

## CURRICULUM VITAE

James L. Manley  
1117 Sherman Fairchild Building  
Columbia University  
New York, NY 10027  
(212) 854-4647  
e-mail: jlm2@columbia.edu

### Personal:

Birthdate: November 30, 1949                      Home Address: PO Box 315  
Place of Birth: Minneapolis, Minnesota                      Greenlawn, NY 11740  
Nationality: U.S.A.

### Education:

Columbia University                      B.S. (1971) Biology  
State University of  
New York at Stony Brook                      Ph.D. (1976) Molecular Biology

### Professional Experience:

Julian Clarence Levi Professor of Life Sciences, Columbia University 1995-  
Chairman; Department of Biological Sciences, Columbia University 1995-2001  
Professor; Department of Biological Sciences, Columbia University 1987-  
Associate Professor; Department of Biological Sciences, Columbia University 1985-1987.  
Assistant Professor; Department of Biological Sciences, Columbia University 1980-1985.

Postdoctoral Research: Mass. Institute of Technology; Dr. M.L. Gifter, supervisor. 1977-1980.  
Graduate Research: Cold Spring Harbor Laboratory; Dr. R.F. Gesteland, supervisor. 1972-1976.  
Research Assistant: Columbia University, Dr. G. Zubay, supervisor. 1970-1972.

### Honors and Service:

1976-1977      Anna Fuller Fellowship  
1995-              Julian Clarence Levi Professor of Life Sciences  
1996- 2006      NIH MERIT Award (mRNA splicing)  
2002-              Fellow, American Academy of Microbiology  
2002-              Board of Directors, Cold Spring Harbor Alumni Association  
2005-              ISI Highly Cited Researcher  
2006-              Fellow, American Academy of Arts and Sciences  
2006-2009      Senior Fellow, American Asthma Foundation  
2007-              Edina High School Hall of Fame  
2008-              Fellow, American Association for the Advancement of Science  
2011-              Member, National Academy of Sciences  
2013              Einstein Professorship, Chinese Academy of Sciences  
2017-2020      Chair, Biochemistry Section, National Academy of Sciences

1983-1985      Editorial Board, Nucleic Acids Research  
1984-2001      Editorial Board, Molecular and Cellular Biology  
1988-              Editorial Board, Genes and Development

1989-1992	Editorial Board, Techniques
1991-1995	Editorial Board, Mechanisms of Development
1991-2017	Associate Editor, Gene Expression
1993-1998	Editorial Board, Journal of Virology
1994-	Editorial Board, RNA
1997-2021	Editorial Board, Molecular Cell
2001-	Editorial Board, BioMedCentral- Molecular Biology
2003-2013	Editor, Molecular and Cellular Biology
2003-	Editorial Board, BioMedCentral-Biology
2006-2013	Editorial Board, Recent Patents on DNA & Gene Sequences
2010-	Editorial Board, Transcription
2012-2023	Senior Editor, eLife
2012-	Editorial Board, Methods
2021-	Editorial Board, Proc. Natl. Acad. Sci.
1989-2022	Co-organizer, RNA 3' End Formation Meetings, Oxford, England (9)
1990, 91	Co-organizer, RNA Processing Meeting, Cold Spring Harbor Lab
1997, 99	Co-organizer, Eukaryotic mRNA Processing Meeting, Cold Spring Harbor Lab
2017	Organizer, Keystone Symposium, mRNA Processing and Human Disease
1988-1991	Member, ACS Microbiology and Virology Committee
1989-1993	Member, NIH Molecular Biology Study Section
1999-2002	Member, NIH Molecular Cytology (CDF2) Study Section (Chair, 2000-2002)

### Publications:

1. Chambers, D. and Manley, J.L. (1973). On the nature of  $\beta$ -galactosidase synthesized by DNA-directed cell-free system. *Mol. Gen. Genet.* **120**, 301-308.
2. Manley, J.L., Reiness, C.G., Zubay, G. and Geftter, M.L. (1973). Cell-free synthesis of Su+III tryosyl tRNA: characterization of the 4S product. *Arch. Biochem. Biophys.* **157**, 50- 54.
3. Manley, J.L. (1978). Synthesis and degradation of termination and premature-termination fragments of beta-galactosidase *in vitro* and *in vivo*. *J. Mol. Biol.* **125**, 407-432.
4. Manley, J.L. and Gesteland, R.F. (1978). Suppression of amber mutants *in vitro* induced by low temperature. *J. Mol. Biol.* **125**, 433-447.
5. Manley, J.L. (1978). Synthesis of internal re-initiation fragments of beta-galactosidase *in vitro* and *in vivo*. *J. Mol. Biol.* **125**, 449-466.
6. Roberts, R.J., Klessig, D.F., Manley, J.L. and Zain, B.S. (1979). The spliced mRNAs of adenovirus 2. *FEBS Symposium* **21**, 245-253.
7. Manley, J.L., Sharp, P.A. and Geftter, M.L. (1979). RNA synthesis in isolated nuclei: *in vitro* initiation of the adenovirus 2 major late mRNA precursor. *Proc. Natl. Acad. Sci. USA* **76**, 160-164.

8. Manley, J.L., Sharp, P.A. and Gefter, M.L. (1979). RNA synthesis in isolated nuclei: identification and comparison of adenovirus 2 encoded transcripts synthesized *in vitro* and *vivo*. *J. Mol. Biol.* **135**, 171-197.
9. Manley, J.L., Gefter, M.L. and Sharp, P.A. (1979). Synthesis and processing of adenovirus 2 RNA *in vitro*. *ICN-UCLA Symposia on Molecular Biology-Eukaryotic Gene Expression* **14**, 595-610.
10. Manley, J.L., Fire, A., Cano, A., Sharp, P.A. and Gefter, M.L. (1980). DNA-dependent transcription of adenovirus 2 genes in soluble whole-cell extract. *Proc. Natl. Acad. Sci. USA* **77**, 3855-3859.
11. Sharp, P.A., Manley, J.L., Fire, A. and Gefter, M.L. (1980). Regulation of adenovirus gene expression. *Ann. N.Y. Acad. of Sci.* **354**, 1-15.
12. Manley, J.L., Handa, H., Huang, S.L., Sharp, P.A. and Gefter, M.L. (1980). Transcription of mammalian genes *in vitro*. *Miami Winter Symposium* **12**, 236-251.
13. Manley, J.L., Hu, S.L., Sharp, P.A. and Gefter, M.L. (1980). Synthesis of the Ad2 major late transcript *in vitro*: Properties of the transcript and its promoter. *ICN-UCLA Symposium on Animal Virus Genetics* **18**, 353-368.
14. Proudfoot, N., Shatner, M., Manley, J., Gefter, M. and Maniatis, T. (1980). Expression of human globin genes. *Science* **209**, 1329-1336.
15. Handa, H., Kaufmann, R., Manley, J.L., Gefter, M.L. and Sharp, P.A. (1981). Accurate initiation of transcription of SV40 early and late genes in whole cell extract. *J. Biol. Chem.* **256**, 478-482.
16. Manley, J.L. and Gefter, M.L. (1981). Transcription of mammalian genes *in vitro*. In *Gene Amplification and Analysis* **2**, eds. Chirkjian, J.G. and Papas, T.S. (Elsevier-North Holland, N.Y., N.Y.), pp. 369-383.
17. Spritz, R.A., Jagadeeswaran, P., Biro, P.A., Elder, J.T., Choudary, P.V., de Riel, J.K., Manley, J.L., Gefter, M.L., Weissman, S.M. and Forget, B.G. (1981). Structure and functional characterization of cloned  $\beta^+$ -thalassemic globin gene fragments. In *Organization and Expression of Globin Genes*, eds. Nienhuis, A.W. and Stamatoyarnopolis, G. (A.P. Liss, N.Y., N.Y.), pp.105-112.
18. Spritz, R.A., Jagadeeswaran, P., Choudary, P.V., Biro, P.A., Elder, J.T., de Riel, J.K., Manley, J.L., Gefter, M.L., Forget, B.G. and Weissman, S.M. (1981). Intervening sequence mutation in a cloned human  $\beta^+$ -thalassemic globin gene. *Proc. Natl. Acad. Sci. USA* **78**, 2455-2459.
19. Spritz, R.A., Jagadeeswaran, P., Biro, P.A., Elder, J.T., de Riel, J.K., Forget, B.G., Weissman, S.W., Manley, J.L. and Gefter, M.L. (1981). Intervening sequence mutation in a cloned human  $\beta$ -thalassemic globin gene. *ICN-UCLA Symp. on Developmental Biology Using Purified Genes* **23**, 164-173.

20. Fire, A., Baker, C., Manley, J.L., Ziff, E. and Sharp, P.A. (1981). *In vitro* transcription of adenovirus. *J. Virol.* **40**, 703-719.
21. Hu, S.-L. and Manley, J.L. (1981). DNA sequence required for initiation of transcription *in vitro* from the major late promoter of adenovirus 2. *Proc. Natl. Acad. Sci. USA* **78**, 820-824.
22. Manley, J.L., Gefter, M.L. and Sharp, P.A. (1982). RNA synthesis in isolated nuclei: Processing of adenovirus serotype 2 late messenger RNA precursors. *J. Mol. Biol.* **159**, 581- 600.
23. Manley, J.L. (1982). Transcription of mammalian genes *in vitro*. In *Genetic Engineering* **4**, eds. Setlow, J.K. and Hollaender, A. (Plenum, N.Y., N.Y.), pp. 37-56.
24. Fradin, A., Manley, J.L. and Prives, C. (1982). Methylation of simian virus 40 *Hpa II* site inhibits late, but not early, viral gene expression. *Proc. Natl. Acad. Sci. USA* **79**, 5142-5146.
25. Hough, P., Mastrangelo, V.C., Wall, J.S., Hainfield, J.F., Simon, M.N. and Manley, J.L. (1982). DNA-protein complexes spread on N<sub>2</sub>-discharged carbon film and characterized by molecular weight and its projected distribution. *J. Mol. Biol.* **60**, 375- 386.
26. Jove, R. and Manley, J.L. (1982). Transcription initiation by RNA polymerase II is inhibited by S-adenosylhomocysteine. *Proc. Natl. Acad. Sci. USA* **79**, 5842-5846.
27. Manley, J.L. and Colozzo, M.T. (1982). Synthesis *in vitro* of an exceptionally long RNA transcript promoted by an AluI sequence. *Nature* **300**, 376-379.
28. Mitsialis, A., Manley, J.L. and Guntaka, R. (1983). Localization of active promoters for eucaryotic RNA polymerase II in the long terminal repeat of avian sarcoma virus DNA. *Mol. Cell. Biol.* **3**, 811-818.
29. Manley, J.L., Fire, A., Samuels, M. and Sharp, P. (1983). *In vitro* transcription: whole-cell extract. *Methods in Enzymology, Recombinant DNA* **101**, 568-582.
30. Manley, J.L. (1983). Analysis of the expression of genes encoding animal mRNA by *in vitro* techniques. *Prog. in Nuc. Acid Res. and Mol. Biol.* **30**, 195-244.
31. Pollack, R.E., Prives, C. and Manley, J.L. (1983). Do variant SV40 sequences have a role in the maintenance of the oncogenic transformed phenotype? In *Genes and Proteins in Oncogenesis*, eds. Vogel, H. and Weinstein, I.B. (Columbia Univ. Press, N.Y.), pp. 68-76.
32. Chen, S., Grass, D., Blanck, G., Manley, J.L. and Pollack, R.E. (1983). A functional simian virus 40 origin of replication is required for the generation of a super T antigen with a molecular weight of 100,000 in transformed mouse cells. *J. Virol.* **48**, 492-605.
33. Manley, J.L. (1983). Accurate and specific polyadenylation of mRNA precursors in a soluble whole-cell lysate. *Cell* **33**, 595-605.
34. Lewis, E.D., Chen, S., Kumar, A., Blanck, G., Pollack, R.E. and Manley, J.L. (1983). A frameshift mutation affecting the carboxyl terminus of the simian virus 40 large tumor antigen

