

## 6. References

- Amthor, H., B. Christ, and K. Patel. 1999. A molecular mechanism enabling continuous embryonic muscle growth - a balance between proliferation and differentiation. *Development* **126**: 1041-53.
- Amthor, H., B. Christ, M. Weil, and K. Patel. 1998. The importance of timing differentiation during limb muscle development. *Curr Biol* **8**: 642-52.
- Aoyama, H. and K. Asamoto. 1988. Determination of somite cells: independence of cell differentiation and morphogenesis. *Development* **104**: 15-28.
- Baggiolini, M. 1998. Chemokines and leukocyte traffic. *Nature* **392**: 565-8.
- Bagri, A., T. Gurney, X. He, Y.R. Zou, D.R. Littman, M. Tessier-Lavigne, and S.J. Pleasure. 2002. The chemokine SDF1 regulates migration of dentate granule cells. *Development* **129**: 4249-60.
- Birchmeier, C., W. Birchmeier, E. Gherardi, and G.F. Vande Woude. 2003. Met, metastasis, motility and more. *Nat Rev Mol Cell Biol* **4**: 915-25.
- Birnboim, H.C. and J. Doly. 1979. A rapid alkaline extraction procedure for screening recombinant plasmid DNA. *Nucleic Acids Res* **7**: 1513-23.
- Bladt, F., D. Riethmacher, S. Isenmann, A. Aguzzi, and C. Birchmeier. 1995. Essential role for the c-met receptor in the migration of myogenic precursor cells into the limb bud. *Nature* **376**: 768-71.
- Bleul, C.C., M. Farzan, H. Choe, C. Parolin, I. Clark-Lewis, J. Sodroski, and T.A. Springer. 1996. The lymphocyte chemoattractant SDF-1 is a ligand for LESTR/fusin and blocks HIV-1 entry. *Nature* **382**: 829-33.
- Brand-Saberi, B., T.S. Müller, J. Wilting, B. Christ, and C. Birchmeier. 1996. Scatter factor/hepatocyte growth factor (SF/HGF) induces emigration of myogenic cells at interlimb level in vivo. *Dev Biol* **179**: 303-8.
- Braun, T., G. Buschhausen-Denker, E. Bober, E. Tannich, and H.H. Arnold. 1989. A novel human muscle factor related to but distinct from MyoD1 induces myogenic conversion in 10T1/2 fibroblasts. *Embo J* **8**: 701-9.
- Braun, T., M.A. Rudnicki, H.H. Arnold, and R. Jaenisch. 1992. Targeted inactivation of the muscle regulatory gene Myf-5 results in abnormal rib development and perinatal death. *Cell* **71**: 369-82.
- Brohmann, H., K. Jagla, and C. Birchmeier. 2000. The role of Lbx1 in migration of muscle precursor cells. *Development* **127**: 437-45.
- Buckingham, M., L. Bajard, T. Chang, P. Daubas, J. Hadchouel, S. Meilhac, D. Montarras, D. Rocancourt, and F. Relaix. 2003. The formation of skeletal muscle: from somite to limb. *J Anat* **202**: 59-68.
- Buckley, C.D., N. Amft, P.F. Bradfield, D. Pilling, E. Ross, F. Arenzana-Seisdedos, A. Amara, S.J. Curnow, J.M. Lord, D. Scheel-Toellner, and M. Salmon. 2000. Persistent induction of the chemokine receptor CXCR4 by TGF-beta 1 on synovial T cells contributes to their accumulation within the rheumatoid synovium. *J Immunol* **165**: 3423-9.
- Chan, P.C., Y.L. Chen, C.H. Cheng, K.C. Yu, L.A. Cary, K.H. Shu, W.L. Ho, and H.C. Chen. 2003. Src phosphorylates Grb2-associated binder 1 upon hepatocyte growth factor stimulation. *J Biol Chem* **278**: 44075-82.
- Chevallier, A., M. Kieny, and A. Mauger. 1977. Limb-somite relationship: origin of the limb musculature. *J Embryol Exp Morphol* **41**: 245-58.
- Christ, B., B. Brand-Saberi, M. Grim, and J. Wilting. 1992. Local signalling in dermomyotomal cell type specification. *Anat Embryol (Berl)* **186**: 505-10.
- Christ, B., H.J. Jacob, and M. Jacob. 1977. Experimental analysis of the origin of the wing musculature in avian embryos. *Anat Embryol (Berl)* **150**: 171-86.
- Christ, B. and C.P. Ordahl. 1995. Early stages of chick somite development. *Anat Embryol (Berl)* **191**: 381-96.

- Cinnamon, Y., N. Kahane, and C. Kalcheim. 1999. Characterization of the early development of specific hypaxial muscles from the ventrolateral myotome. *Development* **126**: 4305-15.
