7 References

Aalfs, J.D., and Kingston, R.E. (2000). What does 'chromatin remodeling' mean? Trends in biochemical sciences *25*, 548-555.

Aasland, R., Gibson, T.J., and Stewart, A.F. (1995). The PHD finger: implications for chromatin-mediated transcriptional regulation. Trends in biochemical sciences *20*, 56-59.

Allen, M.D., Buckle, A.M., Cordell, S.C., Lowe, J., and Bycroft, M. (2003). The crystal structure of AF1521 a protein from Archaeoglobus fulgidus with homology to the non-histone domain of macroH2A. Journal of molecular biology *330*, 503-511.

Allis, C.D., Berger, S.L., Cote, J., Dent, S., Jenuwien, T., Kouzarides, T., Pillus, L., Reinberg, D., Shi, Y., Shiekhattar, R.*, et al.* (2007a). New nomenclature for chromatin-modifying enzymes. Cell *131*, 633-636.

Allis, C.D., Jenuwein, T., and Reinberg, D. (2007b). Overview and Concepts. In Epigenetics. Cold Spring Harbor Laboratory Press, 25-61.

Anderson, R.H., and Tynan, M. (1988). Tetralogy of Fallot--a centennial review. International journal of cardiology *21*, 219-232.

Anderson, R.H., and Weinberg, P.M. (2005). The clinical anatomy of tetralogy of fallot. Cardiology in the young *15 Suppl 1*, 38-47.

Asahara, H., Tartare-Deckert, S., Nakagawa, T., Ikehara, T., Hirose, F., Hunter, T., Ito, T., and Montminy, M. (2002). Dual roles of p300 in chromatin assembly and transcriptional activation in cooperation with nucleosome assembly protein 1 in vitro. Molecular and cellular biology *22*, 2974-2983.

Awata, T., Inoue, K., Kurihara, S., Ohkubo, T., Watanabe, M., Inukai, K., Inoue, I., and Katayama, S. (2002). A common polymorphism in the 5'-untranslated region of the VEGF gene is associated with diabetic retinopathy in type 2 diabetes. Diabetes *51*, 1635-1639.

Babushok, D.V., Ostertag, E.M., and Kazazian, H.H., Jr. (2007). Current topics in genome evolution: molecular mechanisms of new gene formation. Cell Mol Life Sci *64*, 542-554.

Backs, J., and Olson, E.N. (2006). Control of cardiac growth by histone acetylation/deacetylation. Circulation research *98*, 15-24.

Baldini, A. (2005). Dissecting contiguous gene defects: TBX1. Current opinion in genetics & development *15*, 279-284.

Barak, Y., Nelson, M.C., Ong, E.S., Jones, Y.Z., Ruiz-Lozano, P., Chien, K.R., Koder, A., and Evans, R.M. (1999). PPAR gamma is required for placental, cardiac, and adipose tissue development. Molecular cell *4*, 585-595.

Barron, M.R., Belaguli, N.S., Zhang, S.X., Trinh, M., Iyer, D., Merlo, X., Lough, J.W., Parmacek, M.S., Bruneau, B.G., and Schwartz, R.J. (2005). Serum response factor, an enriched cardiac mesoderm obligatory factor, is a downstream gene target for Tbx genes. The Journal of biological chemistry *280*, 11816-11828.

Bartelings, M.M., and Gittenberger-de Groot, A.C. (1991). Morphogenetic considerations on congenital malformations of the outflow tract. Part 1: Common arterial trunk and tetralogy of Fallot. International journal of cardiology *32*, 213-230.

Basson, C.T., Bachinsky, D.R., Lin, R.C., Levi, T., Elkins, J.A., Soults, J., Grayzel, D., Kroumpouzou, E., Traill, T.A., Leblanc-Straceski, J.*, et al.* (1997). Mutations in human TBX5 [corrected] cause limb and cardiac malformation in Holt-Oram syndrome. Nature genetics *15*, 30-35.

Basson, C.T., Huang, T., Lin, R.C., Bachinsky, D.R., Weremowicz, S., Vaglio, A., Bruzzone, R., Quadrelli, R., Lerone, M., Romeo, G.*, et al.* (1999). Different TBX5 interactions in heart and limb defined by Holt-Oram syndrome mutations. Proceedings of the National Academy of Sciences of the United States of America *96*, 2919-2924.

Becker, P.B., and Horz, W. (2002). ATP-dependent nucleosome remodeling. Annual review of biochemistry *71*, 247-273.

Belandia, B., Orford, R.L., Hurst, H.C., and Parker, M.G. (2002). Targeting of SWI/SNF chromatin remodelling complexes to estrogen-responsive genes. The EMBO journal *21*, 4094-4103.

Belandia, B., and Parker, M.G. (2003). Nuclear receptors: a rendezvous for chromatin remodeling factors. Cell *114*, 277-280.

Benjamini, Y., and Hochberg, Y. (1995). Controlling the False Discovery Rate: A Practical and Powerful Approach to Multiple Testing. Journal of the Royal Statistical Society Series B (Methodological) *57*, 289.

Berger, S.L. (2007). The complex language of chromatin regulation during transcription. Nature *447*, 407-412.

Bernstein, B.E., Kamal, M., Lindblad-Toh, K., Bekiranov, S., Bailey, D.K., Huebert, D.J., McMahon, S., Karlsson, E.K., Kulbokas, E.J., 3rd, Gingeras, T.R.*, et al.* (2005). Genomic maps and comparative analysis of histone modifications in human and mouse. Cell *120*, 169-181.

Bienz, M. (2006). The PHD finger, a nuclear protein-interaction domain. Trends in biochemical sciences *31*, 35-40.

Black, B.L., and Olson, E.N. (1998). Transcriptional control of muscle development by myocyte enhancer factor-2 (MEF2) proteins. Annual review of cell and developmental biology *14*, 167-196.

Blanchard, A., Ohanian, V., and Critchley, D. (1989). The structure and function of alpha-actinin. Journal of muscle research and cell motility *10*, 280-289.

Blaschke, R.J., Hahurij, N.D., Kuijper, S., Just, S., Wisse, L.J., Deissler, K., Maxelon, T., Anastassiadis, K., Spitzer, J., Hardt, S.E.*, et al.* (2007). Targeted mutation reveals essential functions of the homeodomain transcription factor Shox2 in sinoatrial and pacemaking development. Circulation *115*, 1830-1838.

Bodmer, R. (1993). The gene tinman is required for specification of the heart and visceral muscles in Drosophila. Development (Cambridge, England) *118*, 719-729.

Bodmer, R., and Venkatesh, T.V. (1998). Heart development in Drosophila and vertebrates: conservation of molecular mechanisms. Developmental genetics *22*, 181-186.

Bohm, J., Sustmann, C., Wilhelm, C., and Kohlhase, J. (2006). SALL4 is directly activated by TCF/LEF in the canonical Wnt signaling pathway. Biochemical and biophysical research communications *348*, 898-907.

Boyett, M.R., Honjo, H., and Kodama, I. (2000). The sinoatrial node, a heterogeneous pacemaker structure. Cardiovascular research *47*, 658-687.

Bozhenok, L., Wade, P.A., and Varga-Weisz, P. (2002). WSTF-ISWI chromatin remodeling complex targets heterochromatic replication foci. The EMBO journal *21*, 2231-2241.

Brooks, W.S., Banerjee, S., and Crawford, D.F. (2007). G2E3 is a nucleo-cytoplasmic shuttling protein with DNA damage responsive localization. Experimental cell research *313*, 665-676.

Bruneau, B.G., Bao, Z.-Z., Tanaka, M., Schott, J.-J., Izumo, S., Cepko, C.L., Seidman, J.G., and Seidman, C.E. (2000). Cardiac Expression of the Ventricle-Specific Homeobox Gene Irx4 Is Modulated by Nkx2-5 and dHand. Developmental biology *217*, 266.

Buchman, V.L., Ninkina, N.N., Bogdanov, Y.D., Bortvin, A.L., Akopian, H.N., Kiselev, S.L., Krylova, O., Anokhin, K.V., and Georgiev, G.P. (1992). Differential splicing creates a diversity of transcripts from a neurospecific developmentally regulated gene encoding a protein with new zinc-finger motifs. Nucleic acids research *20*, 5579-5585.

Buckingham, M. (2001). Skeletal muscle formation in vertebrates. Current opinion in genetics & development *11*, 440-448.

Buckingham, M. (2006). Myogenic progenitor cells and skeletal myogenesis in vertebrates. Current opinion in genetics & development *16*, 525-532.

Buckingham, M. (2007). Skeletal muscle progenitor cells and the role of Pax genes. Comptes rendus biologies *330*, 530-533.

Buckingham, M., Meilhac, S., and Zaffran, S. (2005). Building the mammalian heart from two sources of myocardial cells. Nat Rev Genet *6*, 826-835.

Bultman, S., Gebuhr, T., Yee, D., La Mantia, C., Nicholson, J., Gilliam, A., Randazzo, F., Metzger, D., Chambon, P., Crabtree, G.*, et al.* (2000). A Brg1 null mutation in the mouse reveals functional differences among mammalian SWI/SNF complexes. Molecular cell *6*, 1287-1295.

Calonge, M.J., Seoane, J., and Massague, J. (2004). Opposite Smad and chicken ovalbumin upstream promoter transcription factor inputs in the regulation of the collagen VII gene promoter by transforming growth factor-beta. The Journal of biological chemistry *279*, 23759-23765.

Campione, M., Steinbeisser, H., Schweickert, A., Deissler, K., van Bebber, F., Lowe, L.A., Nowotschin, S., Viebahn, C., Haffter, P., Kuehn, M.R.*, et al.* (1999). The homeobox gene Pitx2: mediator of asymmetric left-right signaling in vertebrate heart and gut looping. Development (Cambridge, England) *126*, 1225-1234.

Caretti, G., Di Padova, M., Micales, B., Lyons, G.E., and Sartorelli, V. (2004). The Polycomb Ezh2 methyltransferase regulates muscle gene expression and skeletal muscle differentiation. Genes & development *18*, 2627-2638.

Chan, H.M., and La Thangue, N.B. (2001). p300/CBP proteins: HATs for transcriptional bridges and scaffolds. Journal of cell science *114*, 2363-2373.

Chang, A., and Potter, J. (2005). Sarcomeric Protein Mutations in Dilated Cardiomyopathy. Heart Failure Reviews *10*, 225-235.

