Matthew P. Scott

Howard H. and Jessie T. Watkins University Professor
Professor of Developmental Biology, Genetics, Bioengineering, and, by courtesy, Biology
Investigator, Howard Hughes Medical Institute

Department of Developmental Biology
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Education, Employment, and Administration:

B.S., Life Sciences (February, 1975). Massachusetts Institute of Technology
Ph.D., Biology (April, 1980). Massachusetts Institute of Technology
Helen Hay Whitney Postdoctoral Fellow, Indiana University (1980-1983)
Assistant Professor (1983-1987) and Associate Professor (1987-1990)
Department of Molecular, Cellular, and Developmental Biology,
University of Colorado at Boulder
Associate Professor (1989-1990), Department of Biochemistry and Biophysics,
University of Colorado Health Sciences Center, Denver
Associate Investigator (1989-1990), Howard Hughes Medical Institute
Visiting Professor of Genetics (1994-1995) Harvard Medical School
Professor (1990-present), Stanford University School of Medicine
Investigator (1993-present), Howard Hughes Medical Institute
Chair, Department of Developmental Biology, 1996-8
Associate Chair, Department of Developmental Biology, 1999-2002
Chair, Stanford University Bio-X Program, 2001-7
Co-director, Stanford Center for Children's Brain Tumors, 2005-

Honors:

Helen Hay Whitney Postdoctoral Fellowship, 1980-1983
American Cancer Society Junior Faculty Research Award, 1983-1984
National Institutes of Health Research Career Development Award, 1984-1989
Searle Scholar's Award, 1985-1989
Passano Foundation Young Investigator Award, 1990
President, Society for Developmental Biology, 1997-8
Searle Scholars Foundation Advisory Board, 2001-5
Conklin Medal, Society for Developmental Biology, 2004
Einstein Professor, Chinese Academy of Sciences, 2008
Elected to the American Academy of Arts and Sciences, 1996
Elected to the National Academy of Sciences, 1999
Elected to the National Institute of Medicine, 2007
Pasarow Award in Cancer Research, 2013

Service:

Co-Chairman, Gordon Conference on Developmental Biology, 1987
Program Co-organizer, 31st National Drosophila Conference, 1990
Co-chair: Keystone Meeting, *Transcription in Development, Differentiation, and Disease*, 1992
Co-chair: Santa Cruz Conference on Developmental Biology, 1994
Kirsch Foundation Scientific Advisory Board, 2002-4
Co-chair: Keystone Conference on *Cancer and Development*, 2005
Scientific Advisory Board, Ara Parseghian Medical Research Foundation, 2005-
External advisory committee, Harvard Medical School Department of Genetics, 2005
Corporation Visiting Committee, M.I.T. Department of Biology, 2005-
Co-chair, Conference on Hedgehog Signaling in Development and Disease, 2007
Beckman Foundation, Grants Advisory Council, 2008-
Class Membership Committee, National Academy of Sciences, 2011-
Review Committee: Patan Academy of Health Sciences, Kathmandu, Nepal, 2012
External advisory committee, Harvard Medical School Department of Genetics, 2013

Editorial Appointments:

Co-editor, *Current Opinions in Genetics and Development*, 1991-2006
Editor, *Developmental Biology*, 1995-2001
Associate Editor, *Cell*, 1988-1995
Editor, *Development*, 2007-9
Editorial Boards: *Current Biology*, 1991-1993*, Development,* 1987-1992, *Developmental Biology*, 1988-1992*, Genes and Development*, 1987-1992*, Molecular and Cellular Biology*, 1988-1998, *Molecular Cell*, 1999-2001, *Proceedings of the National Academy of Sciences U.S.A.*, 2001-5, *PLoS Biology*, 2003-

Professional Societies:

Genetics Society of America,
Society for Developmental Biology
American Society for Cell Biology
American Society for Biochemistry and Molecular Biology

University Service:

