

References

- Askanas V, Gallez-Hawkins G (1985) Synergistic influence of polypeptide growth factors on cultured human muscle. *Arch Neurol* 42: 749-752
- Babai F, Musevi-Aghdam J, Schurch W, Royal A, Gabbiani G (1990) Coexpression of α -sarcomeric actin, α -smooth muscle actin and desmin during myogenesis in rat and mouse embryos I. Skeletal muscle. *Differentiation* 44: 132-142
- Bach LA, Hsieh S, Brown AL, Rechler MM (1994) Recombinant human insulin-like growth factor (IGF)-binding protein-6 inhibits IGF-II-induced differentiation of L6A1 myoblasts. *Endocrinology* 135: 2168-2176
- Blachowski S, Motyl T, Orzechowski A, Grzelkowska K, Interewicz B (1993) Comparison of metabolic effects of EGF, TGF- α and TGF- β 1 in primary culture of fetal bovine myoblasts and rat L6 myoblasts. *Int J Biochem* 25: 1571-1577
- Bladt F, Riethmacher D, Isenmann S, Aguzzi A, Birchmeier C (1995) Essential role for the *c-met* receptor in the migration of myogenic precursor cells into the limb bud. *Nature* 376: 768-771
- Block NE, Zhu Z, Kachinsky AM, Dominov JA, Miller JB (1996) Acceleration of somitic myogenesis in embryos of myogenin promoter-MRF4 transgenic mice. *Dev Dyn* 207: 382-394
- Braun T, Rudnicki MA, Arnold H-H, Jaenisch R (1992) Targeted inactivation of the muscle regulatory gene *myf-5* results in abnormal rib development and perinatal death. *Cell* 71: 369-382
- Braun T, Arnold H-H (1995) Inactivation of the Myf-6 and Myf-5 genes in mice leads to alterations in skeletal muscle development. *EMBO J* 14: 1176-1186

- Brehm P, Henderson L (1988) Regulation of acetylcholine receptor channel function during development of skeletal muscle. *Dev Biol* 129: 1-11
- Brennan TJ, Edmondson DG, Li L, Olson EN (1991) Transforming growth factor β represses the actions of myogenin through a mechanism independent of DNA binding. *Proc Natl Acad Sci USA* 88: 3822-3826
- Brenner HR, Rotzler S, Kues WA, Witzemann V, Sakmann B (1994) Nerve-dependent induction of AChR ϵ -subunit gene expression in muscle is independent of state of differentiation. *Dev Biol* 165: 527-536
- Buckingham M (1996) Skeletal muscle development and the role of the myogenic regulatory factors. *Biochem Soc Trans* 24: 506-509
- Buckingham ME (1994) Muscle: the regulation of myogenesis. *Curr Opin Genet Dev* 4: 745-751
- Buonanno A, Cheng J, Venepally P, Weis J, Calvo S (1998) Activity-dependent regulation of muscle genes: repressive and stimulatory effects of innervation. *Acta Physiol Scand* 163: S17-S26
- Campion DR (1984) The muscle satellite cell: A review. *Int Rev Cytol* 87: 225-251
- Coolican SA, Samuel DS, Ewton DZ, McWade FJ, Florini JR (1997) The mitogenic and myogenic actions of insulin-like growth factors utilize distinct signaling pathways. *J Biol Chem* 272: 6653-6662
- Dalrymple KR, Prigozy TI, Mayo M, Kedes L, Shuler C (1999) Murine tongue muscle displays a distinct developmental profile of MRF and contractile gene expression. *Int J Dev Biol* 43: 27-37
- Dennis MJ, Ziskind-Conhaim L, Harris AJ (1981) Development of neuromuscular junctions in rat embryos. *Dev Biol* 81: 266-279