- Contos, J.J., N. Fukushima, J.A. Weiner, D. Kaushal, and J. Chun. 2000. Requirement for the lpA1 lysophosphatidic acid receptor gene in normal suckling behavior. *Proc Natl Acad Sci U S A* **97**: 13384-9.
- Cossu, G., R. Kelly, S. Tajbakhsh, S. Di Donna, E. Vivarelli, and M. Buckingham. 1996. Activation of different myogenic pathways: myf-5 is induced by the neural tube and MyoD by the dorsal ectoderm in mouse paraxial mesoderm. *Development* **122**: 429-37.
- Daston, G., E. Lamar, M. Olivier, and M. Goulding. 1996. Pax-3 is necessary for migration but not differentiation of limb muscle precursors in the mouse. *Development* **122**: 1017-27.
- Daub, H., F.U. Weiss, C. Wallasch, and A. Ullrich. 1996. Role of transactivation of the EGF receptor in signalling by G-protein-coupled receptors. *Nature* **379**: 557-60.
- Dechesne, C.A., Q. Wei, J. Eldridge, L. Gannoun-Zaki, P. Millasseau, L. Bougueleret, D. Caterina, and B.M. Paterson. 1994. E-box- and MEF-2-independent muscle-specific expression, positive autoregulation, and cross-activation of the chicken MyoD (CMD1) promoter reveal an indirect regulatory pathway. *Mol Cell Biol* **14**: 5474-86.
- Dekker, L.V. and A.W. Segal. 2000. Perspectives: signal transduction. Signals to move cells. *Science* **287**: 982-3, 985.
- Denetclaw, W.F., Jr., B. Christ, and C.P. Ordahl. 1997. Location and growth of epaxial myotome precursor cells. *Development* **124**: 1601-10.
- Denetclaw, W.F. and C.P. Ordahl. 2000. The growth of the dermomyotome and formation of early myotome lineages in thoracolumbar somites of chicken embryos. *Development* **127**: 893-905.
- Dietrich, S., F. Abou-Rebyeh, H. Brohmann, F. Bladt, E. Sonnenberg-Riethmacher, T. Yamaai, A. Lumsden, B. Brand-Saberi, and C. Birchmeier. 1999. The role of SF/HGF and c-Met in the development of skeletal muscle. *Development* **126**: 1621-9.
- Dietrich, S., F.R. Schubert, C. Healy, P.T. Sharpe, and A. Lumsden. 1998. Specification of the hypaxial musculature. *Development* **125**: 2235-49.
- Doitsidou, M., M. Reichman-Fried, J. Stebler, M. Kopranner, J. Dorries, D. Meyer, C.V. Esguerra, T. Leung, and E. Raz. 2002. Guidance of primordial germ cell migration by the chemokine SDF-1. *Cell* **111**: 647-59.
- Dutt, P., J.F. Wang, and J.E. Gropman. 1998. Stromal cell-derived factor-1 alpha and stem cell factor/kit ligand share signaling pathways in hemopoietic progenitors: a potential mechanism for cooperative induction of chemotaxis. *J Immunol* **161**: 3652-8.
- Duxson, M.J., Y. Usson, and A.J. Harris. 1989. The origin of secondary myotubes in mammalian skeletal muscles: ultrastructural studies. *Development* **107**: 743-50.
- Edmondson, D.G. and E.N. Olson. 1989. A gene with homology to the myc similarity region of MyoD1 is expressed during myogenesis and is sufficient to activate the muscle differentiation program. *Genes Dev* **3**: 628-40.
- Epstein, J.A., D.N. Shapiro, J. Cheng, P.Y. Lam, and R.L. Maas. 1996. Pax3 modulates expression of the c-Met receptor during limb muscle development. *Proc Natl Acad Sci U S A* **93**: 4213-8.
- Fan, C.M. and M. Tessier-Lavigne. 1994. Patterning of mammalian somites by surface ectoderm and notochord: evidence for sclerotome induction by a hedgehog homolog. *Cell* **79**: 1175-86.
- Federspiel, B., I.G. Melhado, A.M. Duncan, A. Delaney, K. Schappert, I. Clark-Lewis, and F.R. Jirik. 1993. Molecular cloning of the cDNA and chromosomal localization of the gene for a putative seven-transmembrane segment (7-TMS) receptor isolated from human spleen. *Genomics* **16**: 707-12.
- Feng, Y., C.C. Broder, P.E. Kennedy, and E.A. Berger. 1996. HIV-1 entry cofactor: functional cDNA cloning of a seven-transmembrane, G protein-coupled receptor. *Science* **272**: 872-7.

- Floss, T., H.H. Arnold, and T. Braun. 1997. A role for FGF-6 in skeletal muscle regeneration. *Genes Dev* **11**: 2040-51.