Chen, H., Shi, S., Acosta, L., Li, W., Lu, J., Bao, S., Chen, Z., Yang, Z., Schneider, M.D., Chien, K.R.*, et al.* (2004). BMP10 is essential for maintaining cardiac growth during murine cardiogenesis. Development (Cambridge, England) *131*, 2219-2231.

Chen, J.N., and Fishman, M.C. (2000). Genetics of heart development. Trends Genet *16*, 383-388.

Chestkov, A.V., Baka, I.D., Kost, M.V., Georgiev, G.P., and Buchman, V.L. (1996). The d4 gene family in the human genome. Genomics *36*, 174-177.

Cheung, W.L., Turner, F.B., Krishnamoorthy, T., Wolner, B., Ahn, S.H., Foley, M., Dorsey, J.A., Peterson, C.L., Berger, S.L., and Allis, C.D. (2005). Phosphorylation of histone H4 serine 1 during DNA damage requires casein kinase II in S. cerevisiae. Curr Biol *15*, 656-660.

Chi, X., Chatterjee, P.K., Wilson, W., 3rd, Zhang, S.X., Demayo, F.J., and Schwartz, R.J. (2005). Complex cardiac Nkx2-5 gene expression activated by noggin-sensitive enhancers followed by chamber-specific modules. Proceedings of the National Academy of Sciences of the United States of America *102*, 13490-13495.

Ching, Y.H., Ghosh, T.K., Cross, S.J., Packham, E.A., Honeyman, L., Loughna, S., Robinson, T.E., Dearlove, A.M., Ribas, G., Bonser, A.J.*, et al.* (2005). Mutation in myosin heavy chain 6 causes atrial septal defect. Nature genetics *37*, 423-428.

Christ, B., and Ordahl, C.P. (1995). Early stages of chick somite development. Anatomy and embryology *191*, 381-396.

Christoffels, V.M., Burch, J.B., and Moorman, A.F. (2004). Architectural plan for the heart: early patterning and delineation of the chambers and the nodes. Trends in cardiovascular medicine *14*, 301-307.

Christoffels, V.M., Habets, P.E., Franco, D., Campione, M., de Jong, F., Lamers, W.H., Bao, Z.Z., Palmer, S., Biben, C., Harvey, R.P.*, et al.* (2000). Chamber formation and morphogenesis in the developing mammalian heart. Developmental biology *223*, 266-278.

Cipollina, C., van den Brink, J., Daran-Lapujade, P., Pronk, J.T., Vai, M., and de Winde, J.H. (2008). Revisiting the role of yeast Sfp1 in ribosome biogenesis and cell size control: a chemostat study. Microbiology (Reading, England) *154*, 337-346.

Clark, K.A., McElhinny, A.S., Beckerle, M.C., and Gregorio, C.C. (2002). STRIATED MUSCLE CYTOARCHITECTURE: An Intricate Web of Form and Function. Annual review of cell and developmental biology *18*, 637-706.

Claycomb, W.C., Lanson, N.A., Jr., Stallworth, B.S., Egeland, D.B., Delcarpio, J.B., Bahinski, A., and Izzo, N.J., Jr. (1998). HL-1 cells: a cardiac muscle cell line that contracts and retains phenotypic characteristics of the adult cardiomyocyte. Proceedings of the National Academy of Sciences of the United States of America *95*, 2979-2984.

Connelly, J.J., Yuan, P., Hsu, H.C., Li, Z., Xu, R.M., and Sternglanz, R. (2006). Structure and function of the Saccharomyces cerevisiae Sir3 BAH domain. Molecular and cellular biology *26*, 3256-3265.

Conti, E., and Izaurralde, E. (2005). Nonsense-mediated mRNA decay: molecular insights and mechanistic variations across species. Current opinion in cell biology *17*, 316-325.

Cooper, S.J., Trinklein, N.D., Anton, E.D., Nguyen, L., and Myers, R.M. (2006). Comprehensive analysis of transcriptional promoter structure and function in 1% of the human genome. Genome research *16*, 1-10.

Cosgrove, M.S., Boeke, J.D., and Wolberger, C. (2004). Regulated nucleosome mobility and the histone code. Nature structural & molecular biology *11*, 1037-1043.

Coulson, M., Robert, S., Eyre, H.J., and Saint, R. (1998). The identification and localization of a human gene with sequence similarity to Polycomblike of Drosophila melanogaster. Genomics *48*, 381-383.

Cripps, R.M., and Olson, E.N. (2002). Control of cardiac development by an evolutionarily conserved transcriptional network. Developmental biology *246*, 14-28.

Cummings, B. (2001). Addison Wesley Longman.

Dai, Y.S., and Markham, B.E. (2001). p300 Functions as a coactivator of transcription factor GATA-4. The Journal of biological chemistry *276*, 37178-37185.

Dalkilic, I., Schienda, J., Thompson, T.G., and Kunkel, L.M. (2006). Loss of FilaminC (FLNc) results in severe defects in myogenesis and myotube structure. Molecular and cellular biology *26*, 6522-6534.

Davidson, E.H., Rast, J.P., Oliveri, P., Ransick, A., Calestani, C., Yuh, C.H., Minokawa, T., Amore, G., Hinman, V., Arenas-Mena, C.*, et al.* (2002). A genomic regulatory network for development. Science (New York, NY *295*, 1669-1678.

Davis, F.J., Gupta, M., Camoretti-Mercado, B., Schwartz, R.J., and Gupta, M.P. (2003). Calcium/calmodulin-dependent protein kinase activates serum response factor transcription activity by its dissociation from histone deacetylase, HDAC4. Implications in cardiac muscle gene regulation during hypertrophy. The Journal of biological chemistry *278*, 20047-20058.

de la Serna, I.L., Carlson, K.A., and Imbalzano, A.N. (2001). Mammalian SWI/SNF complexes promote MyoD-mediated muscle differentiation. Nature genetics *27*, 187-190.

Debril, M.B., Gelman, L., Fayard, E., Annicotte, J.S., Rocchi, S., and Auwerx, J. (2004). Transcription factors and nuclear receptors interact with the SWI/SNF complex through the BAF60c subunit. The Journal of biological chemistry *279*, 16677-16686.

Denetclaw, W.F., and Ordahl, C.P. (2000). The growth of the dermomyotome and formation of early myotome lineages in thoracolumbar somites of chicken embryos. Development (Cambridge, England) *127*, 893-905.

Dhalluin, C., Carlson, J.E., Zeng, L., He, C., Aggarwal, A.K., and Zhou, M.M. (1999). Structure and ligand of a histone acetyltransferase bromodomain. Nature *399*, 491-496.

Dillon, S.C., Zhang, X., Trievel, R.C., and Cheng, X. (2005). The SET-domain protein superfamily: protein lysine methyltransferases. Genome biology *6*, 227.

Doyon, Y., Cayrou, C., Ullah, M., Landry, A.J., Cote, V., Selleck, W., Lane, W.S., Tan, S., Yang, X.J., and Cote, J. (2006). ING tumor suppressor proteins are critical regulators of chromatin acetylation required for genome expression and perpetuation. Molecular cell *21*, 51-64.

Eberharter, A., and Becker, P.B. (2004). ATP-dependent nucleosome remodelling: factors and functions. Journal of cell science *117*, 3707-3711.

Edmondson, D.G., Lyons, G.E., Martin, J.F., and Olson, E.N. (1994). Mef2 gene expression marks the cardiac and skeletal muscle lineages during mouse embryogenesis. Development (Cambridge, England) *120*, 1251-1263.

Elaine, M.J. (2004). Zebrafish <I>IRX1b</I> in the embryonic cardiac ventricle. Developmental Dynamics *231*, 720-726.

Elliott, D.A., Kirk, E.P., Yeoh, T., Chandar, S., McKenzie, F., Taylor, P., Grossfeld, P., Fatkin, D., Jones, O., Hayes, P.*, et al.* (2003). Cardiac homeobox gene NKX2-5 mutations and congenital heart disease: associations with atrial septal defect and hypoplastic left heart syndrome. Journal of the American College of Cardiology *41*, 2072-2076.

Emery, A.E. (2002). Muscular dystrophy into the new millennium. Neuromuscul Disord *12*, 343-349.

Falcon, S., and Gentleman, R. (2007). Using GOstats to test gene lists for GO term association. Bioinformatics (Oxford, England) *23*, 257-258.

Fan, J.Y., Gordon, F., Luger, K., Hansen, J.C., and Tremethick, D.J. (2002). The essential histone variant H2A.Z regulates the equilibrium between different chromatin conformational states. Nature structural biology *9*, 172-176.

Faulkner, G., Lanfranchi, G., and Valle, G. (2001). Telethonin and other new proteins of the Z-disc of skeletal muscle. IUBMB life *51*, 275-282.

Felsenfeld, G., and Groudine, M. (2003). Controlling the double helix. Nature *421*, 448-453.

Firulli, A.B., and Olson, E.N. (1997). Modular regulation of muscle gene transcription: a mechanism for muscle cell diversity. Trends Genet *13*, 364-369.

Fischer, J.J., Toedling, J., Krueger, T., Schueler, M., Huber, W., and Sperling, S. (2007). The combinatorial effects of four histone modifications in transcription and differentiation. Genomics *in press*.

Fischer, J.J., Toedling, J., Krueger, T., Schueler, M., Huber, W., and Sperling, S. (2008). The combinatorial effects of four histone modifications in transcription and differentiation. Genomics *in press*.

Flanagan, J.F., Mi, L.Z., Chruszcz, M., Cymborowski, M., Clines, K.L., Kim, Y., Minor, W., Rastinejad, F., and Khorasanizadeh, S. (2005). Double chromodomains cooperate to recognize the methylated histone H3 tail. Nature *438*, 1181-1185.

Franco, D., Meilhac, S.M., Christoffels, V.M., Kispert, A., Buckingham, M., and Kelly, R.G. (2006). Left and right ventricular contributions to the formation of the interventricular septum in the mouse heart. Developmental biology *294*, 366-375.

Frank, G.B. (1964). Evidence for an Essential Role for Calcium in Excitation-Contraction Coupling in Skeletal Muscle. Proceedings of the Royal Society of London Series B, Containing papers of a Biological character *160*, 504-512.

Gabig, T.G., Mantel, P.L., Rosli, R., and Crean, C.D. (1994). Requiem: a novel zinc finger gene essential for apoptosis in myeloid cells. J Biol Chem *269*, 29515-29519.