- results in a replication- and transformation-defective virus. *Proc. Natl. Acad. Sci. USA* **80**, 7065-7069.
35. Manley, J.L. (1984). Transcription of eukaryotic genes in a whole-cell lysate. In *Transcription and Translation - A Practical Approach*, ed. Hames, B.D. (IRL Press, London, England), pp. 71-88.
  36. Jove, R. and Manley, J.L. (1984). *In vitro* transcription from the adenovirus-2 major late promoter utilizing templates truncated at promoter-proximal sites. *J. Biol. Chem.* **259**, 8513-8521.
  37. Fradin, A., Jove, R., Hemenway, C., Manley, J.L. and Prives, C. (1984). Splicing pathways of SV40 mRNAs in *Xenopus laevis* oocytes differ in their requirements for snRNPs. *Cell* **37**, 927-936.
  38. Jove, R., Sperber, D. and Manley, J.L. (1984). Transcription of methylated eukaryotic viral genes in a soluble *in vitro* system. *Nucleic Acids Res.* **12**, 4715-4730.
  39. Lewis, E.D., Fu, X.-Y. and Manley, J.L. (1984). Activation of the adenovirus late promoter by cis- and trans-acting elements. *UCLA Symposia on Molecular and Cellular Biology* **19**, 351-360.
  40. Yu, Y.-T. and Manley, J.L. (1984). The effects of point mutations in the adenovirus 2 late promoter on transcription initiation *in vitro*. *Nucleic Acids Res.* **12**, 9309-9321.
  41. Manley, J.L., Yu, H. and Ryner, L. (1985). An RNA sequence containing the hexanucleotide AAUAAA directs efficient mRNA polyadenylation *in vitro*. *Mol. Cell. Biol.* **5**, 373-379.
  42. Lewis, E.D. and Manley, J.L. (1985). Control of adenovirus late promoter expression in two human cell lines. *Mol. Cell. Biol.* **5**, 2433-2442.
  43. Lewis, E.D. and Manley, J.L. (1985). Repression of SV40 early transcription by viral DNA replication in human 293 cells. *Nature* **317**, 172-175.
  44. Sadowsky, M., Connelly, S., Manley, J.L. and Alwine, J. (1985). Utilization of the SV40 late polyadenylation site requires downstream sequences. *Mol. Cell. Biol.* **5**, 2713-2719.
  45. Manley, J.L. and Levine, M. (1985). The homeobox and mammalian development. *Cell* **43**, 1-2.
  46. Grass, D. and Manley, J.L. (1986). Effects of the adenovirus late promoter on SV40 transcription and replication. *J. Virol.* **57**, 129-137.
  47. Noble, J.C.S., Prives, C. and Manley, J.L. (1986). *In vitro* splicing of an SV40 early pre- mRNA. *Nucleic Acids Res.* **14**, 1219-1235.
  48. Manley, J.L., Noble, J.C.S., Chaudhuri, M., Fu, X.-Y., Michaeli, T. and Prives, C. (1986). The pathway of SV40 early mRNA splicing. *Cancer Cells* **4**, 259-265.

49. Prives, C., Michaeli, T., Covey, L., Lewis, D. and Manley, J.L. (1986). Analysis of SV40 gene expression in different cell types. *Cancer Cells* **4**, 125-135.
50. Yu, Y.-T. and Manley, J.L. (1986). Structure and function of the nuclease S1 sensitive site in the adenovirus late promoter. *Cell* **45**, 743-751.
51. Lewis, E.D. and Manley, J.L. (1986). Polyadenylation of an mRNA precursor occurs independently of transcription by RNA polymerase II *in vivo*. *Proc. Natl. Acad. Sci. USA* **83**, 8555-8559.
52. Ryner, L.C. and Manley, J.L. (1987). Requirements for accurate and efficient 3' end cleavage and polyadenylation of an SV40 early pre-RNA *in vitro*. *Mol. Cell. Biol.* **7**, 495- 503.
53. Ryner, L.C., Chaudhuri, M. and Manley, J.L. (1987). Polyadenylation of SV40 early pre- mRNA *in vitro*. In *Molecular Biology of the Papovaviruses*, ed. Aloni, Y. (Martinus Nijoff Publishing, the Netherlands), pp. 101-118.
54. Manley, J.L., Fu, X.-Y., Noble, J.C.S. and Ge, H. (1987). Regulated splicing of SV40 early pre-mRNA. In *Molecular Biology of RNA: New Perspectives*, eds. Inouye, M. and Dudock, B.S. (Academic Press, N.Y.), pp. 97-112.
55. Fu, X.-Y. and Manley, J.L. (1987). Factors influencing alternative splice site utilization *in vivo*. *Mol. Cell. Biol.* **7**, 738-748.
56. Manley, J.L., Ryner, L.C., Chaudhuri, M. and Ge, H. (1987). Processing of animal cell pre-mRNA *in vitro*. In *Control of Metabolic Processes*, ed., Kon, L. (Cambridge Univ. Press, Cambridge), pp. 25-39.
57. Noble, J.C.S., Pan, Z., Prives, C. and Manley, J.L. (1987). Splicing of SV40 early pre- mRNA to large T and small t mRNAs utilizes different patterns of lariat branch sites. *Cell* **50**, 227-236.
58. Grass, D. and Manley, J.L. (1987). Selective translation initiation on bicistronic SV40 late mRNA. *J. Virol.* **61**, 2331-2335.
59. Grass, D. and Manley, J.L. (1987). RNA polymerase II terminates transcription *in vitro* in the SV40 origin region. *Nucleic Acids Res.* **15**, 4417-4436.
60. Grass, D., Read, D., Lewis, E.D. and Manley, J.L. (1987). Cell and promoter specific activation of transcription by DNA replication. *Genes Dev.* **1**, 1065-1074.
61. Takagaki, Y., Ryner, L.C. and Manley, J.L. (1988). Separation and characterization of a poly(A) polymerase and a cleavage/specificity factor required for pre-mRNA polyadenylation. *Cell* **52**, 731-742.
62. Fu, X.-Y., Ge, H. and Manley, J.L. (1988). The role of the polypyrimidine stretch at the SV40 early pre-mRNA 3' splice site in alternative splicing. *EMBO J.* **7**, 809-817.

63. Connelly, S. and Manley, J.L. (1988). A functional mRNA polyadenylation signal is required for transcription termination by RNA polymerase II. *Genes Dev.* **2**, 440-452.
64. Manley, J.L. (1988). Polyadenylation of mRNA precursors. *BBA Reviews on Gene Expression* **950**, 1-12.
65. Fu, X.-Y., Colgan, J. and Manley, J.L. (1988). Multiple cis-acting sequence elements are required for efficient splicing of small-t antigen mRNA. *Mol. Cell. Biol.* **8**, 3582-3590.
66. Ryner, L.C., Takagaki, Y., Voulgaris, J. and Manley, J.L. (1988). Two separable activities are required for pre-mRNA cleavage and polyadenylation: a poly(A) polymerase and a cleavage/specificity factor. *UCLA Symposia on Molecular Biology of RNA* **94**, 335-349.
67. Noble, J.C.S., Prives, C. and Manley, J.L. (1988). Alternative splicing of SV40 early pre- mRNA is determined by branch site selection. *Genes Dev.* **2**, 1460-1475.
68. Noble, J.C.S. and Manley, J.L. (1989). The mechanism and control of pre-mRNA splicing. In *Molecular Biology of Chromosome Function*, ed. Adolph, K. (Springer-Verlag, N.Y.), pp. 243-261.
69. Ryner, L.C., Takagaki, Y. and Manley, J.L. (1989). Sequences downstream of AAUAAA affect pre-mRNA cleavage and polyadenylation *in vitro* both directly and indirectly. *Mol. Cell. Biol.* **9**, 1759-1771.
70. Han, K., Levine, M.S. and Manley, J.L. (1989). Synergistic activation and repression of transcription by *Drosophila* homeobox proteins. *Cell* **56**, 573-583.
71. Noble, J.C.S., Ge, H. and Manley, J.L. (1989). Alternative splicing of SV40 early pre- mRNA: the role of the lariat branch site region. In *Common Mechanisms of Transformation by Small DNA Tumor Viruses*, ed. Villareal, L. (ASM Publications, Washington, D.C.), pp. 221-226.
72. Noble, J.C.S., Ge, H., Chaudhuri, M. and Manley, J.L. (1989). Factor interactions with the SV40 early pre-mRNA influence branch point selection and alternative splicing. *Mol. Cell. Biol.* **9**, 2007-2017.
73. Connelly, S. and Manley, J.L. (1989). A CCAAT box sequence in the adenovirus major late promoter functions as part of an RNA polymerase II termination signal. *Cell* **57**, 561-571.
74. Ryner, L.C., Takagaki, Y. and Manley, J.L. (1989). Multiple forms of poly(A) polymerases purified from HeLa cells function in specific mRNA 3' end formation. *Mol. Cell. Biol.* **9**, 4229-4238.
75. Levine, M., Stanojevic, D., Han, K., Manley, J.L. and Warrior, R. (1989). Spatial Regulation of homeobox gene expression in *Drosophila*. In *Genetics of Early Drosophila and Mouse Development*, ed. Capecchi, M. (Cold Spring Harbor Press, Cold Spring Harbor, NY), pp.11-16.
76. Levine, M. and Manley, J.L. (1989). Transcriptional repression of eukaryotic promoters. *Cell* **59**, 405-408.

