



Università degli Studi di Roma "Tor Vergata"

CURRICULUM DIDATTICO-SCIENTIFICO DEL PROF.

DATI PERSONALI

Nome e Cognome: Loredana Concetta Cifaldi

Luogo e data di nascita: Foggia, 04/06/1974

ATTUALE POSIZIONE: Ricercatore a Tempo Determinato di tipo b: RTDb (tenure track)

Dipartimento: Dipartimento di Scienze Cliniche e Medicina Traslazionale

Indirizzo: Via Montpellier 1

Numero studio: +390672596520

E-mail: cifaldi@med.uniroma2.it

Orario ricevimento: tutti i giorni previo appuntamento

Settore scientifico-disciplinare: MED04

ATTIVITA' DIDATTICA - SCIENTIFICA

Titoli accademici e di studio:

1997. Laurea in Scienze Biologiche (110/110), Università di Camerino.

1998. Abilitazione Professionale alla professione di Biologo, Iscrizione all'Albo dei Biologi, Elenco speciale: Cod EA_020119. **2001.** Specializzazione in Biochimica e Chimica Clinica.

2001. Specializzazione in Biochimica e Chimica Clinica

2017. Abilitazione Scientifica Nazionale in MED04 ed in MED46.

2020. Ricercatore a Tempo Determinato di tipo b (RTDb), settore MED04

Formazione post-laurea presso istituzioni italiane ed estere ed incarichi professionali

1999-2001. Tirocinante con borsa di studio di specializzazione presso il laboratorio di ricerca del Prof. Guido Forni, Università di Torino.

2001-2004. Ricercatore con borsa di studio e contratto universitario presso il laboratorio della Prof. Angela Santoni, Università di Roma "La Sapienza".

2004-2005. Ricercatore con borsa di studio della Fondation de la Recherche Medical (FRM) presso il laboratorio del Prof. James Di Santo, Istituto Pasteur di Parigi, Francia.

2006. Contratto di ricerca presso il laboratorio del Dr Andrea Cavani, Istituto Dermatopatico dell'Immacolata (IDI).

2007-2013. Contratto di ricerca presso il Dipartimento di Onco-Immunologia del Prof. Franco Locatelli, Ospedale Pediatrico Bambino Gesù.

2014-2018. Responsabile di progetto di ricerca "Giovani Ricercatori" finanziato dal Ministero della Salute, Ospedale Pediatrico Bambino Gesù.

2019-oggi. Collaboratore di ricerca convenzionato presso il Dipartimento di Immuno-Infettivologia del Prof. Paolo Rossi, Ospedale Pediatrico Bambino Gesù.

2020-oggi. Docente di Patologia Generale e Ricercatore a tempo determinato (RTDb), Facoltà di Medicina e Chirurgia, Università di "Tor Vergata".

Finanziamenti e premi ricevuti per attività di ricerca:

Ministero della Salute – Young Researcher (under 40years)/Giovani Ricercatori

• **Principal Investigator (PI)**

Titolo: Natural Killer cell-based immunotherapy for high-risk Neuroblastoma: pharmacological treatment to efficiently improve the expression of activating ligands.

November 2014-October 2018

Project code: GR-2011-02352151

• **Contributor (PI Dr Giusi Prencipe)**

Titolo: IFN γ as a potential therapeutic target in secondary HLH.

November 2014-October 2017

Project code: GR-2011-02347874

• **PI: Ministero della Salute-Ricerca Corrente 5 X 1000 grant 2020**

Titolo: Caratterizzazione fenotipica e funzionale di alto profilo delle cellule Natural Killer in pazienti in età pediatrica affetti da infezioni virali come CMV e EBV finalizzata al disegno di nuove immunoterapie antivirali” nelle patologie pediatriche: un nuovo approccio di medicina personalizzata nella interpretazione dei fenotipi malattia

2020. PRIN. Collaboratore di Unità Operativa coordinate dal Prof. Roberto Bei. Titolo: Gene/environment interactions in breast and thyroid cancers: defining the biological role of and actioning endocrine disruptors (ED) and lifestyle to develop rational therapeutic/preventive interventions. ASTEROID- breASt Thyroid cancerERs endOcrIne Disruptors

