CURRICULUM VITAE

NAME
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POSITION TITLE

Full Professor, Molecular Biology

EDUCATION/TRAINING

INSTITUTION AND LOCATION	DEGREE	YEAR	FIELD OF STUDY
University of Torino, Italy	BSc.	1984	Biological Sciences
University of Torino, Italy	PhD	1992	Human biology: cellular and molecular bases
EMBL, Germany	Post-doctoral training	1988-1990	Molecular Biology of IL-6 signaling
Columbia University, NY, NY, USA	Post-doctoral training	1990-1992	Mouse genetics and homologous recombination in ES cells

Positions and Employment

1992-1997	Principal Investigator, Istituto di Ricerche di Biologia Molecolare (IRBM), Rome, Italy
1997-2001	Principal Investigator, Wellcome Trust Senior Research Fellow, Honorary Senior Lecturer and Head of the Transgenic Unit, Department of Biochemistry, University of Dundee, Dundee, UK
2001-2005	Associate Professor in Molecular Biology, Medical Faculty, University of Turin, Italy.
2005-present	Full Professor in Molecular Biology, Medical Faculty, University of Turin, Italy.

Fellowships/Awards:

1986-1988: Anna Villa Rusconi Foundation post-graduate fellowship
1989: EMBL postdoctoral fellowship.
1989-1990: EU postdoctoral fellowship.
1990-1991: Boehringer Ingelheim postdoctoral fellowship for the US.
1991-1992: EMBO long-term postdoctoral fellowship for the US.
1997-2001: Wellcome Trust Senior Research Fellowship in Biomedical Sciences.

Scientific societies/honors:

1998 Elected Member of EMBO
1998 - Member, SIBBM (Italian Society of Biophysics and Molecular Biology).
2007 - Member, ABCD (Association of Cellular and Developmental Biology).
2013 Elected in the SIBBM Management Committe.

Reviewing and Editorial activities:

2009 - Member, Editorial Board of Cell Communication and Signaling
2010 - Member, Editorial Board of American Journal of Cancer Research
2011 - Member, Editorial Board of JAK-STAT and of Frontiers in Molecular and Cellular Oncology
2012: Appointed as a member of the Panel judging the national qualification to professorship position (Abilitazione Scientifica Nazionale).

Regular reviewer activity for international scientific journals such as Journal of Clinical Investigation, EMBO Journal, Circulation Research, Cell Death and Differentiation, European Journal of Immunology, Journal of Cell Science, Biochemical Journal, PLOS ONE.
Member of the LS4 ERC grants reviewing panel and in the list of Horizon 2020 experts.
Member of the Scientific Advisory Board for the Jak-Stat signaling SFB F28 Research Consortium, Vienna, Austria (funded by FWF).
Regular reviewer of grant proposals for the MIUR (Italian Ministry of University and Research), BBSRC, AICR, PCRF (Pancreatic Cancer Research Fund), FWF (Austrian Science Fund), FWO (Foundation for Scientific Research Belgium).

Funding ID (past five years):

AIRC Investigator Grant 2010-2012 “Stat3 pro-oncogenic activities”. PI; 240,000 €.

TRUUS AND GERRIT VAN RIEMSDIJK FOUNDATION, VADUZ, LIECHTENSTEIN 2011-2015. Role of Stat3 in tumorigenesis (Donation). PI, 80,000 €

AIRC Investigator Grant (IG 13009) 2013-2015, “Cancer Associated Fibroblasts”, PI; 315,000 €.

San Paolo Foundation/Ateneo Turin 2013-2014, “Tumor microenvironment (CAFCANCROSS)”, PI; 95,000 €.

MIUR PRIN 2013-2015, “STAT3-mediated regulation of respiratory metabolism”, PI and Co-ordinator; 210,000 €.

AIRC Investigator Grant (IG 16930) 2016-2018, “Synergistic cross-talk between the Wnt/PCP and STAT3 pathways in basal-like breast cancer”. PI, 346,000 €.

Fondazione CRT 2016-2017, “Validazione della proteina C3 e del fattore di trascrizione STAT3 come marcatori diagnostici e bersagli terapeutici nella miocardite autoimmunitaria”. PI, 50,000 €.

