

GIUSEPPE SCIUME'

Curriculum Vitae

Education

Type	Year	Institution	
University graduation	2004	Sapienza University of Rome	Bachelor degree.
Post-graduate studies	2006	Sapienza University of Rome	Master degree. Thesis: Analysis of CX3CR1/CX3CL1 receptor/ligand pair expression and function in human glioma cell lines: Regulation by TGF-beta
PhD	2010	Sapienza University of Rome	Immunological Sciences. Thesis: Differential chemokine receptor expression regulates trafficking of mouse bone marrow NK cell subsets

Appointments

Academic Appointments

Start	End	Institution	Position
2017	Current	Department of Molecular Medicine, Sapienza University of Rome, Italy	Assegnista di Ricerca

Other Appointments

Start	End	Institution	Position
2015	2016	NIAMS, NIH, USA.	<i>Research Fellow (Federal employee)</i>
2012	2015	NIAMS, NIH, USA.	<i>Visiting Fellow</i>
2010	2012	NIAMS, NIH, USA.	<i>Supplemental Visiting Fellow</i>

Teaching experience

Year	Institution	Lecture/Course
2012	The Catholic University of America 620 Michigan Ave., N.E. Washington, DC 20064, USA.	Immunology Lecture: mucosal immunology

Society memberships, Awards and Honors

Year	Title
2017- Current	SIICA (Italian Society of Immunology, Clinical Immunology and Allergology) Junior Faculty member
2010- Current	SIICA (Italian Society of Immunology, Clinical Immunology and Allergology) member
2017	ECCO (European Crohn's and Colitis Organisation) Junior member
2016	NIH Group Merit Award. In recognition of outstanding innovation in the investigation of immunological responses to pathogens.
2010-2012	Scholarship: Pasteur Institute-Cenci Bolognetti (48,000)

Funding Information [grants as PI-principal investigator or I-investigator]

Year	Title	Program	Grant value
2018-19	co-PI: Dissecting roles for diverse innate lymphoid cell subsets in colitis-induced colorectal cancer.	Programmes Transversaux de Recherche - PTR 2017 (France)	140,000 Euro
2019-23	PI: Dissecting roles for NCR+ innate lymphoid cells in colorectal cancer.	My First AIRC Grant (MFAG) 2018 (Italy)	500,000 Euro
2019-20	PI: Identification of transcriptional programs in innate lymphoid cells underlying tumor pathogenesis.	Istituto Pasteur Italia - Fondazione Cenci Bolognetti Call Under 45 (Italy)	40,000 Euro

Research Activities

Keywords	Brief Description
NK, ILCs, cytokines, transcription factors, epigenetic	<p>Since the beginning, my work has been centered around the many facets of NK cell and innate lymphoid cell (ILC) biology, both in physiological and pathological conditions, including inflammation and cancer. As a PhD student, I dissected the factors regulating NK cell trafficking in the bone marrow microenvironment. In this context, I characterized the role of the chemokine receptors CXCR4 and CX3CR1 in regulation of NK cell localization in the bone marrow parenchyma and vascular system (Blood Journal, first author, 2011). As a postdoctoral fellow at the NIH (MD, USA), my research helped elucidating unexpected biological mechanisms underlying development and function of NK cells, type 1 and type 3 ILCs in the intestine (The Journal of Experimental Medicine, first author, 2012). A commentary published on Nature Reviews Immunology (Leavy, 2013) highlighted the novelty of these findings. Moreover, I received an NIH award (NIH Group Merit Award for NIAMS Lymphocyte Regulomes Group), for my studies on the epigenetic programs underlying ILC development and effector functions. The manuscript represents a milestone in the field (Cell, co-first author) of ILCs. At the end of 2016, I moved at the Department of Molecular Medicine at Sapienza, University of Rome, where I established my own group thanks to the financial support I obtained by the Institut Pasteur-France, the Istituto Pasteur Italia Fondazione Cenci-Bolognetti and the Italian Association of Cancer Research (AIRC). My studies are now focused on dissecting roles of ILCs in colorectal cancer.</p>

Part VIII – Summary of Scientific Achievements

Product type	Number	Data Base	Start	End
Papers [international]	26	Scopus	2008	2019

Total Impact factor	285
Total Citations	1202
Average Citations per Product	46.2
Hirsch (H) index	18
Normalized H index*	1.63

*H index divided by the academic seniority.