- Forster, R., A.E. Mattis, E. Kremmer, E. Wolf, G. Brem, and M. Lipp. 1996. A putative chemokine receptor, BLR1, directs B cell migration to defined lymphoid organs and specific anatomic compartments of the spleen. *Cell* **87**: 1037-47.
- Francis-West, P.H., L. Antoni, and K. Anakwe. 2003. Regulation of myogenic differentiation in the developing limb bud. *J Anat* **202**: 69-81.
- Frank, M. and R. Kemler. 2002. Protocadherins. *Curr Opin Cell Biol* **14**: 557-62.
- Franz, T., R. Kothary, M.A. Surani, Z. Halata, and M. Grim. 1993. The Splotch mutation interferes with muscle development in the limbs. *Anat Embryol (Berl)* **187**: 153-60.
- Fredette, B.J. and L.T. Landmesser. 1991. Relationship of primary and secondary myogenesis to fiber type development in embryonic chick muscle. *Dev Biol* **143**: 1-18.
- Gavrieli, Y., Y. Sherman, and S.A. Ben-Sasson. 1992. Identification of programmed cell death in situ via specific labeling of nuclear DNA fragmentation. *J Cell Biol* **119**: 493-501.
- Gear, A.R. and D. Camerini. 2003. Platelet chemokines and chemokine receptors: linking hemostasis, inflammation, and host defense. *Microcirculation* **10**: 335-50.
- Gluzman, Y. 1981. SV40-transformed simian cells support the replication of early SV40 mutants. *Cell* **23**: 175-82.
- Gonzalo, J.A., C.M. Lloyd, A. Peled, T. Delaney, A.J. Coyle, and J.C. Gutierrez-Ramos. 2000. Critical involvement of the chemotactic axis CXCR4/stromal cell-derived factor-1 alpha in the inflammatory component of allergic airway disease. *J Immunol* **165**: 499-508.
- Goulding, M., A. Lumsden, and A.J. Paquette. 1994. Regulation of Pax-3 expression in the dermomyotome and its role in muscle development. *Development* **120**: 957-71.
- Gross, M.K., M. Dottori, and M. Goulding. 2002. Lbx1 specifies somatosensory association interneurons in the dorsal spinal cord. *Neuron* **34**: 535-49.
- Gross, M.K., L. Moran-Rivard, T. Velasquez, M.N. Nakatsu, K. Jagla, and M. Goulding. 2000. Lbx1 is required for muscle precursor migration along a lateral pathway into the limb. *Development* **127**: 413-24.
- Gu, H., J.D. Marth, P.C. Orban, H. Mossmann, and K. Rajewsky. 1994. Deletion of a DNA polymerase beta gene segment in T cells using cell type-specific gene targeting. *Science* **265**: 103-6.
- Gu, H. and B.G. Neel. 2003. The "Gab" in signal transduction. *Trends Cell Biol* **13**: 122-30.
- Hamburger, V. and H.L. Hamilton. 1992. A series of normal stages in the development of the chick embryo. 1951. *Dev Dyn* **195**: 231-72.
- Hannon, K., A.J. Kudla, M.J. McAvoy, K.L. Clase, and B.B. Olwin. 1996. Differentially expressed fibroblast growth factors regulate skeletal muscle development through autocrine and paracrine mechanisms. *J Cell Biol* **132**: 1151-9.
- Hashimoto, K., Y. Yokouchi, M. Yamamoto, and A. Kuroiwa. 1999. Distinct signaling molecules control Hoxa-11 and Hoxa-13 expression in the muscle precursor and mesenchyme of the chick limb bud. *Development* **126**: 2771-83.
- Hasty, P., A. Bradley, J.H. Morris, D.G. Edmondson, J.M. Venuti, E.N. Olson, and W.H. Klein. 1993. Muscle deficiency and neonatal death in mice with a targeted mutation in the myogenin gene. *Nature* **364**: 501-6.
- Herzog, H., Y.J. Hort, J. Shine, and L.A. Selbie. 1993. Molecular cloning, characterization, and localization of the human homolog to the reported bovine NPY Y3 receptor: lack of NPY binding and activation. *DNA Cell Biol* **12**: 465-71.
- Heymann, S., M. Koudrova, H. Arnold, M. Koster, and T. Braun. 1996. Regulation and function of SF/HGF during migration of limb muscle precursor cells in chicken. *Dev Biol* **180**: 566-78.
- Hill, C.S. and R. Treisman. 1995. Transcriptional regulation by extracellular signals: mechanisms and specificity. *Cell* **80**: 199-211.

- Hogan, B., R. Beddington, F. Constantini, and E. Lacy. 1994. *Manipulating The Mouse Embryo - A Laboratory Manual*. Cold Spring Harbor Laboratory Press, Cold Spring Harbor, New York 11803-2500, USA.