77. Pan, Z., Ge, H., Fu, X.-Y., Manley, J.L. and Prives, C. (1989). Oligonucleotide-targeted degradation of U1 and U2 snRNAs reveals different interactions of SV40 pre-mRNAs with snRNPs. *Nucl. Acids Res.* **17**, 6553-6568.
78. Wu, J. and Manley, J.L. (1989). Mammalian pre-mRNA branch site selection by U2 snRNP involves base pairing. *Genes Dev.* **3**, 1553-1561.
79. Takagaki, Y., Ryner, L.C. and Manley, J.L. (1989). Four factors are required for pre- mRNA 3' cleavage *in vitro*. *Genes Dev.* **3**, 1711-1724.
80. Connelly, S. and Manley, J.L. (1989). RNA polymerase II transcription termination is mediated specifically by protein binding to a CCAAT-box sequence. *Mol. Cell. Biol.* **9**, 5254-5259.
81. Manley, J.L., Proudfoot, N.J. and Platt, T. (1989). RNA 3' end formation - meeting report. *Genes Dev.* **3**, 2218-2222.
82. Rushlow, C., Han, K., Manley, J.L. and Levine, M. (1989). The graded distribution of the *dorsal* morphogen is initiated by selective nuclear transport in *Drosophila*. *Cell* **59**, 1165-1177.
83. Wilusz, J., Shenk, T., Takagaki, Y. and Manley, J.L. (1990). A multicomponent complex is required for the AAUAAA-dependent crosslinking of a 64 kD protein to polyadenylation substrates. *Mol. Cell. Biol.* **10**, 1244-1248.
84. Ge, H., Noble, J., Colgan, J. and Manley, J.L. (1990). Polyoma virus small-t antigen pre- mRNA splicing requires cooperation between two 3' splice sites. *Proc. Natl. Acad. Sci. USA* **87**, 3338-3342.
85. Read, D., Nishigaki, T. and Manley, J.L. (1990). The *Drosophila* Even-skipped promoter contains multiple overlapping factor binding sites and is transcribed in a stage-specific manner *in vitro*. *Mol. Cell. Biol.* **10**, 4334-4344.
86. Ge, H. and Manley, J.L. (1990). A protein factor, ASF, controls cell-type specific alternative splicing *in vitro*. *Cell* **62**, 25-34.
87. Harper, J., Roberts, R.J. and Manley, J.L. (1990). N<sup>6</sup> adenosine methylation of RNA precursors is sequence-specific *in vitro*. *Nucleic Acids Res.* **18**, 5735-5741.
88. Takagaki, Y., Manley, J.L., MacDonald, C., Wilusz, J. and Shenk T. (1990). A multisubunit factor, CstF, is required for polyadenylation of mammalian pre mRNAs. *Genes Dev.* **4**, 2112-2120.
89. Levine, M., Stanojevic, D., Han, K., Manley, J.L. and Warrior, R. (1990). The specification of a pair-rule strip in *Drosophila*. *UCLA Symposia on Molecular and Cellular Biology* **125**, 95-104.
90. Levine, M. and Manley, J.L. (1991). Transcriptional control of *Drosophila* embryogenesis. In *Molecular Aspects of Cellular Recognition* **6**, eds. Cohen, P. and Foulkes, G. (Elsevier, New York, NY), pp. 447- 467.



91. Zuo, P., Stanojevic, D., Colgan, J., Levine, M. and Manley, J.L. (1991). Activation and repression of transcription by the gap proteins hunchback and Krüppel in cultured *Drosophila* cells. *Genes Dev.* **5**, 254-264.
92. Han, Y.-M., Lund, E., Dahlberg, J., Manley, J.L. and Prives, C. (1991). SV40 T antigen binding sites within the 5' flanking region of human U1 and U2 snRNA genes. *Gene* **109**, 219-231.
93. Murthy, K.G., Park, P. and Manley, J.L. (1991). A nuclear micrococcal-sensitive ATP-dependent exoribonuclease degrades uncapped but not capped RNA substrates. *Nucl. Acids Res.* **19**, 2685-2692.
94. Ge, H., Zuo, P. and Manley, J.L. (1991). Primary structure of the human splicing factor ASF reveals similarities with *Drosophila* regulators. *Cell* **66**, 373-382.
95. Wu, J. and Manley, J.L. (1991). Base pairing between U2 and U6 snRNAs is required for splicing of a mammalian pre-mRNA. *Nature* **352**, 818-821.
96. Harper, J.E. and Manley, J.L. (1991). A novel protein factor is required for use of distal alternative 5' splice sites *in vitro*. *Mol. Cell. Biol.* **11**, 5945-5953.
97. Raabe, T., Bollum, F. and Manley, J.L. (1991). Primary structure and expression of bovine poly(A) polymerase. *Nature* **353**, 229-234.
98. Raabe, T. and Manley, J.L. (1991). Primary structure of a human homologue of the *E. coli* DnaJ protein. *Nucl. Acids Res.* **19**, 6645.
99. Harper, J.E., Ge, H. and Manley, J.L. (1992). Multiple activities of the human splicing factor ASF. *Gene Expression* **2**, 19-29.
100. Colgan, J. and Manley, J.L. (1992). TFIID can be rate limiting *in vivo* for TATA- containing, but not TATA-lacking, RNA polymerase II promoters. *Genes Dev.* **6**, 304-315.
101. Takagaki, Y., MacDonald, C., Shenk, T. and Manley, J.L. (1992). The 64 kD polyadenylation factor contains an RNP-type RNA-binding domain and unusual auxiliary motifs. *Proc. Natl. Acad. Sci. USA* **89**, 1403-1407.
102. Read, D. and Manley, J.L. (1992). Alternatively spliced transcripts of the *Drosophila tramtrack* gene encode zinc-finger proteins with distinct DNA binding specificities. *EMBO J.* **11**, 1035-1044.
103. Norris, J. and Manley, J.L. (1992). Selective nuclear transport of the *Drosophila* morphogen Dorsal can be established by a signaling pathway involving the transmembrane protein Toll and protein kinase A. *Genes Dev.* **6**, 1654-1667.
104. Murthy, K.G. and Manley, J.L. (1992). Characterization of the multisubunit cleavage-polyadenylation specificity factor from calf thymus. *J. Biol. Chem.* **267**, 14804-14811.

105. Read, D. and Manley, J.L. (1992). Transcriptional regulators of *Drosophila* embryogenesis. *BBA Reviews on Cancer* **1114**, 79-93.
106. Read, D., Levine, M. and Manley, J.L. (1992). Ectopic expression of the *Drosophila tramtrack* gene results in multiple embryonic defects, including repression of *even-skipped* and *fushi tarazu*. *Mech. Dev.* **38**, 183-196.
107. Kim, Y.-J., Zuo, P., Manley, J.L. and Baker, B.S. (1992). The *Drosophila* RNA binding protein rbp1 is localized to transcriptionally active sites of chromosomes and shows a functional similarity to human splicing factor ASF/SF2. *Genes Dev.* **6**, 2569-2579.
108. Takagaki, Y. and Manley, J.L. (1992). A human polyadenylation factor is a G-protein  $\beta$ - subunit homologue. *J. Biol. Chem.* **267**, 23471-23475.
109. Wu, J. and Manley, J.L. (1992). Multiple functional domains of human U2 snRNA: Strengthening conserved stem I can block splicing. *Mol. Cell. Biol.* **12**, 5464-5473.
110. Han, K. and Manley, J.L. (1993). Transcriptional repression by the *Drosophila* Even-skipped protein: Definition of a minimal repression domain. *Genes Dev.* **7**, 491-503.
111. Colgan, J., Wampler, S. and Manley, J.L. (1993). Interaction between a transcriptional activator and transcription factor IIB *in vivo*. *Nature* **362**, 549-553.
112. Han, K. and Manley, J.L. (1993). Functional domains of the *Drosophila* Engrailed protein. *EMBO J.* **12**, 2723-2734.
113. Woppmann, A., Will, C.L., Kornstädt, U., Zuo, P., Manley, J.L. and Lührmann, R. (1993). Identification of an snRNP-associated kinase activity that phosphorylates arginine/serine rich domains typical of splicing factors. *Nucl. Acids Res.* **21**, 2815-2822.
114. Zuo, P. and Manley, J.L. (1993). Structure and function of human splicing factor ASF/SF2. *EMBO J.* **12**, 4727-4737.
115. Manley, J.L. (1993). Committing RNAs to splicing. (News and Views) *Nature* **365**, 14.
116. Zuo, P. and Manley, J.L. (1994). Human splicing factor ASF/SF2 can specifically recognize pre-mRNA 5' splice sites. *Proc. Natl. Acad. Sci. USA* **91**, 3363-3367.
117. Raabe, T., Murthy, K.G.K. and Manley, J.L. (1994). Poly(A) polymerase contains multiple functional domains. *Mol. Cell. Biol.* **14**, 2946-2957.
118. Manley, J.L. and Proudfoot, N.J. (1994). RNA 3' ends: Formation and function. (meeting report) *Genes Dev.* **8**, 259-264.
119. Kohtz, J.D., Jamison, S.F., Will, C., Zuo, P., Lührmann, R., Garcia-Blanco, M.A. and Manley, J.L. (1994). Protein-protein interactions and 5'- splice site recognition in mammalian mRNA precursors. *Nature* **368**, 119-124.

120. Takagaki, Y. and Manley, J.L. (1994). A polyadenylation factor subunit is the human homologue of the *Drosophila* suppressor of forked protein. *Nature* **372**, 471-474.
121. Norris, J. and Manley, J.L. (1995). Regulation of nuclear transport and activity of the *Drosophila* morphogen Dorsal. In *Inducible Gene Expression and Cytoplasmic/Nuclear Signal Transduction*, ed. Baeuerle, P. (Birkhäuser, Boston, MA), pp. 243-265.
122. Colgan, J. and Manley, J.L. (1995). Cooperation between core promoter elements influences transcriptional activity *in vivo*. *Proc. Natl. Acad. Sci. U.S.A.* **92**, 1955-1959.
123. Norris, J. and Manley, J.L. (1995). Regulation of dorsal in cultured cells by Toll and tube: tube function involves a novel mechanism. *Genes Dev.* **9**, 358-369.
124. Manley, J.L. (1995). A complex protein assembly catalyzes polyadenylation of mRNA precursors. *Cur. Op. Gen. Dev.* **5**, 222-228.
125. Colgan, J., Ashali, H. and Manley, J.L. (1995). Direct interactions between a glutamine-rich activator and the N-terminus of TFIIB mediate transcriptional activation *in vivo*. *Mol. Cell. Biol.* **15**, 2311-2320.
126. Sun, J.S. and Manley, J.L. (1995). A novel U2-U6 snRNA structure is necessary for mammalian mRNA splicing. *Genes Dev.* **9**, 843-854.
127. Um, M., Li, C. and Manley, J.L. (1995). The transcriptional repressor Even-skipped interacts directly with the TATA binding protein. *Mol. Cell. Biol.* **15**, 5007-5016.
128. Tacke, R. and Manley, J.L. (1995). The human splicing factors ASF/SF2 and SC35 possess different, functionally significant RNA binding specificities. *EMBO J.* **14**, 3540-3551.
129. Manley, J.L. (1995). mRNA polyadenylation: A universal modification. (Commentary) *Proc. Natl. Acad. Sci. U.S.A.* **92**, 1800-1801.
130. Jamison, S.F., Zelano, A., Pasman, Z., Wang, J., Will, C., Lührman, R., Manley, J.L. and Garcia-Blanco, M.A. (1995). U1 snRNP-ASF/SF2 interaction and 5' splice site recognition: Characterization of required elements. *Nucl. Acids Res.* **23**, 3260-3267.
131. Bermingham, J.R., Arden, K.C., Naumova, A.K., Sapienza, C., Viaus, C.S., Fu, X.-D., Kohtz, J., Manley, J.L. and Rosenfeld, M.G. (1995). Chromosomal localization of mouse and human genes encoding ASF/SF2 (Sfrs1) and SC-35 (Sfrs2). *Genomics* **29**, 70-79.
132. Wang, J. and Manley, J.L. (1995). Overexpression of the SR proteins ASF/SF2 and SC35 influences alternative splicing *in vivo* in diverse ways. *RNA* **1**, 335-346.
133. Murthy, K.G.K., and Manley, J.L. (1995). The 160kD subunit of human cleavage-polyadenylation specificity factor coordinates pre-mRNA 3' end formation. *Genes Dev.* **9**, 2672-2683.

