

# Pubblications – NATOLI Gioacchino

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## 2013

Endogenous retrotransposition activates oncogenic pathways in hepatocellular carcinoma (Shukla R, Upton K, Muñoz-Lopez M, Gerhardt D, Fisher M, Nguyen T, Brennan T, Baillie T, Collino A, Ghisletti S, Sinha S, Iannelli F, Radaelli F, Dos Santos A, Rapoud D, Guettier C, Samuel D, Natoli G, Carninci P, Ciccarelli F, Garcia-Perez JC, Faivre J, Faulkner G.) *Cell* in press (2013)

Latent enhancers activated by stimulation in differentiated cells (Ostuni R, Piccolo V, Barozzi I, Polletti S, Termanini A, Bonifacio S, Curina A, Prosperini E, Ghisletti S, Natoli G.) *Cell* 152: 157-71 (2013).

## 2012

The H3K27 Demethylase JMJD3 Is Required for Maintenance of the Embryonic Respiratory Neuronal Network, Neonatal Breathing, and Survival (Burgold T, Voituron N, Caganova M, Tripathi PP, Menuet C, Tusi BK, Spreafico F, Bvengut M, Gestreau C, Buontempo S, Simeone A, Kruidenier L, Natoli G, Casola S, Hilaire G, Testa G.) *Cell Reports* 2:1244-58 (2012).

Hdac3 requirement for the inflammatory gene expression program (X. Chen, I. Barozzi, A. Termanini, E. Prosperini, A. Recchiuti, J. Dalli, F. Mietton, G. Matteoli, S. Hiebert, G. Natoli) *Proc. Natl. Acad. Sci. USA* 109:E2865-74 (2012).

Noncoding transcription at enhancers: general principles and functional models (G. Natoli and J.C. Andrau) *Annual Review of Genetics* 46:1-19 (2012).

Transcript dynamics of pro-inflammatory genes uncovered by RNA-Seq analysis of subcellular RNA fractions. (D.M. Bhatt, A. Pandya-Jones, A.J. Tong, I. Barozzi, M. Lissner, G. Natoli, Black D.L., Smale S.T.) *Cell* 150, 279-290 (2012).

The histone methyltransferase Mll4 controls macrophage function through glycosylphosphatidylinositol anchor synthesis (L. Austenaa, I. Barozzi, A. Chronowska, A. Termanini, R. Ostuni, E. Prosperini, A. F. Stewart, G. Testa, G. Natoli) *Immunity* 36, 572-585 (2012).

NF-κB and chromatin: ten years on the path from basic mechanisms to candidate drugs. (G. Natoli) *Immunological Reviews* 246, 183-192 (2012).

## 2011

Transcriptional control of macrophage polarization: enabling diversity with identity (T. Lawrence, G. Natoli) *Nature Reviews Immunology* 11, 750-761 (2011).

Fish the ChIPs: a pipeline for automated genomic annotation of ChIP-Seq data (I. Barozzi, A. Termanini, S. Minucci, G. Natoli) *Biology Direct* 6:51 (2011).

Transcriptional control of macrophage diversity and specialization (R. Ostuni and G. Natoli). *Eur. J. Immunol.* 41, 2486-90 (2011).

The genomic landscapes of inflammation (G. Natoli, S. Ghisletti, I. Barozzi) *Genes & Development* 25, 101-106 (2011).

## 2010

Specialized Chromatin Patterns in the Control of Inflammatory Gene Expression (G. Natoli) *Curr. Top. Microbiol. Immunol.* 2010 Sep 21. [Epub ahead of print]

Maintaining cell identity through global control of genomic organization (G. Natoli). *Immunity* 23:12-24 (2010).

A large fraction of extragenic RNA Pol II transcription sites overlap enhancers (F. De Santa, I. Barozzi, F. Mietton, S. Ghisletti, S. Polletti, BK Tusi, H. Muller, J. Ragoussis, CL Wei, G. Natoli) *PLoS Biology* 8(5): e1000384. doi:10.1371/journal.pbio.1000384 (2010).

Identification and characterization of enhancers controlling the inflammatory gene expression program in macrophages (S. Ghisletti, I. Barozzi, F. Mietton, S. Polletti, F. De Santa, E. Venturini, L. Gregory, L. Lonie, A. Chew, C.L. Wei, J. Ragoussis, G. Natoli) *Immunity* 32:317-28. Epub 2010 Mar 4 (2010).

Non-cooperative interactions between transcription factors and clustered DNA binding sites enable graded transcriptional responses to environmental inputs (L. Giorgetti, T. Siggers, G. Tiana, G. Caprara, S. Notarbartolo, T. Corona, M. Pasparakis, P. Milani, M. L. Bulyk, G. Natoli). *Molecular Cell* 37, 418-428 (2010)

## 2009

Jmjd3 contributes to the control of gene expression in LPS-activated macrophages (F. De Santa, V. Narang, Z. H. Yap, B. Khoramian Tusi, T. Burgold, L. Austenaa, G. Bucci, M. Caganova, S. Notarbartolo, S. Casola, G. Testa, WK. Sung, CL. Wei, and G. Natoli). *EMBO J.* 28, 3341-52 (2009).

Control of NF-kappaB-dependent Transcriptional Responses by Chromatin Organization (G. Natoli). *Cold Spring Harbor Perspect Biol.* Oct;1(4):a000224. (2009)

The future therapeutic potential of histone demethylase inhibitors: a critical analysis. (G. Natoli, G. Testa, F. De Santa). *Curr. Opin. Drug. Devel. & Discov.* 12, 607-615 (2009).

Tolerance and M2 (alternative) macrophage polarization are related processes orchestrated by p50 nuclear factor {kappa}B. (Porta C, Rimoldi M, Raes G, Brys L, Ghezzi P, Di Liberto D, Dieli F, Ghisletti S, Natoli G, De Baetselier P, Mantovani A, Sica A.). *Proc Natl Acad Sci USA* 106:14978-83. Epub 2009 Aug 17 (2009).

Chromatin-mediated control of gene expression in innate immunity and inflammation (G. Natoli). *Handbook of Cell Signalling* 2nd edition. (Bradshaw and

Dennis eds., Academic Press) pp. 2461-2466 (2009).

Genome-Organizing Factors Top2 and Hmo1 Prevent Chromosome Fragility at Sites of S phase Transcription (R. Bermejo, T. Capra, V. Gonzalez-Huici, D. Fachinetti, A. Cocito, G. Natoli, Y. Katou, H. Mori, K. Kurokawa, K. Shirahige and M. Foiani) Cell 138, 870-884 (2009).

Two modes of transcriptional activation at native promoters by NF-kappaB p65 (van Essen D, B. Engist , G. Natoli, Saccani S) PLoS Biol. 7(3):e73 (2009).

When sirtuins and NF-kB collide (G. Natoli) Cell 136, 19-21 (2009).

## **2008**

A birthday gift for TRADD. (G. Natoli and L. Austenaa). Nature Immunol. 9, 1015-6 (2008).

Burgold T, Spreafico F, De Santa F, Totaro MG, Prosperini E, Natoli G, Testa G. The histone H3 lysine 27-specific demethylase Jmjd3 is required for neural commitment. PLoS ONE. 2008 Aug 21;3(8):e3034.

Nuclear ubiquitin ligases, NF-kB degradation and the control of inflammation (G. Natoli and S. Chiocca). Science Signaling, January 8, pe1 (2008).

## **2007**

The histone H3 lysine 27 demethylase Jmjd3 links inflammation to inhibition of polycomb-mediated gene silencing (F. De Santa, M.G. Totaro, E. Prosperini, S. Notarbartolo, G. Testa and G. Natoli). Cell 130, 1083-1094 (2007).