- Hooper, M., K. Hardy, A. Handyside, S. Hunter, and M. Monk. 1987. HPRT-deficient (Lesch-Nyhan) mouse embryos derived from germline colonization by cultured cells. *Nature* **326**: 292-5.
- Huang, R., Q. Zhi, J.C. Izpisua-Belmonte, B. Christ, and K. Patel. 1999. Origin and development of the avian tongue muscles. *Anat Embryol (Berl)* **200**: 137-52.
- Innis, M.A., D.H. Gelfand, and J.J. Sninsky. 1989. PCR Protocols: A Guide To Methods And Applications. In, pp. 482. Academic Press, San Diego, CA 92101-4495, USA.
- Ishii, I., B. Friedman, X. Ye, S. Kawamura, C. McGiffert, J.J. Contos, M.A. Kingsbury, G. Zhang, J.H. Brown, and J. Chun. 2001. Selective loss of sphingosine 1-phosphate signaling with no obvious phenotypic abnormality in mice lacking its G protein-coupled receptor, LP(B3)/EDG-3. *J Biol Chem* **276**: 33697-704.
- Ishii, T., M. Nishihara, F. Ma, Y. Ebihara, K. Tsuji, S. Asano, T. Nakahata, and T. Maekawa. 1999. Expression of stromal cell-derived factor-1/pre-B cell growth-stimulating factor receptor, CXC chemokine receptor 4, on CD34+ human bone marrow cells is a phenotypic alteration for committed lymphoid progenitors. *J Immunol* **163**: 3612-20.
- Jagla, K., P. Dolle, M.G. Mattei, T. Jagla, B. Schuhbauer, G. Dretzen, F. Bellard, and M. Bellard. 1995. Mouse Lbx1 and human LBX1 define a novel mammalian homeobox gene family related to the Drosophila lady bird genes. *Mech Dev* **53**: 345-56.
- Jankowski, K., M. Kucia, M. Wysoczynski, R. Reza, D. Zhao, E. Trzyna, J. Trent, S. Peiper, M. Zembala, J. Ratajczak, P. Houghton, A. Janowska-Wieczorek, and M.Z. Ratajczak. 2003. Both hepatocyte growth factor (HGF) and stromal-derived factor-1 regulate the metastatic behavior of human rhabdomyosarcoma cells, but only HGF enhances their resistance to radiochemotherapy. *Cancer Res* **63**: 7926-35.
- Jazin, E.E., H. Yoo, A.G. Blomqvist, F. Yee, G. Weng, M.W. Walker, J. Salon, D. Larhammar, and C. Wahlestedt. 1993. A proposed bovine neuropeptide Y (NPY) receptor cDNA clone, or its human homologue, confers neither NPY binding sites nor NPY responsiveness on transfected cells. *Regul Pept* **47**: 247-58.
- Jerpseth, B., A. Greener, J.M. Short, J. Viola, and P. Kretz. 1992. XL1-Blue MRF' E. coli cells: McrA-, McrCB-, McrF-, Mrr-, HsdR- derivative of XL1-Blue cells. *Stratagies* **5**: 81-83.
- Jiang, H., Y. Kuang, Y. Wu, A. Smrcka, M.I. Simon, and D. Wu. 1996. Pertussis toxin-sensitive activation of phospholipase C by the C5a and fMet-Leu-Phe receptors. *J Biol Chem* **271**: 13430-4.
- Joyner, A.L. 1999. *Gene Targeting: A Practical Approach*. Oxford University Press, Oxford, United Kingdom.
- Jung, J., M.R. Mysliwiec, and Y. Lee. 2005. Roles of JUMONJI in mouse embryonic development. *Dev Dyn* **232**: 21-32.
- Kahane, N., Y. Cinnamon, and C. Kalcheim. 1998a. The cellular mechanism by which the dermomyotome contributes to the second wave of myotome development. *Development* **125**: 4259-71.
- . 1998b. The origin and fate of pioneer myotomal cells in the avian embryo. *Mech Dev* **74**: 59-73.
- Kaibuchi, K., S. Kuroda, and M. Amano. 1999. Regulation of the cytoskeleton and cell adhesion by the Rho family GTPases in mammalian cells. *Annu Rev Biochem* **68**: 459-86.
- Keller, C., M.S. Hansen, C.M. Coffin, and M.R. Capecchi. 2004. Pax3:Fkhr interferes with embryonic Pax3 and Pax7 function: implications for alveolar rhabdomyosarcoma cell of origin. *Genes Dev* **18**: 2608-13.
- Kenny-Mobbs, T. and P. Thorogood. 1987. Autonomy of differentiation in avian branchial somites and the influence of adjacent tissues. *Development* **100**: 449-62.
- Kim, C.H. and H.E. Broxmeyer. 1999. Chemokines: signal lamps for trafficking of T and B cells for development and effector function. *J Leukoc Biol* **65**: 6-15.