134. Lutz, C.S., Murthy, K.G.K., Schek, N., O'Connor, J.P., Manley, J.L. and Alwine, J.C. (1996). Interaction between the U1 snRNP-A protein and the 160kD subunit of cleavage-polyadenylation specificity factor increases polyadenylation efficiency *in vitro*. *Genes Dev.* **10**, 325-337.
135. Colwill, K., Jacob, S., Andrews, B., Prasad, J., Manley, J.L., Pawson, T., Bell, J.C. and Duncan, P.I. (1996). The Clk/Sty protein kinase phosphorylates SR splicing factors and regulates their intracellular distribution. *EMBO J.* **15**, 265-275.
136. Manley, J.L., Um, M., Li, C. and Ashali, H. (1996). Mechanisms of transcriptional activation and repression can both involve TFIID. *Phil. Trans. Roy. Soc., Series B* **351**, 517- 526.
137. Zhao, W.Q. and Manley, J.L. (1996). Complex alternative RNA processing generates an unexpected diversity of poly(A) polymerase isoforms. *Mol. Cell. Biol.* **16**, 2378-2386.
138. Norris, J. and Manley, J.L. (1996). Functional interactions between the pelle kinase, Toll receptor and tube suggest a mechanism for activation of Dorsal. *Genes Dev.* **10**, 862-872.
139. Farmer, G., Colgan, J., Nakatani, T., Manley, J.L. and Prives, C. (1996). A functional interaction between p53, TBP and TAFs *in vivo*. *Mol. Cell. Biol.* **16**, 4295-4304.
140. Manley, J.L. and Tacke, R. (1996). SR proteins and splicing control. *Genes Dev.* **10**, 1569- 1579.
141. Farmer, G., Friedlander, P., Colgan, J., Manley, J.L. and Prives, C. (1996). Transcriptional repression by p53 involves interactions distinct from those with the TATA-box binding protein. *Nucl. Acids Res.* **24**, 4281-4288.
142. Colgan, D.F., Murthy, K.G.K., Prives, C. and Manley, J.L. (1996). Cell-cycle related regulation of poly(A) polymerase by phosphorylation. *Nature* **384**, 282-285.
143. Wang, J., Takagaki, Y. and Manley, J.L. (1996). Targeted disruption of an essential vertebrate gene: ASF/SF2 is required for cell viability. *Genes Dev.* **10**, 2588-2599.
144. Takagaki, Y., Seipelt, R.L., Peterson, M.L. and Manley, J.L. (1996). The polyadenylation factor CstF-64 regulates IgM pre-mRNA processing during B cell differentiation. *Cell* **87**, 941-952.
145. Manley, J.L. and Takagaki, Y. (1996). The end of the message - another link between yeast and mammals. (Perspective) *Science* **274**, 1481-1482.
146. Tacke, R., Chen, Y. and Manley, J.L. (1997). Sequence-specific RNA binding by an SR protein requires RS domain phosphorylation: Creation of an SRp40-specific splicing enhancer. *Proc. Natl. Acad. Sci. USA* **94**, 1148-1153.
147. Xiao, S.-H. and Manley, J.L. (1997). Phosphorylation of the ASF/SF2 RS domain affects both protein-protein and protein-RNA interactions and is necessary for splicing. *Genes Dev.* **11**, 334-344.

148. Wang, J. and Manley, J.L. (1997). Regulation of splicing in metazoa. *Cur. Op. Gen. Dev.* **7**, 205-211.
149. Sun, J.S. and Manley, J.L. (1997). The human U6 snRNA intramolecular helix: Structural constraints and lack of sequence specificity. *RNA* **3**, 514-526.
150. Dantanel, J.-C., Murthy, K.G.K., Manley, J.L. and Tora, L. (1997). CPSF links transcription and mRNA 3' end formation. *Nature* **389**, 399-402.
151. Takagaki, Y. and Manley, J.L. (1997). RNA recognition by the human polyadenylation factor CstF. *Mol. Cell. Biol.* **17**, 3907-3914.
152. Hirose, Y. and Manley, J.L. (1997). Creatine phosphate, not ATP, is required for 3'-end cleavage of mammalian pre-mRNA *in vitro*. *J. Biol. Chem.* **272**, 29636-29642.
153. Colgan, D.F. and Manley, J.L. (1997). Mechanism and regulation of pre-mRNA polyadenylation. *Genes Dev.* **11**, 2755-2766.
154. Colgan, D.F., Zhao, W.Q., Murthy, K.G.K., Prives, C. and Manley, J.L. (1998). p34<sup>cdc2</sup>/cyclin B phosphorylates poly(A) polymerase on multiple consensus and nonconsensus sites. *EMBO J.* **17**, 1053-1062.
155. Jayaraman, L., Moorthy, N. C., Murthy, K.G.K., Manley, J.L., Bustin, M. and Prives, C. (1998). High mobility group protein-1 (HMG-1) is a unique activator of p53. *Genes Dev.* **12**, 462-472.
156. Tacke, R., Tohyama, M., Ogawa, S. and Manley, J.L. (1998). Human Tra2 proteins are sequence-specific activators of pre-mRNA splicing. *Cell* **93**, 139-148.
157. Sun, J.S., Valadkhan, S. and Manley, J.L. (1998). A UV-crosslinkable interaction in human U6 snRNA. *RNA* **4**, 489-497.
158. Wang, J., Xiao, S. and Manley, J.L. (1998). Genetic analysis of the SR protein ASF/SF2: Interchangeability of RS domains and negative control of splicing. *Genes Dev.* **12**, 2222- 2233.
159. Li, C. and Manley, J.L. (1998). Even-skipped represses transcription by binding TBP and blocking the TFIID-TATA box interaction. *Mol. Cell. Biol.* **18**, 3771-3781.
160. Hirose, Y. and Manley, J.L. (1998). RNA polymerase II is an essential mRNA polyadenylation factor. *Nature* **395**, 93-96.
161. Zhao, W.-Q. and Manley, J.L. (1998). Dereglulation of poly(A) polymerase interferes with cell growth. *Mol. Cell. Biol.* **18**, 5010-5020.
162. Xiao, S.-H. and Manley, J.L. (1998). Phosphorylation-dephosphorylation differentially affects activities of splicing factor ASF/SF2. *EMBO J.* **17**, 6359-6367.

163. Moreira, A., Takagaki, Y., Backenridge, S., Manley, J.L. and Proudfoot, N.J. (1998). The upstream sequence element in the complement C2 poly(A) signal activates mRNA 3' end formation by two distinct mechanisms. *Genes Dev.* **12**, 2522-2534.
164. Shen, B. and Manley, J.L. (1998). Phosphorylation modulates direct interactions between the Toll receptor, pelle kinase and tube. *Development* **125**, 4719-4728.
165. Takagaki, Y. and Manley, J.L. (1998). Levels of polyadenylation factor CstF-64 control accumulation of IgM heavy chain mRNA and induce other events associated with B cell differentiation. *Mol. Cell* **2**, 761-771.
166. Tacke, R. and Manley, J.L. (1999). Functions of SR and Tra2 proteins in pre-mRNA splicing regulation. *Proc. Soc. Exp. Biol. Med.* **220**, 59-63.
167. Li, C. and Manley, J.L. (1999). Allosteric regulation of Even-skipped repression activity by phosphorylation. *Mol. Cell* **3**, 77-86.
168. Tacke, R. and Manley, J.L. (1999). Determinants of SR protein specificity. *Cur. Op. Cell Biol.* **11**, 358-62.
169. Hirose, Y., Tacke, R. and Manley, J.L. (1999). Phosphorylated RNA polymerase II stimulates pre-mRNA splicing. *Genes Dev.* **13**, 1234-39.
170. Kleiman, F. and Manley, J.L. (1999). Functional interaction of BRCA1-associated BARD1 with polyadenylation factor CstF-50. *Science* **285**, 1576-1579.
171. Prasad, J., Sun, J. S., Colwill, K., Pawson, T. and Manley, J.L. (1999). The protein kinase Clk/Sty directly modulates SR protein activity: both hyper- and hypo-phosphorylation inhibit splicing. *Mol. Cell Biol.* **19**, 6991-7000.
172. Takagaki, Y. and Manley, J.L. (2000). Complex protein interactions within the human polyadenylation machinery identify a novel component. *Mol. Cell Biol.* **20**, 1515-1525.
173. Hatton, L.S., Eloranta, J., Figueiredo, L., Takagaki, Y., Manley, J.L., and O'Hare, K. (2000). The *Drosophila* homologue of the 64 kDa subunit of Cleavage Stimulation Factor interacts with the 77 kDa subunit encoded by the *suppressor of forked* gene. *Nucl. Acids Res.* **28**, 520-526.
174. Valadkhan, S. and Manley, J.L. (2000). A tertiary interaction detected in a human U2-U6 snRNA complex assembled in vitro resembles a genetically proven interaction in yeast. *RNA* **6**, 206-219.
175. Koffa, M.D., Graham, S.V., Takagaki, Y., Manley, J.L., and Clements, B. (2000). The human papillomavirus type 16 negative regulatory RNA element interacts with three proteins that act at different post-transcriptional levels. *Proc. Nat. Acad. Sci. USA* **97**, 4677-4682.
176. Chen, Z. and Manley, J.L. (2000). Robust mRNA transcription in chicken DT40 cells depleted of TAF<sub>II</sub>31 suggests both functional degeneracy and evolutionary divergence. *Mol. Cell. Biol.* **20**, 5064-5076.

