

# BS3540: Cell and Molecular Biology of Cancer

[View Online](#)

1.

Lodish HF. Molecular Cell Biology. Eighth edition. New York: W.H. Freeman Macmillan Learning; 2016.

2.

Weinberg RA. The Biology of Cancer. Second edition. New York: Garland Science; 2014.

3.

Weinberg RA. 'The Biology and Genetics of Cells and Organisms', 'The Nature of Cancer' and 'Tumor Viruses'. The Biology of Cancer. New York: Garland Science; 2007. p. 1-103.

4.

Hanahan D, Weinberg RA. The Hallmarks of Cancer. *Cell*. 2000;100(1):57-70.

5.

Hanahan D, Weinberg RA. Hallmarks of Cancer: The Next Generation. *Cell*. 2011;144(5):646-674.

6.

Weinberg RA. The Biology of Cancer. Second edition. New York: Garland Science; 2014.

7.

Hanahan D, Weinberg RA. Hallmarks of Cancer: The Next Generation. *Cell*. 2011;144(5):646-674.

8.

Pico de Coaña Y. Checkpoint Blockade for Cancer Therapy: Revitalizing a Suppressed Immune System. *Trends in Molecular Medicine*. 2015;21(8):482-491.

9.

Postow MA. Nivolumab and Ipilimumab Versus Ipilimumab in Untreated Melanoma. *New England Journal of Medicine*. 2015;372(21):2006-2017.

10.

Maude SL. Chimeric Antigen Receptor T-cell Therapy for ALL. *Hematology*. 2014;2014(1):559-564.

11.

Butterfield LH. Cancer Vaccines. *BMJ* [Internet]. 2015;350:h988-h988. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4707521/>

12.

Lodish HF. Molecular Cell Biology. Eighth edition. New York: W.H. Freeman Macmillan Learning; 2016.

13.

Hynes RO. Integrins: Bidirectional, Allosteric Signaling Machines. *Cell*. 2002;110(6):673-687.

14.

Weinberg RA. *The Biology of Cancer*. Second edition. New York: Garland Science; 2014.

15.

Lodish HF. *Molecular Cell Biology*. Eighth edition. New York: W.H. Freeman Macmillan Learning; 2016.

16.

Mulloy B, Rider CC. Cytokines and Proteoglycans: an Introductory Overview. *Biochemical Society Transactions*. 2006;34(3):409-413.

17.

Elenius K. Function of the Syndecans - a Family of Cell Surface Proteoglycans. *Journal of Cell Science* [Internet]. The Company of Biologists Ltd; 1994;107(11):2975-2982. Available from: <http://jcs.biologists.org/content/107/11/2975>

18.

Olsen BR. Life without Perlecan Has Its Problems. *The Journal of Cell Biology* [Internet]. The Rockefeller University Press; 1999;147(5). Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2169336/>

19.

Yamada KM. Fibronectins: Structure, Functions and Receptors. *Current Opinion in Cell Biology*. 1989;1(5):956-963.

20.

Kleinman HK, Weeks BS. Laminin: Structure, Functions and Receptors. *Current Opinion in Cell Biology*. 1989;1(5):964-967.

21.

Sanderson RD. Enzymatic Remodeling of Heparan Sulfate Proteoglycans Within the Tumor Microenvironment: Growth Regulation and the Prospect of New Cancer Therapies. *Journal of Cellular Biochemistry*. 2005;96(5):897-905.

22.

Blundell TL. Crystal Structure of Fibroblast Growth Factor Receptor Ectodomain Bound to Ligand and Heparin. *Nature*. 2000;407(6807):1029-1034.

23.

Nybakken K, Perrimon N. Heparan Sulfate Proteoglycan Modulation of Developmental Signaling in Drosophila. *Biochimica et Biophysica Acta (BBA) - General Subjects*. 2002;1573(3):280-291.

24.

Keklikoglou I, De Palma M. Cancer: Metastasis Risk After Anti-Macrophage Therapy. *Nature*. 2014;515(7525):46-47.

25.

Rider CC. Heparin/heparan Sulphate Binding in the TGF- $\beta$  cytokine Superfamily. *Biochemical Society Transactions*. 2006;34(3):458-460.

26.

Lodish HF. Molecular Cell Biology. Eighth edition. New York: W.H. Freeman Macmillan Learning; 2016.

27.

NIH VideoCasting Past Events [Internet]. Available from:  
<https://videocast.nih.gov/pastevents.asp?c=29>

28.