Ad Hoc University Budget Advisory Sub-committee, 1991
Medical School Faculty Budget Advisory Committee, 1991-1992
Walter Berry Postdoctoral Fellowships Awards Committee, 1991-2001
Neurosciences Program Review Committee, 1992
Chair, Committee on Graduate Admissions and Policy, 1995-7
Neuroscience Research Development Committee, 1999-2000
Cancer Research Development Committee, 1999-2000
Functional Genomics, Genetics, and Biocomputation Committee, 1999-2000
Children's Health Oversight and Coordinating Committee, 1999-2000
Provost's Advisory Committee on the Status of Women Faculty, 2001
Medical School Dean Search Committee, 2000-2001
Bio-X Advisory Committee, 2001
Medical Student Curriculum Reform Committee, 2000-1
Dean's Bio-X Advisory Committee, 2001
Medical School Fundraising Committee, 2001-2
Medical School Cancer Center Committee, 2001-2
Department of Bioengineering Founding Faculty committee, 2003-4
Search committee, Department of Medicine Chair, 2005
Search committee chair, Department of Developmental Biology, 2006
Human Health Initiative Committee, 2006-7
Committee for Advanced Residency Training at Stanford (ARTS) 2007-
Bioengineering Department Undergraduate Curriculum Committee 2007-
Bio-X Leadership Council, 2002-
School of Medicine Appointments and Promotions Committee, 2011-
Search Committee, Department of Developmental Biology, 2011
Introductory Science Courses Committee, VPUE, 2011-
Committee on Implicit Bias, School of Medicine, 2011-
Chair, Review Committee, Immunology Interdepartmental Program, 2011
Executive Committee, Child Health Research Institute, Stanford University, 2013-

PUBLICATIONS

1. Storti, R.V., S.J. Horovitch, M.P. Scott, A. Rich, and M.L. Pardue (1978) Myogenesis in primary cell cultures from Drosophila melanogaster: Protein synthesis and actin heterogeneity during development. Cell **13**: 589-598. PMID: 418880.

2. Berninger, M., T. Cech, J. Fostel, K. Potter, M.P. Scott, and M.L. Pardue (1979) The structure and function of mitochondrial DNA of *Drosophila melanogaster*. Alfred Benzon Symp. **13**: 229-241.

3. Scott, M.P., R.V. Storti, M.L. Pardue, and A. Rich (1979) Cell-free protein synthesis in lysates of *Drosophila melanogaster* cells. Biochemistry **18**: 1588-1594. PMID: 106888.

4. Spradling, A.C., M.E. Digan, A.P. Mahowald, M.P. Scott, and E.A. Craig (1980) Two clusters of genes for major chorion proteins of Drosophila melanogaster. Cell 19: 905-914. PMID: 6769591.

5. Storti, R.V., M.P. Scott, A. Rich, and M.L. Pardue (1980) Translational control of protein synthesis in response to heat shock in Drosophila melanogaster cells. Cell 22: 825-834. PMID: 6780199.

6. Scott, M.P., J.M. Fostel, and M.L. Pardue (1980) A new type of virus from cultured Drosophila cells: Characterization and use in studies of the heat shock response. Cell 22: 929-941. PMID: 6780201.

7. Pardue, M.L., M.P. Scott, R.V. Storti, and J.A. Lengyel (1980) The heat shock response: A model system for the study of gene regulation in Drosophila. *In:* Development and Neurobiology of Drosophila, (O. Siddiqi, P. Babu, L.M. Hall, and J.C. Hall, eds.) Plenum Publishing Corp, New York, pp. 41-55. PMID: 6161601.

8. Scott, M.P. and M.L. Pardue (1981) Translational control in lysates of *Drosophila melanogaster* cells. Proc. Natl. Acad. Sci. U.S.A. 78: 3353-3357. PMID: 6267586.

9. Pardue, M.L., D.G. Ballinger, and M.P. Scott (1981) Expression of the heat shock genes in Drosophila melanogaster. *In:* Developmental Biology Using Purified Genes (D.D. Brown and D.F. Fox, eds.), ICN-UCLA Symp. 23: 415-427.

10. Scott, M.P., A.J. Weiner,T.I. Hazelrigg, B.A. Polisky, V. Pirrotta, F. Scalenghe, and T.C. Kaufman (1983) The molecular organization of the *Antennapedia* Locus of Drosophila. Cell 35: 763-776. PMID: 6418389.