- Kim, T.G., J. Jung, M.R. Mysliwiec, S. Kang, and Y. Lee. 2005. Jumonji represses alpha-cardiac myosin heavy chain expression via inhibiting MEF2 activity. *Biochem Biophys Res Commun* **329**: 544-53.
- Kioussi, C., P. Briata, S.H. Baek, D.W. Rose, N.S. Hamblet, T. Herman, K.A. Ohgi, C. Lin, A. Gleiberman, J. Wang, V. Brault, P. Ruiz-Lozano, H.D. Nguyen, R. Kemler, C.K. Glass, A. Wynshaw-Boris, and M.G. Rosenfeld. 2002. Identification of a Wnt/Dvl/beta-Catenin --> Pitx2 pathway mediating cell-type-specific proliferation during development. *Cell* **111**: 673-85.
- Klein, R. 2004. Eph/ephrin signaling in morphogenesis, neural development and plasticity. *Curr Opin Cell Biol* **16**: 580-9.
- Kühn, R., K. Rajewsky, and W. Müller. 1991. Generation and analysis of interleukin-4 deficient mice. *Science* **254**: 707-10.
- Kuhn, R. and R.M. Torres. 2002. Cre/loxP recombination system and gene targeting. *Methods Mol Biol* **180**: 175-204.
- Kupperman, E., S. An, N. Osborne, S. Waldron, and D.Y. Stainier. 2000. A sphingosine-1-phosphate receptor regulates cell migration during vertebrate heart development. *Nature* **406**: 192-5.
- Lance-Jones, C. 1988. The somitic level of origin of embryonic chick hindlimb muscles. *Dev Biol* **126**: 394-407.
- Langley, B., M. Thomas, A. Bishop, M. Sharma, S. Gilmour, and R. Kambadur. 2002. Myostatin inhibits myoblast differentiation by down-regulating MyoD expression. *J Biol Chem* **277**: 49831-40.
- Lazarini, F., T.N. Tham, P. Casanova, F. Arenzana-Seisdedos, and M. Dubois-Dalq. 2003. Role of the alpha-chemokine stromal cell-derived factor (SDF-1) in the developing and mature central nervous system. *Glia* **42**: 139-48.
- Lee, S.J. 2004. Regulation of muscle mass by myostatin. *Annu Rev Cell Dev Biol* **20**: 61-86.
- Li, X., K.A. Oghi, J. Zhang, A. Kronos, K.T. Bush, C.K. Glass, S.K. Nigam, A.K. Aggarwal, R. Maas, D.W. Rose, and M.G. Rosenfeld. 2003. Eya protein phosphatase activity regulates Six1-Dach-Eya transcriptional effects in mammalian organogenesis. *Nature* **426**: 247-54.
- Li, Z., H. Jiang, W. Xie, Z. Zhang, A.V. Smrcka, and D. Wu. 2000. Roles of PLC-beta2 and -beta3 and PI3Kgamma in chemoattractant-mediated signal transduction. *Science* **287**: 1046-9.
- Lin, Z.Y., C.A. Dechesne, J. Eldridge, and B.M. Paterson. 1989. An avian muscle factor related to MyoD1 activates muscle-specific promoters in nonmuscle cells of different germ-layer origin and in BrdU-treated myoblasts. *Genes Dev* **3**: 986-96.
- Loetscher, M., T. Geiser, T. O'Reilly, R. Zwahlen, M. Baggiolini, and B. Moser. 1994. Cloning of a human seven-transmembrane domain receptor, LESTR, that is highly expressed in leukocytes. *J Biol Chem* **269**: 232-7.
- Luquain, C., V.A. Sciorra, and A.J. Morris. 2003. Lysophosphatidic acid signaling: how a small lipid does big things. *Trends Biochem Sci* **28**: 377-83.
- Ma, Q., D. Jones, P.R. Borghesani, R.A. Segal, T. Nagasawa, T. Kishimoto, R.T. Bronson, and T.A. Springer. 1998. Impaired B-lymphopoiesis, myelopoiesis, and derailed cerebellar neuron migration in CXCR4- and SDF-1-deficient mice. *Proc Natl Acad Sci USA* **95**: 9448-53.
- Ma, Y.C., J. Huang, S. Ali, W. Lowry, and X.Y. Huang. 2000. Src tyrosine kinase is a novel direct effector of G proteins. *Cell* **102**: 635-46.
- Mankoo, B.S., N.S. Collins, P. Ashby, E. Grigorieva, L.H. Pevny, A. Candia, C.V. Wright, P.W. Rigby, and V. Pachnis. 1999. Mox2 is a component of the genetic hierarchy controlling limb muscle development. *Nature* **400**: 69-73.