Rezza A. Adult Stem Cell Niches. *Stem Cells in Development and Disease*, 107. p. 333-372.

29.

Morrison SJ, Spradling AC. Stem Cells and Niches: Mechanisms That Promote Stem Cell Maintenance throughout Life. *Cell*. 2008;132(4):598-611.

30.

Knoblich JA. Mechanisms of Asymmetric Stem Cell Division. *Cell*. 2008;132(4):583-597.

31.

Jiang W. The Implications of Cancer Stem Cells for Cancer Therapy. *International Journal of Molecular Sciences*. 2012;13(12):16636-16657.

32.

Yu Z. Cancer Stem Cells. *The International Journal of Biochemistry & Cell Biology*. 2012;44(12):2144-2151.

33.

Bomken S. Understanding the Cancer Stem Cell. *British Journal of Cancer [Internet]*. Nature Publishing Group; 2010;103(4). Available from:  
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2939794/>

34.

Meacham CE, Morrison SJ. Tumour Heterogeneity and Cancer Cell Plasticity. *Nature*. 2013;501(7467):328-337.

35.

De Los Angeles A. Hallmarks of Pluripotency. *Nature*. 2015;525(7570):469–478.

36.

Chambers I, Tomlinson SR. The Transcriptional Foundation of Pluripotency. *Development*. 2009;136(14):2311–2322.

37.

Zhou Q. A Gene Regulatory Network in Mouse Embryonic Stem Cells. *Proceedings of the National Academy of Sciences of the United States of America* [Internet]. National Academy of SciencesNational Academy of Sciences; 2007;104(42):16438–16443. Available from: <https://www.jstor.org/stable/25450071>

38.

Wang J. A Protein Interaction Network for Pluripotency of Embryonic Stem Cells. *Nature*. 2006;444(7117):364–368.

39.

Nigg EA, Raff JW. Centrioles, Centrosomes, and Cilia in Health and Disease. *Cell*. 2009;139(4):663–678.

40.

Weinberg RA. *The Biology of Cancer*. Second edition. New York: Garland Science; 2014.

41.

Lemmon MA, Schlessinger J. Cell Signaling by Receptor Tyrosine Kinases. *Cell*. 2010;141(7):1117–1134.

42.

Lim WA, Pawson T. Phosphotyrosine Signaling: Evolving a New Cellular Communication System. *Cell*. 2010;142(5):661-667.

43.

Hunter T. Receptor Tyrosine Kinases - Function, Families and Evolution | The Biomedical & Life Sciences Collection [Internet]. 2007. Available from: <https://hstalks.com/t/447/receptor-tyrosine-kinases-function-families-and-ev/?business>

44.

Kazlauskas A. How the PDGF Receptor Induces Cell Proliferation. The Biomedical & Life Sciences Collection [Internet]. 2007; Available from: <https://hstalks.com/t/450/how-the-pdgf-receptor-induces-cell-proliferation/?biosci>

45.

Weinberg RA. *The Biology of Cancer*. Second edition. New York: Garland Science; 2014.

46.

Lees J. The pRB/E2F pathway [Internet]. The Biomedical & Life Sciences Collection. 2009. Available from: <https://hstalks.com/t/1254/the-prbe2f-pathway/?biosci>

47.

Kaiser J. Naked Mole Rat Wins the War on Cancer | *Science* | AAAS [Internet]. 2009. Available from: <http://www.sciencemag.org/news/2009/10/naked-mole-rat-wins-war-cancer>

48.

Hengartner M. Apoptosis in C. Elegans. The Biomedical & Life Sciences Collection [Internet]. 2007; Available from: <https://hstalks.com/t/276/apoptosis-in-c-elegans/?biosci>

49.

Dynlach B. The E2F Family and Transcriptional Control of the Mammalian Cell Cycle. The Biomedical & Life Sciences Collection [Internet]. 2007; Available from: <https://hstalks.com/t/672/the-e2f-family-and-transcriptional-control-of-the-/?biosci>

50.

Oren M. p53 and Apoptosis. The Biomedical & Life Sciences Collection [Internet]. 2007; Available from: <https://hstalks.com/t/291/p53-and-apoptosis/?biosci>

51.

Chen HZ. Emerging Roles of E2Fs in Cancer: an Exit From Cell Cycle Control. *Nature Reviews Cancer*. 2009;9(11):785–797.

52.

van den Heuvel S, Dyson NJ. Conserved Functions of the pRB and E2F Families. *Nature Reviews Molecular Cell Biology*. 2008;9(9):713–724.

53.