Garg, V., Kathiriya, I.S., Barnes, R., Schluterman, M.K., King, I.N., Butler, C.A., Rothrock, C.R., Eapen, R.S., Hirayama-Yamada, K., Joo, K.*, et al.* (2003). GATA4 mutations cause human congenital heart defects and reveal an interaction with TBX5. Nature *424*, 443-447.

Garg, V., Muth, A.N., Ransom, J.F., Schluterman, M.K., Barnes, R., King, I.N., Grossfeld, P.D., and Srivastava, D. (2005). Mutations in NOTCH1 cause aortic valve disease. Nature *437*, 270-274.

Gentleman, R., Carey, V., Bates, D., Bolstad, B., Dettling, M., Dudoit, S., Ellis, B., Gautier, L., Ge, Y., Gentry, J.*, et al.* (2004). Bioconductor: open software development for computational biology and bioinformatics. Genome biology *5*, R80.

George, E.L., Baldwin, H.S., and Hynes, R.O. (1997). Fibronectins are essential for heart and blood vessel morphogenesis but are dispensable for initial specification of precursor cells. Blood *90*, 3073-3081.

Gibbons, R.J., Picketts, D.J., Villard, L., and Higgs, D.R. (1995). Mutations in a putative global transcriptional regulator cause X-linked mental retardation with alpha-thalassemia (ATR-X syndrome). Cell *80*, 837-845.

Gingras, A.-C., Aebersold, R., and Raught, B. (2005). Advances in protein complex analysis using mass spectrometry. J Physiol *563*, 11-21.

Goldmuntz, E., Geiger, E., and Benson, D.W. (2001). NKX2.5 mutations in patients with tetralogy of fallot. Circulation *104*, 2565-2568.

Gottlieb, P.D., Pierce, S.A., Sims, R.J., Yamagishi, H., Weihe, E.K., Harriss, J.V., Maika, S.D., Kuziel, W.A., King, H.L., Olson, E.N.*, et al.* (2002). Bop encodes a muscle-restricted protein containing MYND and SET domains and is essential for cardiac differentiation and morphogenesis. Nature genetics *31*, 25-32.

Gozani, O., Karuman, P., Jones, D.R., Ivanov, D., Cha, J., Lugovskoy, A.A., Baird, C.L., Zhu, H., Field, S.J., Lessnick, S.L., *et al.* (2003). The PHD finger of the chromatin-associated protein ING2 functions as a nuclear phosphoinositide receptor. Cell *114*, 99-111.

Gregorio, C.C., Weber, A., Bondad, M., Pennise, C.R., and Fowler, V.M. (1995). Requirement of pointed-end capping by tropomodulin to maintain actin filament length in embryonic chick cardiac myocytes. Nature *377*, 83-86.

Guo, L., Lynch, J., Nakamura, K., Fliegel, L., Kasahara, H., Izumo, S., Komuro, I., Agellon, L.B., and Michalak, M. (2001). COUP-TF1 antagonizes Nkx2.5-mediated activation of the calreticulin gene during cardiac development. The Journal of biological chemistry *276*, 2797-2801.

Gustafson-Wagner, E.A., Sinn, H.W., Chen, Y.L., Wang, D.Z., Reiter, R.S., Lin, J.L., Yang, B., Williamson, R.A., Chen, J., Lin, C.I., *et al.* (2007). Loss of mXinalpha, an intercalated disk protein, results in cardiac hypertrophy and cardiomyopathy with conduction defects. American journal of physiology *293*, H2680-2692.

Hamada, H., Meno, C., Watanabe, D., and Saijoh, Y. (2002). Establishment of vertebrate left-right asymmetry. Nat Rev Genet *3*, 103-113.

Hamade, A., Deries, M., Begemann, G., Bally-Cuif, L., Genet, C., Sabatier, F., Bonnieu, A., and Cousin, X. (2006). Retinoic acid activates myogenesis in vivo through Fgf8 signalling. Developmental biology *289*, 127-140.

Harvey, R.P. (2002). Patterning the vertebrate heart. Nat Rev Genet *3*, 544-556.

He, W., Dorn, D.C., Erdjument-Bromage, H., Tempst, P., Moore, M.A., and Massague, J. (2006). Hematopoiesis controlled by distinct TIF1gamma and Smad4 branches of the TGFbeta pathway. Cell *125*, 929-941.

Hendzel, M.J., and Davie, J.R. (1990). Nucleosomal histones of transcriptionally active/competent chromatin preferentially exchange with newly synthesized histones in quiescent chicken erythrocytes. The Biochemical journal *271*, 67-73.

Henikoff, S., and Ahmad, K. (2005). Assembly of variant histones into chromatin. Annual review of cell and developmental biology *21*, 133-153.

Hinits, Y., and Hughes, S.M. (2007). Mef2s are required for thick filament formation in nascent muscle fibres. Development (Cambridge, England) *134*, 2511-2519.

Hinton, R.B., Jr., Lincoln, J., Deutsch, G.H., Osinska, H., Manning, P.B., Benson, D.W., and Yutzey, K.E. (2006). Extracellular matrix remodeling and organization in developing and diseased aortic valves. Circulation research *98*, 1431-1438.

Hochgreb, T., Linhares, V.L., Menezes, D.C., Sampaio, A.C., Yan, C.Y., Cardoso, W.V., Rosenthal, N., and Xavier-Neto, J. (2003). A caudorostral wave of RALDH2 conveys anteroposterior information to the cardiac field. Development (Cambridge, England) *130*, 5363-5374.

Hoffman, E.P., Brown, R.H., Jr., and Kunkel, L.M. (1987). Dystrophin: the protein product of the Duchenne muscular dystrophy locus. Cell *51*, 919-928.

Hoffman, J.I., and Kaplan, S. (2002). The incidence of congenital heart disease. Journal of the American College of Cardiology *39*, 1890-1900.

Hoffman, J.I., Kaplan, S., and Liberthson, R.R. (2004). Prevalence of congenital heart disease. American heart journal *147*, 425-439.

Hogan, B. (1994). Manipulating the mouse embryo : a laboratory manual. CSHL.

Hoogaars, W.M., Engel, A., Brons, J.F., Verkerk, A.O., de Lange, F.J., Wong, L.Y., Bakker, M.L., Clout, D.E., Wakker, V., Barnett, P., *et al.* (2007). Tbx3 controls the sinoatrial node gene program and imposes pacemaker function on the atria. Genes & development *21*, 1098-1112.

Hoyal, C.R., Kammerer, S., Roth, R.B., Reneland, R., Marnellos, G., Kiechle, M., Schwarz-Boeger, U., Griffiths, L.R., Ebner, F., Rehbock, J., *et al.* (2005). Genetic polymorphisms in DPF3 associated with risk of breast cancer and lymph node metastases. Journal of carcinogenesis *4*, 13.

Huang, C.J., Tu, C.T., Hsiao, C.D., Hsieh, F.J., and Tsai, H.J. (2003). Germ-line transmission of a myocardium-specific GFP transgene reveals critical regulatory elements in the cardiac myosin light chain 2 promoter of zebrafish. Dev Dyn *228*, 30-40.

Huang, Y., Fang, J., Bedford, M.T., Zhang, Y., and Xu, R.M. (2006). Recognition of histone H3 lysine-4 methylation by the double tudor domain of JMJD2A. Science (New York, NY *312*, 748-751.

Hutson, M.R., and Kirby, M.L. (2007). Model systems for the study of heart development and disease. Cardiac neural crest and conotruncal malformations. Seminars in cell & developmental biology *18*, 101-110.

Hutson, M.R., Zhang, P., Stadt, H.A., Sato, A.K., Li, Y.X., Burch, J., Creazzo, T.L., and Kirby, M.L. (2006). Cardiac arterial pole alignment is sensitive to FGF8 signaling in the pharynx. Developmental biology *295*, 486-497.

Hwang, I., and Gottlieb, P.D. (1997). The Bop gene adjacent to the mouse CD8b gene encodes distinct zinc-finger proteins expressed in CTLs and in muscle. J Immunol *158*, 1165-1174.

Ikeda, Y., Hiroi, Y., Hosoda, T., Utsunomiya, T., Matsuo, S., Ito, T., Inoue, J., Sumiyoshi, T., Takano, H., Nagai, R., *et al.* (2002). Novel point mutation in the cardiac transcription factor CSX/NKX2.5 associated with congenital heart disease. Circ J *66*, 561-563.

Iuchi, S. (2001). Three classes of C2H2 zinc finger proteins. Cell Mol Life Sci *58*, 625-635.

Ivanov, A.V., Peng, H., Yurchenko, V., Yap, K.L., Negorev, D.G., Schultz, D.C., Psulkowski, E., Fredericks, W.J., White, D.E., Maul, G.G*., et al.* (2007). PHD domain-mediated E3 ligase activity directs intramolecular sumoylation of an adjacent bromodomain required for gene silencing. Molecular cell *28*, 823-837.

Iwase, S., Lan, F., Bayliss, P., de la Torre-Ubieta, L., Huarte, M., Qi, H.H., Whetstine, J.R., Bonni, A., Roberts, T.M., and Shi, Y. (2007). The X-linked mental retardation gene SMCX/JARID1C defines a family of histone H3 lysine 4 demethylases. Cell *128*, 1077-1088.

Jacobson, R.H., Ladurner, A.G., King, D.S., and Tjian, R. (2000). Structure and function of a human TAFII250 double bromodomain module. Science (New York, NY *288*, 1422-1425.

James, J., Zhang, Y., Osinska, H., Sanbe, A., Klevitsky, R., Hewett, T.E., and Robbins, J. (2000). Transgenic modeling of a cardiac troponin I mutation linked to familial hypertrophic cardiomyopathy. Circulation research *87*, 805-811.

Jenuwein, T., and Allis, C.D. (2001). Translating the histone code. Science (New York, NY *293*, 1074-1080.

Jerome, L.A., and Papaioannou, V.E. (2001). DiGeorge syndrome phenotype in mice mutant for the T-box gene, Tbx1. Nature genetics *27*, 286-291.

Joazeiro, C.A., and Weissman, A.M. (2000). RING finger proteins: mediators of ubiquitin ligase activity. Cell *102*, 549-552.

Jones, M.H., Hamana, N., and Shimane, M. (2000). Identification and characterization of BPTF, a novel bromodomain transcription factor. Genomics *63*, 35-39.

Jorgensen, P., Nishikawa, J.L., Breitkreutz, B.J., and Tyers, M. (2002). Systematic identification of pathways that couple cell growth and division in yeast. Science (New York, NY *297*, 395-400.

