



Curriculum Vitae

Personal information **Raffaele Badolato**

Work experience

Nov 2021 to date: Chief of Pediatrics, ASST Spedali civili, Brescia, Italy
Nov 2016 to date: Full Professor of Pediatrics (settore scientifico-disciplinare MED/38 - Pediatria Generale e Specialistica) at the Department of Experimental and Clinical sciences, University of Brescia, Brescia, Italy;

ACADEMIC ACHIEVEMENTS

- 2006-2016 Associate Professor of Paediatrics, Faculty of Medicine, University of Brescia, Brescia, Italy
- 2000-2006: Assistant Professor of Paediatrics, Faculty of Medicine, University of Brescia
- 1997-2000: Attending physician, Division of Pediatrics, Spedali Civili, Brescia, Italy.

EDUCATION

- 1995-99 Ph.D. fellowship in "Cellular and Molecular Diagnosis and Treatment", University of Udine, Italy.
- 1993-94 Research Associate, National Cancer Institute (NCI-FCRDC), Frederick, MD, USA Laboratory of Molecular Immunoregulation, Dr. J. J. Oppenheim
- 1992-93 AIRC fellowship, National Cancer Institute (NCI-FCRDC), Frederick, MD, USA, Laboratory of Molecular Immunoregulation, Biological Response Modifiers Program (Supervisor Dr. D. J. Kelvin)
- 1992 Specialization in Pediatrics Magna cum laude, University "Federico II", Naples, Italy
- 1990-to date Board certification (Ordine dei Medici, Milano, Italy) number 40746
- 1989 Certificate of the Italian Board of Physicians and Surgeons.
- 1989 Medical Doctor degree "Magna cum Laude" University "Federico II", Naples, Italy

FIELD OF INTEREST AND CLINICAL APPOINTMENTS

- Nov 2020- to date: Director of Pediatric COVID19 unit, ASST Spedali Civili, Brescia, Italy;
- 2019 to date Head of Cystic Fibrosis regional center ASST Spedali Civili, Brescia, Italy.
- 2016 to date Head of pediatric Rare diseases programme, ASST Spedali civili, Brescia
- 2015-to date Head of Paediatric Outpatient Services, Asst Spedali civili, Brescia, Italy

- 2015- to date Coordinator of the Ipinet (AIEOP) Protocol on Hyper-IgE syndrome

Raffaele Badolato is a Pediatric immunologist with a special expertise in the field of Primary immunodeficiencies.

He has Authored more than 200 papers on peer review Journals. He has given important contribution to the field of Primary immunodeficiencies by identification of novel diseases and providing evidence for the pathogenesis of other diseases

Education and training

Education and training: Medical Degree Magna cum Laude in 1989 at University Federico II, Napoli; he has been resident in Pediatrics until 1993. He has been trained in Immunology research at National Cancer Institute (Frederick, USA) where he has conducted studies on the role of acute phase proteins and chemokines in inflammation from 1993 to 1995.

He has received Fellowships from AIRC and Telethon and research grants from Telethon, Italian Health Ministry, EU 7th program and Italian, MIUR, and eRare. He is member of numerous Societies, including the Henry Kunkel Society, the European Society of Immunodeficiency, the Society of Leukocyte Biology, the Italian Society of Pediatrics, the Italian Society for Pediatric Research. He serves as Reviewer for Journal of Clinical Investigation, Blood, Journal of Immunology, Pediatric Infectious Diseases Journal, and is member of the Journal of Leukocyte Biology Editorial Board.