11. Weiner, A.J., M.P. Scott, and T.C. Kaufman (1984) A molecular analysis of *fushi tarazu*, a gene in Drosophila melanogaster that encodes a product affecting embryonic segment number and cell fate. Cell 37: 843-851. PMID: 6430569.

12. Scott, M.P. and A.J. Weiner (1984) Structural relationships among genes that control development: Sequence homology between the *Antennapedia*, *Ultrabithorax*, and *fushi tarazu* loci of *Drosophila*. Proc. Natl. Acad. Sci. USA 81: 4115-4119. PMID: 6330741.

13. Scott, M.P. (1984) Homoeotic gene transcripts in the neural tissue of insects. Trends Neurosci. 7: 221-223.

14. Laughon, A. and M.P. Scott (1984) The sequence of a *Drosophila* segmentation gene: Protein structure homology with DNA binding proteins. Nature 310: 25-31. PMID: 6330566.

15. Scott, M.P. (1985) Molecules and puzzles from the *Antennapedia* homoeotic gene complex of Drosophila. Trends in Genetics 1: 74-80.

16. Carroll, S.B., P.D. Riley, M.W. Klymkowsky, J. van Blerkom, J. Stewart, and M.P. Scott (1985) Localization of homoeodomain-containing proteins using antibodies against a synthetic oligopeptide. Symp. Soc. Devel. Biol. 43: 257-270.

17. Laughon, A., S.B. Carroll, F.A. Storfer, P.D. Riley and M.P. Scott (1985) Common properties of proteins encoded by the Antennapedia Complex genes of Drosophila melanogaster. Cold Spring Harbor Symp. Quant. Biol. 50: 253-262. PMID: 3938363.

18. Carroll, S.B. and M.P. Scott (1985) Localization of the *fushi tarazu* protein during Drosophila embryogenesis. Cell 43: 47-57. PMID: 3000605.

19. Carroll, S.B. and M.P. Scott (1986) Zygotically active genes that affect the spatial expression of the *fushi tarazu* segmentation gene during early drosophila embryogenesis. Cell 45: 113-126. PMID: 3082519.

20. Laughon, A., A.M. Boulet, J.R. Bermingham, Jr., R.A. Laymon, and M.P. Scott (1986) Structure of transcripts from the homeotic *Antennapedia* gene of *Drosophila melanogaster*: Two promoters control the major protein-coding region. Mol. Cell. Biol. 6: 4676-4689. PMID: 2879223.

21. Scott, M.P. and P.H. O'Farrell (1986) Spatial programming of gene expression in early *Drosophila* embryogenesis. Ann. Rev. Cell Biol. 2: 49-80. PMID: 2881561.

22. Scott, M.P. (1986) More on the homeobox. Bioessays 5: 88-9. PMID: 2878664.

23. Carroll, S.B., G.M. Winslow, T. Schüpbach, and M.P. Scott (1986) Maternal control of Drosophila segmentation gene expression. Nature 323: 278-280. PMID: 3093889.

24. Carroll, S.B., R.A. Laymon, M.A. McCutcheon, P.D. Riley, and , M.P. Scott (1986) The localization and regulation of *Antennapedia* protein expression in Drosophila embryos. Cell 47: 113-122. PMID: 3093083.

25. Scott, M.P. (1987) Complex Loci of Drosophila. Annual Review of Biochem 56: 195-227. PMID: 2887142.

26. Carroll, S.B., G.M. Winslow, V.J. Twombly, and M.P. Scott (1987) Genes that control dorsoventral polarity affect gene expression along the anteroposterior axis of the *Drosophila* embryo. Development 99: 327-332. PMID: 3653004.

27. Martinez-Arias, A., P.W. Ingham, M.P. Scott, and M.E. Akam (1987) The spatial and temporal deployment of *Dfd* and *Scr* transcripts throughout development of *Drosophila*. Development 100: 673-683. PMID: 2450726.

28. Riley, P.D., S.B. Carroll, and M.P. Scott (1987) The expression and regulation of *Sex combs reduced* protein in *Drosophila* embryos. Genes and Development 1: 716-730. PMID: 2892760.

29. Scott, M.P. and S.B.Carroll (1987) The segmentation and homeotic gene network in early Drosophila development. Cell 51: 689-698. PMID: 2890437.

