

# Leading Edge

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## RESOURCE

296 Densely Interconnected Transcriptional Circuits Control Cell States in Human Hematopoiesis

*N. Novershtern, A. Subramanian, L.N. Lawton, R.H. Mak, W.N. Haining, M.E. McConkey, N. Habib, N. Yosef, C.Y. Chang, T. Shay, G.M. Frampton, A.C.B. Drake, I. Leskov, B. Nilsson, F. Pfeffer, D. Dombkowski, J.W. Evans, T. Liefeld, J.S. Smutko, J. Chen, N. Friedman, R.A. Young, T.R. Golub, A. Regev, and B.L. Ebert*

## POSITIONS AVAILABLE

On the cover: Cellular adaptation to nutrient-replete versus nutrient-constrained environments is driven by the mutually antagonistic actions of mTOR and ULK1, which specify cell growth versus autophagy. Here, Bodemann et al. (pp. 253–267) characterize distinct molecular platforms that control ULK1 versus mTOR activation and describe how these platforms are selectively assembled in response to nutrient availability. The image depicts the direct reciprocal inactivation relationship between the mTOR complex 1 and ULK1 kinases. This seemingly futile biochemical cycle is tamed through the nutrient-responsive orchestration of macromolecular protein complexes that couple ULK1 activation to autophagosome biogenesis. Art by Angela Diehl (UT Southwestern Medical Center).