Complete list of Publications

List of total publications. For each publication are reported: title, authors, reference data, journal IF (at the time of publication), citations, and press release (when available).

26. Negative regulation of innate lymphoid cell responses in inflammation and cancer

Sciumè, G., Fionda, C., Stabile, H., Gismondi, A., Santoni, A.

DOI: 10.1016/j.imlet.2019.01.011

edito da Immunology Letters, 2019, Elsevier B.V.

IF: 2.436.

Citations: 0

25. JAK/STAT signaling in regulation of innate lymphoid cells: The gods before the guardians

Stabile, H., Scarno, G., Fionda, C., Gismondi, A., Santoni, A., Gadina, M., **Sciumè, G.**

DOI: 10.1111/imr.12705

edito da Immunological Reviews, 286 (1), pp. 148-159, 2018, Blackwell Publishing Ltd.

IF: 9.217.

Citations: 2

24. Guest editorial: Innate lymphocytes: Development, homeostasis, and disease

Sciumè, G.

DOI: 10.1016/j.cytogfr.2018.08.002

edito da Cytokine and Growth Factor Reviews, 42, pp. 1-4, 2018, Elsevier Ltd.

IF: 6.395.

Citations: 0

23. NCR+ ILC3 maintain larger STAT4 reservoir via T-BET to regulate type 1 features upon IL-23 stimulation in mice

Mikami, Y., Scarno, G., Zitti, B., Shih, H.-Y., Kanno, Y., Santoni, A., O'Shea, J.J., **Sciumè, G.**

DOI: 10.1002/eji.201847480

edito da European Journal of Immunology, 48 (7), pp. 1174-1180, 2018, Wiley-VCH Verlag.

IF: 4.248.

Citations: 5

22. How mucosal epithelia deal with stress: Role of NKG2D/NKG2D ligands during inflammation

Antonangeli, F., Soriani, A., Cerboni, C., **Sciumè, G.**, Santoni, A.

DOI: 10.3389/fimmu.2017.01583

edito da Frontiers in Immunology, 8 (NOV), art. no. 1583, 2017, Frontiers Media S.A.

IF: 5.511.

Citations: 4

21. Epigenomic views of innate lymphoid cells

Sciumè, G., Shih, H.-Y., Mikami, Y., O'Shea, J.J.

DOI: 10.3389/fimmu.2017.01579

Edito da Frontiers in Immunology, 8 (NOV), art. no. 1579, 2017, Frontiers Media S.A.

IF: 5.511.

Citations: 7

20. HiJAKing innate lymphoid cells?

Sciumè, G., Le, M.T., Gadina, M.

DOI: 10.3389/fimmu.2017.00438

Edito da Frontiers in Immunology, 8 (APR), art. no. 438, 2017, Frontiers Research Foundation.

IF: 5.511.

Citations: 6

19. Subset- and tissue-defined STAT5 thresholds control homeostasis and function of innate lymphoid cells

Villarino, A.V*, **Sciumè, G***, Davis, F.P., Iwata, S., Zitti, B., Robinson, G.W., Hennighausen, L., Kanno, Y., O'Shea, J.J.

DOI: 10.1084/jem.20150907

edito da Journal of Experimental Medicine, 214 (10), pp. 2999-3104, 2017, Rockefeller University Press.

*Co-First author

IF: 10.79.