30. Doe, C.Q. and M.P. Scott (1987) Segmentation and homeotic gene function in the developing nervous system of *Drosophila*. Trends Neurosci. 11: 101-106. PMID: 2465606.

31. Carroll, S.B., S.P. DiNardo, P.H. O'Farrell, R.A.H. White, and M.P. Scott (1988) Temporal and spatial relationships between segmentation and homeotic gene expression in *Drosophila* embryos: Distributions of the *fushi tarazu*, *engrailed*, *Sex combs reduced*, *Antennapedia* and *Ultrabithorax* proteins. Genes and Development 2: 350-360. PMID: 2897943.

32. Scott, M.P. (1988) The molecular biology of pattern formation in early Drosophila embryogenesis *in*: Developmental Biology: A Comprehensive Synthesis, v.5: The Molecular Biology of Cell Determination and Cell Differentiation. (Ed. L. Browder) Chapter 6, pp.151-185. Plenum Press, New York. PMID: 2908379.

33. Winslow, G.M., S.B. Carroll, and M.P. Scott (1988) Maternal-effect genes that alter the fate map of the *Drosophila* blastoderm embryo. Devel. Biol. 129: 72-83. PMID: 3410162.

34. Laughon, A., W. Howell, and M.P. Scott (1988) The interaction of proteins encoded by *Drosophila* homeotic and segmentation genes with specific DNA sequences. Development 104 (Supplement): 75-83. PMID: 2908297.

35. Bermingham, J.R. and M.P. Scott (1988) Developmentally regulated alternative splicing of transcripts from the *Drosophila* homeotic gene *Antennapedia* can produce four different proteins. EMBO J. 7: 3211-3222. PMID: 2903048.

36. Boulet, A.M. and M.P. Scott (1988) Control elements of the P2 promoter of the *Antennapedia* gene. Genes and Devel. 2: 1600-1614. PMID: 2905685.

37. Scott, M.P., J.W. Tamkun, and George W. Hartzell III (1989) The structure and function of the homeodomain. BBA Reviews on Cancer 989: 25-48. PMID: 2568852.

38. Winslow, G.M., S. Hayashi, M. Krasnow, D.S. Hogness, and M.P. Scott (1989) Transcriptional activation by the *Antennapedia* and *fushi tarazu* proteins in cultured Drosophila cells. Cell 57: 1017-1030. PMID: 2567631.

39. Hooper, J.E. and M.P. Scott (1989) The Drosophila *patched* gene encodes a putative membrane protein required for segmental patterning. Cell 59: 751-765. PMID: 2582494.

40. Ueda, H., S. Sonoda, J.L. Brown, M.P. Scott, and C. Wu (1990) A sequence-specific DNA-binding protein that activates *fushi tarazu* segmentation gene expression. Genes and Development 4: 624-635. PMID: 2113881.

41. Reuter, R. and M.P. Scott (1990) Expression and functions of the homeotic genes *Antennapedia* and *Sex combs reduced* in the embryonic midgut of *Drosophila*. Development 109: 289-303. PMID: 1976087.

42. Bermingham, J.R., A. Martinez-Arias, M. G. Petitt, and M.P. Scott (1990) Different patterns of transcription from the two *Antennapedia* promoters during *Drosophila* embryogenesis. Development 109: 553-566. PMID: 1976090.

43. Reuter, R., G.E.F. Panganiban, F.M. Hoffmann , and M.P. Scott (1990) Homeotic genes regulate the spatial expression of putative growth factors in the visceral mesoderm of *Drosophila* embryos. Development 110:,1031-1040. PMID: 1983113.

44. Panganiban, G.E.F., R. Reuter, M.P. Scott, and F.M. Hoffmann (1990) A Drosophila growth factor homolog, *decapentaplegic*, regulates homeotic gene expression within and across germ layers during midgut morphogenesis. Development 110:,1041-1050. PMID: 1983114.

45. Hayashi, S. and M.P. Scott (1990) What determines the specificity of action of *Drosophila* homeodomain proteins? Cell 63: 883-894. PMID: 1979524.