Additional information

Publications

- 1: Roncareggi S, Girardi K, Fioredda F, Pedace L, Arcuri L, Badolato R, Bonanomi S, Borlenghi E, Cirillo E, Coliva T, Consonni F, Conti F, Farruggia P, Gambineri E, Guerra F, Locatelli F, Mancuso G, Marzollo A, Masetti R, Micalizzi C, Onofrillo D, Piccini M, Pignata C, Raddi MG, Santini V, Vendemini F, Biondi A, Saettini F. A Nationwide Study of GATA2 Deficiency in Italy Reveals Novel Symptoms and Genotype-phenotype Association. *J Clin Immunol*. 2023 Oct 14. doi: 10.1007/s10875-023-01583-8. Epub ahead of print. PMID: 37837580.
- 2: Tofighi B, Badiei B, Badolato R, Lewis CF, Nunes E, Thomas A, Lee JD. Integrating Text Messaging in a Low Threshold Telebuprenorphine Program for New York City Residents with Opioid Use Disorder during COVID-19: A Pilot Randomized Controlled Trial. *J Addict Med*. 2023 Sep-Oct 01;17(5):e281-e286. doi: 10.1097/ADM.0000000000001161. Epub 2023 Mar 31. PMID: 37788603; PMCID: PMC10544683.
- 3: Tessarin G, Baronio M, Gazzurelli L, Rossi S, Chiarini M, Moratto D, Gilliani SC, Bondioni MP, Badolato R, Lougaris V. Rituximab Monotherapy Is Effective as First-Line Treatment for Granulomatous Lymphocytic Interstitial Lung Disease (GLILD) in CVID Patients. *J Clin Immunol*. 2023 Sep 27. doi: 10.1007/s10875-023-01587-4. Epub ahead of print. PMID: 37755605.
- 4: Castagnoli R, Taietti I, Votto M, Naso M, De Filippo M, Marseglia A, Montagna L, De Amici M, Avanzini MA, Montagna D, Marseglia GL, Licari A; Italian Primary Immunodeficiency NETwork (IPINET). Clinical and immunological phenotypes of selective IgM deficiency in children: Results from a multicenter study. *Pediatr Allergy Immunol*. 2023 Sep;34(9):e14015. doi: 10.1111/pai.14015. PMID: 37728524.
- 5: Dotta L, Baresi G, Tamassia N, Calzetti F, Bianchetto-Aguilera F, Gasperini S, Gardiman E, Chiarini M, Moratto D, Martellosio G, Serana F, Micheletti M, Tregambe D, Pintabona V, Soncini E, Meini A, Girelli MF, Beghin A, Lanfranchi A, Bugatti M, Brugnani D, Soresina A, Plebani A, Cassatella M, Vermi W, Porta F, Badolato R. Clinical and transcriptomic characteristics of a novel SMARCD2 mutation that disrupts neutrophil maturation and function. *Pediatr Blood Cancer*. 2023 Dec;70(12):e30671. doi: 10.1002/pbc.30671. Epub 2023 Sep 15. PMID: 37712719.
- 6: Asperti C, Canarutto D, Porcellini S, Sanvito F, Cecere F, Vavassori V, Ferrari S, Rovelli E, Albano L, Jacob A, Sergi L, Montaldo E, Ferrua F, González-Granado LI, Lougaris V, Badolato R, Finocchi A, Villa A, Radrizzani M, Naldini L. Scalable GMP-compliant gene correction of CD4+ T cells with IDLV template functionally validated *in vitro* and *in vivo*. *Mol Ther Methods Clin Dev*. 2023 Aug 23;30:546-557. doi: 10.1016/j.omtm.2023.08.020. PMID: 37693944; PMCID: PMC10482894.
- 7: Taddio A, Della Paolera S, Abbagnato L, Agrusti A, Badolato R, Biscaro F,

Caorsi R, Consolaro A, Delle Piane RM, Fabi M, Floretta I, Gattorno M, Giangreco M, La Torre F, Maggio MC, Mambelli L, Mauro A, Mastrolia MV, Meneghel A, Montin D, Ricci F, Simonini G, Smarrazzo A, Sottile R, Stucchi S, Tardi M, Verdoni L, Zuccotti G, Zunica F, Ravelli A, Cattalini M; Italian Society of Pediatric Rheumatology (ReumaPed). Early anakinra treatment improves cardiac outcome of multisystem inflammatory syndrome in children regardless of disease severity. *Rheumatology (Oxford)*. 2023 Aug 30;kead381. doi: 10.1093/rheumatology/kead381. Epub ahead of print. PMID: 37647645.