Couzin-Frankel J. The Bad Luck of Cancer. *Science*. 2015;347(6217):12–12.

54.

Tomasetti C, Vogelstein B. Variation in Cancer Risk Among Tissues Can Be Explained by the Number of Stem Cell Divisions. *Science*. 2015;347(6217):78–81.

55.

Weinberg RA. *The Biology of Cancer*. Second edition. New York: Garland Science; 2014.

56.

Weinberg RA. *The Biology of Cancer*. Second edition. New York: Garland Science; 2014.

57.

Weinberg R. Invasion, Metastasis and Stem Cells [Internet]. The Biomedical & Life Sciences Collection. 2009. Available from:  
<https://hstalks.com/t/1376/invasion-metastasis-and-stem-cells/?biosci>

58.

Hanahan D, Weinberg RA. Hallmarks of Cancer: The Next Generation. *Cell*. 2011;144(5):646–674.

59.

Hanahan D, Weinberg RA. The Hallmarks of Cancer. *Cell*. 2000;100(1):57–70.

60.

Gupta GP, Massagué J. Cancer Metastasis: Building a Framework. *Cell*. 2006;127(4):679–695.

61.

Nguyen DX. Metastasis: from Dissemination to Organ-Specific Colonization. *Nature Reviews Cancer*. 2009;9(4):274–284.

62.

Pleasance ED. A Small-Cell Lung Cancer Genome with Complex Signatures of Tobacco Exposure. *Nature*. 2010;463(7278):184–190.

63.

Gupta GP, Massagué J. Cancer Metastasis: Building a Framework. *Cell*. 2006;127(4):679–695.

64.

Hinchcliffe EH. Requirement of Cdk2-Cyclin E Activity for Repeated Centrosome Reproduction in Xenopus Egg Extracts. *Science* [Internet]. American Association for the Advancement of ScienceAmerican Association for the Advancement of Science; 1999;283(5403):851–854. Available from: [http://www.jstor.org/stable/2897252?seq=1#page\\_scan\\_tab\\_contents](http://www.jstor.org/stable/2897252?seq=1#page_scan_tab_contents)

65.

Nigg EA. Centrosome Duplication in Mammalian Somatic Cells Requires E2F and Cdk2-cyclin A. *Nature Cell Biology*. 1999;1(2):88–93.

66.

Pazour GJ. Chlamydomonas IFT88 and Its Mouse Homologue, Polycystic Kidney Disease Gene Tg737, Are Required for Assembly of Cilia and Flagella. *The Journal of Cell Biology* [Internet]. The Rockefeller University Press; 2000;151(3). Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2185580/>

67.

Lingle WL. Centrosome Amplification Drives Chromosomal Instability in Breast Tumor Development. *Proceedings of the National Academy of Sciences of the United States of America* [Internet]. National Academy of SciencesNational Academy of Sciences; 2002;99(4):1978–1983. Available from: [http://www.jstor.org/stable/3057904?seq=1#page\\_scan\\_tab\\_contents](http://www.jstor.org/stable/3057904?seq=1#page_scan_tab_contents)

68.

Meraldi P. Aurora-A Overexpression Reveals Tetraploidization as a Major Route to Centrosome Amplification in p53-/ Cells. *The EMBO Journal*. 2002;21(4):483–492.

69.

Nigg EA. Centrosome Aberrations: Cause or Consequence of Cancer Progression? *Nature Reviews Cancer*. 2002;2(11):815–825.

70.

Pazour GJ, Rosenbaum JL. Intraflagellar Transport and Cilia-Dependent Diseases. *Trends in Cell Biology*. 2002;12(12):551–555.

71.

Pazour GJ. Polycystin-2 Localizes to Kidney Cilia and the Ciliary Level is Elevated in Orpk Mice With Polycystic Kidney Disease. *Current Biology*. 2002;12(11):R378–R380.

72.

Ansley SJ. Basal Body Dysfunction is a Likely Cause of Pleiotropic Bardet-Biedl Syndrome. *Nature*. 2003;425(6958):628–633.

73.

Pihan GA, Wallace J, Zhou Y, Doxsey SJ. Centrosome Abnormalities and Chromosome Instability Occur Together in Pre-invasive Carcinomas. *Cancer Research* [Internet]. 2003;63. Available from: <http://cancerres.aacrjournals.org/content/63/6/1398>

74.

Meraldi P. Aurora Kinases Link Chromosome Segregation and Cell Division to Cancer Susceptibility. *Current Opinion in Genetics & Development*. 2004;14(1):29–36.

