

## Lauren Michaela McIntyre

### Education

Douglass College, Rutgers University, Biomathematics, B.A., 1991  
North Carolina State University, Statistics, M. Stat., 1994  
North Carolina State University, Genetics/Statistics, Ph.D., 1996

### Professional Experience

1996-1999 Director of Biostatistics, Institute for Clinical and Epidemiological Research, Health Services Research in Primary Care, VA Medical Center, Durham, NC  
1996-2001 Research Assistant Professor, Division of Biometry, Duke University MC,  
1999-2003 Assistant Professor, D. of Agronomy, Purdue University, West Lafayette, IN  
2001-2007 Adjunct Assistant Professor, Division of Biometry, DUMC  
2003-2006 Associate Professor D. of Agronomy, Purdue University, West Lafayette, IN  
2006-2011 Associate Professor, Molecular Genetics and Microbiology, University of Florida, Gainesville, FL  
2011- Professor, Molecular Genetics and Microbiology, University of Florida, Gainesville, FL

### Editorships

2006- 2012 Associate Editor Molecular Biology and Evolution  
2006- present Associate Editor BMC Genetics  
2007- present Associate Editor GENETICS  
2007- 2008 Associate Editor Crop Science  
2007- 2012 Associate Editor Statistical Applications in Genetics and Molecular Biology  
2008- 2012 Senior Editor GENETICS (Complex Traits)  
2012-present Senior Editor GENETICS (Genome and Systems Biology)  
2010- present Associate Editor Journal of the Royal Statistical Society: Series B

### Honors

1987-1991 Garden State Distinguished Scholar  
1987-1991 Douglass College Scholar  
1991-1994 Patricia Roberts Harris Fellow  
1994 Outstanding Teaching Assistant Award, North Carolina State University  
1994-1995 GAANN Fellow  
1997 Performance Award, VAMC , Durham, NC  
2012 Visiting Scholar Royal Dutch Academy of Arts and Sciences (KNAW)  
2012 Visiting Scholar Netherlands Organization for Scientific Research (NWO)  
2013 F1000 Faculty

### Memberships

International Biometrics Society  
Genetics Society of America  
Genetics Society UK (nominated and accepted for membership 2006)  
Society for Molecular Biology and Evolution

### Professional Service

2003-2006 NIH SBIR-STTR panel member  
2007-2009 Genome Canada  
2007 NSF ad-hoc reviewer for CAREER, Foundation Biological Systems  
2007 NIH Special Emphasis Panels the Cancer Genome Atlas, Data Analysis and Visualization

2008 NIH Special Emphasis Panel IDeA Networks of biomedical research Excellence  
 2008-2012 NIH ad-hoc panel member for NRSA awards in Evolution and Genomics  
 2008 US – Israel Bi-national Science foundation ad hoc member  
 2008 NSF ad hoc reviewer for Merit awards  
 2009 NIH special emphasis panel on shared instrumentation  
 2009 NIH Health First Challenge Round Reviewer  
 2009-2010 Austrian Science Fund panel  
 2010 NIH U54 panel National Centers for Biomedical computing  
 2011-2012 CNRS (French National Science Research Center) Atip-Avenir Young Investigator reviewer  
 2013-2016 Communications committee, Genetics Society of America  
 2013 AGAUR- evaluator Agency for Management of University and Research Grants Catalonia

### Teaching

1994-1996 Teaching Assistant: Genetic Data Analysis 565; Statistical Concepts in Genetics 626; Introduction to Genetics 411; NCSU  
 1992-1996 Introduction to Statistics 311; NCSU  
 1998 Experimental Statistics For Biological Sciences II 512; NCSU  
 1999 Genetic Data Analysis; DUMC  
 2000-2005 Introduction to Genetics 320; Purdue University  
 2003-2005 Genetics: A Mathematical Approach 598 M; Purdue University  
 2004 Genomics: Computational Methods 598 A; Purdue University  
 2006 Microarray Data Analysis PhD course; Uppsala University, Sweden  
 2006 Microarray Data Analysis; University of Florida  
 2007-2012 Medical Genetics; University of Florida  
 2007-2013 Genomics and Bioinformatics; University of Florida  
 2008 Microarray Data Analysis: component of NIDA Short course on the Genetics and Epigenetics of Addiction  
 2008, 2010 Mouse Genetics; University of Florida  
 2008 Mixed Models for Biologists; University of Florida  
 2012 Writing and Reviewing for Scientific Journals, APA workshop