Jowett, T., and Lettice, L. (1994). Whole-mount in situ hybridizations on zebrafish embryos using a mixture of digoxigenin- and fluorescein-labelled probes. Trends Genet *10*, 73-74.

Jung-Ching Lin, J., Gustafson-Wagner, E.A., Sinn, H.W., Choi, S., Jaacks, S.M., Wang, D.Z., Evans, S., and Li-Chun Lin, J. (2005). Structure, Expression, and Function of a Novel Intercalated Disc Protein, Xin. J Med Sci *25*, 215-222.

Kablar, B., Tajbakhsh, S., and Rudnicki, M.A. (2000). Transdifferentiation of esophageal smooth to skeletal muscle is myogenic bHLH factor-dependent. Development (Cambridge, England) *127*, 1627-1639.

Kadam, S., and Emerson, B.M. (2003). Transcriptional specificity of human SWI/SNF BRG1 and BRM chromatin remodeling complexes. Molecular cell *11*, 377-389.

Kaestner, K.H., Bleckmann, S.C., Monaghan, A.P., Schlondorff, J., Mincheva, A., Lichter, P., and Schutz, G. (1996). Clustered arrangement of winged helix genes fkh-6 and MFH-1: possible implications for mesoderm development. Development (Cambridge, England) *122*, 1751-1758.

Kakita, T., Hasegawa, K., Morimoto, T., Kaburagi, S., Wada, H., and Sasayama, S. (1999). p300 protein as a coactivator of GATA-5 in the transcription of cardiac-restricted atrial natriuretic factor gene. The Journal of biological chemistry *274*, 34096-34102.

Karamboulas, C., Dakubo, G.D., Liu, J., De Repentigny, Y., Yutzey, K., Wallace, V.A., Kothary, R., and Skerjanc, I.S. (2006). Disruption of MEF2 activity in cardiomyoblasts inhibits cardiomyogenesis. Journal of cell science *119*, 4315-4321.

Kasahara, M. (2007). The 2R hypothesis: an update. Current opinion in immunology *19*, 547-552.

Kassabov, S.R., Zhang, B., Persinger, J., and Bartholomew, B. (2003). SWI/SNF unwraps, slides, and rewraps the nucleosome. Molecular cell *11*, 391-403.

Kastner, P., Messaddeq, N., Mark, M., Wendling, O., Grondona, J.M., Ward, S., Ghyselinck, N., and Chambon, P. (1997). Vitamin A deficiency and mutations of RXRalpha, RXRbeta and RARalpha lead to early differentiation of embryonic ventricular cardiomyocytes. Development (Cambridge, England) *124*, 4749-4758.

Kaynak, B. (2005). Global transriptome and spatio-temporal gene expression analysis of normal and malformed hearts. Dissertation.

Kaynak, B., von Heydebreck, A., Mebus, S., Seelow, D., Hennig, S., Vogel, J., Sperling, H.P., Pregla, R., Alexi-Meskishvili, V., Hetzer, R*., et al.* (2003). Genome-wide array analysis of normal and malformed human hearts. Circulation *107*, 2467-2474.

Keith, A., and Flack, M. (1907). The Form and Nature of the Muscular Connections between the Primary Divisions of the Vertebrate Heart. Journal of anatomy and physiology *41*, 172-189.

Kel, A.E., Gossling, E., Reuter, I., Cheremushkin, E., Kel-Margoulis, O.V., and Wingender, E. (2003). MATCH: A tool for searching transcription factor binding sites in DNA sequences. Nucleic acids research *31*, 3576-3579.

Kelly, R.G. (2007). Building the right ventricle. Circulation research *100*, 943-945.

Kelly, R.G., Brown, N.A., and Buckingham, M.E. (2001). The arterial pole of the mouse heart forms from Fgf10-expressing cells in pharyngeal mesoderm. Developmental cell *1*, 435-440.

Khorasanizadeh, S. (2004). The nucleosome: from genomic organization to genomic regulation. Cell *116*, 259-272.

Kimes, B.W., and Brandt, B.L. (1976). Properties of a clonal muscle cell line from rat heart. Experimental cell research *98*, 367-381.

King, D.P., Zhao, Y., Sangoram, A.M., Wilsbacher, L.D., Tanaka, M., Antoch, M.P., Steeves, T.D., Vitaterna, M.H., Kornhauser, J.M., Lowrey, P.L*., et al.* (1997). Positional cloning of the mouse circadian clock gene. Cell *89*, 641-653.

Kingston, R.E., and Narlikar, G.J. (1999). ATP-dependent remodeling and acetylation as regulators of chromatin fluidity. Genes & development *13*, 2339-2352.

Kisseberth, W.C., Brettingen, N.T., Lohse, J.K., and Sandgren, E.P. (1999). Ubiquitous expression of marker transgenes in mice and rats. Developmental biology *214*, 128-138.

Kitagawa, H., Fujiki, R., Yoshimura, K., Mezaki, Y., Uematsu, Y., Matsui, D., Ogawa, S., Unno, K., Okubo, M., Tokita, A*., et al.* (2003). The chromatin-remodeling complex WINAC targets a nuclear receptor to promoters and is impaired in Williams syndrome. Cell *113*, 905-917.

Kitzmann, M., and Fernandez, A. (2001). Crosstalk between cell cycle regulators and the myogenic factor MyoD in skeletal myoblasts. Cell Mol Life Sci *58*, 571-579.

Kohlhase, J., Heinrich, M., Schubert, L., Liebers, M., Kispert, A., Laccone, F., Turnpenny, P., Winter, R.M., and Reardon, W. (2002). Okihiro syndrome is caused by SALL4 mutations. Human molecular genetics *11*, 2979-2987.

Koshiba-Takeuchi, K., Takeuchi, J.K., Arruda, E.P., Kathiriya, I.S., Mo, R., Hui, C.C., Srivastava, D., and Bruneau, B.G. (2006). Cooperative and antagonistic interactions between Sall4 and Tbx5 pattern the mouse limb and heart. Nature genetics *38*, 175-183.

Kouzarides, T. (2007). Chromatin Modifications and Their Function. Cell *128*, 693-705.

Krantz, I.D., Smith, R., Colliton, R.P., Tinkel, H., Zackai, E.H., Piccoli, D.A., Goldmuntz, E., and Spinner, N.B. (1999). Jagged1 mutations in patients ascertained with isolated congenital heart defects. Am J Med Genet *84*, 56-60.

Krogan, N.J., Keogh, M.C., Datta, N., Sawa, C., Ryan, O.W., Ding, H., Haw, R.A., Pootoolal, J., Tong, A., Canadien, V*., et al.* (2003). A Snf2 family ATPase complex required for recruitment of the histone H2A variant Htz1. Molecular cell *12*, 1565-1576.

Kumar, S., and Hedges, S.B. (1998). A molecular timescale for vertebrate evolution. Nature *392*, 917-920.

Kume, T., Jiang, H., Topczewska, J.M., and Hogan, B.L. (2001). The murine winged helix transcription factors, Foxc1 and Foxc2, are both required for cardiovascular development and somitogenesis. Genes & development *15*, 2470-2482.

Kutateladze, T.G. (2006). Phosphatidylinositol 3-phosphate recognition and membrane docking by the FYVE domain. Biochimica et biophysica acta *1761*, 868-877.

Lambrechts, D., Devriendt, K., Driscoll, D.A., Goldmuntz, E., Gewillig, M., Vlietinck, R., Collen, D., and Carmeliet, P. (2005). Low expression VEGF haplotype increases the risk for tetralogy of Fallot: a family based association study. Journal of medical genetics *42*, 519-522.

Lazarides, E. (1980). Desmin and intermediate filaments in muscle cells. Results and problems in cell differentiation *11*, 124-131.

Lee, C.T., Li, L., Takamoto, N., Martin, J.F., Demayo, F.J., Tsai, M.J., and Tsai, S.Y. (2004). The nuclear orphan receptor COUP-TFII is required for limb and skeletal muscle development. Molecular and cellular biology *24*, 10835-10843.

Lee, M.G., Norman, J., Shilatifard, A., and Shiekhattar, R. (2007). Physical and functional association of a trimethyl H3K4 demethylase and Ring6a/MBLR, a polycomb-like protein. Cell *128*, 877-887.

Lemon, B., Inouye, C., King, D.S., and Tjian, R. (2001). Selectivity of chromatin-remodelling cofactors for ligand-activated transcription. Nature *414*, 924-928.

Leng, X., Cooney, A.J., Tsai, S.Y., and Tsai, M.J. (1996). Molecular mechanisms of COUP-TF-mediated transcriptional repression: evidence for transrepression and active repression. Molecular and cellular biology *16*, 2332-2340.

Lessard, J., Wu, J.I., Ranish, J.A., Wan, M., Winslow, M.M., Staahl, B.T., Wu, H., Aebersold, R., Graef, I.A., and Crabtree, G.R. (2007a). An essential switch in subunit composition of a chromatin remodeling complex during neural development. Neuron *55*, 201-215.

Lessard, J., Wu, J.I., Ranish, J.A., Wan, M., Winslow, M.M., Staahl, B.T., Wu, H., Aebersold, R., Graef, I.A., and Crabtree, G.R. (2007b). An Essential Switch in Subunit Composition of a Chromatin Remodeling Complex during Neural Development. Neuron *55*, 201-215.

Li, H., Fischle, W., Wang, W., Duncan, E.M., Liang, L., Murakami-Ishibe, S., Allis, C.D., and Patel, D.J. (2007). Structural Basis for Lower Lysine Methylation State-Specific Readout by MBT Repeats of L3MBTL1 and an Engineered PHD Finger. Molecular cell *28*, 677-691.

Li, H., Ilin, S., Wang, W., Duncan, E.M., Wysocka, J., Allis, C.D., and Patel, D.J. (2006a). Molecular basis for site-specific read-out of histone H3K4me3 by the BPTF PHD finger of NURF. Nature *442*, 91-95.

Li, Q.Y., Newbury-Ecob, R.A., Terrett, J.A., Wilson, D.I., Curtis, A.R., Yi, C.H., Gebuhr, T., Bullen, P.J., Robson, S.C., Strachan, T*., et al.* (1997). Holt-Oram syndrome is caused by mutations in TBX5, a member of the Brachyury (T) gene family. Nature genetics *15*, 21-29.

Li, S., Czubryt, M.P., McAnally, J., Bassel-Duby, R., Richardson, J.A., Wiebel, F.F., Nordheim, A., and Olson, E.N. (2005). Requirement for serum response factor for skeletal muscle growth and maturation revealed by tissue-specific gene deletion in mice. Proceedings of the National Academy of Sciences of the United States of America *102*, 1082-1087.