177. Bond, G.L., Prives, C. and Manley, J.L. (2000). Poly(A) polymerase phosphorylation is dependent on novel interactions with cyclins. *Mol. Cell. Biol.* **20**, 5310-5320.
178. Hirose, Y. and Manley, J.L. (2000). RNA polymerase II and the integration of nuclear events. *Genes Dev.* **14**, 1415-1429.
179. Shatkin, A.J. and Manley, J.L. (2000). The ends of the affair: Capping and polyadenylation. *Nat. Struct. Biol.* **7**, 838-42.
180. Mendez, R., Murthy, K.G.K., Ryan, K., Manley, J.L. and Richter, J.D. (2000). Phosphorylation of CPEB by Eg2 mediates the recruitment of CPSF into an active cytoplasmic polyadenylation complex. *Mol. Cell* **6**, 1253-1259.
181. Xu, Y., Tao, X., Shen, B., Horng, T., Medzhitov, R., Manley, J.L. and Tong, L. (2000). Structural basis for signal transduction by the Toll/interleukin-1 receptor (TIR) domains. *Nature* **408**, 111-115.
182. Um, M. and Manley, J.L. (2000). The *Drosophila* TATA binding protein contains a strong but masked activation domain. *Gene Expression* **9**, 123-132.
183. Um, M. and Manley, J.L. (2001). Heterozygous disruption of the TATA binding protein gene in DT40 cells causes multiple growth defects, including reduced cdc25B phosphatase expression and delayed mitosis. *Mol. Cell. Biol.* **21**, 2435-2448.
184. Kleiman, F.E. and Manley, J.L. (2001). The Bard1-CstF-50 interaction links mRNA 3' end formation to DNA damage and tumor suppression. *Cell* **104**, 743-753.
185. Calvo, O. and Manley, J.L. (2001). Evolutionarily conserved interaction between CstF-64 and PC4 links transcription, polyadenylation and termination. *Mol. Cell* **7**, 1013-1023.
186. Shen, B., Liu, H., Skolnik, E.Y. and Manley, J.L. (2001). Physical and functional interactions between *Drosophila* TRAF2 and pelle kinase contribute to dorsal activation. *Proc. Natl. Acad. Sci. USA* **98**, 8596-8601.
187. Luo, C., Shen, B., Manley, J.L. and Zheng, L. (2001). Tefao functions in the Toll pathway in *Drosophila melanogaster*: Possible roles in development and innate immunity. *Insect Mol. Biol.* **10**, 457-464.
188. Topalian, S.L., Kaneko, S., Gonzales, M.I., Bond, G.L., Ward, Y. and Manley, J.L. (2001). Identification and functional characterization of Neo-poly(A) polymerase, an RNA processing enzyme overexpressed in human tumors. *Mol. Cell. Biol.* **21**, 5614-5623.
189. Valadkhan, S. and Manley, J.L. (2001). Splicing-related catalysis by protein-free snRNAs. *Nature* **413**, 701-707.
190. Prives, C. and Manley, J.L. (2001). Why is p53 acetylated? *Cell* **107**, 815-818.

191. Ryan, K., Murthy, K.G.K., Kaneko, S. and Manley, J.L. (2002). Requirements of the RNA polymerase II C-terminal domain for reconstituting pre-mRNA 3' cleavage. *Mol. Cell. Biol.* **22**, 1684-1692.
192. Lemaire, R., Prasad, J., Kashima, T., Gustafson, J., Manley, J.L. and Lafyatis, R. (2002). Stability of a PKCI-1-related mRNA is controlled by the splicing factor ASF/SF2: A novel function for SR proteins. *Genes Dev.* **16**, 594-607.
193. Shen, B. and Manley, J.L. (2002). Pelle kinase is activated by autophosphorylation during Toll signaling in *Drosophila*. *Development* **129**, 1925-1933.
194. Chen, A., Kleiman, F.E., Manley, J.L., Ouchi, T., and Pan, Z.Q. (2002). Auto-ubiquitination of the BRCA1/BARD1 RING ubiquitin ligase. *J. Biol. Chem.* **277**, 22085-22092.
195. Valadkhan, S. and Manley, J.L. (2002). Intrinsic metal binding by a spliceosomal RNA. (News and Views) *Nat. Struct. Biol.* **9**, 498-499.
196. Shin, C. and Manley, J.L. (2002). The SR protein SRp38 represses splicing in M-phase cells. *Cell* **111**, 407-417.
197. Manley, J.L. (2002). Nuclear coupling: RNA processing reaches back to transcription. (News and Views) *Nat. Struct. Biol.* **9**, 790-91.
198. Shin, C. and Manley, J.L. (2003). Role of alternative splicing during the cell cycle and programmed cell death. In *Handbook of Cell Signaling 3*, eds. Bradshaw, R.A. and Dennis, E. (Academic Press, San Diego, CA), pp. 331-334.
199. Portal, D. et al. (2003). Trypanosoma cruzi TcSRPK, the first protozoan member of the SRPK family, is biochemically and functionally conserved with metazoan SR protein-specific kinases. *Mol. Biochem. Parasitol.* **127**, 9-21.
200. Schwerk, C., Prasad, J., Degenhardt, K., Erdjument-Bromage, H., Tempst, P., Kidd, V.J., White, E., Manley, J.L., Lahti, J.M. and Reinberg, D. (2003). ASAP, a novel protein complex involved in RNA processing and apoptosis. *Mol. Cell. Biol.* **23**, 2981-2990.
201. Prasad, J. and Manley, J.L. (2003). Regulation and substrate specificity of the SR protein kinase Clk/Sty. *Mol. Cell. Biol.* **23**, 4139-4149.
202. Valadkhan, S. and Manley, J.L. (2003). Characterization of the catalytic activity of U2 and U6 snRNAs. *RNA* **9**, 892-904.
203. Calvo, O. and Manley, J.L. (2003). Strange bedfellows: polyadenylation factors at the promoter. *Genes Dev.* **17**, 1321-1327.
204. Kashima, T. and Manley, J.L. (2003). A negative element in *SMN2* exon 7 inhibits splicing in Spinal Muscular Atrophy. *Nature Genetics* **34**, 460-463.



205. Chen, Z. and Manley, J.L. (2003). In vivo functional analysis of the histone 3-like TAF9 and a TAF9-related factor, TAF9L. *J. Biol. Chem.* **278**, 35172-83.
206. Chen, Z. and Manley, J.L. (2003). Core promoter elements and TAFs contribute to the diversity of transcriptional activation in vertebrates. *Mol. Cell. Biol.* **23**, 7350-7362.
207. Poyurovsky, M., Jacq, X., Ma, C., Karni-Schmidt, O., Parker, P.J., Chalfie, M., Manley, J.L. and Prives, C. (2003). Nucleotide binding by the MDM2 ring domain facilitates ARF-independent MDM2 nucleolar localization. *Mol. Cell* **12**, 875-887.
208. Xu, Y., Hirose, Y., Zhou, X., Lu, K.P. and Manley, J.L. (2003). Pin1 modulates the structure and function of RNA polymerase II. *Genes Dev.* **17**, 2765-2776.
209. Shin, C., Feng, Y. and Manley, J.L. (2004). Dephosphorylated SRp38 acts as a splicing repressor in response to heat shock. *Nature* **427**, 553-558.
210. Ryan, K., Calvo, O. and Manley, J. L. (2004). Evidence that polyadenylation factor CPSF-73 is the mRNA 3' processing endonuclease. *RNA* **10**, 565-573.
211. Xu, Y. and Manley, J.L. (2004). Pinning down transcription: Regulation of RNA polymerase II activity during the cell cycle. *Cell Cycle* **3**, 432-435.
212. Shin, C., and Manley, J.L. (2004). Cell signaling and the control of pre-mRNA splicing. *Nature Rev. Mol. Cell. Biol.* **5**, 727-38.
213. Barnard, D.C., Ryan, K., Manley, J.L. and Richter, J.D. (2004). Symplekin and xGLD-2 are required for CPEB-mediated cytoplasmic polyadenylation. *Cell* **119**, 641-651.
214. Millhouse, S. and Manley, J.L. (2005). The C-terminal domain of the RNA polymerase II large subunit functions as a phosphorylation-dependent splicing activator in a heterologous protein. *Mol. Cell. Biol.* **25**, 533-544.
215. Xu, X. et al. (2005). ASF/SF2-regulated CaMKII $\delta$  alternative splicing temporally reprograms excitation-contraction coupling in cardiac muscle. *Cell* **120**, 59-72.
216. Calvo, O. and Manley, J.L. (2005). The transcriptional coactivator PC4/Sub1 has multiple functions in RNAP II transcription. *EMBO J.* **24**, 1009-1020.
217. Kleiman, F.E., Wu-Baer, F., Kaneko, S., Baer, R. and Manley, J.L. (2005). BRCA1/BARD1 inhibition of 3' processing involves targeted degradation of RNA polymerase II. *Genes Dev* **19**, 1227-1237.
218. Li, X. and Manley, J.L. (2005). Inactivation of the SR protein splicing factor ASF/SF2 results in genomic instability. *Cell* **122**, 365-78.
219. Li, X., Wang, J. Kashima, T. and Manley, J.L. (2005). Loss of splicing factor ASF/SF2 induces cell-cycle arrest and apoptosis, but inhibits internucleosomal DNA fragmentation. *Genes Dev.* **19**, 2705-14.

220. Shin, C., Kleiman, F.E. and Manley, J.L. (2005). Multiple properties of the splicing repressor SRp38 distinguish it from typical SR proteins. *Mol. Cell. Biol.* **25**, 8334-43.
221. Kaneko, S. and Manley, J.L. (2005). The mammalian RNA polymerase II C-terminal domain interacts with RNA to suppress transcription-coupled 3' end formation. *Mol. Cell* **20**, 91-103.
222. Rosonina, E. and Manley, J.L. (2005). From transcription to mRNA: PAF provides a new path. *Mol. Cell* **20**, 167-168.
223. Li, X. and Manley, J.L. (2005). New talents for an old acquaintance: The SR protein splicing factor ASF/SF2 functions in the maintenance of genome stability. *Cell Cycle* **4**, 1706-1708.
224. Marin-Vinader, L., Shin, C., Onnekink, C., Manley, J.L. and Lubsen, N.H. (2006). Hsp27 enhances recovery of splicing as well as rephosphorylation of SRp38 after heat shock. *Mol. Biol. Cell* **17**, 886-894.
225. Rosonina, E., Kaneko, S. and Manley, J.L. (2006). Terminating the transcript: breaking up is hard to do. *Genes Dev* **20**, 1050-1056.
226. Shi, Y., Reddy, B. and Manley, J.L. (2006). PP1/PP2A phosphatases are required for the second step of pre-mRNA splicing and target specific snRNP proteins. *Mol. Cell* **23**, 819-829.
227. Li, X. and Manley, J.L. (2006). Co-transcriptional processes and their influence on genome stability. *Genes Dev* **20**, 1838-1847.
228. Li, X. and Manley, J.L. (2006). Alternative splicing and control of apoptotic DNA fragmentation. *Cell Cycle* **5**, 1286-1288.
229. Mandel, C.R., Kaneko, S., Zhang, H., Gebauer, D., Vethantham, V., Manley, J.L. and Tong, L. (2006). Polyadenylation factor CPSF-73 is the pre-mRNA 3'-end-processing endonuclease. *Nature* **444**, 953-956.
230. Bush, S. and Manley, J.L. (2006). Transcription and RNA processing factors play complex roles in DT40 cells. *Subcell Biochem* **40**, 207-223.
231. Kashima, T., Rao, N. and Manley, J.L. (2007). An intronic element contributes to splicing repression in spinal muscular atrophy. *Proc. Natl. Acad. Sci. USA* **104**, 3426-3431.
232. Bai, Y., Auperin, T.C., Chou, C.-Y., Chang, G.-G., Manley, J.L. and Tong, L. (2007). Crystal structure of murine CstF-77: Dimeric association and implications for polyadenylation of mRNA precursors, *Mol. Cell* **25**, 863-875.
233. Xu, Y-X. and Manley, J.L. (2007). The prolyl isomerase Pin1 functions in condensation of mitotic chromosomes. *Mol. Cell* **26**, 287-300.
234. Ali, G.S., Palusa, S.G., Golovkin, M., Prasad, Manley, J.L. and Reddy, A.S.N. (2007). A plant-specific splicing factor regulates multiple developmental processes. *PLoS One* **2**, e471.