- Duclert A, Changeux J-P (1995) Acetylcholine receptor gene expression at the developing neuromuscular junction. *Physiol Rev* 75: 339-368
- Engert JC, Berglund EB, Rosenthal N (1996) Proliferation precedes differentiation in IGF-I-stimulated myogenesis. *J Cell Biol* 135: 431-440
- Ewton DZ, Falen SL, Florini JR (1987) The type II insulin-like growth factor (IGF) receptor has low affinity for IGF-I analogs: Pleiotypic actions of IGFs on myoblasts are apparently mediated by type I receptor. *Endocrinology* 120: 115-123
- Ewton DZ, Roof SL, Magri KA, McWade FJ, Florini JR (1994) IGF-II is more active than IGF-I in stimulating L6A1 myogenesis: Greater mitogenic actions of IGF-I delay differentiation. *J Cell Physiol* 16: 277-284
- Ewton DZ, Florini JR (1995) IGF binding proteins-4, -5 and -6 may play specialized roles during L6 myoblast proliferation and differentiation. *J Endocrinol* 144: 539-553
- Ewton DZ, Coolican SA, Mohan S, Chernausk SD, Florini JR (1998) Modulation of insulin-like growth factor actions in L6A1 myoblasts by insulin-like growth factor binding protein (IGFBP)-4 and IGFBP-5: A dual role for IGFBP-5. *J Cell Physiol* 177: 47-57
- Ferguson MWJ, Sharpe PM, Thomas BL, Beck F (1992) Differential expression of insulin-like growth factors I and II (IGF I and II), mRNA, peptide and binding protein 1 during mouse palate development: comparison with TGF β peptide distribution. *J Anat* 181: 219-238
- Florini JR, Ewton DZ, Roof SL (1991a) Insulin-like growth factor-I stimulates terminal myogenic differentiation by induction of myogenin gene expression.

Mol Endocrinol 5: 718-724

- Florini JR, Magri KA, Ewton DZ, James PL, Grindstaff K, Rotwein PS (1991b) "Spontaneous" differentiation of skeletal myoblasts is dependent upon autocrine secretion of insulin-like growth factor-II. J Biol Chem 266: 15917-15923
- Florini JR, Ewton DZ, Magri KA, Mangiacapra FJ (1994) IGFs and muscle differentiation. Adv Exp Med Biol 343: 319-326
- Florini JR, Ewton DZ, Coolican SA (1996) Growth hormone and the insulin-like growth factor system in myogenesis. Endocr Rev 17: 481-517
- Hall ZW, Sanes JR (1993) Synaptic structure and development : the neuromuscular junction. Cell 72(Suppl): 99-121
- Hannon K, II CKS, Bales KR, Santerre RF (1992) Temporal and quantitative analysis of myogenic regulatory and growth factor gene expression in the developing mouse embryo. Dev Biol 151: 137-144
- Hasty P, Bradley A, Morris JH, Edmondson DG, Venuti JM, Olson EN, Klein WH (1993) Muscle deficiency and neonatal death in mice with a targeted mutation in the *myogenin* gene. Nature 364: 501-506
- Hollenberg SM, Cheng PF, Weintraub H (1993) Use of a conditional MyoD transcription factor in studies of MyoD trans-activation and muscle determination. Proc Natl Acad Sci USA 90: 8028-8032
- Ishii DN (1989) Relationship of insulin-like growth factor II gene expression in muscle to synaptogenesis. Proc Natl Acad Sci USA 86: 2898-2902
- Jacob HJ, Christ B, Brand B (1986) On the development of trunk and limb muscles in avian embryos. Biblthca Anat 29: 1-23

- James PL, Jones SB, Busby WH, Clemmons DR, Rotwein P (1993) A highly conserved insulin-like growth factor-binding protein (IGFBP-5) is expressed during myoblast differentiation. *J Biol Chem* 268: 22305-22312
- Jones JI, Clemmons DR (1995) Insulin-like growth factors and their binding proteins: Biological actions. *Endocr Rev* 16: 3-34
- Kelvin DJ, Simard G, Connolly JA (1989) FGF and EGF act synergistically to induce proliferation in BC3H1 myoblasts. *J Cell Physiol* 138: 267-272
- Kiess W, Haskell JF, Lee L, Greenstein LA, Miller BE, Aarons AL, Rechler MM, Nissley SP (1987) An antibody that blocks insulin-like growth factor (IGF) binding to the type II IGF receptor is neither an agonist nor an inhibitor of IGF-stimulated biologic responses in L6 myoblasts. *J Biol Chem* 262: 12745-12751
- Kitzman M, Carnac G, Vandromme M, Priming M, Lamb NJC, Fernandez A (1998) The muscle regulatory factors MyoD and Myf-5 undergo distinct cell cycle-specific expression in muscle cells. *J Cell Biol* 142: 1447-1459
- Kleffens MV, Groffen CAH, Dits NFJ, Linderbergh-Kortleve DJ, Schuller AGP, Bradshaw SL, Pintar JE, Zwarthoff EC, Drop SLS, Neck JWV (1999) Generation of antisera to mouse insulin-like growth factor binding proteins (IGFBP)-1 to -6: Comparison of IGFBP protein and messenger ribonucleic acid localization in the mouse embryo. *Endocrinology* 140: 5944-5952
- Kong Y, Johnson SE, Taparowsky EJ, Konieczny SF (1995) Ras p21val inhibits myogenesis without altering the DNA binding or transcriptional activities of the myogenic basic helix-loop-helix factors. *Mol Cell Biol* 15: 5205-5213
- Kubota K, Narita N, Ohkubo K, Shibanaï S, Nagae K, Kubota M, Odagiri N,

