impact Factor: 4.250** Ranking: 74/290
45. Svahn, A.J., M.B. Graeber, **F. Ellett**, **G.J. Lieschke**, S. Rinkwitz, M.R. Bennett and T.S. Becker, *Development of ramified microglia from early macrophages in the zebrafish optic tectum*. Dev Neurobiol, 2013. **E-pub**: p. 1-12. Category: Developmental Biology **Impact Factor: 4.423** Ranking: 9/41

45. Trinajstić, K., S. Sanchez, V. Dupret, P. Tafforeau, J. Long, G. Young, T. Senden, **C.A. Boisvert**, N. Power and P.E. Ahlberg, *REPORTS: Fossil musculature of the most primitive jawed vertebrates*. *Science*, 2013. **341**(6142): p. 160-164. Category: Multidisciplinary Sciences **Impact Factor: 31.027** Ranking: 2/56
46. Vonk, F.J., N.R. Casewell, C.V. Henkel, A.M. Heimberg, H.J. Jansen, R.J. McCleary, H.M. Kerckamp, R.A. Vos, I. Guerreiro, J.J. Calvete, W. Wuster, A.E. Woods, J.M. Logan, R.A. Harrison, T.A. Castoe, A.P. de Koning, D.D. Pollock, M. Yandell, D. Calderon, C. Renjifo, R.B. Currier, **D. Salgado**, D. Pla, L. Sanz, A.S. Hyder, J.M. Ribeiro, J.W. Arntzen, G.E. van den Thillart, M. Boetzer, W. Pirovano, R.P. Dirks, H.P. Spaink, D. Duboule, E. McGlenn, R.M. Kini and M.K. Richardson, *The king cobra genome reveals dynamic gene evolution and adaptation in the snake venom system*. *Proc Natl Acad Sci U S A*, 2013. **110**(51): p. 20651-20656. Category: Multidisciplinary Sciences **Impact Factor: 9.737** Ranking: 4/56
47. White, A.J., D. Arasaratnam, **D.A. Elliott** and D.M. Kaye, *Cellular reprogramming: a new avenue to cardiac regeneration?* *Circ Heart Fail*, 2013. **6**(5): p. 1102-1107. Category: Cardiac & Cardiovascular Systems **Impact Factor: 6.684** Ranking: 7/124
48. Xu, Y., L. Liu, **A.L. Laslett** and M.A. Esteban, *BRIEF COMMUNICATION: Cell reprogramming: Into the groove*. *Nat Mater*, 2013. **12**(12): p. 1082-1084. Category: Materials Science, Multidisciplinary **Impact Factor: 35.749** Ranking: 1/241
49. Yan, Y., K.T. Gause, M.M. Kamphuis, C.S. Ang, N.M. O'Brien-Simpson, J.C. Lenzo, E.C. Reynolds, **E.C. Nice** and F. Caruso, *Differential roles of the protein corona in the cellular uptake of nanoporous polymer particles by monocyte and macrophage cell lines*. *ACS Nano*, 2013. **7**(12): p. 10960-10970. Category: Chemistry, Multidisciplinary **Impact Factor: 12.062** Ranking: 9/152 [BCH]
50. Zelikowsky, M., **S. Bissiere**, T.A. Hast, R.Z. Bennett, A. Abdipranoto, B. Vissel and M.S. Fanselow, *Prefrontal microcircuit underlies contextual learning after hippocampal loss*. *Proc Natl Acad Sci U S A*, 2013. **110**(24): p. 9938-9943. Category: Multidisciplinary Sciences **Impact Factor: 9.737** Ranking: 4/56