46. Tamkun, J.W., R.A. Kahn, M. Kissinger, B.J. Brizuela, C. Rulka, M.P. Scott, and J.A. Kennison (1991) The *arflike* gene encodes an essential GTP-binding protein in *Drosophila*. Proc. Nat. Acad. Sci. U.S.A.88: 3120-3124. PMID: 1901655.

47. Brown, J.L., S. Sonoda, H. Ueda, M.P. Scott, and C. Wu (1991) Repression of *fushi tarazu* (*ftz*) segmentation gene. EMBO J.10: 665-674. PMID: 2001679.

48. Doe, C.Q., Q. Chu-LaGraff, D.M. Wright, and M.P. Scott (1991) The *prospero* gene specifies cell fates in the Drosophila central nervous system. Cell 65: 451-464. PMID: 1673362.

49. Tamkun, J.W., R. Deuring, M.P. Scott, M. Kissinger, A.M. Pattatucci, T.C. Kaufman, and J.A. Kennison (1992) *brahma*: A transregulator of Drosophila homeotic genes structurally related to the yeast transcriptional activator SNF2/SWI2. Cell 68: 561-572. PMID: 1346755.

50. Andrew, D.J. and M.P. Scott (1992) Downstream of the homeotic genes. New Biologist 4: 5-15. PMID: 1346973.

51. Oh, S.-K., M.P. Scott, and P. Sarnow (1992) Homeotic gene *Antennapedia* mRNA contains 5'-noncoding sequences that confer translational initiation by internal ribosome binding. Genes and Development 6: 1643-1653. PMID: 1355457.

52. Hooper, J.E., M. Pérez-Alonso, J.R. Bermingham, M. Prout, B.A. Rocklein, M. Wagenbach, J.-E. Edstrom, R. De Frutos, and M.P. Scott (1992) Comparative studies of Drosophila *Antennapedia* genes. Genetics 132: 453-469. PMID: 1358753.

53. Petitt, M.G. and M.P. Scott (1992) Gene control systems affecting insect development. (Eds. J.M. Crampton and P. Eggleston). in Insect Molecular Science, 16th Symp. Roy. Entomol. Soc., Academic Press, London.

54. Hooper, J.E. and M.P. Scott (1992) The molecular genetic basis of positional information in insect segments. In: Early Embryonic Development of Animals, volume 18 of "Results and Problems in Cell Differentiation", pp. 1-48. W. Hennig, Ed. Springer-Verlag, Berlin. PMID: 1475532.

55. Crabtree, G.R., U. Schibler, and M.P. Scott (1992) Transcriptional regulatory mechanisms in liver and midgut morphogenesis of vertebrates and invertebrates. *In:* Transcriptional Regulation (S.L. McKnight and K. R. Yamamoto, Eds.) Cold Spring Harbor Press, Cold Spring Harbor, N.Y., pp1063-1102

56. Manak, J.R. and M.P. Scott (1993) Able assistants for homeodomain proteins. Current Biology 3:318-320. PMID: 15335761.

57. Scott, M.P. (1993) A rational nomenclature for vertebrate homeobox (*HOX)* genes. Nucleic Acids Research 21: 1687-1688. PMID: 8098522.

58. Zeng, W., D.J. Andrew, L.D. Mathies, M.A. Horner, and M.P. Scott (1993) Ectopic expression and function of the *Antp* and *Scr* homeotic genes: The N terminus of the homeodomain is critical to functional specificity. Development 118**:** 339-352. PMID: 7900989.

59. Andrew, D.J., M.A. Horner, M.G. Petitt, Sarah M. Smolik, and M.P. Scott (1994) Setting limits on homeotic gene function: Restraint of *Sex combs reduced* Activity by *teashirt* and other homeotic genes. EMBO J.13: 1132-1144. PMID: 7907545.

60. Peterson, C.L., A. Dingwall, and M.P. Scott (1994) Five *SWI/SNF* gene products are components of a large multi-subunit complex required for transcriptional enhancement. Proc. Nat. Acad. Sci. U.S.A.91: 2905-2908. PMID: 8159677.

61. Schuske, K., J.E. Hooper, and M.P. Scott (1994) *patched* overexpression causes loss of *wingless* expression in Drosophila embryos. Dev. Biol.. 164: 300-311. PMID: 8026632.