### Publications (peer reviewed)

1. McIntyre, L. M. 1994. Using Cigarette Data for An Introduction to Multiple Regression. *Journal of Statistics Education* v2 n1.
2. Butterfield, M. I., Bastian, L. A., McIntyre, L. M., Koons, C., Vollmer, M., and Burns, B. 1996. Screening for mental disorder symptoms and a history of sexual trauma and battering among women using primary health care services. *J. Clinical Outcomes Management* 3:55-61.
3. McIntyre, L. M., and Weir, B. S. 1997. Hardy-Weinberg testing for continuous data. *Genetics* 147:1965-1975.
4. Butterfield, M. I., McIntyre, L. M., Stechuchak, K. M., Nanda, K., and Bastian, L. A. 1998. Mental Disorder Symptoms in Veteran Women: Impact of Physical and Sexual Assault. *American Medical Women's Association* 53:198-200.
5. Hoening, H., McIntyre, L. M., Sloane, R., Branch, L., Truncali, A., and Horner, R. D. 1998. The reliability of a self-reported measure of disease, impairment, and function in persons with spinal cord dysfunction. *Archives of Physical Medicine and Rehabilitation* 79:378-387.
6. Oddone, E. Z., Horner, R. D., Diers, T., Lipscomb, J., McIntyre, L. M., Coffman, C., Whittle, J., Passman, L., Kroupa, L., Heaney, R., and Matchar, D. 1998. Understanding racial variation in the use of carotid endarterectomy: the role of aversion to surgery. *Journal of the National Medical Association* 90:25-33.

7. Hoening, H., Branch, L., McIntyre, L. M., Hoff, J. A., and Horner, R. D. 1999. The validity in persons with spinal cord injury of a self-reported functional measure (SRFM) derived from the FIM. *Spine* 24:539-544.
8. Hoening, H., McIntyre, L. M., Hoff, J. A., and Bepler, G. 1999. Disability fingerprints: Patterns of disability in spinal cord injury and multiple sclerosis differ. *J. Gerontology* 54:M613-620.
9. Hulette, C. M., Welsh-Bohmer, K. A., Murray, M. G., Saunders, A. M., Mash, D. C., and McIntyre, L. M. 1999. Neuropathological changes in normal aging: Evidence for preclinical alzheimer disease in cognitively normal individuals. *Journal of Neuropathology and Exp. Neurology* 57:1168-1174.
10. Johnston, E. M., McIntyre, L. M., Hoff, J. A., and Bepler, G. 1999. The effect of orchiectomy on lung cancer survival. *Anticancer Research* 19:5567-5570.
11. McIntyre, L. M., Butterfield, M. I., Nanda, K., Parsey, K., Stechuchak, K. M., McChesney, A. W., Koons, C., and Bastian, L. A. 1999. Validation of a trauma questionnaire in veteran women. *Journal of General Internal Medicine* 14:186-189. PMID: 10203625
12. Oddone, E. Z., Horner, R. D., Sloane, R., McIntyre, L. M., Ward, J., Whittle, J., Passman, L., Kroupa, L., Heaney, R., Diem, S., and Matchar, D. 1999. Race, presenting signs and symptoms, use of carotid artery imaging, and appropriateness of carotid endarterectomy. *Stroke* 30:1350-1356. PMID: 10390306
13. Vermerris, W., and McIntyre, L. M. 1999. Time to flowering in brown midrib mutants of maize: an alternative approach to the analysis of developmental traits. *Heredity* 83:171-178. PMID: 10469205
14. Bosworth, H. B., Parsey, K. S., Butterfield, M. I., McIntyre, L. M., Oddone, E. Z., Stechuchak, K. M., and Bastian, L. A. 2000. Racial variation in wanting and obtaining mental health services among women veterans in a primary care clinic. *Journal of the National Medical Association* 92:231-236. PMID: 10881472
15. Denmark-Wahnefried, W., Schildkraut, J., Thompson, D., Lesko, S., McIntyre, L. M., Schwingl, P., Paulson, D., Robertson, C., Anderson, E., and Walther, P. 2000. Early onset baldness and prostate cancer risk. *Cancer Epidemiology, Biomarkers and Prevention* 9:325-328. PMID: 10750672
16. Fowler, V. G., McIntyre, L. M., Yeaman, M. R., Peterson, G. E., Reller, L. B., Corey, G. R., Wray, D., and Bayer, A. S. 2000. In vitro resistance to thrombin-induced platelet microbicidal protein in isolates of *Staphylococcus aureus* from endocarditis patients correlates with an intravascular device source. *Journal of Infectious Diseases* 182:1251-1254. PMID: 10979928
17. McIntyre, L. M., Martin, E. R., Simonsen, K. L., and Kaplan, N. L. 2000. Circumventing multiple testing: A multilocus Monte Carlo approach to testing for association. *Genetic Epidemiology* 19:18-29. PMID: 10861894
18. Oberg, A. L., Ferguson, J. A., McIntyre, L. M., and Horner, R. D. 2000. Incidence of stroke and season of the year: Evidence of an association. *American Journal of Epidemiology* 152:558-564. PMID: 10997546
19. Steinhauser, K. E., Clipp, E. C., McNeilly, M., Christakis, N. A., McIntyre, L. M., and Tulsky, J. A. 2000. In search of a good death: Observations of patients, families, and providers. *Annals of Internal Medicine* 132:825-832. PMID: 10819707
20. McBride, C. M., Halabi, S., Bepler, G., Lyna, P., McIntyre, L. M., Lipkus, I., Albright, J., and O'Briant, K. C. 2001. Maximizing the motivational impact of feedback of lung cancer susceptibility on smokers desire to quit. *Journal of Health Communication* 5:229-241. PMID: 11185023
21. McIntyre, L. M., Coffman, C. J., and Doerge, R. W. 2001. Detection and localization of a single binary trait locus in experimental populations. *Genetical Research* 78:79-92. PMID: 11556139
22. McIntyre, L. M., O'Briant, K. C., McBride, C. M., and Bepler, G. 2001. Rater agreement and utility of the mutagen-induced chromosome damage assay. *Anticancer Research* 21:605-609. PMID: 11299813
23. Peck, B. M., Asch, D. A., Goold, S. D., Roter, D. L., Ubel, P. A., McIntyre, L. M., Abbott, K. H., Hoff, J. A., Koropchak, C. M., and Tulsky, J. A. 2001. Measuring patient expectations - Does the instrument affect satisfaction or expectations? *Medical Care* 39:100-108. PMID: 10469205