- Marsh, J.L., M. Erfle, and E.J. Wykes. 1984. The pIC plasmid and phage vectors with versatile cloning sites for recombinant selection by insertional inactivation. *Gene* **32**: 481-5.

- McMahon, J.A., S. Takada, L.B. Zimmerman, C.M. Fan, R.M. Harland, and A.P. McMahon. 1998. Noggin-mediated antagonism of BMP signaling is required for growth and patterning of the neural tube and somite. *Genes Dev* **12**: 1438-52.
- Megeney, L.A. and M.A. Rudnicki. 1995. Determination versus differentiation and the MyoD family of transcription factors. *Biochem Cell Biol* **73**: 723-32.
- Mellado, M., J.M. Rodriguez-Frade, S. Manes, and A.C. Martinez. 2001. Chemokine signaling and functional responses: the role of receptor dimerization and TK pathway activation. *Annu Rev Immunol* **19**: 397-421.
- Mennerich, D., K. Schäfer, and T. Braun. 1998. Pax-3 is necessary but not sufficient for lbx1 expression in myogenic precursor cells of the limb. *Mech Dev* **73**: 147-58.
- Mitchell, P.J., S.E. Johnson, and K. Hannon. 2002. Insulin-like growth factor I stimulates myoblast expansion and myofiber development in the limb. *Dev Dyn* **223**: 12-23.
- Molyneaux, K.A., H. Zinszner, P.S. Kunwar, K. Schaible, J. Stebler, M.J. Sunshine, W. O'Brien, E. Raz, D. Littman, C. Wylie, and R. Lehmann. 2003. The chemokine SDF1/CXCL12 and its receptor CXCR4 regulate mouse germ cell migration and survival. *Development* **130**: 4279-86.
- Muller, A., B. Homey, H. Soto, N. Ge, D. Catron, M.E. Buchanan, T. McClanahan, E. Murphy, W. Yuan, S.N. Wagner, J.L. Barrera, A. Mohar, E. Verastegui, and A. Zlotnik. 2001. Involvement of chemokine receptors in breast cancer metastasis. *Nature* **410**: 50-6.
- Müller, T., H. Brohmann, A. Pierani, P.A. Heppenstall, G.R. Lewin, T.M. Jessell, and C. Birchmeier. 2002. The homeodomain factor Lbx1 distinguishes two major programs of neuronal differentiation in the dorsal spinal cord. *Neuron* **in press**.
- Nabeshima, Y., K. Hanaoka, M. Hayasaka, E. Esumi, S. Li, and I. Nonaka. 1993. Myogenin gene disruption results in perinatal lethality because of severe muscle defect. *Nature* **364**: 532-5.
- Nagasawa, T., S. Hirota, K. Tachibana, N. Takakura, S. Nishikawa, Y. Kitamura, N. Yoshida, H. Kikutani, and T. Kishimoto. 1996. Defects of B-cell lymphopoiesis and bone-marrow myelopoiesis in mice lacking the CXC chemokine PBSF/SDF-1. *Nature* **382**: 635-8.
- Nishi, S. 1967. *Muskeln des Rumpfes*. A. Asher & Co., Amsterdam.
- Nomura, H., B.W. Nielsen, and K. Matsushima. 1993. Molecular cloning of cDNAs encoding a LD78 receptor and putative leukocyte chemotactic peptide receptors. *Int Immunol* **5**: 1239-49.
- Oberlin, E., A. Amara, F. Bachelier, C. Bessia, J.L. Virelizier, F. Arenzana-Seisdedos, O. Schwartz, J.M. Heard, I. Clark-Lewis, D.F. Legler, M. Loetscher, M. Baggiolini, and B. Moser. 1996. The CXC chemokine SDF-1 is the ligand for LESTR/fusin and prevents infection by T-cell-line-adapted HIV-1. *Nature* **382**: 833-5.
- Ordahl, C.P. and N.M. Le Douarin. 1992. Two myogenic lineages within the developing somite. *Development* **114**: 339-53.
- Peppelenbosch, M.P., L.G. Tertoolen, W.J. Hage, and S.W. de Laat. 1993. Epidermal growth factor-induced actin remodeling is regulated by 5-lipoxygenase and cyclooxygenase products. *Cell* **74**: 565-75.
- Poliakov, A., M. Cotrina, and D.G. Wilkinson. 2004. Diverse roles of eph receptors and ephrins in the regulation of cell migration and tissue assembly. *Dev Cell* **7**: 465-80.
- Pourquie, O., C.M. Fan, M. Coltey, E. Hirsinger, Y. Watanabe, C. Breant, P. Francis-West, P. Brickell, M. Tessier-Lavigne, and N.M. Le Douarin. 1996. Lateral and axial signals involved in avian somite patterning: a role for BMP4. *Cell* **84**: 461-71.