235. Xu, Y-X. and Manley, J.L. (2007). New insights into mitotic chromosome condensation: A role for the prolyl isomerase Pin1. *Cell Cycle* **6**, 2896-2901.
236. Lazarev, D. and Manley, J.L. (2007). Concurrent splicing and transcription are not sufficient to enhance splicing efficiency. *RNA* **13**, 1546-1557.
237. Kaneko, S., Rozenblatt-Rosen, O., Meyerson, M. and Manley, J.L. (2007). The multifunctional protein p54nrb/PSF recruits the exonuclease XRN2 to facilitate pre-mRNA 3' processing and transcription termination. *Genes Dev.* **21**, 1779-1789.
238. Shi, Y. and Manley, J.L. (2007). A complex signaling pathway regulates SRp38 phosphorylation and pre-mRNA splicing in response to heat shock. *Mol. Cell.* **28**, 79-90.
239. Valadkhan, S., Mohammadi, A., Wachtel, C. and Manley, J.L. (2007). Protein-free spliceosomal snRNAs can catalyze a reaction that resembles the first step of splicing. *RNA* **13**, 2300-2311.
240. Kashima, T., Rao, N., David, C and Manley, J.L. (2007). hnRNP A1 functions with specificity in repression of SMN2 exon 7 splicing. *Hum. Mol. Gen.* **16**, 3149-3159.
241. Li, X., Niu, T. and Manley J.L. (2007). The RNA binding protein RNPS1 alleviates ASF/SF2 depletion-induced genomic instability. *RNA* **13**, 2108-2115.
242. Xu, Y-X. and Manley, J.L. (2007). Pin1 modulates RNA polymerase II activity during the transcription cycle. *Genes Dev.* **21**, 2950-2962.
243. Vethantham, V., Rao, N. and Manley, J.L. (2007). Sumoylation regulates the assembly and activity of the pre-mRNA 3' processing complex. *Mol. Cell. Biol.* **27**, 8848-8858.
244. Kaneko, S., Chu, C., Shatkin, A.J. and Manley, J.L. (2007). Human capping enzyme promotes formation of transcriptional R loops in vitro. *Proc. Natl. Acad. Sci. USA* **104**, 17620-17625.
245. Sims, R.J. III, Millhouse, S., Chen, C-F., Lewis, B.A., Bromage, H.E., Tempst, P., Manley, J.L., Reinberg, D. (2007). Recognition of trimethylated histone H3 lysine 4 facilitates the recruitment of post-initiation factors and pre-mRNA splicing. *Mol. Cell* **28**, 665-676.
246. Bush, S. D., Richard, P. and Manley, J.L. (2008). Variations in intracellular levels of TATA binding protein affect specific genes by different mechanisms. *Mol. Cell. Biol.* **28**, 83-92.
247. David, C and Manley, J.L. (2008). The search for alternative splicing regulators: New approaches offer a path to a splicing code. *Genes Dev.* **22**, 279-285.
248. Vethantham, V., Rao, N. and Manley, J.L. (2008). Sumoylation controls multiple aspects of mammalian poly(A) polymerase function. *Genes Dev.* **22**, 499-511.
249. Mirkin, N., Fonseca, D., Mohammed, S., Cevher, M.A., Manley, J.L. and Kleiman, F.E. (2008). The 3' processing factor CstF functions in the transcription- coupled repair response. *Nucl. Acids Res.* **36**, 1792-1804.

250. Feng, Y., Chen, M. and Manley, J.L. (2008). Phosphorylation switches the general splicing repressor SRp38 to a sequence-specific activator. *Nat. Struct. Mol. Biol.* **15**, 1040-1048.
251. Vethantham, V. and Manley, J.L. (2009). In vitro sumoylation of recombinant proteins and subsequent purification for use in enzymatic assays. *CSH Methods*. doi:10.1101/pdb.prot5121.
252. Rozenblatt-Rosen, O., Nagaïke, T., Francis, J.M., Kaneko, S., Glatt, K., Hughes, C., LaFramboise, T., Manley, J.L. and Meyerson, M. (2009). The tumor suppressor Cdc73 functionally associates with CPSF and CstF 3' mRNA processing factors. *Proc. Natl. Acad. Sci. USA* **106**, 755-760.
253. Valadkhan, S. and Manley, J.L. (2009). The use of simple model systems to study spliceosomal catalysis. *RNA* **15**, 4-7.
254. Vethantham, V. and Manley, J.L. (2009). Emerging roles for SUMO in mRNA processing and metabolism. In *SUMO Regulation of Cellular Processes*, ed. Wilson, V. (Springer, Dordrecht Netherlands), pp. 41-57.
255. Li, X. and Manley, J.L. (2009). The role of alternative splicing during the cell cycle and programmed cell death. In *Handbook of Cell Signaling 4*, eds. Bradshaw, R.A. and Dennis, E. (Academic Press, San Diego, CA), pp. 2329-2333.
256. Wachtel, C. and Manley, J.L. (2009). Splicing of mRNA precursors: The role of RNAs and proteins in catalysis. *Mol. Biosystems* **5**, 311-316.
257. Xiang, S., Cooper-Morgan, A., Jiao, X., Kiledjian, M., Manley, J.L. and Tong, L. (2009). Structure and function of the 5'→3' exoribonuclease Rat1 in complex with its activating partner Rai1. *Nature* **458**, 754-758.
258. Shi, Y., di Giammartino, D.C., Taylor, D., Sarkeshik, A., Rice, W., Yates, J.R., Frank, J. and Manley, J.L. (2009). Molecular architecture of the human pre-mRNA 3' processing complex. *Mol. Cell* **33**, 365-376.
259. Rosonina, E., Willis, I. and Manley, J.L. (2009). Sub1 functions specifically in osmoregulation and generally in both RNA polymerase II and III transcription. *Mol. Cell. Biol.* **29**, 2308-2321.
260. Loomis, R.J., Naoe, Y., Parker J.B., Savic, V., Bozovsky, M.R., Macfarlan, T., Manley, J.L. and Chakravarti, D. (2009). Chromatin binding of SRp20 and ASF/SF2 and dissociation from mitotic chromosomes is modulated by histone H3 serine 10 phosphorylation. *Mol. Cell* **33**, 450-461.
261. Feng, Y., Valley, M.T., Lazar, J., Yang, A.L., Bronson, R.T., Firestein, S., Coetzee, W.A. and Manley, J.L. (2009). SRp38 regulates alternative splicing and is required for Ca<sup>2+</sup> handling in the embryonic heart. *Dev. Cell.* **16**, 528-538.
262. Beckerman, R., Donner, A.J., Mattia, M., Peart, M.J., Manley, J.L., Espinosa, J.M. and Prives, C. (2009). A role for CHK1 in blocking transcriptional elongation of p21 RNA during the S phase checkpoint. *Genes Dev.* **23**, 1364-1377.

263. Richard, P. and Manley, J.L. (2009). Transcription termination by nuclear RNA polymerases. *Genes Dev.* **23**, 1247-1269.
264. Chen, M. and Manley, J.L. (2009). Mechanisms of alternative splicing regulation: Insights from molecular and genomic analyses. *Nat. Rev. Mol. Cell Biol.* **10**, 741-754.
265. Tan, A. and Manley, J.L. (2009). The TET family of proteins: functions and roles in disease. *J. Mol. Cell Biol.* **1**, 82-92.
266. Tan, A. and Manley, J.L. (2010). TLS inhibits RNA polymerase III transcription. *Mol. Cell Biol.* **30**, 186-196.
267. Mutsuddi, M., Mukherjee, A., Shen, B., Manley, J.L. and Nambu, J.R. (2010). Drosophila Pelle phosphorylates Dichaete protein and influences its subcellular distribution in developing oocytes. *Int. J. Dev. Biol.* **54**, 1309-15.
268. Chen, L.S., Du-Cuny, L., Vethantham, V., Hawke, D.H., Manley, J.L., Zhang, S., Gandhi, V. (2010). Chain termination and inhibition of mammalian poly(A) polymerase by modified ATP analogues. *Biochem. Pharmacol.* **79**, 669-677.
269. David, C.J., Chen, M., Assanah, M.C., Canoll, P. and Manley, J.L. (2010). HnRNP proteins controlled by c-Myc deregulate pyruvate kinase mRNA splicing in cancer. *Nature* **463**, 364-368.
270. Pedrotti, S., Bielli, P., Paronetto, M.P., Ciccocanti, F., Fimia, G.M., Stamm, S., Manley, J.L. and Sette, C. (2010). The splicing regulator Sam68 binds to a novel exonic splicing silencer and functions in *SMN2* alternative splicing in Spinal Muscular Atrophy. *EMBO J.* **29**, 1235-1247.
271. Rosonina, E. and Manley, J.L. (2010). Alternative polyadenylation blooms. *Dev. Cell* **18**, 172-174.
272. Chen, M., David, C. and Manley, J.L. (2010). Tumor metabolism: hnRNP proteins get in on the act. *Cell Cycle* **9**, 1863-1865.
273. Manley, J.L. and Krainer, A.R. (2010). A rational nomenclature for serine/arginine-rich protein splicing factors (SR proteins). *Genes Dev.* **24**, 1073-1074.
274. Rosonina, E., Duncan, S.H. and Manley, J.L. (2010). SUMO functions in constitutive transcription and during activation of inducible genes in yeast. *Genes Dev.* **24**, 1242-1252.
275. García, A., Rosonina, E., Manley, J.L. and Calvo, O. (2010). Sub1 globally regulates RNA polymerase II CTD phosphorylation. *Mol Cell Biol.* **30**, 5180-51-93.
276. Xiang, K., Nagaike, T., Xiang, S., Kilic, T., Beh, M.M., Manley, J.L. and Tong, L. (2010). Crystal structure of the human symplekin-Ssu72-CTD phosphopeptide complex. *Nature* **467**, 729-733.