24. Bepler, G., Gautam, A., McIntyre, L. M., Beck, A. F., Chervinsky, D. S., Kim, Y. C., Pitterle, D. M., and Hyland, A. 2002. Prognostic significance of molecular genetic aberrations on chromosome segment 11p15.5 in non-small-cell lung cancer. *Journal of Clinical Oncology* 20:1353-1360. PMID: 11870179
25. Moody, D., Zou, Z., and McIntyre, L. M. 2002. Cross-species hybridisation of pig RNA to human nylon microarrays. *BMC Genetics* 3:27.
26. Oddone, E. Z., Horner, R. D., Ward, A., Steuchuchack, K., and McIntyre, L. M. 2002. Carotid endarterectomy and race: Do clinical indications and patient preferences account for differences? *Stroke DNA Press*:155-166. PMID: 12468794
27. Vermerris, W., Thompson, K. J., and McIntyre, L. M. 2002. The maize Brown midrib1 locus affects cell wall composition and plant development in a dose-dependent manner. *Heredity* 88:450-457.
28. Vermerris, W., Thompson, K. J., McIntyre, L. M., and Axtell, J. 2002. Evidence for an evolutionarily conserved interaction between cell wall biosynthesis and flowering in maize and sorghum. *BMC Genetics Evolutionary Biology* 2:2. PMID: 11835688
29. Wayne, M. L., and McIntyre, L. M. 2002. Combining mapping and arraying: An approach to candidate gene identification. *Proceedings of the National Academy of Sciences of the United States of America* 99:14903-14906. PMID: 12415114
30. Coffman, C. J., Doerge, R. W., Wayne, M. L., and McIntyre, L. M. 2003. Intersection tests for single marker QTL analysis can be more powerful than two marker QTL analysis. *BMC Genetics* 4:10. PMID: 12816551
31. Jin, T., Bokarenwa, M., McIntyre, L. M., Tarkowski, A., Corey, G. R., Reller, L. B., and Fowler, V. G. 2003. Fatal outcome of bacteraemic patients caused by infection with staphylokinase-deficient *Staphylococcus aureus* strains. *Journal of Medical Microbiology* 52:919-923. PMID: 12972589
32. Lahner, B., Gong, J., Mahmoudian, M., Smith, E., Abid, K., Rogers, E., Guerinot, M., Harper, J., Ward, J., McIntyre, L. M., Schroeder, J., and Salt, D. 2003. Genomic scale profiling of nutrient and trace elements in *Arabidopsis thaliana*. *Nature Biotechnology* 21:1215-1221. PMID: 12949535
33. Singh, A. K., McIntyre, L. M., and Sherman, L. A. 2003. Microarray analysis of the genome-wide response to iron deficiency and iron reconstitution in the cyanobacterium *Synechocystis sp* PCC 6803. *Plant Physiology* 132:1825-1839. PMID: 12913140
34. Fowler, V. G., Sakoulas, G., McIntyre, L. M., Meka, V. G., Arbeit, R. D., Cabell, C. H., Stryjewski, M. E., Eliopoulos, G. M., Reller, L. B., Corey, G. R., Jones, T., Lucindo, N., Yeaman, M. R., and Bayer, A. S. 2004. Persistent bacteremia due to methicillin-resistant *Staphylococcus aureus* infection is associated with agr dysfunction and low-level in vitro resistance to thrombin-induced platelet microbicidal protein. *Journal of Infectious Diseases* 190:1140-1149. PMID: 15319865
35. Li, H., Singh, A. K., McIntyre, L. M., and Sherman, L. A. 2004. Differential gene expression in response to hydrogen peroxide and the putative PerR regulon of *Synechocystis sp* strain PCC 6803. *Journal of Bacteriology* 186:3331-3345. PMID: 15150218
36. Nuzhdin, S. V., Wayne, M. L., Harmon, K. L., and McIntyre, L. M. 2004. Common pattern of evolution of gene expression level and protein sequence in *Drosophila*. *Molecular Biology and Evolution* 21:1308-1317. PMID: 15034135
37. Pedra, J. H. F., McIntyre, L. M., Scharf, M. E., and Pittendrigh, B. R. 2004. Genome-wide transcription profile of field- and laboratory-selected dichlorodiphenyltrichloroethane (DDT)-resistant *Drosophila*. *Proceedings of the National Academy of Sciences of the United States of America* 101:7034-7039. PMID: 15118106
38. Pirttila, A. M., McIntyre, L. M., Payne, G. A., and Woloshuk, C. P. 2004. Comparison of expression profiles associate gene tags with fumonisin biosynthesis in wild type and fcc1 mutant of *Fusarium verticillioides*. *Fungal Genetics and Biology* 41:647-656. PMID: 15121086
39. Simonsen, K. L., and McIntyre, L. M. 2004. Using alpha wisely: improving power to detect multiple QTL. *Statistical Applications in Genetics and Molecular Biology* 3. PMID: 16646787
40. Wayne, M. L., Pan, Y. J., Nuzhdin, S. V., and McIntyre, L. M. 2004. Additivity and trans-acting effects on gene expression in male *Drosophila simulans*. *Genetics* 168:1413-1420. PMID: 15579694