- Powell-Braxton, L., P. Hollingshead, C. Warburton, M. Dowd, S. Pitts-Meek, D. Dalton, N. Gillett, and T.A. Stewart. 1993. IGF-I is required for normal embryonic growth in mice. *Genes Dev* **7**: 2609-17.
- Relaix, F., M. Polimeni, D. Rocancourt, C. Ponzetto, B.W. Schafer, and M. Buckingham. 2003. The transcriptional activator PAX3-FKHR rescues the defects of Pax3 mutant mice but induces a myogenic gain-of-function phenotype with ligand-independent activation of Met signaling in vivo. *Genes Dev* **17**: 2950-65.

- Reshef, R., M. Maroto, and A.B. Lassar. 1998. Regulation of dorsal somitic cell fates: BMPs and Noggin control the timing and pattern of myogenic regulator expression. *Genes Dev* **12**: 290-303.
- Rhodes, S.J. and S.F. Konieczny. 1989. Identification of MRF4: a new member of the muscle regulatory factor gene family. *Genes Dev* **3**: 2050-61.
- Ridley, A., M. Peckham, and P. Clark. 2004. *Cell motility : from molecules to organisms*. Wiley, Chichester, UK ; Hoboken, NJ.
- Riethmacher, D., V. Brinkmann, and C. Birchmeier. 1995. A targeted mutation in the mouse E-cadherin gene results in defective preimplantation development. *Proc Natl Acad Sci U S A* **92**: 855-9.
- Roelink, H. 1996. Tripartite signaling of pattern: interactions between Hedgehogs, BMPs and Wnts in the control of vertebrate development. *Curr Opin Neurobiol* **6**: 33-40.
- Rudnicki, M.A., T. Braun, S. Hinuma, and R. Jaenisch. 1992. Inactivation of MyoD in mice leads to up-regulation of the myogenic HLH gene Myf-5 and results in apparently normal muscle development. *Cell* **71**: 383-90.
- Rudnicki, M.A. and R. Jaenisch. 1995. The MyoD family of transcription factors and skeletal myogenesis. *Bioessays* **17**: 203-9.
- Rudnicki, M.A., P.N. Schnegelsberg, R.H. Stead, T. Braun, H.H. Arnold, and R. Jaenisch. 1993. MyoD or Myf-5 is required for the formation of skeletal muscle. *Cell* **75**: 1351-9.
- Sachs, M., H. Brohmann, D. Zechner, T. Müller, J. Hülsken, I. Walther, U. Schaeper, C. Birchmeier, and W. Birchmeier. 2000. Essential role of Gab1 for signaling by the c-Met receptor in vivo. *J Cell Biol* **150**: 1375-84.
- Sambrook, J. and D.W. Russell. 2001. *Molecular Cloning: A Laboratory Manual*. Cold Spring Harbor Laboratory Press, Cold Spring Harbor, New York 11803-2500, USA.
- Sanger, F., S. Nicklen, and A.R. Coulson. 1977. DNA sequencing with chain-terminating inhibitors. *Proc Natl Acad Sci U S A* **74**: 5463-7.
- Scaal, M., A. Bonafede, V. Dathe, M. Sachs, G. Cann, B. Christ, and B. Brand-Saberi. 1999. SF/HGF is a mediator between limb patterning and muscle development. *Development* **126**: 4885-93.
- Schafer, K. and T. Braun. 1999. Early specification of limb muscle precursor cells by the homeobox gene Lbx1h. *Nat Genet* **23**: 213-6.
- Schilham, M.W., M.A. Oosterwegel, P. Moerer, J. Ya, P.A. de Boer, M. van de Wetering, S. Verbeek, W.H. Lamers, A.M. Kruisbeek, A. Cumano, and H. Clevers. 1996. Defects in cardiac outflow tract formation and pro-B-lymphocyte expansion in mice lacking Sox-4. *Nature* **380**: 711-4.
- Schramm, C. and M. Solursh. 1990. The formation of premuscle masses during chick wing bud development. *Anat Embryol (Berl)* **182**: 235-47.
- Schweizer, H., R.L. Johnson, and B. Brand-Saberi. 2004. Characterization of migration behavior of myogenic precursor cells in the limb bud with respect to Lmx1b expression. *Anat Embryol (Berl)* **208**: 7-18.
- Serrador, J.M., M. Nieto, and F. Sanchez-Madrid. 1999. Cytoskeletal rearrangement during migration and activation of T lymphocytes. *Trends Cell Biol* **9**: 228-33.
- Shimizu, Y. and S.W. Hunt, 3rd. 1996. Regulating integrin-mediated adhesion: one more function for PI 3-kinase? *Immunol Today* **17**: 565-73.
- Southern, E.M. 1975. Detection of specific sequences among DNA fragments separated by gel electrophoresis. *J Mol Biol* **98**: 503-17.