75.

Pazour GJ. Intraflagellar Transport and Cilia-Dependent Renal Disease: The Ciliary Hypothesis of Polycystic Kidney Disease. *Journal of the American Society of Nephrology*. 2004;15(10):2528–2536.

76.

Habedanck R. The Polo Kinase Plk4 Functions in Centriole Duplication. *Nature Cell Biology*. 2005;7(11):1140–1146.

77.

Badano JL. The Ciliopathies: An Emerging Class of Human Genetic Disorders. *Annual Review of Genomics and Human Genetics*. 2006;7(1):125-148.

78.

Ganem NJ. A Mechanism Linking Extra Centrosomes to Chromosomal Instability. *Nature*. 2009;460(7252):278-282.

79.

Nigg EA, Raff JW. Centrioles, Centrosomes, and Cilia in Health and Disease. *Cell*. 2009;139(4):663-678.

80.

Lončarek J. Centriole Reduplication During Prolonged Interphase Requires Procentriole Maturation Governed by Plk1. *Current Biology*. 2010;20(14):1277-1282.

81.

Krzywicka-Racka A. Repeated Cleavage Failure Does Not Establish Centrosome Amplification in Untransformed Human Cells. *The Journal of Cell Biology* [Internet]. The Rockefeller University Press; 2011;194(2). Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3144409/>

82.

Nigg EA, Stearns T. The Centrosome Cycle: Centriole Biogenesis, Duplication and Inherent Asymmetries. *Nature Cell Biology*. 2011;13(10):1154-1160.

83.

Tomasetti C, Vogelstein B. Variation in Cancer Risk Among Tissues Can Be Explained by the Number of Stem Cell Divisions. *Science*. 2015;347(6217):78-81.

84.

Nurse P. The Richard Dimbleby Lecture 2012: 'The New Enlightenment' [Internet]. 2012.  
Available from:  
[https://royalsociety.org/~media/Royal\\_Society\\_Content/people/fellows/2012-02-29-Dimbleby.pdf](https://royalsociety.org/~media/Royal_Society_Content/people/fellows/2012-02-29-Dimbleby.pdf)

85.

Wodarz D, Zauber AG. Cancer: Risk Factors and Random Chances. *Nature*.  
2015;517(7536):563-564.

86.

Wu S. Substantial Contribution of Extrinsic Risk Factors to Cancer Development. *Nature*.  
2015;529(7584):43-47.

87.

George J. Comprehensive Genomic Profiles of Small Cell Lung Cancer. *Nature*.  
2015;524(7563):47-53.

88.

Gao H. The BMP Inhibitor Coco Reactivates Breast Cancer Cells at Lung Metastatic Sites. *Cell*.  
2012;150(4):764-779.

89.

Davis H. Aberrant Epithelial GREM1 Expression Initiates Colonic Tumorigenesis from Cells Outside the Stem Cell Niche. *Nature Medicine*. 2014;21(1):62-70.

90.

Brazil DP. BMP Signalling: Agony and Antagonism in the Family. *Trends in Cell Biology*.  
2015;25(5):249-264.

91.

Zhang XHF. Selection of Bone Metastasis Seeds by Mesenchymal Signals in the Primary Tumor Stroma. *Cell*. 2013;154(5):1060–1073.

92.

Guise TA. Breast Cancer Bone Metastases: It's All about the Neighborhood. *Cell*. 2013;154(5):957–959.

93.

Zhao T. Humanized Mice Reveal Differential Immunogenicity of Cells Derived from Autologous Induced Pluripotent Stem Cells. *Cell Stem Cell*. 2015;17(3):353–359.

94.

Cao J. Cells Derived From iPSC Can Be Immunogenic — Yes or No? *Protein & Cell*. 2014;5(1):1–3.

95.

Swift J. Nuclear Lamin-A Scales with Tissue Stiffness and Enhances Matrix-Directed Differentiation. *Science*. 2013;341(6149):1240104–1240104.

96.

Bainer R, Weaver V. Strength Under Tension. *Science*. 2013;341(6149):965–966.

97.

Guilak F. Control of Stem Cell Fate by Physical Interactions with the Extracellular Matrix. *Cell Stem Cell*. 2009;5(1):17–26.

98.

Rompolas P. Spatial Organization Within a Niche as a Determinant of Stem-Cell Fate.

Nature. 2013;502(7472):513–518.

99.

Greco V, Guo S. Compartmentalized Organization: a Common and Required Feature of Stem Cell Niches? Development. 2010;137(10):1586–1594.