41. Barmina, O., Gonzalo, M., McIntyre, L. M., and Kopp, A. 2005. Sex- and segment-specific modulation of gene expression profiles in *Drosophila*. *Developmental Biology* 288:528-544. PMID: 16269142
42. Coffman, C. J., Doerge, R. W., Simonsen, K. L., Nichols, K. M., Duarte, C., Wolfinger, R. D., and McIntyre, L. M. 2005. Model selection in binary trait locus mapping. *Genetics* 170:1281-1297. PMID: 15834149
43. Coffman, C. J., Wayne, M. L., Nuzhdin, S. V., Higgins, L. A., and McIntyre, L. M. 2005. Identification of co-regulated transcripts affecting male body size in *Drosophila*. *Genome Biology* 6:R53 doi:10.1186/gb-2005-6-6-r53 PMID: 15960805
44. Hammes, U. Z., Schachtman, D. P., Berg, R. H., Nielsen, E., Koch, W., McIntyre, L. M., and Taylor, C. G. 2005. Nematode-induced changes of transporter gene expression in *Arabidopsis* roots. *Molecular Plant-Microbe Interactions* 18:1247-1257. PMID: 16478044
45. Telonis-Scott, M., McIntyre, L. M., and Wayne, M. L. 2005. Genetic architecture of two fitness-related traits in *Drosophila melanogaster*: ovariole number and thorax length. *Genetica* 125:211-222. PMID: 16247693
46. Verhoeven, K. J. F., Simonsen, K. L., and McIntyre, L. M. 2005. Implementing false discovery rate control: increasing your power. *Oikos* 108:643-647.
47. Gonzalo, M., Vyn, T. J., Holland, J. B., and McIntyre, L. M. 2006. Mapping density response in maize: A direct approach for testing genotype and treatment interactions. *Genetics* 173:331-348. PMID: 16489238
48. McIntyre, L. M., Bono, L. M., Genissel, A., Westerman, R., Junk, D., Telonis-Scott, M., Harshman, L., Wayne, M. L., Kopp, A., and Nuzhdin, S. V. 2006. Sex-specific expression of alternative transcripts in *Drosophila*. *Genome Biology* 7:R79 doi:10.1186/gb-2006-7-8-r79. PMID: 16934145
49. Spurlock, D. M., McDanel, T. G., and McIntyre, L. M. 2006. Changes in skeletal muscle gene expression following clenbuterol administration. *BMC Genetics* 7:320. PMID: 17181869
50. Verhoeven, K. J. F., Jannink, J. L., and McIntyre, L. M. 2006. Using mating designs to uncover QTL and the genetic architecture of complex traits. *Heredity* 96:139-149. PMID: 16304603
51. Fowler, V. G., Nelson, C. L., McIntyre, L. M., Kreiswirth, B. N., Monk, A., Archer, G. L., Federspiel, J., Naidich, S., Remortel, B., Rude, T., Brown, P., Reller, L. B., Corey, G. R., and Gill, S. R. 2007. Potential Associations between Hematogenous Complications and Bacterial Genotype in *Staphylococcus aureus*. *Journal of Infectious Diseases* 196:738-747. PMID: 17674317
52. Gonzalo, M., Vyn, T. J., Holland, J. B., and McIntyre, L. M. 2007. Mapping reciprocal effects and interactions with plant density stress in *Zea mays* L. *Heredity* 99:14-30. PMID: 17473872
53. Slotte, T., Holm, K., McIntyre, L. M., Lagercrantz, U., and Lascoux, M. 2007. Differential expression of genes important for adaptation in *Capsella bursa-pastoris* (Brassicaceae). *Plant Physiology* 145:160-173. PMID: 17631524
54. Wayne, M. L., Telonis-Scott, M., Bono, L. M., Harshman, L., Kopp, A., Nuzhdin, S. V., and McIntyre, L. M. 2007. Simpler mode of inheritance of transcriptional variation in male *Drosophila melanogaster*. *Proceedings of the National Academy of Sciences of the United States of America* 104:18577-18582. PMID: 18003923
55. Fung, R. W. M., Gonzalo, M., Fekete, C., Kovacs, L. G., He, Y., Marsh, E., McIntyre, L. M., Schachtman, D. P., and Qin, W. 2008. Powdery Mildew Induces Defense-Oriented Reprogramming of the Transcriptome in a Susceptible but not in a Resistant Grapevine *Plant Physiology* 146:236-249. PMID: 17993546
56. Genissel, A., McIntyre, L. M., Wayne, M. L., and Nuzhdin, S. V. 2008. Cis and trans regulatory effects contribute to natural variation in transcriptome of *Drosophila melanogaster*. *Molecular Biology and Evolution* 25:101-110. PMID: 17998255
57. Kopp, A., Barmina, O., Hamilton, A. M., Higgins, L. A., McIntyre, L. M., and Jones, C. 2008. Evolution of gene expression in the *Drosophila* olfactory system. *Molecular Biology and Evolution* 25:1081-1092. PMID: 18296696

