

LECTURE #9: TRANSCRIPTIONAL MODULATION BY SIGNALING PATHWAYS

Assigned (Required) Reading is (1) - (4):

•General Background (in your Reader):

- (1) Mertens C, Darnell JE Jr (2007) SnapShot: JAK-STAT signaling. Cell 131: 612.**
- (2) Massague J, Gomis RR. (2006) The logic of TGF β signaling. FEBS Lett. 580: 2811-2820.**
- (3) Wu H, Peisley A, Graef IA, Crabtree GR (2007) NFAT signaling and the invention of vertebrates. Trends Cell Biol. 17: 251-260.**

•Paper for Discussion Session (14 Dec.):

- (4) Dentin R, Liu Y, Koo SH, Hedrick S, Vargas T, Heredia J, Yates J 3rd, Montminy M (2007) Insulin modulates gluconeogenesis by inhibition of the coactivator TORC2. Nature 449: 366-369.**

General Background:

Gardner KH, Montminy M (2005) Regulating transcriptional activators by phosphorylation. Sci STKE. 13 Sep 2005 (301): pe44.

Hong EJ, West AE, Greenberg ME (2005) Transcriptional control of cognitive development. Curr. Opin. Neurobiol. 15: 21-28.

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Regulation of Transcription by MAPK Cascades:

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Transcriptional Regulation by JAK Tyrosine Kinases:

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Activation of Steroid Hormone and Related Nuclear Receptors:

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Activation of the NF- κ B/Rel Family of Transcription Factors:

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Additional Examples of Regulated Nuclear Translocation of Transcription Factors:

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