8: Galli J, Cattalini M, Loi E, Ferraro RM, Giliani S, Orcesi S, Pinelli L, Badolato R, Fazzi E. Treatment response to Janus kinase inhibitor in a child affected by Aicardi-Goutières syndrome. *Clin Case Rep*. 2023 Jul 31;11(8):e7724. doi: 10.1002/ccr3.7724. PMID: 37534202; PMCID: PMC10390657.

9: Terlizzi V, Timpano S, Salvi M, Tosco A, Castaldo A, Fevola C, Leonetti G, Vitullo P, Sepe A, Badolato R, Salvatore D. Hyperbilirubinemia and Gilbert's syndrome in Cystic Fibrosis patients treated with elxacaftor/tezacaftor/ivacaftor. *J Cyst Fibros*. 2023 Jul 1;S1569-1993(23)00827-5. doi: 10.1016/j.jcf.2023.06.013. Epub ahead of print. PMID: 37400299.

10: Dotta L, Moratto D, Cattalini M, Brambilla S, Giustini V, Meini A, Girelli MF, Cortesi M, Timpano S, Galvagni A, Viola A, Crotti B, Manerba A, Pierelli G, Verzura G, Serana F, Brugnioni D, Garrafa E, Ricci F, Tomasi C, Chiarini M, Badolato R. Longitudinal Characterization of Immune Response in a Cohort of Children Hospitalized with Multisystem Inflammatory Syndrome. *Children (Basel)*. 2023 Jun 16;10(6):1069. doi: 10.3390/children10061069. PMID: 37371300; PMCID: PMC10297301.

11: Alicandro G, Orena BS, Rosazza C, Cariani L, Russo M, Zatelli M, Badolato R, Gramegna A, Blasi F, Daccò V. Humoral and cell-mediated immune responses to BNT162b2 vaccine against SARS-CoV-2 in people with cystic fibrosis. *Vaccine*. 2023 Jun 23;41(28):4114-4120. doi: 10.1016/j.vaccine.2023.05.041. Epub 2023 May 22. PMID: 37263872; PMCID: PMC10201328.

12: Degli Antoni M, Crosato V, Pennati F, Borghesi A, Cristini G, Allegri R, Capone S, Bergamasco A, Soresina A, Badolato R, Maroldi R, Quiros-Roldan E, Matteelli A, Castelli F, Focà E. COVID-19 Pneumonia with Migratory Pattern in Agammaglobulinemic Patients: A Report of Two Cases and Review of Literature. *Tomography*. 2023 Apr 23;9(3):894-900. doi: 10.3390/tomography9030073. PMID: 37218933; PMCID: PMC10204514.

13: Baronio M, Gazzurelli L, Rezzola S, Rossi S, Tessarin G, Marinoni M, Damiano AS, Fiore M, Moratto D, Chiarini M, Badolato R, Parolini S, Tabellini G, Lougaris V. CARD11 dominant negative mutation leads to altered human Natural Killer cell homeostasis. *Immunobiology*. 2023 May;228(3):152381. doi: 10.1016/j.imbio.2023.152381. Epub 2023 Apr 5. PMID: 37086690.

14: Carrabba M, Dellepiane RM, Cortesi M, Baselli LA, Soresina A, Cirillo E, Giardino G, Conti F, Dotta L, Finocchi A, Cancrini C, Milito C, Pacillo L, Cinicola BL, Cossu F, Consolini R, Montin D, Quinti I, Pession A, Fabio G, Pignata C, Pietrogrande MC, Badolato R. Long term longitudinal follow-up of an AD-HIES cohort: the impact of early diagnosis and enrollment to IPINet centers on the natural history of Job's syndrome. *Allergy Asthma Clin Immunol*. 2023 Apr 20;19(1):32. doi: 10.1186/s13223-023-00776-5. PMID: 37081481; PMCID: PMC10115605.