58. Engelkes, T., Morrien, E., Verhoeven, K. J. F., Bezemer, T. M., Biere, A., Harvey, J. A., McIntyre, L. M., Tamis, W. L. M., and van der Putten, W. H. 2008. Successful range-expanding plants experience less above-ground and below-ground enemy impact. *Nature* 456:946-948. PMID: 19020504
59. Telonis-Scott, M., Kopp, A., Wayne, M. L., Nuzhdin, S. V., and McIntyre, L. M. 2009. Sex-specific Splicing in *Drosophila*: Widespread Occurrence, Tissue-specificity, and Evolutionary Conservation. *Genetics* 181:421-434. PMID: 19015538
60. Nuzhdin, S. V., Brisson, J. A., Pickering, A., Wayne, M. L., Harshman, L. G., and McIntyre, L. M. 2009. Natural genetic variation in transcriptome reflects network structure inferred with major effect mutations: insulin TOR and associated phenotypes in *Drosophila melanogaster*. *BMC Genomics* 10:124. PMID: 19317915
61. Graze, R. M., McIntyre, L. M., Main, B. J., Wayne, M. L., and Nuzhdin, S. V. 2009. Regulatory divergence in *Drosophila melanogaster* and *D. simulans*, a genome-wide analysis of allele-specific expression. *Genetics* 183:547-561. PMID: 19667135
62. Main, B. J., Bickel, R. D., McIntyre, L. M., Graze, R. M., Calabrese, P. P., and Nuzhdin, S. V. 2009. Allele-specific expression assays using Solexa. *BMC Genomics* 10:422. PMID: 19740431
63. Gonzalo, M., Holland, J. B., Vyn, T. J., and McIntyre, L. M. 2009. Direct Mapping Of Density Response In a Population of B73 x Mo17 Recombinant Inbred Lines of Maize (*Zea Mays L.*). *Heredity*:1-17. PMID: 19888291
64. Xu, P., McIntyre, L. M., Scardina, J., Wheeler, P. A., Thorgaard, G. H., and Nichols, K. M. 2010. Transcriptome profiling of embryonic development rate in rainbow trout advanced backcross introgression lines. *Marine Biotechnology* PMID: 20352270
65. Vermerris, W., Sherman, D. M., and McIntyre, L. M. 2010. Phenotypic plasticity in cell walls of maize brown midrib mutants is limited by lignin composition. *Journal of Experimental Botany* 61(9):2479-2490. PMID: 20410320
66. Morse A.M., Carballo V., Baldwin D., Taylor C. and McIntyre, L.M. 2010 Comparison between NuGEN's WT-Ovation Pico and One-Direct Amplification Systems *Journal of Biomolecular Techniques* Sep;21(3):141-7 PMID: 20808643
67. Verhoeven K.J.F., Casella G., and McIntyre L.M., 2010 Epistasis: Obstacle or Advantage *PLOS ONE* 5(8): e12264. doi:10.1371/journal.pone.0012264 PMID: 20865037
68. Gulig, P.A., de Creasy-Lagard V., Wright, A., Walts B.M., Telonis-Scott, M. L., McIntyre L.M. 2010 SOLiD sequencing of four *Vibrio vulnificus* genomes enables comparative genomic analysis and identification of candidate clade-specific virulence genes *BMC Genomics* 11:512 PMID:20863407
69. Wayne, M. L., Pienaar J., Telonis-Scott M. L., Sylvestre L.-S., Nuzhdin S. V. and McIntyre, L. M. . 2010 Relaxed selection is consistent with expression evolution for many defense genes in *Drosophila*. *Evolution* 65:4 1068–1078 PMID: 21108635
70. Gill, SR, McIntyre L.M., Nelson, C.L., Remortel, B., Rude, T., Reller, B. and Fowler V.F. 2011 Potential Associations between Severity of Infection and the Presence of Virulence-Associated Genes in Clinical Strains of *Staphylococcus aureus* *PLOS ONE* 6(4): e18673 PMID: 21541311
71. McIntyre, L.M. Lopiano, KK, Morse AM, Amin V, Oberg AL, Young LJ, and Nuzhdin SV 2011 RNA-seq: technical variability and sampling *BMC Genomics*, 12:293 PMID: 21645359
72. Yang, Y Graze RM, Walts BM, Lopez CM, Baker HV, Wayne ML, Nuzhdin SV and McIntyre LM 2011 Partitioning Transcript Variation in *Drosophila*: Abundance, Isoforms and Alleles *G3: Genes, Genomes and Genetics* 1:427-436 PMID: 22384353
73. Yang, J, Casella G, and LM McIntyre 2011 Generalized Shrinkage F-like Statistics for Testing an Interaction Term in Gene Expression Analysis in the Presence of Heteroscedasticity *BMC Bioinformatics* 12:427 PMID: 22044602
74. Lower, S.K. , Lamlerthon, S., Casillas-Ituarte,N.N. , Lins,R.D., Yongsunthon,R., Taylor, E.S., DiBartola, A.C. Edmonson, C, McIntyre, L.M., Reller, L.B., Quee, Y.-A., Ros, R., Lower, B.H. and Fowler, V.G. 2011 Polymorphisms in fibronectin binding protein A of *Staphylococcus aureus* are associated with infection of cardiovascular devices *PNAS* 108 (45) 18372-18377 PMID: 22025727