62. Mathies, L.D., S. Kerridge, and M.P. Scott (1994) Role of the *teashirt* gene in Drosophila midgut morphogenesis: Secreted proteins mediate the action of homeotic genes. Development 120: 2799-2809. PMID: 7607071.

63. Andrew, D.J. and M.P. Scott (1994) Immunological methods to map protein distributions on polytene chromosomes. *In Drosophila melanogaster*: Practical Uses in Cell and Molecular Biology. L.S.B. Goldstein and E. Fyrberg, Eds., pp. 353-370, Academic Press.

64. Manak, J.R., L.D. Mathies, and M.P. Scott (1994) Regulation of a *decapentaplegic* midgut enhancer by homeotic proteins. Development 120: 3605-3619. PMID: 7821226.

65. Scott, M.P. (1994) Intimations of a creature. Cell 79: 1121-1124. PMID:8001147.

66. Manak, J.R. and M.P. Scott (1994) A class act: Conservation of homeodomain protein functions. In: *The Evolution of Development Mechanisms*. Development Suppl. 1994, pp. 61-77. PMID: 7579525.

67. Dingwall, A.K., S.J. Beek, C.M. McCallum, J.W. Tamkun, G.V. Kalpana, S.P. Goff, and M.P. Scott (1995) The Drosophila snr1 and brm proteins are related to yeast SWI/SNF proteins and are components of a large protein complex. Mol. Biol. Cell. 6: 777-791. PMID: 7579694.

68. McCormick, A., N. Coré, S. Kerridge, and M.P. Scott (1995) Homeotic response elements are tightly linked to tissue-specific elements in a transcriptional enhancer of the *teashirt* gene. Development 121: 2799-2812. PMID: 7555708.

69. Saenz-Robles, M.T., F. Maschat, T. Tabata, M.P. Scott, and T.B. Kornberg (1995) Selection and characterization of sequences with high affinity for the engrailed protein of *Drosophila*. Mech. Devel. 53: 185-195. PMID: 8562421.

70. Bilder, D. and M.P. Scott (1995) Genomic regions required for morphogenesis of the *Drosophila* embryonic midgut. Genetics 141: 1087-1100. PMID: 8582615.

71. Johnson, R.L., J. K. Grenier, and M.P. Scott (1995) *patched* overexpression alters wing disc size and pattern: Transcriptional and post-transcriptional effects on *hedgehog* targets. Development 121: 4161-4170. PMID: 8575316.

72. Goodrich, L.V., R.L. Johnson, L. Milenkovic, J.A. McMahon, and M.P. Scott (1996) Conservation of the *hedgehog/patched* signaling pathway from flies to mice: Induction of a mouse *patched* gene by hedgehog. Genes Dev. 10: 301-312. PMID: 8595881.

73. Marigo, V., M.P. Scott, E. Laufer, L.V. Goodrich, R.L. Johnson, and C. Tabin (1996) Conservation in hedgehog signaling: *Sonic hedgehog* controls the expression of a chicken *patched* homolog in the developing limb. Development 122: 1225-1233. PMID: 8620849.

74. Johnson, R.L., A.L. Rothman, J. Xie, L.V. Goodrich, J.W. Bare, J.M. Bonifas, A.G. Quinn, R.M. Myers, D.R. Cox, E.H. Epstein, Jr., and M.P. Scott (1996) Human homolog of *patched* , a candidate gene for the basal cell nevus syndrome. Science 272: 1668-1671. PMID: 8658145.

75. Concordet, J-P., K.E. Lewis, J.W. Moore, L. V. Goodrich, R. L. Johnson, M. P. Scott and P. W. Ingham (1996) Spatial regulation of a zebrafish *patched* homologue reflects the roles of *sonic hedgehog* and protein kinase A in neural tube and somite patterning. Development 122: 2835-2846. PMID: 8787757.

76. Epstein, D.J., E. Marti, M.P. Scott, and A.P. McMahon (1996) Antagonizing cAMP-dependent protein kinase A in the dorsal CNS activates a conserved Sonic hedgehog signaling pathway. Development 122: 2885-2894. PMID: 8787761.