15: Kumar R, Milanese S, Szpakowska M, Dotta L, Di Silvestre D, Trotta AM, Bello AM, Giacomelli M, Benedito M, Azevedo J, Pereira A, Cortesao E, Vacchini A, Castagna A, Pinelli M, Moratto D, Bonecchi R, Locati M, Scala S, Chevigné A, Borroni EM, Badolato R. Reduced G protein signaling despite impaired internalization and β -arrestin recruitment in patients carrying a CXCR4Leu317fsX3 mutation causing WHIM syndrome. *JCI Insight*. 2023 Mar 8;8(5):e145688. doi: 10.1172/jci.insight.145688. PMID: 36883568; PMCID: PMC10077478.

16: Pennati F, Calza S, Di Biagio A, Mussini C, Rusconi S, Bonora S, Borghetti A, Quiros-Roldan E, Sarteschi G, Menozzi M, Ferrara M, Celotti A, Ciccullo A, Giacomet V, Izzo I, Dotta L, Badolato R, Castelli F, Focà E. Reduced probability of improving viro-immunological state in subjects with vertical transmission of HIV reaching adult age: A multicenter retrospective cohort study. *Immun Inflamm Dis*. 2023 Feb;11(2):e778. doi: 10.1002/iid3.778. PMID: 36840488; PMCID: PMC9910169.

17: Tessarin G, Baronio M, Gazzurelli L, Rossi S, Chiarini M, Moratto D, Badolato R, Lougaris V. Hennekam syndrome due to a novel homozygous CCBE1 mutation presenting as pediatric-onset COVID. *J Investig Allergol Clin Immunol*. 2023 Feb 1:0. doi: 10.18176/jiaci.0895. Epub ahead of print. PMID: 36748365.

18: Goffredo M, Pilotta A, Parissenti I, Forino C, Tomasi C, Goffredo P, Buzi F, Badolato R. Early onset of puberty during COVID-19 pandemic lockdown: experience from two Pediatric Endocrinology Italian Centers. *J Pediatr Endocrinol Metab*. 2023 Jan 6;36(3):290-298. doi: 10.1515/jpem-2022-0492. PMID: 36607833.

19: Munck A, Berger DO, Southern KW, Carducci C, de Winter-de Groot KM, Gartner S, Kashirskaya N, Linnane B, Proesmans M, Sands D, Sommerburg O, Castellani C, Barben J; European CF Society Neonatal Screening Working Group (ECFS NSWG). European survey of newborn bloodspot screening for CF: opportunity to address challenges and improve performance. *J Cyst Fibros*. 2023 May;22(3):484-495. doi: 10.1016/j.jcf.2022.09.012. Epub 2022 Nov 10. PMID: 36372700.

20: Dona' D, Montagnani C, Di Chiara C, Venturini E, Galli L, Lo Vecchio A, Denina M, Olivini N, Bruzzese E, Campana A, Giaccherio R, Salvini F, Meini A, Ponzoni M, Trapani S, Rossi E, Lombardi MH, Badolato R, Pierri L, Pruccoli G, Rossin S, Colomba C, Cazzato S, Pacati I, Nicolini G, Pierantoni L, Bianchini S, Krzysztofik A, Garazzino S, Giaquinto C, Castelli Gattinara G, On Behalf Of The Italian Sitip-Sip Pediatric Sars-CoV-Infection Study Group. COVID-19 in Infants Less than 3 Months: Severe or Not Severe Disease? *Viruses*. 2022 Oct 14;14(10):2256. doi: 10.3390/v14102256. PMID: 36298812; PMCID: PMC9612333.