75. Kopp, A. and McIntyre L.M. Transcriptional network structure has little effect on the rate of regulatory evolution in yeast. 2011 Molecular Biology and Evolution PMID: 20966117
76. Graze, R.M., Novelo, L.L., Amin V., Fear, J.M., Casella, G., Nuzhdin S.V., and McIntyre, L.M. 2012 Allelic Imbalance in *Drosophila* hybrid heads: exons, isoforms and evolution MBE 29(6):1521–153278. PMID: 22319150
77. Tarone A., McIntyre L.M., Harshman L., and Nuzhdin, S.V. Genetic variation in the Yolk protein expression network of *Drosophila melanogaster*: Sex-biased negative correlations with longevity 2012 Heredity Oct;109(4):226-34 PMID: 22760232
78. Wu K, Li S, Bodhinathan K, Craig M, Weijun C, Campbell-Thompson M; McIntyre LM, Foster TC, and Muzyczka N 2012 Enhanced Expression of Pctk1, Tcf12 and Ccnd1 in Hippocampus of Rats: Impact on Cognitive Function, Synaptic Plasticity and Pathology. Neurobiology of learning and memory Jan;97(1):69-80 PMID: 21982980 74.
79. Tieman D., Bliss P., McIntyre L.M., Blandon-Ubeda A., Bies B., Odabasi A.Z., Rodríguez G.R., van der Knaap E., Taylor M.G., Goulet C., Mageroy M.H., Snyder D.J., Colquhoun T., Moskowitz H., Clark D.G., Sims C., Bartoshuk L., Klee H.J. 2012 The chemical Interactions Underlying Tomato Flavor Preferences Current Biology v22:11 1035-1039 PMID: 22633806
80. Haecker, I, Gay L.A., Yang Y., Hu J., Morse A.M., McIntyre L.M., Renne R. Ago-HITS-CLIP Expands Understanding of Kaposi's Sarcoma-associated Herpesvirus miRNA Function in Primary Effusion Lymphomas. 2012 PLoS Pathogens, 8(8): e1002884
81. Jensen K., Sanchez-Garcia J., Williams C., Khare S., Mathur K., Graze R.M., Hahn D.A., McIntyre L.M., Rincon-Limas D.E. and Fernandez-Funez P. Purification of transcripts and metabolites from *Drosophila* heads JOVE , e50245-e50245
82. Tytgat, T, Verhoeven K.J.F., Jansen J, Raaijmakers C, Bakx-SchotmanT , McIntyre, L.M. , van der Putten W; Biere A; van Dam N Plants Know where it Hurts. Root and Shoot Jasmonic Acid Induction Elicits Differential Responses in *Brassica oleracea*. PLoS ONE 8(6): e65502. doi:10.1371/journal.pone.0065502
83. van Gurp, T McIntyre L.M., Verhoeven, K.J.F. Consistent errors in First Strand cDNA Due to Random Hexamer Mispriming. PLoS ONE DOI: 10.1371/journal.pone.0085583.