Li, Y., Kimura, T., Laity, J.H., and Andrews, G.K. (2006b). The zinc-sensing mechanism of mouse MTF-1 involves linker peptides between the zinc fingers. Molecular and cellular biology *26*, 5580-5587.

Liang, G., Klose, R.J., Gardner, K.E., and Zhang, Y. (2007). Yeast Jhd2p is a histone H3 Lys4 trimethyl demethylase. Nature structural & molecular biology *14*, 243-245.

Lickert, H., Takeuchi, J.K., von Both, I., Walls, J.R., McAuliffe, F., Lee Adamson, S., Mark Henkelman, R., Wrana, J.L., Rossant, J., and Bruneau, B.G. (2004). Baf60c is essential for function of BAF chromatin remodelling complexes in heart development. Nature *432*, 107-112.

Lin, Q., Schwarz, J., Bucana, C., and Olson, E.N. (1997). Control of mouse cardiac morphogenesis and myogenesis by transcription factor MEF2C. Science (New York, NY *276*, 1404-1407.

Lindsay, E.A., Vitelli, F., Su, H., Morishima, M., Huynh, T., Pramparo, T., Jurecic, V., Ogunrinu, G., Sutherland, H.F., Scambler, P.J.*, et al.* (2001). Tbx1 haploinsufficieny in the DiGeorge syndrome region causes aortic arch defects in mice. Nature *410*, 97-101.

Longabaugh, W.J., Davidson, E.H., and Bolouri, H. (2005). Computational representation of developmental genetic regulatory networks. Developmental biology *283*, 1-16.

Luger, K., Mader, A.W., Richmond, R.K., Sargent, D.F., and Richmond, T.J. (1997). Crystal structure of the nucleosome core particle at 2.8 A resolution. Nature *389*, 251-260.

Lyons, I., Parsons, L.M., Hartley, L., Li, R., Andrews, J.E., Robb, L., and Harvey, R.P. (1995). Myogenic and morphogenetic defects in the heart tubes of murine embryos lacking the homeo box gene Nkx2-5. Genes & development *9*, 1654-1666.

Marfella, C.G.A., and Imbalzano, A.N. (2007). The Chd family of chromatin remodelers. Mutation Research/Fundamental and Molecular Mechanisms of Mutagenesis *618*, 30.

Margulies, E.H., Maduro, V.V., Thomas, P.J., Tomkins, J.P., Amemiya, C.T., Luo, M., and Green, E.D. (2005). Comparative sequencing provides insights about the structure and conservation of marsupial and monotreme genomes. Proceedings of the National Academy of Sciences of the United States of America *102*, 3354-3359.

Marion, R.M., Regev, A., Segal, E., Barash, Y., Koller, D., Friedman, N., and O'Shea, E.K. (2004). Sfp1 is a stress- and nutrient-sensitive regulator of ribosomal protein gene expression. Proceedings of the National Academy of Sciences of the United States of America *101*, 14315-14322.

Martens, J.A., and Winston, F. (2003). Recent advances in understanding chromatin remodeling by Swi/Snf complexes. Current opinion in genetics & development *13*, 136-142.

Martin, C., and Zhang, Y. (2005). The diverse functions of histone lysine methylation. Nature reviews *6*, 838-849.

Martin, D.G., Baetz, K., Shi, X., Walter, K.L., MacDonald, V.E., Wlodarski, M.J., Gozani, O., Hieter, P., and Howe, L. (2006). The Yng1p plant homeodomain finger is a methyl-histone binding module that recognizes lysine 4-methylated histone H3. Molecular and cellular biology *26*, 7871-7879.

Maruyama, K. (1986). Connectin, an elastic filamentous protein of striated muscle. International review of cytology *104*, 81-114.

Masino, A.M., Gallardo, T.D., Wilcox, C.A., Olson, E.N., Williams, R.S., and Garry, D.J. (2004). Transcriptional regulation of cardiac progenitor cell populations. Circ Res *95*, 389-397.

Matthews, A.G., Kuo, A.J., Ramon-Maiques, S., Han, S., Champagne, K.S., Ivanov, D., Gallardo, M., Carney, D., Cheung, P., Ciccone, D.N.*, et al.* (2007). RAG2 PHD finger couples histone H3 lysine 4 trimethylation with V(D)J recombination. Nature *450*, 1106-1110.

Maurer-Stroh, S., Dickens, N.J., Hughes-Davies, L., Kouzarides, T., Eisenhaber, F., and Ponting, C.P. (2003). The Tudor domain 'Royal Family': Tudor, plant Agenet, Chromo, PWWP and MBT domains. Trends in biochemical sciences *28*, 69-74.

Mayor, C., Brudno, M., Schwartz, J.R., Poliakov, A., Rubin, E.M., Frazer, K.A., Pachter, L.S., and Dubchak, I. (2000). VISTA : visualizing global DNA sequence alignments of arbitrary length. Bioinformatics (Oxford, England) *16*, 1046-1047.

McBride, K.L., Pignatelli, R., Lewin, M., Ho, T., Fernbach, S., Menesses, A., Lam, W., Leal, S.M., Kaplan, N., Schliekelman, P.*, et al.* (2005). Inheritance analysis of congenital left ventricular outflow tract obstruction malformations: Segregation, multiplex relative risk, and heritability. American journal of medical genetics *134*, 180-186.

McElhinney, D.B., Geiger, E., Blinder, J., Benson, D.W., and Goldmuntz, E. (2003). NKX2.5 mutations in patients with congenital heart disease. Journal of the American College of Cardiology *42*, 1650-1655.

McElhinny, A.S., Kolmerer, B., Fowler, V.M., Labeit, S., and Gregorio, C.C. (2001). The N-terminal end of nebulin interacts with tropomodulin at the pointed ends of the thin filaments. The Journal of biological chemistry *276*, 583-592.

McFadden, D.G., Barbosa, A.C., Richardson, J.A., Schneider, M.D., Srivastava, D., and Olson, E.N. (2005). The Hand1 and Hand2 transcription factors regulate expansion of the embryonic cardiac ventricles in a gene dosage-dependent manner. Development (Cambridge, England) *132*, 189-201.

McKinsey, T.A., Zhang, C.L., and Olson, E.N. (2002). MEF2: a calcium-dependent regulator of cell division, differentiation and death. Trends in biochemical sciences *27*, 40-47.

Mellor, J. (2006). It Takes a PHD to Read the Histone Code. Cell *126*, 22-24.

Merscher, S., Funke, B., Epstein, J.A., Heyer, J., Puech, A., Lu, M.M., Xavier, R.J., Demay, M.B., Russell, R.G., Factor, S.*, et al.* (2001). TBX1 is responsible for cardiovascular defects in velo-cardio-facial/DiGeorge syndrome. Cell *104*, 619-629.

Mertsalov, I.B., Kulikova, D.A., Alimova-Kost, M.V., Ninkina, N.N., Korochkin, L.I., and Buchman, V.L. (2000). Structure and expression of two members of the d4 gene family in mouse. Mamm Genome *11*, 72-74.

Min, J., Allali-Hassani, A., Nady, N., Qi, C., Ouyang, H., Liu, Y., MacKenzie, F., Vedadi, M., and Arrowsmith, C.H. (2007). L3MBTL1 recognition of mono- and dimethylated histones. Nature structural & molecular biology *14*, 1229-1230.

Mogensen, J., Klausen, I.C., Pedersen, A.K., Egeblad, H., Bross, P., Kruse, T.A., Gregersen, N., Hansen, P.S., Baandrup, U., and Borglum, A.D. (1999). Alpha-cardiac actin is a novel disease gene in familial hypertrophic cardiomyopathy. The Journal of clinical investigation *103*, R39-43.

Mohapatra, B., Jimenez, S., Lin, J.H., Bowles, K.R., Coveler, K.J., Marx, J.G., Chrisco, M.A., Murphy, R.T., Lurie, P.R., Schwartz, R.J.*, et al.* (2003). Mutations in the muscle LIM protein and alpha-actinin-2 genes in dilated cardiomyopathy and endocardial fibroelastosis. Molecular genetics and metabolism *80*, 207-215.

Mohrmann, L., and Verrijzer, C.P. (2005). Composition and functional specificity of SWI2/SNF2 class chromatin remodeling complexes. Biochimica et biophysica acta *1681*, 59-73.

Molinari, S., Relaix, F., Lemonnier, M., Kirschbaum, B., Schafer, B., and Buckingham, M. (2004). A novel complex regulates cardiac actin gene expression through interaction of Emb, a class VI POU domain protein, MEF2D, and the histone transacetylase p300. Molecular and cellular biology *24*, 2944-2957.

Morin, S., Pozzulo, G., Robitaille, L., Cross, J., and Nemer, M. (2005). MEF2-dependent recruitment of the HAND1 transcription factor results in synergistic activation of target promoters. The Journal of biological chemistry *280*, 32272-32278.

Muchardt, C., and Yaniv, M. (1999). The mammalian SWI/SNF complex and the control of cell growth. Seminars in cell & developmental biology *10*, 189-195.

Mujtaba, S., Zeng, L., and Zhou, M.M. (2007). Structure and acetyl-lysine recognition of the bromodomain. Oncogene *26*, 5521-5527.

Nabirochkina, E., Simonova, O.B., Mertsalov, I.B., Kulikova, D.A., Ladigina, N.G., Korochkin, L.I., and Buchman, V.L. (2002). Expression pattern of dd4, a sole member of the d4 family of transcription factors in Drosophila melanogaster. Mechanisms of development *114*, 119-123.

Naya, F.J., Black, B.L., Wu, H., Bassel-Duby, R., Richardson, J.A., Hill, J.A., and Olson, E.N. (2002). Mitochondrial deficiency and cardiac sudden death in mice lacking the MEF2A transcription factor. Nature medicine *8*, 1303.

Ng, H.H., Robert, F., Young, R.A., and Struhl, K. (2003). Targeted recruitment of Set1 histone methylase by elongating Pol II provides a localized mark and memory of recent transcriptional activity. Molecular cell *11*, 709-719.

Ninkina, N.N., Mertsalov, I.B., Kulikova, D.A., Alimova-Kost, M.V., Simonova, O.B., Korochkin, L.I., Kiselev, S.L., and Buchman, V.L. (2001). Cerd4, third member of the d4 gene family: expression and organization of genomic locus. Mamm Genome *12*, 862-866.