Attività di ricerca: 15 pubblicazioni selezionate

1. Elisa Brandetti, **Loredana Cifaldi*** *Enhancement of neuroblastoma NK cell-mediated lysis through NF- κ B p65 subunit-induced expression of FAS and PVR, the loss of which is associated with poor patient outcome.* **Cancers.** 2021 Aug 29;13(17):4368. doi: 10.3390/cancers13174368
2. Irene Veneziani,..... **Loredana Cifaldi***. *Nutlin-3a enhances natural killer cell-mediated killing of neuroblastoma by restoring p53-dependent expression of ligands for NKG2D and DNAM-1 receptors* **Cancer Immunology Research** 2021 Feb;9(2):170-183. doi: 10.1158/2326-6066.CIR-20-0313.
3. Ombretta Melaiu **Loredana Cifaldi**, Doriana Fruci. *Cellular and gene signatures of tumor-infiltrating dendritic cells and natural killer cells predict favorable clinical outcome of neuroblastoma* **Nature Communication** 2020 Nov 25;11(1):5992. doi: 10.1038/s41467-020-19781-y.
4. Melaiu O, Lucarini V, **Cifaldi L***, Fruci D* *Influence of the Tumor Microenvironment on NK Cell Function in Solid Tumors* **Front Immunol.** 2020 Jan 21;10:3038. doi: 10.3389/fimmu.2019.03038.
5. **Cifaldi L***, Rossi P. *DNAM-1 Activating Receptor and Its Ligands: How Do Viruses Affect the NK Cell-Mediated Immune Surveillance During the Various Phases of Infection?* **Int J Mol Sci** 2019 Jul 30;20(15):3715. doi: 10.3390/ijms20153715
6. Veneziani I..... **Cifaldi L***. *The BET-bromodomain inhibitor JQ1 renders neuroblastoma cells more resistant to NK cell-mediated recognition and killing by downregulating ligands for NKG2D and DNAM-1 receptors.* **Oncotarget.** 2019 Mar 15;10(22):2151-2160. doi: 10.18632/oncotarget.26736.
7. Irene Veneziani,, **Loredana Cifaldi*** *Neuroblastoma Cell Lines Are Refractory to Genotoxic Drug-Mediated Induction of Ligands for NK Cell-Activating Receptors* **J Immunol Res** 2018 Apr 1;2018:4972410.doi: 10.1155/2018/4972410. eCollection 2018.
8. **Cifaldi L***, Locatelli F, Marasco E, Moretta L, Pistoia V. *Boosting Natural Killer Cell-Based Immunotherapy with Anticancer Drugs: a Perspective.* **Trends Molecular Medicine** 2017 Dec 23.
9. Brandetti E, **Cifaldi L***. *MYCN is an immunosuppressive oncogene dampening the expression of ligands for NK-cell-activating receptors in human high-risk neuroblastoma.* **Oncoimmunology.** 2017 Apr 20;6(6):e1316439. doi: 10.1080/2162402X.2017.1316439.
10. **Cifaldi L**,, Strippoli R *Inhibition of Natural Killer cell Cytotoxicity by Interleukin-6: Implications for the Pathogenesis of Macrophage Activation Syndrome* **Arthritis Rheumatol.** 2015 Nov;67(11):3037-46.
11. **Cifaldi L**, Doriana Fruci. *ERAP1 regulates the functional competence of Natural Killer cells by controlling the engagement of Inhibitory Receptor.* **Cancer Research** 2015 Mar 1;75(5):824-34.

12. **Cifaldi L**, Fruci D. *Role of endoplasmic reticulum aminopeptidases in health and disease: from infection to cancer.* **Int J Mol Sci.** 2012;13(7):8338-52.
13. **Cifaldi L**, Fruci D. *Natural killer cells efficiently reject lymphoma silenced for the endoplasmic reticulum aminopeptidase associated with antigen processing.* **Cancer Research.** 2011 Mar 1;71(5):1597-606
14. Gismondi A, **Cifaldi L**, Santoni A. *Impaired natural and CD16-mediated NK cell cytotoxic function in WAS and XLT patients: ability of IL-2 to correct NK cell functional defect.* **Blood** 2004 104(2):436-43
15. **Cifaldi L**, Forni G, and Cavallo F. *A Light, Nontoxic Interleukin 12 Protocol Inhibits HER-2/neu Mammary Carcinogenesis in BALB/c Transgenic Mice with Established Hyperplasia.* **Cancer Research** 2001 Apr 1;61(7):2809–2812



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ACADEMIC AND SCIENTIFIC CURRICULUM OF PROF.

PERSONAL DATA

Name and Surname: Loredana Concetta Cifaldi

Place and date of birth: Foggia, 04/06/1974

CURRENT POSITION: Assistant Professor RTDb (tenure Track) of General Pathology

Department: : Clinical Sciences and Translational Medicine

Address: Via Montpellier 1

Phone number: +390672596520

E-mail: cifaldi@med.uniroma2.it

Consulting hours: : all days by schedule

Italian Ministry of Education Academic-Scientific sector: MED04

SCIENTIFIC AND DIDACTIC ACTIVITY

Education and academic positions:

1997. Degree in Biology (110/110), University of Camerino.

1998. Licence for Biologist profession, Iscrizione all'Albo dei Biologi, Elenco speciale: Cod EA_020119.

2001. Specialist in Clinical Biochemistry, School of Clinical Biochemistry

2017. National Scientific Qualifications (Abilitazione Scientifica Nazionale) in MED04 and MED46.

2020. Assistant professor -(tenure track) RTDb in General Pathology (MED04), University of Rome "Tor Vergata".

Professional and didactic activities in Italian and Foreign Institutions:

1999-2001. Specialization school fellowship in research laboratory of Prof. Guido Forni, Università di Torino.

2001-2004. Accademic research contract and fellowship in research laboratory of Prof. Angela Santoni, Università di Roma "La Sapienza".

2004-2005. Fellowship by Fondation de la Recherche Medical (FRM) in research laboratory Unité Cytokines et Développement Lymphoide Laboratory of Immunology of Prof. James Di Santo, Pasteur Institute in Paris, France.

2006. Research contract in research laboratory of Dr Andrea Cavani, Istituto Dermatopatico dell'Immacolata (IDI).

2007-2013. Research contract in research laboratory of Dipartimento di Onco-Immunologia, directed by Prof. Franco Locatelli, Ospedale Pediatrico Bambino Gesù.

2014-2018. Principal Investigator for "Yong Investigator" Grant (GR) founded by Ministero della Salute, Ospedale Pediatrico Bambino Gesù.

2019-oggi. Affiliated Research Associate, Ospedale Pediatrico Bambino Gesù-University of Rome "Tor Vergata".

2020-oggi. Assistant Professor RTDb (tenure Track) of General Pathology, Faculty of Medicine, University of Rome "Tor Vergata".

Awards and funding:

Ministero della Salute – Young Researcher (under 40years)/Giovani Ricercatori

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Research activity: 15 most significant publications

1. Elisa Brandetti, **Loredana Cifaldi*** *Enhancement of neuroblastoma NK cell-mediated lysis through NF- κ B p65 subunit-induced expression of FAS and PVR, the loss of which is associated with poor patient outcome.* **Cancers.** 2021 Aug 29;13(17):4368. doi: 10.3390/cancers13174368
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4. Melaiu O, Lucarini V, **Cifaldi L***, Fruci D* *Influence of the Tumor Microenvironment on NK Cell Function in Solid Tumors* **Front Immunol.** 2020 Jan 21;10:3038. doi: 10.3389/fimmu.2019.03038.
5. **Cifaldi L***, Rossi P. *DNAM-1 Activating Receptor and Its Ligands: How Do Viruses Affect the NK Cell-Mediated Immune Surveillance During the Various Phases of Infection?* **Int J Mol Sci** 2019 Jul 30;20(15):3715. doi: 10.3390/ijms20153715
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7. Irene Veneziani,, **Loredana Cifaldi*** *Neuroblastoma Cell Lines Are Refractory to Genotoxic Drug-Mediated Induction of Ligands for NK Cell-Activating Receptors* **J Immunol Res** 2018 Apr 1;2018:4972410.doi: 10.1155/2018/4972410. eCollection 2018.
8. **Cifaldi L***, Locatelli F, Marasco E, Moretta L, Pistoia V. *Boosting Natural Killer Cell-Based Immunotherapy with Anticancer Drugs: a Perspective.* **Trends Molecular Medicine** 2017 Dec 23.
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13. **Cifaldi L**, Fruci D. *Natural killer cells efficiently reject lymphoma silenced for the endoplasmic reticulum aminopeptidase associated with antigen processing*. **Cancer Research**. 2011 Mar 1;71(5):1597-606
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15. **Cifaldi L**, Forni G, and Cavallo F. *A Light, Nontoxic Interleukin 12 Protocol Inhibits HER-2/neu Mammary Carcinogenesis in BALB/c Transgenic Mice with Established Hyperplasia*. **Cancer Research** 2001 Apr 1;61(7):2809–2812