277. Chen, M., Zhang, J. and Manley, J.L. (2010). Turning on a fuel switch of cancer-hnRNP proteins regulate alternative splicing of pyruvate kinase mRNA. *Cancer Res.* **70**, 8977-8980.
278. David, C.J. and Manley, J.L. (2010). Alternative pre-mRNA splicing regulation in cancer: Pathways and programs unhinged. *Genes Dev.* **24**, 2343-2364.
279. Bai, Y., Srivastava, S., Manley, J.L. and Tong, L. (2011). Crystal structure of human PAPD1, a noncanonical poly(A) polymerase. *Mol. Cell* **41**, 311-320.
280. Chang, J.H., Xiang, S., Xiang, K., Manley, J.L. and Tong, L. (2011). Crystal structure of the 5'→3' exoribonuclease Xrn1. *Nat. Struct. Mol. Biol.* **18**, 270-276.
281. Shi, Y., Nishida, K., Di Giammartino, D.C. and Manley, J.L. (2011). Heat shock-induced SRSF10 dephosphorylation displays thermotolerance mediated by Hsp27. *Mol. Cell. Biol.* **31**, 458-465.
282. Nagaike, T., Logan, C., Hotta, I., Rozenblatt-Rosen, O., Meyerson, M. and Manley, J.L. (2011). Transcriptional activators enhance polyadenylation of mRNA precursors. *Mol. Cell* **41**, 409-418.
283. David, C.J., Boyne, A.R., Millhouse, S.R. and Manley, J.L. (2011). The RNA polymerase II C-terminal domain promotes splicing activation through recruitment of a U2AF65-Prp19 complex. *Genes Dev.* **25**, 972-983.
284. Nagaike, T. and Manley J.L. (2011). Transcriptional activators enhance polyadenylation of mRNA precursors. *RNA Biol.* **8**, 964-967.
285. David, C.J. and Manley, J.L. (2011). The RNA polymerase II C-terminal domain: A new role in spliceosome assembly. *Transcription* **2**, 227-231.
286. Di Giammartino, D.C., Nishida, K. and Manley, J.L. (2011). Mechanisms and consequences of alternative polyadenylation. *Mol. Cell* **43**, 853-866.
287. Gan, W., Guan, Z., Liu, J., Gui, T., Sheng, K., Manley, J.L. and Li, X. (2011). R loop-mediated genomic instability is caused by impairment of replication fork progression. *Genes Dev.* **25**, 2041-56.
288. Hsin, J.-P., Sheth, A. and Manley, J.L. (2011). RNA polymerase II CTD threonine 4 is phosphorylated and required for histone mRNA 3' end processing. *Science* **334**, 683-686.
289. Kanehiro, Y., Todo, K., Negishi, M., Fukuoka, J., Gan, W., Hikasa, T., Kaga, Y., Takemoto, M., Magari, M., Li, X., Manley, J.L., Ohmori, H. and Kanayama, N. (2012). AID-dependent immunoglobulin somatic hypermutation requires a splice isoform of the SR protein splicing factor SRSF1. *Proc. Natl. Acad. Sci. USA* **109**, 1216-1221.
290. Chen, M., David, C.J. and Manley, J.L. (2012). Concentration-dependent control of pyruvate kinase M mutually exclusive splicing by hnRNP proteins. *Nat. Struct. Mol. Biol.* **19**, 346-354.

291. Rosonina, E., Duncan, S.M. and Manley, J.L. (2012). Sumoylation of transcription factor Gcn4 enables its Srb10-mediated clearance from promoters in yeast. *Genes Dev.* **26**, 350-355.
292. Biderman, L., Poyurovsky, M., Assia, Y., Manley, J. L. and Prives, C. (2012). MdmX is required for p53 interaction with and full induction of the Mdm2 promoter after cellular stress. *Mol. Cell Biol.* **32**, 1214-1225.
293. Tan, A., Riley, T., Bussemaker, H. and Manley, J.L. (2012). TLS/FUS regulates target gene transcription via single-stranded DNA response elements. *Proc. Natl. Acad. Sci. USA.* **109**, 6030-6035.
294. Aoki, J. and Manley, J.L. (2012). The role of cotranscriptional recruitment of RNA binding proteins in the maintenance of genomic stability. In *Post-Transcriptional Gene Regulation. RNA Processing in Eukaryotes*, ed. Wu, J. (Wiley-Blackwell, Weinheim, Germany), pp. 1-18.
295. Biderman, L., Manley, J.L. and Prives, C. (2012). Mdm2 and MdmX as regulators of gene expression. *Genes and Cancer* **3**, 264-273.
296. Tan, A. and Manley, J.L. (2012). TLS/FUS, a protein in cancer and ALS. *Cell Cycle* **11**, 3349-3350.
297. Xiang, K., Manley, J.L. and Tong, L. (2012). The yeast regulator of transcription protein Rtr1 lacks an active site and phosphatase activity. *Nat. Comm.* **3**, 946. doi: 10.1038/ncomms1947.
298. Hsin, J.-P. and Manley, J.L. (2012). The RNA polymerase II CTD coordinates transcription and RNA processing. *Genes Dev.* **26**, 2119-2137.
299. Xiang, K., Manley, J.L. and Tong, L. (2012). An unexpected binding mode for a Pol II CTD peptide phosphorylated at Ser7 in the active site of the CTD phosphatase Ssu72. *Genes Dev.* **26**, 2265-2270.
300. Di Giammartino, D.C., Shi, Y. and Manley, J.L. (2013). Parp1 represses PAP and inhibits polyadenylation during heat shock. *Mol. Cell* **49**, 7-17.
301. Di Giammartino, D.C. and Manley, J.L. (2013). mRNA polyadenylation in eukaryotes. In *Encyclopedia of Biological Chemistry 2nd Edition*, eds. Lennarz, W. and Lane, M.D. (Academic Press, Burlington, MA), pp. 188-193.
302. Tian, B. and Manley, J.L. (2013). Alternative cleavage and polyadenylation: The long and short of it. *TIBS* **38**, 312-320.
303. Manley, J.L. (2013). SELEX to identify protein-binding sites on RNA. *Cold Spring Harb Protoc.* doi: 10.1101/pdb.prot072934.
304. Vi, S.L., Trost, G., Lange, P., Czesnick, H., Rao, N., Lieber, D., Laux, T., Gray, W.M., Manley, J.L., Groth, D., Kappel, C. and Lenhard, M. (2013). Target specificity amongst canonical nuclear poly(A) polymerases in plants affects organ growth and pathogen response. *Proc. Natl. Acad. Sci. USA.* **110**, 13994-13999.

305. Li, H., Wang, Z., Xie, Z., Xu, J., Manley, J.L. and Feng, Y. (2013). Binding of FUBP1 to an exonic splicing silencer and RNA secondary structure mediate second-step splicing repression. *Proc. Natl. Acad. Sci. USA*. **110**, E2687-95.
306. Zhang, J. and Manley, J.L. (2013). Misregulation of pre-mRNA splicing in cancer. *Cancer Discovery* **3**, 1228-1237.
307. Richard, P. and Manley, J.L. (2013). How bidirectional becomes unidirectional. *Nat. Struct. Mol. Biol.* **20**, 1022-1024.
308. Richard, P., Feng, S. and Manley, J.L. (2013). A SUMO-dependant interaction between Senataxin and the exosome is disrupted in the neurodegenerative disease AOA2. *Genes Dev.* **27**, 2227-2232.
309. Nagaike, T. and Manley, J.L. (2014). In vitro analysis of transcriptional activators and polyadenylation. In *Methods in Molecular Biology, Polyadenylation: Methods and Protocols*. eds., Rorbach, J. and Bobrowicz, A. (Springer), pp. 65-74.
310. Richard, P. and Manley, J.L. (2014). SETX sumoylation: a link between DNA damage and RNA surveillance disrupted in AOA2. *Rare Diseases* **2**, 1-6.
311. Zhou, X., Wu, W., Li, H., Zong, J., Chen, D., Feng, X., Cheng, Y., Wang, Z., Wei, N., Xie, Z., Manley, J.L. and Feng, Y. (2014). Transcriptome analysis of alternative splicing events regulated by SRSF10 reveals position-dependent splicing modulation. *Nucl. Acids Res.* **42**, 4019-4030.
312. Morales, J.C., Richard, P., Rommel, A., Fattah, F.J., Motea, E.A., Patidar, P.L., Xiao, L., Leskov, K., Wu, S.-Y., Hittelman, W.N., Chiang, C.-M., Manley, J.L. and Boothman, D.A. (2014). KUB5-Hera, the human Rtt103 homolog, plays dual functional roles in transcription termination and DNA repair. *Nucl. Acids Res.* **42**, 4996-5006.
313. Xiang, K., Tong, L. and Manley, J.L. (2014). Delineating the structural blueprint of the pre-mRNA 3'-end processing machinery. *Mol. Cell. Biol.* **34**, 1894-1910.
314. Hsin, J.-P., Xiang, K. and Manley, J.L. (2014). Function and control of RNA polymerase II CTD phosphorylation in vertebrate transcription and RNA processing. *Mol. Cell. Biol.* **34**, 2488-2498.
315. Hsin, J.-P., Li, W., Hoque, M., Tian, B. and Manley, J.L. (2014). RNAP II CTD tyrosine 1 performs diverse functions in vertebrate cells. *eLife* **3**, e02112.
316. Lazarev, D., Miller, R.L., Dimango, E., Fu, X.D., Li, H.R., Logan, C.J. and Manley, J.L. (2014). cFLIP expression is altered in severe corticosteroid-resistant asthma. *Genomics Data* **2**, 99-104.
317. Rosonina, E., Yurko, N.M., Li, W., Hoque, M., Tian, B. and Manley, J.L. (2014). Threonine-4 of the budding yeast RNAP II CTD couples transcription with Htz1-mediated chromatin remodeling. *Proc. Natl. Acad. Sci. USA*. **111**, 11924-11931.



318. Di Giammartino, D.C. and Manley, J.L. (2014). New links between mRNA polyadenylation and diverse nuclear pathways. *Mols. Cells* **37**, 644-649.
319. Di Giammartino, D.C., Li, W., Yashinskiy, J., Hoque, M., Tian, B. and Manley, J.L. (2014). RBBP6 is a human polyadenylation factor that regulates mRNAs with AU-rich 3'UTRs. *Genes Dev.* **28**, 2248-2260.
320. Chan, S.L., Huppertz, I., Yao, C., Weng, L., Moresco, J.J., Yates III, J.R., Ule, J., Manley, J.L. and Shi, Y. (2014). CPSF30 and Wdr33 directly bind to AAUAAA in mammalian mRNA 3' processing. *Genes Dev.* **28**, 2370-2380.
321. Ng, C.H., Akhter, A., Yurko, N., Burgener, J.M., Rosonina, E. and Manley, J.L. (2015). Sumoylation controls the timing of Tup1-mediated transcriptional deactivation. *Nat. Comm.* **6**, 6610. doi: 10.1038/ncomms7610.
322. Manley, J.L. (2015). A journey to the end of the message. *RNA* **21**, 538-540.
323. Li, W., You, B., Hoque, M., Zheng, D., Luo, W., Ji, Z., Park, J.Y., Gunderson, S.I., Kalsotra, A., Manley, J.L. and Tian, B. (2015). Systematic profiling of poly(A)<sup>+</sup> transcripts modulated by core 3' end processing and splicing factors reveals regulatory rules of alternative cleavage and polyadenylation. *PLoS Genetics* **11**, e1005166.
324. Shi, Y. and Manley, J.L. (2015). The end of the message: Multiple protein-RNA interactions define the mRNA polyadenylation site. *Genes Dev.* **29**, 889-897.
325. Pfister, N.T., Fomin, V., Regunath, K., Zhou, J.Y., Zhou, W., Silwal-Pandit, L., Freed-Pastor, W.A., Laptenko, O., Neo, S.P., Bargonetti, J., Hoque, M., Tian, B., Gunaratne, J., Engebraaten, O., Manley, J.L., Børresen-Dale, A.L., Neilsen, P.M. and Prives, C. (2015). Mutant p53 cooperates with the SWI/SNF chromatin remodeling complex to regulate VEGFR2 in breast cancer cells. *Genes Dev.* **29**, 1298-315.
326. Drisaldi, B., Colnaghi, L., Fioriti, L., Rao, N., Myers, C., Snyder, A.M., Metzger, D.J., Tarasoff, J., Konstantinov, E., Fraser, P.E., Manley, J.L., Kandel, E.R. (2015). SUMOylation is an inhibitory constraint that regulates the prion-like aggregation and activity of CPEB3. *Cell Rep.* **11**, 1694-702.
327. Coady, T. and Manley, J.L. (2015). ALS mutations in TLS/FUS disrupt target gene expression. *Genes Dev.* **29**, 1696-706.
328. Zhang, J., Lieu, Y.K., Ali, A.M., Penson, C., Reggio, K.S., Rabadan, R., Raza, A., Mukherjee, S. and Manley, J.L. (2015). A disease-associated mutation in SRSF2 misregulates splicing by altering RNA binding affinities. *Proc. Natl. Acad. Sci. USA.* **112**, E4726-34.
329. Morales, J. C., Richard, P., Patidar, P.L., Motea, E.A., Dang, T.T., Manley, J.L. and Boothman, D.A. (2016). XRN2 links transcription termination to DNA damage and replication stress. *PLoS Genetics* **12**, e1006107.