Citations: 17

18. Tofacitinib Ameliorates Murine Lupus and Its Associated Vascular Dysfunction

Furumoto, Y., Smith, C.K., Blanco, L., Zhao, W., Brooks, S.R., Thacker, S.G., Zazour, A., **Sciumè, G.**, Tsai, W.L., Trier, A.M., Nunez, L., Mast, L., Hoffmann, V., Remaley, A.T., O'Shea, J.J., Kaplan, M.J., Gadina, M.

DOI: 10.1002/art.39818

edito da Arthritis and Rheumatology, 69 (1), pp. 148-160, 2017, John Wiley and Sons Inc.

IF: 7.873.

Citations: 39

17. Developmental Acquisition of Regulomes Underlies Innate Lymphoid Cell Functionality

Shih, H.-Y.*, **Sciumè, G.***, Mikami, Y.*, Guo, L., Sun, H.-W., Brooks, S.R., Urban, J.F., Jr., Davis, F.P., Kanno, Y., O'Shea, J.J.

DOI: 10.1016/j.cell.2016.04.029

edito da Cell, 165 (5), pp. 1120-1133, 2016, Cell Press.

*Co-First author

IF: 30.41.

Citations: 89

16. Multiple myeloma impairs bone marrow localization of effector natural killer cells by altering the chemokine microenvironment

Ponzetta, A., Benigni, G., Antonangeli, F., **Sciumè, G.**, Sanseviero, E., Zingoni, A., Ricciardi, M.R., Petrucci, M.T., Santoni, A., Bernardini, G.

DOI: 10.1158/0008-5472.CAN-15-1320

edito da Cancer Research, 75 (22), pp. 4766-4777, 2015, American Association for Cancer Research Inc.

IF: 8.556.

Citations: 27

15. EZH2 is crucial for both differentiation of regulatory T cells and T effector cell expansion

Yang, X.-P., Jiang, K., Hirahara, K., Vahedi, G., Afzali, B., **Sciumè, G.**, Bonelli, M., Sun, H.-W., Jankovic, D., Kanno, Y., Sartorelli, V., O'Shea, J.J., Laurence, A.

DOI: 10.1038/srep10643

edito da Scientific Reports, 5, art. no. 10643, 2015, Nature Publishing Group.

IF: 5.228.

Citations: 41

14. Asymmetric Action of STAT Transcription Factors Drives Transcriptional Outputs and Cytokine Specificity

Hirahara, K., Onodera, A., Villarino, A.V., Bonelli, M., **Sciumè, G.**, Laurence, A., Sun, H.-W., Brooks, S.R., Vahedi, G., Shih, H.-Y., Gutierrez-Cruz, G., Iwata, S., Suzuki, R., Mikami, Y., Okamoto, Y., Nakayama, T., Holland, S.M., Hunter, C.A., Kanno, Y., O'Shea, J.J.

DOI: 10.1016/j.immuni.2015.04.014

edito da Immunity, 42 (5), pp. 877-889, 2015, Cell Press.

IF: 24.082.

Citations: 49

13. A mouse model of HIES reveals pro- And anti-inflammatory functions of STAT3

Steward-Tharp, S.M., Laurence, A., Kanno, Y., Kotlyar, A., Villarino, A.V., **Sciumè, G.**, Kuchen, S., Resch,

W., Wohlfert, E.A., Jiang, K., Hirahara, K., Vahedi, G., Sun, H.-W., Feigenbaum, L., Milner, J.D., Holland, S.M., Casellas, R., Powrie, F., O'Shea, J.J.
DOI: 10.1182/blood-2013-09-523167
edito da Blood, 123 (19), pp. 2978-2987, 2014, American Society of Hematology.
IF: 10.452.
Citations: 34

12. Transcriptional and epigenetic networks of helper T and innate lymphoid cells

Shih, H.-Y., Sciumè, G., Poholek, A.C., Vahedi, G., Hirahara, K., Villarino, A.V., Bonelli, M., Bosselut, R., Kanno, Y., Muljo, S.A., O'Shea, J.J.
DOI: 10.1111/imr.12208
edito da Immunological Reviews, 261 (1), pp. 23-49. 2014, Blackwell Publishing Ltd.
IF: 10.12.
Citations: 40

11. The TNF-family cytokine TL1A promotes allergic immunopathology through group 2 innate lymphoid cells

Meylan, F., Hawley, E.T., Barron, L., Barlow, J.L., Penumetcha, P., Pelletier, M., Sciumè, G., Richard, A.C., Hayes, E.T., Gomez-Rodriguez, J., Chen, X., Paul, W.E., Wynn, T.A., McKenzie, A.N.J., Siegel, R.M.
DOI: 10.1038/mi.2013.114
edito da Mucosal Immunology, 7 (4), pp. 958-968, 2014, Nature Publishing Group.
IF: 7.374.
Citations: 65

10. CX3CR1 regulates the maintenance of KLRG1+ NK cells into the bone marrow by promoting their entry into circulation

Ponzetta, A., Sciumè, G., Benigni, G., Antonangeli, F., Morrone, S., Santoni, A., Bernardini, G.
DOI: 10.4049/jimmunol.1300090
edito da Journal of Immunology, 191 (11), pp. 5684-5694, 2013, The American Association of Immunologist.
IF: 5.362.
Citations: 19

9. BACH2 represses effector programs to stabilize T reg-mediated immune homeostasis

Roychoudhuri, R., Hirahara, K., Mousavi, K., Clever, D., Klebanoff, C.A., Bonelli, M., Sciumè, G., Zare, H., Vahedi, G., Dema, B., Yu, Z., Liu, H., Takahashi, H., Rao, M., Muranski, P., Crompton, J.G., Punksody, G., Bedognetti, D., Wang, E., Hoffmann, V., Rivera, J., Marincola, F.M., Nakamura, A., Sartorelli, V., Kanno, Y., Gattinoni, L., Muto, A., Igarashi, K., O'Shea, J.J., Restifo, N.P.
DOI: 10.1038/nature12199
edito da Nature, 498 (7455), pp. 506-510, 2013, Nature Publishing Group.
IF: 42.351.
Citations: 162

8. Differential chemotactic receptor requirements for NK cell subset trafficking into bone marrow

Bernardini, G., Sciumè, G., Santoni, A.
DOI: 10.3389/fimmu.2013.00012
edito da Frontiers in Immunology, 4 (JAN), art. no. Article 12, 2013, Frontiers Research Foundation.
IF: N/A
Citations: 25

7. Distinct requirements for T-bet in gut innate lymphoid cells

Sciumè, G., Hirahara, K., Takahashi, H., Laurence, A., Villarino, V.A., Singleton, K.L., Spencer, S.P., Wilhelm, C., Poholek, A.C., Vahedi, G., Kanno, Y., Belkaid, Y., O'Shea, J.J.
DOI: 10.1084/jem.20122097
edito da Journal of Experimental Medicine, 209 (13), pp. 2331-2338, 2012, Rockefeller University Press.
IF: 13.214.
Citations: 101

6. Interleukin-27 Priming of T Cells Controls IL-17 Production In trans via Induction of the Ligand PD-L1

Hirahara, K., Ghoreschi, K., Yang, X.-P., Takahashi, H., Laurence, A., Vahedi, G., **Sciumè, G.**, Hall, A.O., Dupont, C.D., Francisco, L.M., Chen, Q., Tanaka, M., Kanno, Y., Sun, H.-W., Sharpe, A.H., Hunter, C.A., O'Shea, J.J.

DOI: 10.1016/j.immuni.2012.03.024

edito da Immunity, 36 (6), pp. 1017-1030, 2012, Cell Press.

IF: 19.795.

Citations: 135

5. TGF- β and retinoic acid induce the microRNA miR-10a, which targets Bcl-6 and constrains the plasticity of helper T cells

Takahashi, H., Kanno, T., Nakayamada, S., Hirahara, K., **Sciumè, G.**, Muljo, S.A., Kuchen, S., Casellas, R., Wei, L., Kanno, Y., O'Shea, J.J.