- 21: Tessarin G, Baronio M, Gazzurelli L, Rossi S, Gorio C, Bertoni E, Chiarini M, Moratto D, Mazza C, Porta F, Badolato R, Lougaris V. Clinical and immunological analysis of a large kindred affected by autoimmune lymphoproliferative syndrome (ALPS) due to a novel TNFRSF6 mutation displaying age dependent disease activity. *Clin Immunol*. 2022 Dec;245:109136. doi: 10.1016/j.clim.2022.109136. Epub 2022 Sep 30. PMID: 36184054.
- 22: Campagna G, Amato A, Majo F, Ferrari G, Quattrucci S, Padoan R, Florida G, Salvatore D, Carnovale V, Puppo Fornaro G, Taruscio D, Salvatore M; Gruppo di lavoro RIFC. Registro Italiano Fibrosi Cistica (RIFC). Rapporto 2019-2020 [Italian Cystic Fibrosis Registry (ICFR). Report 2019-2020]. *Epidemiol Prev*. 2022 Jul-Aug;46(4 Suppl 2):1-38. Italian. doi: 10.19191/EP22.4S2.060. PMID: 36102313.
- 23: Ghirardo S, Cozzi G, Tonin G, Risso FM, Dotta L, Zago A, Lupia D, Cogo P, Ullmann N, Coretti A, Badolato R, Amaddeo A, Barbi E, Cutrera R. Increased use of high-flow nasal cannulas after the pandemic in bronchiolitis: a more severe disease or a changed physician's attitude? *Eur J Pediatr*. 2022 Nov;181(11):3931-3936. doi: 10.1007/s00431-022-04601-w. Epub 2022 Sep 9. PMID: 36083314; PMCID: PMC9458479.
- 24: Taramasso L, Bovis F, Di Biagio A, Mignone F, Giaquinto C, Tagliabue C, Giacomet V, Genovese O, Chiappini E, Salomè S, Badolato R, Carloni I, Cellini M, Dodi I, Bossi G, Allodi A, Bernardi S, Consolini R, Dedoni M, Banderali G, Mazza A, Pruccoli G, Rampon O, Erba P, Di Pietro G, Montagnani C, Capasso L, Dotta L, Zallocco F, De Martino M, Lisi C, Tovo PA, Bassetti M, Gabiano C, Galli L; Italian Register for HIV Infection in Children. Intrapartum use of zidovudine in a large cohort of pregnant women living with HIV in Italy. *J Infect*. 2022 Nov;85(5):565-572. doi: 10.1016/j.jinf.2022.08.009. Epub 2022 Aug 18. PMID: 35987392.
- 25: Saettini F, Coliva TA, Vendemini F, Galbiati M, Bugarin C, Masetti R, Moratto D, Chiarini M, Guerra F, Iascone M, Badolato R, Cazzaniga G, Niemeyer C, Flotho C, Biondi A. Abnormal B-Cell Maturation and Increased Transitional B Cells in CBL Syndrome. *Front Pediatr*. 2022 Jul 28;10:935951. doi: 10.3389/fped.2022.935951. PMID: 35967575; PMCID: PMC9366004.
- 26: Bozzola E, Ferrara P, Spina G, Villani A, Roversi M, Raponi M, Corsello G, Staiano A; Italian Pediatric COVID-19 Board. The pandemic within the pandemic: the surge of neuropsychological disorders in Italian children during the COVID-19 era. *Ital J Pediatr*. 2022 Jul 27;48(1):126. doi: 10.1186/s13052-022-01324-4. PMID: 35897109; PMCID: PMC9326438.
- 27: Tincati C, Ficara M, Ferrari F, Augello M, Dotta L, Tagliabue C, Diana A, Camelli V, Iughetti L, Badolato R, Cellini M, Marchetti G; on behalf of MIRROR Study Group (MiCRobiota study in pediAtRic pOpulation gRoup). Gut-dependent inflammation and alterations of the intestinal microbiota in individuals with perinatal HIV exposure and different HIV serostatus. *AIDS*. 2022 Nov 15;36(14):1917-1925. doi: 10.1097/QAD.0000000000003324. Epub 2022 Jul 22. PMID: 35848569; PMCID: PMC9612678.