330. Conlon, E.G., Lu, L., Sharma, A., Yamazaki, T., Tang, T., Shneider, N.A. and Manley, J.L. (2016). The C9ORF72 GGGGCC expansion forms RNA G-quadruplex inclusions and sequesters hnRNP H to disrupt splicing in ALS patient brains. *eLife* **5**, e17820.
331. Richard, P. and Manley, J.L. (2016). R loops and links to human disease. *J. Mol. Biol.* **429**, 3168-3180.
332. Shkreta, L., Toutant, J., Durand, M., Manley, J.L. and Chabot, B. (2016). SRSF10 connects DNA damage to the alternative splicing of transcripts encoding apoptosis, cell-cycle control and DNA repair factors. *Cell Rep.* **17**, 1990-2003.
333. Tian, B. and Manley, J.L. (2017). Alternative polyadenylation of mRNA precursors. (2017). *Nat. Rev. Mol. Cell. Biol.* **18**, 18-30.
334. Richard, P., Vethantham, V. and Manley, J.L. (2017). Roles of sumoylation in mRNA processing and metabolism. *Adv. Exp. Med. Biol.* **963**, 15-33.
335. Yurko, N. and Manley, J.L. (2017). The RNA polymerase II CTD “orphan” residues: Emerging insights into the functions of Tyr-1, Thr-4 and Ser-7. *Transcription* **9**, 30-40.
336. Ogami, K., Richard, P., Chen, Y., Hoque, M., Li, W., Moresco, J.J., Yates III, J.R., Tian, B. and Manley, J.L. (2017). An Mtr4/ ZFC3H1 complex facilitates turnover of unstable nuclear RNAs to prevent their cytoplasmic transport and global translational repression. *Genes Dev.* **31**, 1257-1271.
337. Conlon, E.G. and Manley, J.L. (2017). RNA binding proteins in neurodegeneration: Mechanisms in aggregate. *Genes Dev.* **31**, 1509-1528.
338. Ogami, K. and Manley, J.L. (2017). Mtr4/ZFC3H1 protects polysomes through nuclear RNA surveillance. *Cell Cycle* **16**, 1999-2000.
339. Liu, X., Hoque, M., Laroche, M., Lemay, J.F., Yurko, N., Manley, J.L., Bachand, F. and Tian, B. (2017). Comparative analysis of alternative polyadenylation in *S. cerevisiae* and *S. pombe*. *Genome Res.* **27**, 1685-1695.
340. Yurko, N., Liu, X., Yamazaki, T., Hoque, M., Tian, B. and Manley, J.L. (2017). MPK1/SLT2 links multiple stress responses with gene expression in budding yeast by phosphorylating Tyr1 of the RNAP II CTD. *Mol. Cell.* **68**, 913-925.
341. Sun, Y., Zhang, Y., Hamilton, K., Manley, J.L., Shi, Y., Walz T. and Tong, L. (2018). Molecular basis for the recognition of the human AAUAAA polyadenylation signal. *Proc. Natl. Acad. Sci. USA.* **115**, E1419-E1428.
342. Ogami, K., Chen, Y. and Manley, J.L. (2018). RNA surveillance by the nuclear RNA exosome: mechanisms and significance. *Noncoding RNA* **4**, 8.

343. Richard, P., Ogami, K., Chen, Y., Feng, S., Moresco, J.J., Yates, J.R. III and Manley, J.L. (2018). NRDE-2, the human homolog of fission yeast Nrl1, prevents DNA damage accumulation in human cells. *RNA Biology* **15**, 868-876.
344. Conlon, E.G., Fagegaltier, D., Agius, P., Davis-Porada, J., Gregory, J., Hubbard, I. Kang, K., Kim, D., The NYGC ALS Consortium, Phatnani, H., Shneider, N.A. and Manley, J.L. (2018). Unexpected similarities between C9ORF72 and sporadic forms of ALS/FTD suggest a common disease mechanism. *eLife* **7**, e37754.
345. Yamazaki, T., Liu, L., Lazarev, D., Al-Zain, A., Fomin, V., Yeung, P.L., Chambers, S.M., Lu, C.W., Studer, L. and Manley, J.L. (2018). TCF3 alternative splicing controlled by hnRNP H/F regulates E-cadherin expression and hESC pluripotency. *Genes Dev.* **32**, 1161-1174.
346. Fomin, V., Richard, P., Hoque, M., Li, C., Gu, Z., Fissore-O'Leary, M., Tian, B., Prives, C., Manley, J.L. (2018). The C9ORF72 gene, implicated in ALS/FTD, encodes a protein that functions in control of endothelin and glutamate signaling. *Mol. Cell. Biol.* **38**, e00155-18.
347. Carbone, M. et al. (2018). Consensus report of the 8 and 9th Weinman Symposia on Gene x Environment Interaction in carcinogenesis: novel opportunities for precision medicine. *Cell Death Diff.* **25**, 1885-1904.
348. Wang, X., Goodrich, K.J., Conlon, E.G., Gao, J., Erbse, A.H., Manley, J.L. and Cech, T.R. (2019). C9orf72 and triplet repeat disorder RNAs: G-quadruplex formation, binding to PRC2 and implications for disease mechanisms. *RNA* **25**, 935-947.
349. Zhang, J., Ali, A.M., Lieu, Y.K., Liu, Z., Gao, J., Rabadan, R., Raza, A., Mukherjee, S. and Manley, J.L. (2019). Disease-causing mutations in SF3B1 alter splicing by disrupting interaction with SUGP1. *Mol. Cell* **76**, 82-95.
350. Yamazaki, T., Liu, L. and Manley, J.L. (2019). TCF3 mutually exclusive alternative splicing is controlled by long range cooperative actions between hnRNPH1 and PTBP1. *RNA* **25**, 1497-1508.
351. Liu, Z., Zhang, J., Sun, Y., Perea-Chamblee, T.E., Manley, J.L. and Rabadan, R. (2020). Pan-cancer analysis identifies mutations in SUGP1 that recapitulate mutant SF3B1 splicing dysregulation. *Proc. Natl. Acad. Sci. USA.* **117**, 10305-10312.
352. Tsai, Y.L., Coady, T.H., Lu, L., Zheng, D., Alland, I., Tian, B., Shneider, N.A. and Manley, J.L. (2020). ALS/FTD-associated protein FUS induces mitochondrial dysfunction by preferentially sequestering respiratory chain complex mRNAs. *Genes Dev.* **34**, 785-805.
353. Yamazaki, T., Liu, L., Conlon, E.G. and Manley, J.L. (2020). Burkitt-lymphoma-related TCF3 mutations alter TCF3 alternative splicing by disrupting hnRNPH1 binding. *RNA Biology* **17**, 1383-1390.
354. Richard, P., Feng, S., Tsai, Y.-L., Li, W., Rinchetti, P., Muhith, U., Irizarry-Cole, J., Stolz, K., Sanz, L.A., Hartono, S., Hoque, M., Tadesse, S., Seitz, H., Lotti, F., Hirano, M., Chédin, F.,

- Tian, B. and Manley, J.L. (2020). SETX (senataxin), the helicase mutated in AOA2 and ALS4, functions in autophagy regulation. *Autophagy* **7**, 1-15.
355. Cheng, L.C., Zheng, D., Baljinnyam, E., Sun, F., Ogami, K., Yeung, P.L., Hoque, M., Lu, C.-W., Manley, J.L. and Tian, B. (2020). Widespread transcript shortening in secretory cell differentiation reveals a connection between protein secretion and alternative polyadenylation. *Nat. Comm.* **11**, 3182.
356. Wang, Q., Conlon, E.G., Gao, J., Manley, J.L. and Rio, D. (2020). Widespread intron retention impairs protein homeostasis in C9ORF72 ALS brains. *Genome Res.* **30**, 1705-1715.
357. Tsai, Y.-L. and Manley, J.L. (2021). Multiple ways to a dead end: Diverse mechanisms by which ALS mutant genes induce cell death. *Cell Cycle* **20**, 631-646.
358. Feng, S. and Manley, J.L. (2021). Replication protein A associates with nucleolar R loops and regulates rRNA transcription and nucleolar morphology. *Genes Dev.* **35**, 1579-1594.
359. Yamazaki, T., Liu, L. and Manley, J.L. (2021). Oxidative stress induces Ser 2 dephosphorylation of the RNA polymerase II CTD and premature transcription termination. *Transcription* **12**, 277-293.
360. Lieu, Y.K., Liu, Z., Ali, A.M., Wei, X., Penson, A., Zhang, J., An, X., Rabadan, R., Raza, A., Manley, J.L., Mukherjee, S. (2022). SF3B1 mutant-induced missplicing of MAP3K7 causes anemia in myelodysplastic syndromes. *Proc. Natl. Acad. Sci. USA.* **119**, e2111703119.
361. Tsai, Y.L., Mu, Y.C., Manley, J.L. (2022). Nuclear RNA transcript levels modulate nucleocytoplasmic distribution of ALS/FTD-associated protein FUS. *Sci. Reports* **12**, 8180.
362. Feng, S. and Manley, J.L. (2022). Beyond rRNA: Nucleolar transcription generates a complex network of RNAs with multiple roles in maintaining cellular homeostasis. *Genes Dev.* **36**, 876-886.
363. Zhang, J., Huang, J., Xu, K., Xing, P., Huang, Y., Liu, Z., Tong, L., Manley, J.L. (2022). DHX15 is involved in SUGP1-mediated RNA missplicing by mutant SF3B1 in cancer. *Proc. Natl. Acad. Sci. USA.* **119**, e2216712119.
364. Feng, S., Desotell, A., Ross, A., Jovanovic, M., Manley, J.L. (2023). A nucleolar long "non-coding" RNA encodes a novel protein that functions in response to stress. *Proc. Natl. Acad. Sci. USA.* **120**, e2221109120.