DOI: 10.1038/ni.2286

edito da Nature Immunology, 13 (6), pp. 587-595, 2012, Nature Publishing Group.

IF: 26.199.

Citations: 166

4. CX3CR1 expression defines 2 KLRG1+ mouse NK-cell subsets with distinct functional properties and positioning in the bone marrow

Sciumè, G., De Angelis, G., Benigni, G., Ponzetta, A., Morrone, S., Santoni, A., Bernardini, G.

DOI: 10.1182/blood-2010-07-297101

edito da Blood, 117 (17), pp. 4467-4475, 2011, American Society of Hematology.

IF: 9.898.

Citations: 29

3. CX3CR1/CX3CL1 axis negatively controls glioma cell invasion and is modulated by transforming growth factor-beta1

Sciumè, G., Soriani, A., Piccoli, M., Frati, L., Santoni, A., Bernardini, G.

DOI: 10.1093/neuonc/nop076

edito da Neuro-Oncology, 12 (7), pp. 701-710, 2010, Oxford University Press.

IF: 5.483.

Citations: 29

2. Chemokines and glioma: Invasion and more

Sciumè, G., Santoni, A., Bernardini, G.

DOI: 10.1016/j.jneuroim.2010.05.019

edito da Journal of Neuroimmunology, 224 (1-2), pp. 8-12, 2010, Elsevier B.V.

IF: 2.901.

Citations: 48

1. CCL3 and CXCL12 regulate trafficking of mouse bone marrow NK cell subsets

Bernardini, G., **Sciumè, G.**, Bosisio, D., Morrone, S., Sozzani, S., Santoni, A.

DOI: 10.1182/blood-2007-08-106203

edito da Blood, 111 (7), pp. 3626-3634, 2008, American Society of Hematology.

IF: 10.432.

Citations: 63

Part X-Oral presentations in international and national conferences

WISC 2018: XXXI Congresso Nazionale SIAAIC Joint Meeting SIAAIC/WAO. Personalised Medicine in Allergy: Biologics and Immunotherapy. Firenze, Italia, 2018.

ILC1 in allergy and clinical immunology.

Invited

5th European Congress of Immunology (ECI). Amsterdam, the Netherlands, 2018.
NCR+ ILC3 maintain larger STAT4 reservoir via T-BET to regulate type 1 features upon IL-23 stimulation in mice.

11th National Conference SIICA, Italian Society of Immunology, Clinical Immunology and Allergology. Bari, Italia, 2017.

Epigenetic regulation of Innate Lymphoid Cell Functionality.

Invited

Giornata Romana di Immunologia, Consiglio Nazionale delle Ricerche, Roma, Italia, 2017.

JAK/STAT signals underlying innate lymphoid cell homeostasis and activation.

Invited

Pasteur Institute Seminar Series, organizzato dall'Istituto Pasteur-Fondazione Cenci-Bolognetti, Roma, Italia, 2017.

Transcriptional and Epigenetic regulation of Innate lymphoid cell biology.

Invited

16th Annual Meeting of the Society for Natural Immunity. Taormina, Italy, 2016.

Developmental Acquisition of Regulomes Underlies Innate Lymphoid Cell Functionality.

Invited

Barrier Immunity and Repair, NIH, Bethesda, MD, 2013.

Roles of STAT5 and STAT4 in innate lymphoid cells homeostasis and function.

Invited

Receptors and Cytokines in Innate Immunity, NIH, Bethesda, MD, 2013.

Distinct requirements for T-bet in gut innate lymphoid cells.

Invited

7th National Conference SIICA, Italian Society of Immunology, Clinical Immunology and Allergology. Bari, 2010.

CX3CR1 expression defines a KLRG1+ NK cell subset with impaired effector functions.

6th National Conference SIICA, Italian Society of Immunology, Clinical Immunology and Allergology. Rome, 2008.

Membrane-bound CX3CL1 expression inhibits glioma cell invasiveness. Regulation by TGF-beta.