### Reviews and Opinion

1. Jansen, R. C., Tesson, B. M., Fu, J., Yang, Y. and McIntyre, L. M. 2009. Defining Gene and QTL networks. Current Opinion in Plant Biology. 12:1-6. PMID: 19196544
2. Nuzhdin, S.V. Friesen M.L., and McIntyre, L.M. 2012 Genotype-phenotype mapping in a post GWAS world Trends in Genetics Volume 28 Issue 9 pages 421-426

### Editorials

1. McIntyre, L.M. (2010) Data: The Foundation of Science. Genetics, 184: 1. PMID: 20061563
2. McIntyre, L.M. de Koning D.J. (2012) Genetics, Facilitating discovery: the role of the society journals in collaborative science
3. de Koning D.J., McIntyre L.M. (2012) Setting the Standard: A Special Focus on Genomic Selection in GENETICS and G3

### Book Chapters

1. Moody, D., B. Fadlia, A. K. Singh, S. Shah, and McIntyre, L.M. 2002. Quantitative Comparison of Image Analysis Software. DNA Press. p.155-166.

### Undergraduate Students from UFL

Chelsea Tymms (currently PhD student Computer Science New York University)

Alexi Runnels (currently PhD student Molecular Biology Princeton University)  
Catherine Edmonson (Currently MD candidate University of Florida)  
Rhonda Bacher (Graduate Student Statistics University of Wisconsin)

#### **Graduate Students**

Trey Polvadore	new student 2013
Justin Fear	PhD candidate Causal inferences for regulation of Gene Networks
Yajie Yang	PhD 2013 A Systems Biology Approach to Understanding Transcriptional Networks (currently postdoctoral associate University of Washington)
Martin Gonzalo	PhD 2006 Determination of the Genetic Basis for responses to plant population density in <i>Zea mays L.</i> (currently Director of Wheat Breeding Limagrain South America)
Jason Brewer	MS 2006 Analysis of long term tillage studies (currently Research Technician NCSU)
Karen Thompson	MS 2003 Modeling mineral uptake in <i>Zea mays L.</i> (currently Manager Pioneer Hybrid)
Yuanji Pan	MS 2003 Analysis of Partial Diallels (Currently Research Technician NIH)
Lexingtons Ndulu	PhD 2001 Genetic analysis of nutritional quality traits in sorghum (currently Manager 3M)

#### **Postdoctoral Research Associates**

Rita Gaze	Allele specific expression and speciation in <i>Drosophila</i> , University of Florida 2007-2012 (Currently Assistant Professor Auburn University)
Marina Telonis-Scott	Alternative splicing and gene networks in <i>Drosophila melanogaster</i> , University of Florida, 2007-2009 (Australian National Research fellow Melbourne University)
Jie Yang	Detection of SNPs by hybridization, University of Florida, 2007-2008 (Research Assistant professor SUNY Stonybrook)
Jason Pienaar	Evolution of sex dimorphism, University of Florida, 2007-2008 (Senior lecturer University of Pretoria, South Africa)
Laura Higgins	Behavioral genomics in <i>D. melanogaster</i> , University of Florida, 2008 (product support JMP)
Koen Verhoeven	Mapping in natural populations, Purdue University, 2003-2005 (Assistant Professor NIOO The Netherlands)
Cynthia Coffman	Mapping binary traits, Duke University Medical Center, VA Medical Center, 1997-1999 (Research Associate Professor Duke University Medical School)

#### **Currently funded grants**

PI: Lauren McIntyre Co-PI Sergey Nuzhdin Quantitative Comparisons between genotypes and model species NIH 9/1/2012- 8/31/2016 Total Award \$1,914,075

PI: Lisa Ainsworth Co-PI Lauren McIntyre Title: Genetic and Genomic approaches to improve Maize responses to ozone 1/1/2013-12/31/2017 NSF Total Award \$4,594,025 (\$675,711)