77. Stone, D.M., M. Hynes, M. Armanini, T.A. Swanson, Q. Gu, R.L. Johnson, M.P. Scott, D. Pennica, A. Goddard, H. Phillips, M. Noll, J.E. Hooper, F. de Sauvage, and A. Rosenthal (1996) The tumour-suppressor gene *patched* encodes a candidate receptor for Sonic hedgehog. Nature 384: 129-134. PMID: 8906787.

78. Scott, M.P. (1997) Hox genes, Arms and the Man. Nature Genetics 15: 117-118. PMID: 9020831.

79. Sharkey, M., Y. Graba, and M.P. Scott (1997) Hox genes in evolution: Protein surfaces and paralog groups. Trends in Genetics 13: 145-151. PMID: 9097725.

80. Oro, A.E., K.M. Higgins, Z. Hu, J.M. Bonifas, E. H. Epstein, Jr., and M.P. Scott (1997) Basal cell carcinomas in mice overexpressing Sonic Hedgehog. Science 276: 817-821. PMID: 9115210.

81. Kornberg, T. and M.P. Scott (1997) Regulation of Drosophila development by transcription factors and cell-cell signaling *in Exploring Genetic Mechanisms*. P. Berg and M. Singer, Eds. University Science Books, Sausalito, California.

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84. Sisson, J.C., K.S. Ho, K. Suyama, and M.P. Scott (1997) Costal2, a novel kinesin-related protein in the Hedgehog/patched signaling pathway. Cell 90: 235-245. PMID: 9244298.

85. Goodrich, L.V., L. Milenkovic, K.M. Higgins, and M. P. Scott (1997) Altered neural cell fates and medulloblastoma in mouse *patched* mutants. Science 277: 1109-1113. PMID: 9262482.

86. Johnson, R.L. and M.P. Scott (1997) Control of cell growth and fate by *patched* genes. Cold Spring Harbor Symp. Quant. Biol. 62: 205-215. PMID: 9598353.

87. Scott, M.P. (1997) A common language (meeting summary). Cold Spring Harbor Symp. Quant. Biol. 62: 555-562. PMID: 9598389.

88. Coré, N., A. McCormick, C. Vola, L. Fasano, M.P. Scott, and S. Kerridge (1997) Transcriptional regulation of the *Drosophila* homeotic gene *teashirt* by the homeodomain protein Fushi tarazu. Mech. Devel. 68:157-72. PMID: 9431813.

89. Bilder, D., Y. Graba, and M.P. Scott (1997) Wnt and TGFb signals subdivide the AbdA Hox domain during mesoderm patterning. Development 125: 1781-1790. PMID: 9521915.

90. Aszterbaum, M., A. Rothman, R.L. Johnson, M. Fisher, J. Xie, J.M. Bonifas, X. Zhang, M.P. Scott, and E.H. Epstein, Jr. (1997) Mutations in the human PATCHED gene in sporadic basal cell carcinomas and in patients with basal cell nevus syndrome. J. Investigative Dermatol. 110: 885-888. PMID: 9610294.

91. Johnson, R.L. and M.P. Scott (1998) New players and puzzles in the Hedgehog signaling pathway. Curr. Opin. Genet. Devel. 8: 450-456. PMID: 9729722.

92. Bilder, D. and M.P. Scott (1998) *Hedgehog* and *Wingless* induce metameric pattern in the Drosophila visceral mesoderm. Devel. Biol. 201: 43-56. PMID: 9733572.

93. Pennacchio, L.A., D.M. Bouley, K.M. Higgins, M.P. Scott, J.L. Noebels, and R.M. Myers (1998) Progressive ataxia, myoclonic epilepsy, and cerebellar apoptosis in cystatin B-deficient mice. Nature Genetics 20: 251-258. PMID: 9806543.

94. Oro, A.E. and M.P. Scott (1998) Splitting hairs: Dissecting roles of signaling systems in epidermal development. Cell 95: 575-578. PMID: 9845357.

95. Weiss, J.B., T. von Ohlen, D. Mellerick, G. Dressler, C.Q. Doe, and M.P. Scott (1998) Dorsoventral patterning in the Drosophila central nervous system: The *intermediate neuroblast defective* homeobox gene specifies intermediate column identity. Genes Dev. 12: 3591-3602. PMID: 9832510.

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