- Kawamoto T (1988) Morphological studies of the neuromuscular mechanism shifting from sucking to biting of mice. *Acta Anatomica* 133: 200-208
- Lau MMH, Stewart CEH, Liu Z, Bhatt H, Rotwein P, Stewart CL (1994) Loss of the imprinted IGF2/cation-independent mannose 6-phosphate receptor results in fetal overgrowth and perinatal lethality. *Genes Dev* 8: 2953-2963
- Li L, Zhou J, James G, Heller-Harrison R, Czech MP, Olson EN (1992) FGF inactivates myogenic helix-loop-helix proteins through phosphorylation of a conserved protein kinase C site in their DNA-binding domains. *Cell* 71: 1181-1194
- Liu J-P, Baker J, Perkins AS, Robertson EJ, Efstratiadis A (1993) Mice carrying null mutations of the genes encoding insulin-like growth factor (*igf-1*) and type 1 IGF receptor (*igf1r*). *Cell* 75: 59-72
- Ludwig T, Eggenschwiler J, Fisher P, D'Ercole AJ, Davenport ML, Efstratiadis A (1996) Mouse mutants lacking the type 2 IGF receptor (IGF2R) are rescued from perinatal lethality in *Igf2* and *Igf1r* null backgrounds. *Dev Biol* 177: 517-535
- Luetkeke N, Lee DC, Palmiter RD, Brinster RL, Sandgren EP (1993) Regulation of fat and muscle development by transforming growth factor α in transgenic mice and in cultured cells. *Cell Growth Differ* 4: 201-213
- Mackenzie S, Walsh FS, Graham A (1998) Migration of hypoglossal myoblast precursors. *Dev Dyn* 213: 349-358
- Martin JF, Li L, Olson EN (1992) Repression of myogenin function by TGF- β 1 is targeted at the basic helix-loop-helix motif and is independent of E2A products. *J Biol Chem* 267: 10956-10960

- Mayo ML, Bringas. P, Santos V, Shum L, Slavkin HC (1992) Desmin expression during early mouse tongue morphogenesis. *Int J Dev Biol* 36: 255-263
- McCusker RH, Clemmons DR (1994) Effects of cytokines on insulin-like growth factor-binding protein secretion by muscle cells *in vitro*. *Endocrinology* 134: 2095-2102
- Missias AC, Chu GC, Klocke BJ, Sanes JR, Merlie JP (1996) Maturation of the acetylcholine receptor in skeletal muscle: Regulation of the nAChR γ -to- ϵ switch. *Dev Biol* 179: 223-238
- Nabeshima Y, Hanaoka K, Hayasaka M, Esumi E, Li S, Nonaka I, Nabeshima Y-i (1993) *Myogenin* gene disruption results in perinatal lethality because of severe muscle defect. *Nature* 364: 532-535
- Navarro M, Barenton B, Garandel V, Schnekenburger J, Bernardi H (1997) Insulin-like growth factor I (IGF-I) receptor overexpression abolishes the IGF requirement for differentiation and induces a ligand-dependent transformed phenotype in C2 inducible myoblasts. *Endocrinology* 138: 5210-5219
- Noden DM (1983) The embryonic origins of avian cephalic and cervical muscles and associated connective tissues. *Am J Anat* 168: 257-276
- Noden DM (1986a) Patterning of avian craniofacial muscles. *Dev Biol* 116: 347-356
- Noden DM (1986b) Origins and patterning of craniofacial mesenchymal tissues. *J Craniofac Genet Dev Biol Suppl.* 2: 15-31
- Ontell M, Kozeka k (1984) Organogenesis of the mouse extensor digitorum longus muscle: A quantitative study. *Am J Anat* 171: 149-161
- Ontell M, Hughes D, Bourke D (1988) Morphometric analysis of the developing mouse soleus muscle. *Am J Anat* 181: 279-288