Ochman, H., Gerber, A.S., and Hartl, D.L. (1988). Genetic applications of an inverse polymerase chain reaction. Genetics *120*, 621-623.

Olave, I., Wang, W., Xue, Y., Kuo, A., and Crabtree, G.R. (2002). Identification of a polymorphic, neuron-specific chromatin remodeling complex. Genes & development *16*, 2509-2517.

Olson, E.N. (2006). Gene regulatory networks in the evolution and development of the heart. Science (New York, NY *313*, 1922-1927.

Olson, T.M., Michels, V.V., Thibodeau, S.N., Tai, Y.S., and Keating, M.T. (1998). Actin mutations in dilated cardiomyopathy, a heritable form of heart failure. Science (New York, NY *280*, 750-752.

Ovechkin, A.V., Tyagi, N., Rodriguez, W.E., Hayden, M.R., Moshal, K.S., and Tyagi, S.C. (2005). Role of matrix metalloproteinase-9 in endothelial apoptosis in chronic heart failure in mice. J Appl Physiol *99*, 2398-2405.

Owen, D.J., Ornaghi, P., Yang, J.C., Lowe, N., Evans, P.R., Ballario, P., Neuhaus, D., Filetici, P., and Travers, A.A. (2000). The structural basis for the recognition of acetylated histone H4 by the bromodomain of histone acetyltransferase gcn5p. The EMBO journal *19*, 6141-6149.

Pacholsky, D., Vakeel, P., Himmel, M., Lowe, T., Stradal, T., Rottner, K., Furst, D.O., and van der Ven, P.F.M. (2004). Xin repeats define a novel actin-binding motif. Journal of cell science *117*, 5257-5268.

Palmiter, R.D., and Brinster, R.L. (1986). Germ-line transformation of mice. Annual review of genetics *20*, 465-499.

Papa, I., Astier, C., Kwiatek, O., Raynaud, F., Bonnal, C., Lebart, M.C., Roustan, C., and Benyamin, Y. (1999). Alpha actinin-CapZ, an anchoring complex for thin filaments in Z-line. Journal of muscle research and cell motility *20*, 187-197.

Paris, J., Virtanen, C., Lu, Z., and Takahashi, M. (2004). Identification of MEF2-regulated genes during muscle differentiation. Physiol Genomics *20*, 143-151.

Parlakian, A., Tuil, D., Hamard, G., Tavernier, G., Hentzen, D., Concordet, J.P., Paulin, D., Li, Z., and Daegelen, D. (2004). Targeted inactivation of serum response factor in the developing heart results in myocardial defects and embryonic lethality. Molecular and cellular biology *24*, 5281-5289.

Pelletier, N., Champagne, N., Lim, H., and Yang, X.J. (2003). Expression, purification, and analysis of MOZ and MORF histone acetyltransferases. Methods (San Diego, Calif *31*, 24-32.

Pena, P.V., Davrazou, F., Shi, X., Walter, K.L., Verkhusha, V.V., Gozani, O., Zhao, R., and Kutateladze, T.G. (2006). Molecular mechanism of histone H3K4me3 recognition by plant homeodomain of ING2. Nature *442*, 100-103.

Pereira, F.A., Qiu, Y., Zhou, G., Tsai, M.J., and Tsai, S.Y. (1999). The orphan nuclear receptor COUP-TFII is required for angiogenesis and heart development. Genes & development *13*, 1037-1049.

Picketts, D.J., Higgs, D.R., Bachoo, S., Blake, D.J., Quarrell, O.W., and Gibbons, R.J. (1996). ATRX encodes a novel member of the SNF2 family of proteins: mutations point to a common mechanism underlying the ATR-X syndrome. Human molecular genetics *5*, 1899-1907.

Porras, D., and Brown, C.B. (2008). Temporal-spatial ablation of neural crest in the mouse results in cardiovascular defects. Dev Dyn *237*, 153-162.

Potthoff, M.J., Arnold, M.A., McAnally, J., Richardson, J.A., Bassel-Duby, R., and Olson, E.N. (2007). Regulation of skeletal muscle sarcomere integrity and postnatal muscle function by Mef2c. Molecular and cellular biology.

Powell, D.W., Weaver, C.M., Jennings, J.L., McAfee, K.J., He, Y., Weil, P.A., and Link, A.J. (2004). Cluster analysis of mass spectrometry data reveals a novel component of SAGA. Molecular and cellular biology *24*, 7249-7259.

Pownall, M.E., Gustafsson, M.K., and Emerson, C.P., Jr. (2002). Myogenic regulatory factors and the specification of muscle progenitors in vertebrate embryos. Annual review of cell and developmental biology *18*, 747-783.

Prall, O.W., Menon, M.K., Solloway, M.J., Watanabe, Y., Zaffran, S., Bajolle, F., Biben, C., McBride, J.J., Robertson, B.R., Chaulet, H*., et al.* (2007). An Nkx2-5/Bmp2/Smad1 negative feedback loop controls heart progenitor specification and proliferation. Cell *128*, 947-959.

Ransick, A., Ernst, S., Britten, R.J., and Davidson, E.H. (1993). Whole mount in situ hybridization shows Endo 16 to be a marker for the vegetal plate territory in sea urchin embryos. Mechanisms of development *42*, 117-124.

Ransom, J., and Srivastava, D. (2007). The genetics of cardiac birth defects. Seminars in cell & developmental biology *18*, 132-139.

Rawls, A., and Olson, E.N. (1997). MyoD meets its maker. Cell *89*, 5-8.

Reyes, J.C., Barra, J., Muchardt, C., Camus, A., Babinet, C., and Yaniv, M. (1998). Altered control of cellular proliferation in the absence of mammalian brahma (SNF2alpha). The EMBO journal *17*, 6979-6991.

Riggs, A.D., Martienssen, R.A., and Russo, V.E.A. (1996). Introduction. In Epigenetic mechanisms of gene regulation. Cold Spring Harbor Laboratory Press, 1-4.

Rokhlenko, O., Wexler, Y., and Yakhini, Z. (2007). Similarities and differences of gene expression in yeast stress conditions. Bioinformatics (Oxford, England) *23*, e184-190.

Ruault, M., Brun, M.E., Ventura, M., Roizes, G., and De Sario, A. (2002). MLL3, a new human member of the TRX/MLL gene family, maps to 7q36, a chromosome region frequently deleted in myeloid leukaemia. Gene *284*, 73-81.

Ruthenburg, A.J., Allis, C.D., and Wysocka, J. (2007a). Methylation of lysine 4 on histone H3: intricacy of writing and reading a single epigenetic mark. Molecular cell *25*, 15-30.

Ruthenburg, A.J., Li, H., Patel, D.J., and Allis, C.D. (2007b). Multivalent engagement of chromatin modifications by linked binding modules. Nature reviews *8*, 983-994.

Santos-Rosa, H., Schneider, R., Bannister, A.J., Sherriff, J., Bernstein, B.E., Emre, N.C., Schreiber, S.L., Mellor, J., and Kouzarides, T. (2002). Active genes are tri-methylated at K4 of histone H3. Nature *419*, 407-411.

Satoda, M., Zhao, F., Diaz, G.A., Burn, J., Goodship, J., Davidson, H.R., Pierpont, M.E., and Gelb, B.D. (2000). Mutations in TFAP2B cause Char syndrome, a familial form of patent ductus arteriosus. Nature genetics *25*, 42-46.

Schafer, D.A., Hug, C., and Cooper, J.A. (1995). Inhibition of CapZ during myofibrillogenesis alters assembly of actin filaments. The Journal of cell biology *128*, 61-70.

Schindler, U., Beckmann, H., and Cashmore, A.R. (1993). HAT3.1, a novel Arabidopsis homeodomain protein containing a conserved cysteine-rich region. Plant J *4*, 137-150.

Schmidt, E.E., and Davies, C.J. (2007). The origins of polypeptide domains. Bioessays *29*, 262-270.
Schneider, R., Bannister, A.J., Myers, F.A., Thorne, A.W., Crane-Robinson, C., and Kouzarides, T. (2004). Histone H3 lysine 4 methylation patterns in higher eukaryotic genes. Nature cell biology *6*, 73-77.
Schott, J.J., Benson, D.W., Basson, C.T., Pease, W., Silberbach, G.M., Moak, J.P., Maron, B.J., Seidman, C.E., and Seidman, J.G. (1998). Congenital heart disease caused by mutations in the transcription factor NKX2-5. Science (New York, NY *281*, 108-111.
Schubeler, D., MacAlpine, D.M., Scalzo, D., Wirbelauer, C., Kooperberg, C., van Leeuwen, F., Gottschling, D.E., O'Neill, L.P., Turner, B.M., Delrow, J.*, et al.* (2004). The histone modification pattern of active genes revealed through genome-wide chromatin analysis of a higher eukaryote, pp. 1263-1271.
Schwartz, R.J., and Olson, E.N. (1999). Building the heart piece by piece: modularity of cis-elements regulating Nkx2-5 transcription. Development (Cambridge, England) *126*, 4187-4192.
Seet, B.T., Dikic, I., Zhou, M.M., and Pawson, T. (2006). Reading protein modifications with interaction domains. Nature reviews *7*, 473-483.
Sehnert, A.J., Huq, A., Weinstein, B.M., Walker, C., Fishman, M., and Stainier, D.Y. (2002). Cardiac troponin T is essential in sarcomere assembly and cardiac contractility. Nature genetics *31*, 106-110.
Serra, C., Palacios, D., Mozzetta, C., Forcales, S.V., Morantte, I., Ripani, M., Jones, D.R., Du, K., Jhala, U.S., Simone, C.*, et al.* (2007). Functional interdependence at the chromatin level between the MKK6/p38 and IGF1/PI3K/AKT pathways during muscle differentiation. Molecular cell *28*, 200-213.
Severinsen, J.E., Bjarkam, C.R., Kiaer-Larsen, S., Olsen, I.M., Nielsen, M.M., Blechingberg, J., Nielsen, A.L., Holm, I.E., Foldager, L., Young, B.D.*, et al.* (2006). Evidence implicating BRD1 with brain development and susceptibility to both schizophrenia and bipolar affective disorder. Molecular psychiatry *11*, 1126-1138.
Shahbazi, M., Fryer, A.A., Pravica, V., Brogan, I.J., Ramsay, H.M., Hutchinson, I.V., and Harden, P.N. (2002). Vascular endothelial growth factor gene polymorphisms are associated with acute renal allograft rejection. J Am Soc Nephrol *13*, 260-264.
Shen, W., Xu, C., Huang, W., Zhang, J., Carlson, J.E., Tu, X., Wu, J., and Shi, Y. (2007). Solution structure of human Brg1 bromodomain and its specific binding to acetylated histone tails. Biochemistry *46*, 2100-2110.
Shi, X., Hong, T., Walter, K.L., Ewalt, M., Michishita, E., Hung, T., Carney, D., Pena, P., Lan, F., Kaadige, M.R.*, et al.* (2006). ING2 PHD domain links histone H3 lysine 4 methylation to active gene repression. Nature *442*, 96-99.
Shi, X., Kachirskaia, I., Walter, K.L., Kuo, J.H., Lake, A., Davrazou, F., Chan, S.M., Martin, D.G., Fingerman, I.M., Briggs, S.D.*, et al.* (2007). Proteome-wide analysis in Saccharomyces cerevisiae identifies several PHD fingers as novel direct and selective binding modules of histone H3 methylated at either lysine 4 or lysine 36. The Journal of biological chemistry *282*, 2450-2455.
Shi, Y. (2007). Histone lysine demethylases: emerging roles in development, physiology and disease. Nat Rev Genet *8*, 829-833.
Shirai, M., Osugi, T., Koga, H., Kaji, Y., Takimoto, E., Komuro, I., Hara, J., Miwa, T., Yamauchi-Takihara, K., and Takihara, Y. (2002). The Polycomb-group gene Rae28 sustains Nkx2.5/Csx expression and is essential for cardiac morphogenesis. The Journal of clinical investigation *110*, 177-184.
Shogren-Knaak, M. (2008). http://www.bbmb.iastate.edu/Graphics/shogren1.jpg.
Shogren-Knaak, M., Ishii, H., Sun, J.M., Pazin, M.J., Davie, J.R., and Peterson, C.L. (2006). Histone H4-K16 acetylation controls chromatin structure and protein interactions. Science (New York, NY *311*, 844-847.
Simone, C. (2006). SWI/SNF: the crossroads where extracellular signaling pathways meet chromatin. J Cell Physiol *207*, 309-314.
Simone, C., Forcales, S.V., Hill, D.A., Imbalzano, A.N., Latella, L., and Puri, P.L. (2004). p38 pathway targets SWI-SNF chromatin-remodeling complex to muscle-specific loci. Nature genetics *36*, 738-743.
Simonneau, L., Kitagawa, M., Suzuki, S., and Thiery, J.P. (1995). Cadherin 11 expression marks the mesenchymal phenotype: towards new functions for cadherins? Cell adhesion and communication *3*, 115-130.
Smyth, G.K. (2004). Linear models and empirical bayes methods for assessing differential expression in microarray experiments. Stat Appl Genet Mol Biol *3*, Article3.
Solaro, R.J., and Rarick, H.M. (1998). Troponin and tropomyosin: proteins that switch on and tune in the activity of cardiac myofilaments. Circulation research *83*, 471-480.
Song, K., Backs, J., McAnally, J., Qi, X., Gerard, R.D., Richardson, J.A., Hill, J.A., Bassel-Duby, R., and Olson, E.N. (2006). The transcriptional coactivator CAMTA2 stimulates cardiac growth by opposing class II histone deacetylases. Cell *125*, 453-466.
Soonpaa, M.H., Kim, K.K., Pajak, L., Franklin, M., and Field, L.J. (1996). Cardiomyocyte DNA synthesis and binucleation during murine development. The American journal of physiology *271*, H2183-2189.
Sperling, S., Grimm, C.H., Dunkel, I., Mebus, S., Sperling, H.P., Ebner, A., Galli, R., Lehrach, H., Fusch, C., Berger, F.*, et al.* (2005). Identification and functional analysis of CITED2 mutations in patients with congenital heart defects. Hum Mutat *26*, 575-582.

Srivastava, D. (2006). Making or breaking the heart: from lineage determination to morphogenesis. Cell *126*, 1037-1048.

Srivastava, D., Thomas, T., Lin, Q., Kirby, M.L., Brown, D., and Olson, E.N. (1997). Regulation of cardiac mesodermal and neural crest development by the bHLH transcription factor, dHAND. Nature genetics *16*, 154-160.

Starreveld-Zimmerman, A.A., van der Kolk, W.J., Elshove, J., and Meinardi, H. (1975). Teratogenicity of antiepileptic drugs. Clinical neurology and neurosurgery *77*, 81-95.

Steeves, T.D., King, D.P., Zhao, Y., Sangoram, A.M., Du, F., Bowcock, A.M., Moore, R.Y., and Takahashi, J.S. (1999). Molecular cloning and characterization of the human CLOCK gene: expression in the suprachiasmatic nuclei. Genomics *57*, 189-200.

Steinmetz, M.O., Stoffler, D., Hoenger, A., Bremer, A., and Aebi, U. (1997). Actin: from cell biology to atomic detail. Journal of structural biology *119*, 295-320.

Sternlicht, M.D., and Werb, Z. (2001). How matrix metalloproteinases regulate cell behavior. Annual review of cell and developmental biology *17*, 463-516.

Strahl, B.D., and Allis, C.D. (2000). The language of covalent histone modifications. Nature *403*, 41-45.

Sucov, H.M., Dyson, E., Gumeringer, C.L., Price, J., Chien, K.R., and Evans, R.M. (1994). RXR alpha mutant mice establish a genetic basis for vitamin A signaling in heart morphogenesis. Genes & development *8*, 1007-1018.

Sussman, M.A., Baque, S., Uhm, C.S., Daniels, M.P., Price, R.L., Simpson, D., Terracio, L., and Kedes, L. (1998). Altered expression of tropomodulin in cardiomyocytes disrupts the sarcomeric structure of myofibrils. Circulation research *82*, 94-105.

Sweetman, D., and Munsterberg, A. (2006). The vertebrate spalt genes in development and disease. Developmental biology *293*, 285-293.

Swillens, S., Dessars, B., and Housni, H.E. (2008). Revisiting the sigmoidal curve fitting applied to quantitative real-time PCR data. Analytical biochemistry *373*, 370-376.

Takeuchi, J.K., Lickert, H., Bisgrove, B.W., Sun, X., Yamamoto, M., Chawengsaksophak, K., Hamada, H., Yost, H.J., Rossant, J., and Bruneau, B.G. (2007). Baf60c is a nuclear Notch signaling component required for the establishment of left-right asymmetry. Proceedings of the National Academy of Sciences of the United States of America *104*, 846-851.

Takeuchi, T., Watanabe, Y., Takano-Shimizu, T., and Kondo, S. (2006). Roles of jumonji and jumonji family genes in chromatin regulation and development. Dev Dyn *235*, 2449-2459.

Tam, P.P., and Trainor, P.A. (1994). Specification and segmentation of the paraxial mesoderm. Anatomy and embryology *189*, 275-305.

Tamkun, J.W., Deuring, R., Scott, M.P., Kissinger, M., Pattatucci, A.M., Kaufman, T.C., and Kennison, J.A. (1992). brahma: a regulator of Drosophila homeotic genes structurally related to the yeast transcriptional activator SNF2/SWI2. Cell *68*, 561-572.

Tan, H., Wu, S., Wang, J., and Zhao, Z.K. (2007). The JMJD2 members of histone demethylase revisited. Mol Biol Rep.

Tan, X., Rotllant, J., Li, H., De Deyne, P., and Du, S.J. (2006). SmyD1, a histone methyltransferase, is required for myofibril organization and muscle contraction in zebrafish embryos. Proceedings of the National Academy of Sciences of the United States of America *103*, 2713-2718.

Targoff, I.N., and Reichlin, M. (1985). The association between Mi-2 antibodies and dermatomyositis. Arthritis and rheumatism *28*, 796-803.

Taverna, S.D., Li, H., Ruthenburg, A.J., Allis, C.D., and Patel, D.J. (2007). How chromatin-binding modules interpret histone modifications: lessons from professional pocket pickers. Nature structural & molecular biology *14*, 1025-1040.

Taylor, M.S., Kai, C., Kawai, J., Carninci, P., Hayashizaki, Y., and Semple, C.A. (2006). Heterotachy in mammalian promoter evolution. PLoS genetics *2*, e30.

Theodore, G.G., Colin, D.C., Alison, K., Haiyan, L., Neal, G.C., Debra, J.G., Nancy, A.J., Danielle, Q., Fabienne, P., Françoise, L.*, et al.* (1998). Expression and chromosomal localization of the Requiem gene. Mammalian Genome *9*, 660.

Thiagalingam, S.A.M., Cheng, K.-H., Lee, H.J., Mineva, N., Thiagalingam, A., and Ponte, J.F. (2003). Histone Deacetylases: Unique Players in Shaping the Epigenetic Histone Code, pp. 84-100.

Thierfelder, L., Watkins, H., MacRae, C., Lamas, R., McKenna, W., Vosberg, H.P., Seidman, J.G., and Seidman, C.E. (1994). Alpha-tropomyosin and cardiac troponin T mutations cause familial hypertrophic cardiomyopathy: a disease of the sarcomere. Cell *77*, 701-712.

Thompson, T.G., Chan, Y.M., Hack, A.A., Brosius, M., Rajala, M., Lidov, H.G., McNally, E.M., Watkins, S., and Kunkel, L.M. (2000). Filamin 2 (FLN2): A muscle-specific sarcoglycan interacting protein. The Journal of cell biology *148*, 115-126.

Toko, H., Zhu, W., Takimoto, E., Shiojima, I., Hiroi, Y., Zou, Y., Oka, T., Akazawa, H., Mizukami, M., Sakamoto, M.*, et al.* (2002). Csx/Nkx2-5 is required for homeostasis and survival of cardiac myocytes in the adult heart. The Journal of biological chemistry *277*, 24735-24743.

Tora, L. (2002). A unified nomenclature for TATA box binding protein (TBP)-associated factors (TAFs) involved in RNA polymerase II transcription. Genes & development *16*, 673-675.

Towbin, J.A., and Bowles, N.E. (2002). The failing heart. Nature *415*, 227-233.

Trinh, L.A., and Stainier, D.Y. (2004). Fibronectin regulates epithelial organization during myocardial migration in zebrafish. Developmental cell *6*, 371-382.

Trinh, L.A., Yelon, D., and Stainier, D.Y. (2005). Hand2 regulates epithelial formation during myocardial diferentiation. Curr Biol *15*, 441-446.