PI: Art Edison & Rick Yost Co-PI Lauren McIntyre, Tim Garrett, Glenn Walter South East Center for integrated Metabolomics NIH Total Award \$7,129,401 (\$812,772)

PI: Erik Deumens Co-PI Lauren McIntyre, Senthold Asseng, Paul Avery, Jose Fortes, Xiaolin Li, Bill Farmerie, Eric Ford, Lawrence Page Title: CC-NIE Network Infrastructure: 100Gig Connection to FLR NSF OCI-1245880 10/1/2012 – 9/30/2014 Total Award: \$385,405

PI: David Bloom Co-PI Lauren McIntyre Title: Molecular Genetics of HSV reactivation NIH 4/1/2012-3/31/2017 Total Award: \$2,151,248 (\$390,140)

PI: Sergey Nuzhdin Co-PI Lauren McIntyre, Michelle Arbeitman Title: Population Genetic Framework for Neuroanatomical Mechanisms of Behavioral modifications NIH Dates: 4/1/2011-3/31/2015 Total Award: \$1,500,000 (\$349,565)

PI: Sixue Chen Co-PI Lauren McIntyre, Brad Barbazuk, Doug Soltis, Pam Soltis Proteomic Analysis of Plant Polyploidy Agency: UF Opportunity Fund: Dates 5/1/2011-4/30/2013 Total Award \$80,000 (\$11,000)

### **Previously funded grants**

PI: Chris Taylor; Co-PI: Lauren McIntyre, Karen Koch; Title: Functional Genomics of Transfer Cells; Agency: NSF; Dates: 09/15/08-08/15/12; Total Award: \$1,992,541

PI: Pedro Fernandez-Funez; Co-PI: Lauren McIntyre, Henry Baker, George Casella; Title: Molecular Mechanisms of Neurodegeneration; Agency: UF Opportunity Fund; Dates: 05/01/10 – 10/30/12; Total Award: \$80,000

PI: Maurice Swanson Co-PI: Lauren McIntyre, Brad Barbazuk, Alberto Riva, Mark Settles, Laura Ranum Interdisciplinary Center for RNA research Agency: UF Genetics Institute 6/1/2010-5/30/2012 Total Award: \$100,000

PI: Lauren McIntyre; Co-PI: Sergey Nuzhdin, Marta Wayne; Title: Genetic variation of the allele-specific transcriptome in *Drosophila*; Agency: NIH; Dates: 02/01/07-01/31/12 Total Award: \$1,102,456

PI: Lauren McIntyre; Co-PI: Sergey Nuzhdin, Marta Wayne; Title: Genetic variation of the allele-specific transcriptome in *Drosophila* ARRA supplement; Agency: NIH; Dates: 9/1/09-1/31/12 Total Award: \$387,696

PI: Jose Fortez; Co-PI: Lauren McIntyre; Title: MRI: Acquisition of Instrumentation for Coupled Experimental–Computational Neuroscience and Biology Research; Dates: 7/1/08-6/30/11; Total Award: \$1,311,108

PI: Paul Gulig; Co-PI: Lauren McIntyre, Valerie de Creasy, Anita Wright; Title: Genomic Analysis of *Vibrio vulnificus*: Understanding and Preventing Human Disease by Understanding Lifestyle in Mammals, Oysters, and Biofilms; Agency: UF; Dates: 05/1/08-04/30/09; Total Award: \$85,000

PI: Vance Fowler; Co-PI: Lauren McIntyre, Steven Gill; Title: Virulence determinants in *S. aureus* bacteremia; Agency: NIH; Dates: 6/01/07-05/31/08; Total Award: \$1,287,000

PI: Matias Kirst; Co-PI: Lauren McIntyre, George Casella, John Davis; Title: High-throughput SNP genotyping and bioinformatics pipeline for complex genomes; Agency: Opportunity Incentive Seed Fund; Dates: 6/1/06-5/31/07; Total Award: \$87,674

PI: Sergey Nuzhdin; Co-PI: Lauren McIntyre, Marta Wayne, Larry Harshman, Artyom Kopp Title: Quantitative Genomics of Sexual Dimorphism; Agency: NIH; Dates: 4/1/01-3/20/06 Total Award: \$1,504,263

PI: Katy Simonsen; Co-PI: Lauren McIntyre; Title: Identifying Quantitative Trait Loci from Sequence Data in Natural Populations; Agency: NSF; Date: 9/2000-8/2004; Total Award: \$343,000

PI: Rebecca Doerge; Co-PI: Lauren McIntyre; Title: Development of Statistical Methods for Agricultural Genomics; Agency: USDA-IFAFS; Date: 9/2000-8/2003; Total Award: \$500,000

PI: Lauren McIntyre; Co-PI: Rebecca Doerge; Title: Statistical Analyses for Binary Traits  
Agency: NSF; Date: 9/1998-6/2003; Total Award: \$297,107