- Ontell MP, Sopper MM, Lyons G, Buckingham M, Ontell M (1993) Modulation of contractile protein gene expression in fetal murine crural muscles: emergence of muscle diversity. *Dev Dyn* 198: 203-213
- Ott M-O, Bober E, Lyons G, Arnold H, Buckingham M (1991) Early expression of the myogenic regulatory gene, *myf 5*, in precursor cells of skeletal muscle in the mouse embryo. *Development* 111: 1097-1107
- Patapoutian A, Yoon J, Miner J, Wang S, Stark K, Wold B (1995) Disruption of the mouse MRF4 gene identifies multiple waves of myogenesis in the myotome. *Development* 121: 3347-3358
- Prigozy TI, Dalrymple K, Shuler C, Kedes L (1997) Differential expression of troponin C genes during tongue myogenesis. *Dev Dyn* 209: 36-44
- Quinn LS, Ehsan M, Steinmetz B, Kaleko M (1993) Ligand-dependent inhibition of myoblast differentiation by overexpression of the type-1 insulin-like growth factor receptor. *J Cell Physiol* 156: 453-461
- Quinn LS, Roh JS (1993) Overexpression of the human type-1 insulin-like growth factor receptor in rat L6 myoblasts induces ligand-dependent cell proliferation and inhibition of differentiation. *Exp Cell Res* 208: 504-508
- Quinn LS, Steinmetz B, Maas A, Ong L, Kaleko M (1994) Type-1 insulin-like growth factor receptor overexpression produces dual effects on myoblast proliferation and differentiation. *J Cell Physiol* 159: 387-398
- Reporter MC, Konigsberg IR, Strehler BL (1963) Kinetics of accumulation of creatine phosphokinase activity in developing embryonic skeletal muscle *in vivo* and in monolayer culture. *Exp Cell Res* 30: 410-417
- Rosenthal SM, Cheng Z-Q (1995) Opposing early and late effects of insulin-like

- growth factor I on differentiation and the cell cycle regulatory retinoblastoma protein in skeletal myoblasts. *Proc Natl Acad Sci USA* 92: 10307-10311
- Rotwein P, James PL, Kou K (1995) Rapid activation of insulin-like growth factor binding protein-5 gene transcription during myoblast differentiation. *Mol Endocrinol* 9: 913-923
- Rudnicki M, Schlegelsberg PNJ, Stead RH, Braun T, Arnold H-H, Jaenisch R (1993) MyoD or Myf-5 is required for the formation of skeletal muscle. *Cell* 75: 1351-1359
- Rudnicki MA, Braun T, Hinuma S, Jaenisch R (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: 383-390
- Schaart G, Viebahn C, Langmann W, Ramaekers F (1989) Desmin and titin expression in early postimplantation mouse embryos. *Development* 107: 585-596
- Schiaffino S, Reggiani C (1996) Molecular diversity of myofibrillar proteins: Gene regulation and functional significance. *Physiol Rev* 76: 371-423
- Schuller AG, Groffen C, Neck JWv, Zwarthoff EC, Drop SL (1994) cDNA cloning and mRNA expression of the six mouse insulin-like growth factor binding proteins. *Mol Cell Biol* 104: 57-66
- Scott CD, Baxter RC (1987) Purification and immunological characterization of the rat liver insulin-like growth factor-II receptor. *Endocrinology* 120: 1-9
- Semsarian C, Wu M-J, Ju Y-K, Marciniak T, Yeoh T, Allen DG, Harvey RP, Graham RM (1999) Skeletal muscle hypertrophy is mediated by a Ca²⁺-dependent calcineurin signalling pathway. *Nature* 400: 576-581