- 28: Rossi S, Baronio M, Gazzurelli L, Tessarin G, Baresi G, Chiarini M, Moratto D, Badolato R, Plebani A, Lougaris V. Lymphocyte alterations in patients with Common Variable Immunodeficiency (CVID) and autoimmune manifestations. *Clin Immunol*. 2022 Aug;241:109077. doi: 10.1016/j.clim.2022.109077. Epub 2022 Jul 14. PMID: 35843508.
- 29: Tosco A, Poli P, Casale A, De Gregorio F, Sepe A, Buonpensiero P, Di Pasqua A, Castaldo A, Cimbalo C, Buzzetti R, Raia V, Berlucchi M, Timpano S, Badolato R, Padoan R, Orlando C. The Role of Bronchoscopy in the Management of Children With Cystic Fibrosis. *J Bronchology Interv Pulmonol*. 2023 Jul 1;30(3):258-267. doi: 10.1097/LBR.0000000000000874. PMID: 35698279.
- 30: Chiappini E, Vitale A, Badolato R, Becherucci P, Careddu D, Di Mauro A, Doria M, Staiano A. The Effective Management of Fever in Pediatrics and Insights on Remote Management: Experts' Consensus Using a Delphi Approach. *Front Pediatr*. 2022 Apr 26;10:834673. doi: 10.3389/fped.2022.834673. PMID: 35558379; PMCID: PMC9087841.
- 31: Ezie C, Badolato R, Rockas M, Nafiz R, Sands B, Wolkin A, Farahmand P. COVID 19 and the Opioid Epidemic: An Analysis of Clinical Outcomes During COVID 19. *Subst Abuse*. 2022 Apr 22;16:11782218221085590. doi: 10.1177/11782218221085590. PMID: 35480781; PMCID: PMC9036332.
- 32: Cortesi M, Soresina A, Dotta L, Gorio C, Cattalini M, Lougaris V, Porta F, Badolato R. Pathogenesis of Autoimmune Cytopenias in Inborn Errors of Immunity Revealing Novel Therapeutic Targets. *Front Immunol*. 2022 Apr 6;13:846660. doi: 10.3389/fimmu.2022.846660. PMID: 35464467; PMCID: PMC9019165.
- 33: Giardino G, Milito C, Lougaris V, Punziano A, Carrabba M, Cinetto F, Scarpa R, Dellepiane RM, Ricci S, Rivalta B, Conti F, Marzollo A, Firinu D, Cirillo E, Lagnese G, Cancrini C, Martire B, Danieli MG, Pession A, Vacca A, Azzari C, Fabio G, Soresina A, Agostini C, Spadaro G, Badolato R, Cicalese MP, Aiuti A, Plebani A, Quinti I, Pignata C. The Impact of SARS-CoV-2 Infection in Patients with Inborn Errors of Immunity: the Experience of the Italian Primary Immunodeficiencies Network (IPINet). *J Clin Immunol*. 2022 Jul;42(5):935-946. doi: 10.1007/s10875-022-01264-y. Epub 2022 Apr 20. PMID: 35445287; PMCID: PMC9020753.
- 34: Patrizi O, Baronio M, Gazzurelli L, Rossi S, Rezzola S, Marcenaro E, Plebani A, Badolato R, Parolini S, Lougaris V, Tabellini G. Lack of DOCK8 impairs the primary biologic functions of human NK cells and abrogates CCR7 surface expression in a WASP-independent manner. *Clin Immunol*. 2022 Apr;237:108974. doi: 10.1016/j.clim.2022.108974. Epub 2022 Mar 10. PMID: 35278713.
- 35: Saettini F, Fazio G, Bonati MT, Moratto D, Massa V, