

CURRICULUM VITAE
SALVATORE OLIVIERO

Education

1988
PhD Human Genetics.
University of Torino, Italy (1983 – 1985) and E.M.B.L Heidelberg, Germany (1985 – 1988).

1980 Laurea in Biological Sciences. Final evaluation Summa cum laude
University of Torino - Italy.

Post-graduate training

1988 - 1991
Post-doctoral fellow and Teaching Assistant in Biochemistry and Molecular Biology
Harvard University. Boston – USA.

Professional employment and honors:

2010 - to present
Principal investigator group of Epigenetics HuGeF, Torino - Italy.

2000 - to present
Full Professor in Molecular Biology, University of Siena - Italy.

2007 - 2010
Director of the Department of Molecular biology, University of Siena – Italy.

2003 - to present
Director of the Doctorate School in Biotechnology, Santa Chiara, Siena – Italy.

2007- 2010
Scientific secretary of the Italian federation of life sciences, FISV.

2005 - 2007
Visiting Professor Albert Einstein College of Medicine, Bronx - USA.

1993 - 2000
Associated professor in Molecular Biology, University of Siena – Italy.

1992 - 1993
Assistant Professor in Genetics, University of Padova – Italy.

Professional Society membership

Associazione di Genetica Italiana A.G.I.

Società Italiana di Biofisica e Biologia Molecolare S.I.B.B.M.

Federazione Italiana Scienze della Vita F.I.S.V.

Other professional activities

Member of the Italian National Comity for grants in life sciences.

Scientific Consultant at Novartis corporation.

Referee for major IF rated scientific journals.

Co-founder of a biotech company.

Selected publications in scientific journals rated for impact factor by ISI

1. N. Migone, S. Oliviero, G. De Lange, D. Delacroix, D. Boschis, F. Altruda, L. Silengo, M. De Marchi and A.O. Carbonara (1984) Multiple gene deletion within the human immunoglobulin heavy-chain cluster. *Proc. Natl. Acad. Sci. USA* 81, 5811-5815.
2. F. Negro, E. Ghiaberge, S. Oliviero, M. Hammer, M. Beringer, M.G. Canese, F. Bonino (1984) Hepatitis B virus DNA (HBV-DNA) in anti-HBe positive sera. *Liver* 4, 177-183.
3. S. Oliviero, M. De Marchi, G. Bensi, G. Raugei and A.O. Carbonara (1985) A new restriction fragment length polymorphism in the haptoglobin gene region. *Human Genetics* 70, 66-70.
4. S. Oliviero, M. De Marchi, A.O. Carbonara, L.F. Bernini, G. Bensi, G. Raugei (1985) Molecular evidence of triplication in the haptoglobin Johnson variant gene. *Human Genetics* 71, 49-52.
5. S. Oliviero, M. De Marchi, B.J.E.G. Bast, B.G.M. Zegers, E. van Loghem, A.O. Carbonara (1986) Molecular analysis of a case of IgA2 deficiency. *Journal of Immunogenetics* 13, 3-9.
6. S. Oliviero, G. Morrone and R. Cortese (1987) Human Haptoglobin gene: transcriptional control during development and acute phase induction. *EMBO J.* 6, 1905-1912.
7. S. Oliviero and P. Monaci (1988) RNA Polymerase III promoter elements enhance transcription of RNA Polymerase II genes. *Nucleic Acid Research* 16, 1285-1293.
8. G. Morrone, G. Ciliberto, S. Oliviero, R. Arcone, L. Dente, J. Content and R. Cortese (1988) Recombinant Interleukin 6 regulates the Transcriptional Activation of a set of Human Acute Phase Genes. *Journal of Biological Chemistry* 263, 12554-12558.
9. V. Poli, S. Oliviero, G. Morrone and R. Cortese (1989) Characterization of an IL-6 responsive element (IL6RE) present on liver specific genes, identification of the cognate IL-6 dependent DNA-binding protein (IL6-DBP). *Ann. New York Acad. Sci.*, 557, 297-309.
10. S. Oliviero and R. Cortese (1989). Multiple IL-6 responsive elements in the promoter of the Human Haptoglobin gene. *EMBO J.* 8, 1145-1151.
11. A. Bottaro, U. Cariota, G. De Lange, M. De Marchi, R. Gallina, S. Oliviero, A. Vlung and A.O. Carbonara (1990) Multiple level of analysis of an IGH4 gene deletion. *Human Genetics*, 86, 191-197.
12. S. Oliviero and K. Struhl. (1991) Synergistic transcriptional enhancement does not depend on the number of acidic activation domains bound to the promoter. *Proc. Natl. Acad. Sci. U.S.A.* 88, 224-228.
13. L. Vitiello, M.L. Mostacciuolo, S. Oliviero, F. Schiavon, L. Nicoletti, C. Angelini and C.A. Danieli (1992) Screening for mutations in the muscle promoter region and for exonic deletions in a series of 115 DMD and BMD patients. *Journal of Medical Genetics.* 29, 127-130.
14. F.S. Saad, L. Vitiello, L. Merlini, M.L. Mostacciuolo, S. Oliviero and G.A. Danieli (1992) A 3' consensus splice mutation in the human dystrophin gene detected

- by a screening for intra-exonic deletions. *Human Molecular Genetics*. 1, 345-346.
15. S. Oliviero, G.S. Robinson, K. Struhl and Bruce Spiegelman (1992) Yeast GCN4 as a probe for oncogenesis by AP-1 transcription factors: Transcriptional activation through AP-1 sites is not sufficient for cellular transformation. *Genes and Development*. 6, 1799-1809.
 16. F.A. Saad, G. Vita, M. Mora, L. Morandi, L. Vitiello, S. Oliviero, and G.A. Danieli (1993) A novel nonsense mutation in the human dystrophin gene. *Human Mutation*. 2, 314-316.
 17. F.A. Saad, L. Vitiello, S. Oliviero, M. L. Mostacciuolo and G.A. Danieli (1993) Detection of unknown gene mutations by multiplex single strand conformation polymorphism (MSSCP). *PCR Methods and Applications*. 3, 60-62.
 18. E. Hu, E. Mueller, S. Oliviero, V. Papaioannou, R. Jhonson and B. Spiegelman. (1994) Targeted disruption of the c-fos gene demonstrates c-fos dependent and independent pathways for gene expression stimulated by growth factors or oncogenes. *EMBO J*. 13, 3094-3103.
 19. M. Orlandini, A. Santucci, A. Tramontano, P. Neri and S. Oliviero. (1994) Cloning, characterization and modeling of a monoclonal anti-human transferrin antibody that competes with the transferrin receptor. *Protein Science* 3, 1476-1484.
 20. D. Saggiaro, M. Fiorino, A. Penzo, M. Pesce, S. Oliviero and L. Chieco Bianchi (1994) Tax induced HTLV-I LTR Transcriptional activation is modulated by phosphorylation. *Bioch. and Bioph. Res. Com.* 250, 666-673.
 21. M. Orlandini, L. Marconcini, R. Ferruzzi and S. Oliviero (1996). Identification of a c-fos induced gene that is related to the PDGF/VEGF growth factor family. *Proc. Natl. Acad. Sci. U.S.A.* 93, 11675-11680.
 22. F. Galvagni, M. Lestingi, E. Cartocci and S. Oliviero (1997) SRF and protein-mediated DNA bending contribute to transcription of the muscle-specific dystrophin promoter. *Molecular and Cellular Biology* 17, 1731-1743.
 23. M. Rocchigiani, M. Lestingi, A. Luddi, M. Orlandini, B. Franco, E. Rossi, A. Ballabio, O. Zuffardi and S. Oliviero. (1998) Human c-fos-induced growth factor: cloning, characterization and gene localization on Xp22.1 between PIG-A and GRPR genes. *Genomics* 47, 207-216.
 24. V. Avantaggiato, M. Orlandini, D. Acampora, S. Oliviero A. and Simeone (1998). Embryonic expression pattern of the murine figf gene, a growth factor of the PDGF/VEGF family. *Mechanisms of Development*. 73, 221-224.
 25. M. Orlandini, F. Semplici, R. Ferruzzi F. Ferruzzi, L.A. Pinna and S. Oliviero (1998). Protein kinase *CK2a'* is induced by serum as a delayed early gene and cooperates with *Ha-ras* in fibroblast transformation. *Journal of Biological Chemistry* 273, 21291-21297.
 26. F. Galvagni, E. Cartocci and S. Oliviero (1998) The dystrophin promoter is negatively regulated by YY1 in undifferentiated muscle cells. *Journal of Biological Chemistry*. 273, 33708-33713.
 27. L. Marconcini, S. Marchiò, L. Morbidelli, E. Cartocci, A. Albinì, M. Ziche, F. Bussolino, and S. Oliviero (1999) c-fos-induced growth factor/vascular endothelial growth factor-D induces angiogenesis in vivo and in vitro. *Proc. Natl. Acad. Sci. USA* 96, 9671-9676.

28. F. Galvagni and S. Oliviero (2000) Utrophin transcription is activated by an intronic enhancer. *Journal of Biological Chemistry* 275; 3168-3172.
29. F. Galvagni, S. Capo and S. Oliviero (2001) Sp1 and Sp3 physically interact and co-operate with GABP for the activation of the utrophin promoter. *The Journal of Molecular Biology*. 306; 983-994.
30. M. Orlandini and S. Oliviero (2001) In fibroblasts *Vegf-D* expression is induced by cell-cell contact mediated by cadherin-11. *Journal of Biological Chemistry*. 276; 6576-6581.
31. S. Plyte, M. Boncristiano, E. Fattori, F. Galvagni, S. Rossi Paccani, M. B. Majolini, S. Oliviero, G. Ciliberto, J. L. Telford, and C. T. Baldari (2001) Identification and characterization of a novel NFAT1 isoform expressed in mouse brain. *Journal of Biological Chemistry* 276; 14350-14358.
32. Galvagni, F. Cantini, M. and S. Oliviero (2002) The utrophin gene is transcriptionally up-regulated in regenerating muscle. *Journal of Biological Chemistry* 277; 19106-19113.
33. Semplici, F. Meggio, F., Pinna, L.A. and S. Oliviero (2002) CK2-dependent phosphorylation of the E2 ubiquitin conjugating enzyme UBC3B induces its interaction with β -trCP and enhances β -catenin degradation. *Oncogene* 25; 3978-3987.
34. S. Chamboredon, J. Briggs, E. Vial, J. Hurault, F. Galvagni, S. Oliviero, T. Bos, and M. Castellazzi (2003) v-Jun down regulates the SPARC target gene by binding to the proximal promoter indirectly through SP1/3. *Oncogene*. 22; 4047-4061.
35. M. Orlandini, S. Semboloni and S. Oliviero (2003) β -catenin inversely regulates VEGF-D mRNA stability. *Journal of Biological Chemistry* 278; 44650-44656.
36. A. Zippo, A. De Robertis, M. Bardelli, F. Galvagni, and S. Oliviero (2004) Identification of Flk-1-target genes in vasculogenesis: Pim-1 is required for endothelial and mural cell differentiation in vitro. *Blood* 103; 4536-44.
37. A. Salameh, F. Galvagni, M. Bardelli, F. Bussolino and S. Oliviero (2005) Direct recruitment of CRK and GRB2 to VEGFR-3 induce proliferation, migration and survival of endothelial cells through the activation of ERK, AKT and JNK pathways. *Blood* 106; 3423-31
38. M. Orlandini, A. Spreafico, M. Bardelli, M. Rocchigiani, A. Salameh, S. Nucciotti, C. Capperucci, B. Frediani, and S. Oliviero. Vascular Endothelial Growth Factor-D activates VEGFR-3 expressed in osteoblasts inducing their differentiation. *The Journal of Biological Chemistry* 281(26):17961-7 (2006)
39. F. Galvagni, F. Anselmi, A. Salameh, M. Orlandini, M. Rocchigiani, and S. Oliviero (2007) Vascular endothelial growth factor receptor-3 activity is modulated by its association with caveolin-1 on endothelial membrane. *Biochemistry*, 46:3998-4005.
40. A. Zippo, A. De Robertis, R. Serafini, and S. Oliviero. (2007) PIM1-dependent phosphorylation of Histone H3 at Serine 10 is required for MYC-dependent transcriptional activation and oncogenic transformation. *Nature Cell Biology* 9:932-44.
41. M. Bardelli M, Leucci E, Schürfeld K, Bellan C, Passiatore G, Rocchigiani M, Bartolommei S, Orlandini M, Zagursky J, Lazzi S, De Falco G, Tosi P, Oliviero S, Leoncini L. (2007) VEGF-D is expressed in activated lymphoid cells and in