Trinklein, N.D., Aldred, S.J., Saldanha, A.J., and Myers, R.M. (2003). Identification and functional analysis of human transcriptional promoters. Genome research *13*, 308-312.

Trivedi, C.M., Luo, Y., Yin, Z., Zhang, M., Zhu, W., Wang, T., Floss, T., Goettlicher, M., Noppinger, P.R., Wurst, W*., et al.* (2007). Hdac2 regulates the cardiac hypertrophic response by modulating Gsk3 beta activity. Nature medicine *13*, 324-331.

Tsukiyama, T., Daniel, C., Tamkun, J., and Wu, C. (1995). ISWI, a member of the SWI2/SNF2 ATPase family, encodes the 140 kDa subunit of the nucleosome remodeling factor. Cell *83*, 1021-1026.

Tzouanacou, E., Tweedie, S., and Wilson, V. (2003). Identification of Jade1, a gene encoding a PHD zinc finger protein, in a gene trap mutagenesis screen for genes involved in anteroposterior axis development. Molecular and cellular biology *23*, 8553-8552.

Ura, K., Kurumizaka, H., Dimitrov, S., Almouzni, G., and Wolffe, A.P. (1997). Histone acetylation: influence on transcription, nucleosome mobility and positioning, and linker histone-dependent transcriptional repression. The EMBO journal *16*, 2096-2107.

Valdez, M.R., Richardson, J.A., Klein, W.H., and Olson, E.N. (2000). Failure of Myf5 to support myogenic differentiation without myogenin, MyoD, and MRF4. Developmental biology *219*, 287-298.

Vale, R.D., and Milligan, R.A. (2000). The way things move: looking under the hood of molecular motor proteins. Science (New York, NY *288*, 88-95.

van der Ven, P.F., Wiesner, S., Salmikangas, P., Auerbach, D., Himmel, M., Kempa, S., Hayess, K., Pacholsky, D., Taivainen, A., Schroder, R*., et al.* (2000). Indications for a novel muscular dystrophy pathway. gamma-filamin, the muscle-specific filamin isoform, interacts with myotilin. The Journal of cell biology *151*, 235-248.

van der Ven, P.F.M., Ehler, E., Vakeel, P., Eulitz, S., Schenk, J.A., Milting, H., Micheel, B., and Furst, D.O. (2006). Unusual splicing events result in distinct Xin isoforms that associate differentially with filamin c and Mena/VASP. Experimental cell research *312*, 2154.

Varga-Weisz, P.D., Wilm, M., Bonte, E., Dumas, K., Mann, M., and Becker, P.B. (1997). Chromatin-remodelling factor CHRAC contains the ATPases ISWI and topoisomerase II. Nature *388*, 598-602.

Vermeulen, M., Mulder, K.W., Denissov, S., Pijnappel, W.W., van Schaik, F.M., Varier, R.A., Baltissen, M.P., Stunnenberg, H.G., Mann, M., and Timmers, H.T. (2007). Selective Anchoring of TFIID to Nucleosomes by Trimethylation of Histone H3 Lysine 4. Cell *131*, 58-69.

Vignali, M., Hassan, A.H., Neely, K.E., and Workman, J.L. (2000). ATP-dependent chromatin-remodeling complexes. Molecular and cellular biology *20*, 1899-1910.

Villasenor, J., Benoist, C., and Mathis, D. (2005). AIRE and APECED: molecular insights into an autoimmune disease. Immunological reviews *204*, 156-164.

Virginie Lecaudey, I.A.R.D.U.R.S.S.-M. (2005). Expression of the zebrafish Iroquois genes during early nervous system formation and patterning. The Journal of Comparative Neurology *492*, 289-302.

Vitaterna, M.H., King, D.P., Chang, A.M., Kornhauser, J.M., Lowrey, P.L., McDonald, J.D., Dove, W.F., Pinto, L.H., Turek, F.W., and Takahashi, J.S. (1994). Mutagenesis and mapping of a mouse gene, Clock, essential for circadian behavior. Science (New York, NY *264*, 719-725.

Vorgerd, M., van der Ven, P.F., Bruchertseifer, V., Lowe, T., Kley, R.A., Schroder, R., Lochmuller, H., Himmel, M., Koehler, K., Furst, D.O*., et al.* (2005). A mutation in the dimerization domain of filamin c causes a novel type of autosomal dominant myofibrillar myopathy. American journal of human genetics *77*, 297-304.

Waldo, K.L., Hutson, M.R., Stadt, H.A., Zdanowicz, M., Zdanowicz, J., and Kirby, M.L. (2005). Cardiac neural crest is necessary for normal addition of the myocardium to the arterial pole from the secondary heart field. Developmental biology *281*, 66-77.

Wang, D.Z., Reiter, R.S., Lin, J.L., Wang, Q., Williams, H.S., Krob, S.L., Schultheiss, T.M., Evans, S., and Lin, J.J. (1999). Requirement of a novel gene, Xin, in cardiac morphogenesis. Development (Cambridge, England) *126*, 1281-1294.

Wang, G.G., Cai, L., Pasillas, M.P., and Kamps, M.P. (2007). NUP98-NSD1 links H3K36 methylation to Hox-A gene activation and leukaemogenesis. Nature cell biology *9*, 804-812.

Wang, K. (1982). Purification of titin and nebulin. Methods in enzymology *85 Pt B*, 264-274.

Wang, L., Fan, C., Topol, S.E., Topol, E.J., and Wang, Q. (2003). Mutation of MEF2A in an inherited disorder with features of coronary artery disease. Science (New York, NY *302*, 1578-1581.

Wang, W., Xue, Y., Zhou, S., Kuo, A., Cairns, B.R., and Crabtree, G.R. (1996). Diversity and specialization of mammalian SWI/SNF complexes. Genes & development *10*, 2117-2130.

Wang, Y.X., Qian, L.X., Yu, Z., Jiang, Q., Dong, Y.X., Liu, X.F., Yang, X.Y., Zhong, T.P., and Song, H.Y. (2005). Requirements of myocyte-specific enhancer factor 2A in zebrafish cardiac contractility. FEBS letters *579*, 4843-4850.

Wang, Z., Zhai, W., Richardson, J.A., Olson, E.N., Meneses, J.J., Firpo, M.T., Kang, C., Skarnes, W.C., and Tjian, R. (2004). Polybromo protein BAF180 functions in mammalian cardiac chamber maturation. Genes & development *18*, 3106-3116.

Weninger, W.J., Lopes Floro, K., Bennett, M.B., Withington, S.L., Preis, J.I., Barbera, J.P., Mohun, T.J., and Dunwoodie, S.L. (2005). Cited2 is required both for heart morphogenesis and establishment of the left-right axis in mouse development. Development (Cambridge, England) *132*, 1337-1348.

Winegrad, S. (1999). Cardiac myosin binding protein C. Circulation research *84*, 1117-1126.

Winegrad, S. (2005). Cardiac myosin binding protein C: modulator of contractility. Advances in experimental medicine and biology *565*, 269-281; discussion 281-262, 405-215.

Winnier, G.E., Kume, T., Deng, K., Rogers, R., Bundy, J., Raines, C., Walter, M.A., Hogan, B.L., and Conway, S.J. (1999). Roles for the winged helix transcription factors MF1 and MFH1 in cardiovascular development revealed by nonallelic noncomplementation of null alleles. Developmental biology *213*, 418-431.

Wolffe, A.P., and Hayes, J.J. (1999). Chromatin disruption and modification. Nucleic acids research *27*, 711-720.

Wysocka, J., Swigut, T., Xiao, H., Milne, T.A., Kwon, S.Y., Landry, J., Kauer, M., Tackett, A.J., Chait, B.T., Badenhorst, P.*, et al.* (2006). A PHD finger of NURF couples histone H3 lysine 4 trimethylation with chromatin remodelling. Nature *442*, 86-90.

Yagi, H., Furutani, Y., Hamada, H., Sasaki, T., Asakawa, S., Minoshima, S., Ichida, F., Joo, K., Kimura, M., Imamura, S.*, et al.* (2003). Role of TBX1 in human del22q11.2 syndrome. Lancet *362*, 1366-1373.

Yao, T.P., Oh, S.P., Fuchs, M., Zhou, N.D., Ch'ng, L.E., Newsome, D., Bronson, R.T., Li, E., Livingston, D.M., and Eckner, R. (1998). Gene dosage-dependent embryonic development and proliferation defects in mice lacking the transcriptional integrator p300. Cell *93*, 361-372.

Yelon, D., Ticho, B., Halpern, M.E., Ruvinsky, I., Ho, R.K., Silver, L.M., and Stainier, D.Y. (2000). The bHLH transcription factor hand2 plays parallel roles in zebrafish heart and pectoral fin development. Development (Cambridge, England) *127*, 2573-2582.

Zaffran, S., and Frasch, M. (2002). Early signals in cardiac development. Circulation research *91*, 457-469.

Zaffran, S., Xu, X., Lo, P.C., Lee, H.H., and Frasch, M. (2002). Cardiogenesis in the Drosophila model: control mechanisms during early induction and diversification of cardiac progenitors. Cold Spring Harbor symposia on quantitative biology *67*, 1-12.

Zeng, L., and Zhou, M.M. (2002). Bromodomain: an acetyl-lysine binding domain. FEBS letters *513*, 124-128.

Zhang, M., and McLennan, I.S. (1998). Primary myotubes preferentially mature into either the fastest or slowest muscle fibers. Dev Dyn *213*, 147-157.

Zhao, F., Weismann, C.G., Satoda, M., Pierpont, M.E., Sweeney, E., Thompson, E.M., and Gelb, B.D. (2001). Novel TFAP2B mutations that cause Char syndrome provide a genotype-phenotype correlation. American journal of human genetics *69*, 695-703.

Zhao, Y., Samal, E., and Srivastava, D. (2005). Serum response factor regulates a muscle-specific microRNA that targets Hand2 during cardiogenesis. Nature *436*, 214-220.

Zhao, Y., and Srivastava, D. (2007). A developmental view of microRNA function. Trends in biochemical sciences *32*, 189-197.

Zimmerman, E.F. (1991). Substance abuse in pregnancy: teratogenesis. Pediatric annals *20*, 541-544, 546-547.

Zybailov, B., Mosley, A.L., Sardiu, M.E., Coleman, M.K., Florens, L., and Washburn, M.P. (2006). Statistical analysis of membrane proteome expression changes in Saccharomyces cerevisiae. Journal of proteome research *5*, 2339-2347.