Current Research Interests

Work in the laboratory mainly focuses on the biological functions of the transcription factor STAT3, the main mediator of gp130 cytokines signalling. Conditional mutant mice amenable to Cre-mediated STAT3 deletion were generated and used to study the role of this factor in a number of inflammatory models. More recently, mice specifically lacking the STAT3alpha or beta isoforms were generated, demonstrating unique contributions of the two isoforms to STAT3 biological functions. The laboratory is now focusing on the understanding of the core mechanisms involved in STAT3 activities as an oncogene, at the cross-road between inflammation, immune response, tumour and stem cell niche and tumour transformation, analysing its interactions with other oncogenes/tumour suppressor genes and trying to identify specific pro-oncogenic target genes. In particular, we have recently demonstrated that constitutively active STAT3 can operate a switch in energy metabolism, enhancing aerobic glycolysis and reducing mitochondrial activation, a prominent metabolic feature of fast proliferating cells (Demaria et al, Aging 2010). This novel metabolic function contributes to STAT3 pro-oncogenic activities, including its ability to act as a first hit in malignant transformation (Demaria et al., Cell Death and Differentiation 2012). Finally, we have shown that aberrantly activated STAT3 triggers the onset of immune-mediated myocarditis, and demonstrated the therapeutic potential of anti-STAT3 treatment in Experimental Auto-immune myocarditis (Camporeale, Marino et al., EMBO Mol Med 2013).

10 chosen publications:

1. Poli, V., Mancini, F.P., and Cortese, R. IL-6DBP, a nuclear protein involved in Interleukin-6 signal transduction, defines a new family of leucine zipper proteins related to C/EBP. (1990) Cell 63, 643-653.

2. Poli, V., Balena, R., Fattori, E., Markatos, A., Yamamoto, M., Tanaka, H., Ciliberto, G., Rodan, G.A. and Costantini, F. Interleukin-6 deficient mice are protected from bone loss caused by estrogen depletion. (1994) EMBO J. 13, 1189-1196.

3. Screpanti, I., Romani, L., Musiani, P., Modesti, A., Fattori, E., Lazzaro, D., Sellitto, C., Scarpa, S., Bellavia, D., Lattanzio, G., Bistoni, F., Frati, L., Cortese, R., Gulino, A., Ciliberto, G., Costantini, F. and Poli., V. Lymphoproliferative disorder and imbalanced T helper response in C/EBPß-deficient mice. (1995) EMBO J. 9, 1932-1941.

4. Alonzi T., Maritano D., Gorgoni B., Rizzuto G., Libert C., Poli V. Essential role of STAT3 in the control of the acute phase response as revealed by inducible gene inactivation in the liver. (2001) Mol Cell Biol. 21, 1621-1632.

5. Maritano, D., Sugrue, M.L., Tininini, S., Dewilde, S., Strobl, B., Fu, XP, Murray-Tait, V., Chiarle, R. and Poli. V. The STAT3 isoforms, a and b, play unique and specific roles. (2004) Nat. Immunol. 5, 401-409.

6. Vallania, F., Schiavone, D., Dewilde, S., Pupo, E., Garbay, S., Calogero, R., Pontoglio, M., Provero, P. and Poli, V. Genome-Wide Discovery of Functional Transcription Factor Binding Sites by Comparative Genomics: the Case of Stat3. (2009) Proc. Natl. Acad. Sci. USA 106:5117-22.

7. Barbieri I, Pensa S, Pannellini T, Quaglino E, Maritano D, Demaria M, Voster A, Turkson J, Cavallo F, Watson CJ, Provero P, Musiani P and Poli V. Constitutively active Stat3 enhances Neu-mediated migration and metastasis in mammary tumors via upregulation of Cten. (2010) Cancer Res. 70:2558-67.

8. Demaria M, Giorgi C, Lebiedzinska M, Esposito G, D'Angeli L, Bartoli A, Gough DJ, Turkson J, Levy DE, Watson CJ, Wieckowski MR, Provero P, Pinton P and Poli V. A STAT3-mediated metabolic switch is involved in tumour transformation and STAT3 addiction. (2010) Aging 2:823-842.

9. Demaria M, Misale S, Giorgi C, Miano V, Camporeale A, Campisi J, Pinton P and Poli V. STAT3 can serve as a hit in the process of malignant transformation of primary cells. 2012, Cell Death and Differentiation 19: 1390-1397.

10. Camporeale A, Marino F, Papageorgiou A, Carai P, Fornero S, Fletcher S, Page BDG, Gunning P, Forni M, Chiarle R, Morello M, Jensen O, Levi R, Heymans S, Poli V. STAT3 activity is necessary and sufficient for the development of immune-mediated myocarditis in mice and promotes progression to dilated cardiomyopathy. (2013) EMBO Mol. Medicine 5: 572–590, DOI: 10.1002/emmm.201201876.