- Stebler, J., D. Spieler, K. Slanchev, K.A. Molyneaux, U. Richter, V. Cojocar, V. Tarabykin, C. Wylie, M. Kessel, and E. Raz. 2004. Primordial germ cell migration in the chick and mouse embryo: the role of the chemokine SDF-1/CXCL12. *Dev Biol* **272**: 351-61.
- Swartz, M.E., J. Eberhart, E.B. Pasquale, and C.E. Krull. 2001. EphA4/ephrin-A5 interactions in muscle precursor cell migration in the avian forelimb. *Development* **128**: 4669-80.

- Sweeney, L.J., J.M. Kennedy, R. Zak, K. Kokjohn, and S.W. Kelley. 1989. Evidence for expression of a common myosin heavy chain phenotype in future fast and slow skeletal muscle during initial stages of avian embryogenesis. *Dev Biol* **133**: 361-74.
- Tabor, S. and C.C. Richardson. 1987. DNA sequence analysis with a modified bacteriophage T7 DNA polymerase. *Proc Natl Acad Sci U S A* **84**: 4767-71.
- Tachibana, K., S. Hirota, H. Iizasa, H. Yoshida, K. Kawabata, Y. Kataoka, Y. Kitamura, K. Matsushima, N. Yoshida, S. Nishikawa, T. Kishimoto, and T. Nagasawa. 1998. The chemokine receptor CXCR4 is essential for vascularization of the gastrointestinal tract. *Nature* **393**: 591-4.
- Taniguchi, Y., T. Furukawa, T. Tun, H. Han, and T. Honjo. 1998. LIM protein KyoT2 negatively regulates transcription by association with the RBP-J DNA-binding protein. *Mol Cell Biol* **18**: 644-54.
- Venuti, J.M., J.H. Morris, J.L. Vivian, E.N. Olson, and W.H. Klein. 1995. Myogenin is required for late but not early aspects of myogenesis during mouse development. *J Cell Biol* **128**: 563-76.
- Vicente-Manzanares, M., M. Rey, D.R. Jones, D. Sancho, M. Mellado, J.M. Rodriguez-Frade, M.A. del Pozo, M. Yanez-Mo, A.M. de Ana, A.C. Martinez, I. Merida, and F. Sanchez-Madrid. 1999. Involvement of phosphatidylinositol 3-kinase in stromal cell-derived factor-1 alpha-induced lymphocyte polarization and chemotaxis. *J Immunol* **163**: 4001-12.
- Wang, B., J. Weidenfeld, M.M. Lu, S. Maika, W.A. Kuziel, E.E. Morrisey, and P.W. Tucker. 2004. Foxp1 regulates cardiac outflow tract, endocardial cushion morphogenesis and myocyte proliferation and maturation. *Development* **131**: 4477-87.
- Wang, D.Z., M.R. Valdez, J. McAnally, J. Richardson, and E.N. Olson. 2001. The Mef2c gene is a direct transcriptional target of myogenic bHLH and MEF2 proteins during skeletal muscle development. *Development* **128**: 4623-33.
- Wang, F., J.R. Van Brocklyn, J.P. Hobson, S. Movafagh, Z. Zukowska-Grojec, S. Milstien, and S. Spiegel. 1999. Sphingosine 1-phosphate stimulates cell migration through a G(i)-coupled cell surface receptor. Potential involvement in angiogenesis. *J Biol Chem* **274**: 35343-50.
- Wigmore, P.M. and D.J. Evans. 2002. Molecular and cellular mechanisms involved in the generation of fiber diversity during myogenesis. *Int Rev Cytol* **216**: 175-232.
- Wright, W.E., D.A. Sassoon, and V.K. Lin. 1989. Myogenin, a factor regulating myogenesis, has a domain homologous to MyoD. *Cell* **56**: 607-17.
- Wu, G., J.L. Benovic, J.D. Hildebrandt, and S.M. Lanier. 1998. Receptor docking sites for G-protein betagamma subunits. Implications for signal regulation. *J Biol Chem* **273**: 7197-200.
- Yang, X.M., K. Vogan, P. Gros, and M. Park. 1996. Expression of the met receptor tyrosine kinase in muscle progenitor cells in somites and limbs is absent in Splotch mice. *Development* **122**: 2163-71.
- Zimmerman, L.B., J.M. De Jesus-Escobar, and R.M. Harland. 1996. The Spemann organizer signal noggin binds and inactivates bone morphogenetic protein 4. *Cell* **86**: 599-606.
- Zlotnik, A. and O. Yoshie. 2000. Chemokines: a new classification system and their role in immunity. *Immunity* **12**: 121-7.
- Zou, Y.R., A.H. Kottmann, M. Kuroda, I. Taniuchi, and D.R. Littman. 1998. Function of the chemokine receptor CXCR4 in haematopoiesis and in cerebellar development. *Nature* **393**: 595-9.