- Shainberg A, Yagil G, Yaffe D (1969) Control of myogenesis in vitro by Ca²⁺ concentration in nutritional medium. *Exp Cell Res* 58: 163-167
- Silverman LA, Cheng Z-Q, Hsiao D, Rosenthal SM (1995) Skeletal muscle cell-derived insulin-like growth factor (IGF) binding proteins inhibit IGF-I-induced myogenesis in rat L6E9 cells. *Endocrinology* 136: 720-726
- Slavkin HC (1988) Gene regulation in the development of oral tissues. *J Dent Res* 67: 1142-1149
- Steinbach JH (1981) Developmental changes in acetylcholine receptor aggregates at rat skeletal neuromuscular junctions. *Dev Biol* 84: 267-276
- Sutherland CJ, Elsom VL, Gordon ML, Dunwoodie SL, Hardeman EC (1991) Coordination of skeletal muscle gene expression occurs late in mammalian development. *Dev Biol* 146: 167-178
- Wada J, Liu ZZ, Alvares K, Kumar A, Wallner E, Makino H, Kanwar YS (1993) Cloning of cDNA for the α subunit of mouse insulin-like growth factor I receptor and the role of the receptor in metanephric development. *Proc Natl Acad Sci USA* 90: 10360-10364
- Wang Z-Q, Fung MR, Barlow DP, Wagner EF (1994) Regulation of embryonic growth and lysosomal targeting by the imprinted *igf2/Mpr* gene. *Nature* 372: 464-467
- Weintraub H (1993) The MyoD family and myogenesis: redundancy, networks and thresholds. *Cell* 75: 1241-1244
- Yaffe D (1969) Cellular aspects of muscle differentiation *in vitro*. *Curr Top Dev Biol* 4: 37-77
- Yamane A, Mayo ML, Jr. PB, Chen L, Huynh M, Thai K, Shum L, Slavkin HC

- (1997) TGF- α , EGF, and their cognate receptor are co-expressed with desmin during embryonic, fetal, and neonatal myogenesis in mouse tongue development. *Dev Dyn* 209: 353-366
- Yamane A, Jr. PB, Mayo ML, Amano O, Takahashi K, Vo H, Shum L, Slavkin HC (1998a) Transforming growth factor alpha up-regulates desmin expression during embryonic mouse tongue myogenesis. *Dev Dyn* 213: 71-81
- Yamane A, Takahashi K, Mayo M, Vo H, Shum L, Zeichner-David M, Slavkin HC (1998b) Induced expression of MyoD, myogenin and desmin during myoblast differentiation in embryonic mouse tongue development. *Archs Oral Biol* 43: 407-416
- Yamane A, Mayo M, Shuler C, Crowe D, Ohnuki Y, Dalrymple K, Saeki Y (2000a) Expression of myogenic regulatory factors during the development of mouse tongue striated muscle. *Archs Oral Biol* 45: 71-78
- Yamane A, Mayo ML, Shuler C (2000b) The expression of insulin-like growth factor-I, II and their cognate receptor 1 and 2 during mouse tongue embryonic and neonatal development. *Zool Sci* 17: 935-945
- Yamane A, Ohnuki Y, Saeki Y (2001) Developmental changes in the nicotinic acetylcholine receptor in mouse tongue striated muscle. *J Dent Res* 80: 1840-1844
- Yamane A, Saito T, Ohnuki Y, Saeki Y (2002) Changes in mRNA expression of nicotinic acetylcholine receptor subunits during embryonic development of mouse masseter muscle. *Zool. Sci.* in press
- Yoshiko Y, Hirao K, Sakabe K, Seiki K, Takezawa J, Maeda N (1996) Autonomous control of expression of genes for insulin-like growth factors during the

proliferation and differentiation of C2C12 mouse myoblasts in serum-free culture. *Life Sci* 59: 1961-1968

Zhao J, Araki N, Nishimoto SK (1995) Quantitation of matrix Gla protein mRNA by competitive polymerase chain reaction using glyceraldehyde-3-phosphate dehydrogenase as an internal standard. *Gene* 155: 159-165

Zhu Z, Miller JB (1997) MRF4 can substitute for myogenin during early stages of myogenesis. *Dev Dyn* 209: 233-241

Zoubine MN, Ma JY, Smirnova IV, Citron BA, Festoff BW (1996) A molecular mechanism for synapse elimination: Novel inhibition of locally generated thrombin delays synapse loss in neonatal mouse muscle. *Dev Biol* 179: 447-457