- tumors of hematopoietic and lymphoid tissues. *Leuk Lymphoma*. 48:2014-21.
42. S. Donnini, M. Monti, R. Roncone, L. Morbidelli, M. Rocchigiani, S. Oliviero, L. Casella, A. Giachetti, R. Schulz, and M. Ziche (2008) Peroxynitrite inactivates human-tissue inhibitor of metalloproteinase-4. *FEBS Lett*. 582:1135-40.
 43. M. Orlandini, S. Nucciotti, F. Galvagni, M. Bardelli, M. Rocchigiani, F. Petraglia, and S. Oliviero (2008) Morphogenesis of human endothelial cells is inhibited by DAB2 via Src. *FEBS Lett*. 582: 2542-8.
 44. P.J. Mintz, M. Cardó-Vila Ozawa, A. Hajitou, R. Rangel, L. Guzman-Rojas, D.R. Christianson, M.Aa Arap, R.J. Giordano, G.R. Souza, J. Easley, A. Salameh, S. Oliviero, R.R. Brentani, E. Koivunen, W. Arap, R. Pasqualini (2009) An unrecognized extracellular function for an intracellular adapter protein released from the cytoplasm into the tumor microenvironment. *Proc. Natl. Acad. Sci. USA* 106:2182-2187.
 45. M. Koch, D. Detrtori, A. Van Nuffelen, J. Soufferau, L. Marconcini, G. Wallais, L. Moons, F. Bruyere, S. Oliviero, A. Noel, J-M, Foidart, P. Carmeliet and M. Dewerkin (2009) VEGF-D deficiency in mice does not affect embryonic or postnatal lymphangiogenesis but reduces lymphatic metastasis. *J. Pathology* 219:356-364.
 46. A. Zippo, R. Serafini, M. Rocchigiani, S. Pennacchini, A. Krepelova, and S. Oliviero (2009) Histone cross-talk between H3S10ph and H4K16ac generates a histone code that mediates transcription elongation. *Cell* 138: 1122-1136.
 47. F. Galvagni, S. Pennacchini, A. Salameh, M. Rocchigiani, F. Neri, M. Orlandini, F. Petraglia, S. Gotta, G. L. Sardone, G. Matteucci, G. C. Terstappen, and S. Oliviero (2010) Endothelial cell adhesion to the extracellular matrix induces c-Src-dependent VEGFR-3 phosphorylation without the activation of the receptor intrinsic kinase activity. *Circulation Research* 106:1839-1848.
 48. A. Salameh, F. Galvagni, F. Anselmi, C. De Clemente¹, M. Orlandini, and Salvatore Oliviero (2010) growth factor stimulation induces cell survival by c-JUN/ATF2-dependent activation of BCL-X_L. *Journal of Biological Chemistry* 285 23096-23104.

Patents

1. S. Oliviero. Patent EP 853668B1 "Regulated genes and use thereof". Granted 02.03.2005 Università degli Studi di Siena.
2. S. Oliviero. Patent EP1553182B1 Divisional patent on "Regulated genes and use thereof". Granted 03.03.2010 Università degli Studi di Siena.
3. M. Orlandini, A. Spreafico, and S. Oliviero. Patent Application RM 2005A000367 " Uso di VEGF-D o suoi frammenti funzionalmente attivi per la ricostruzione e riparazione ossea". Università degli studi di Siena.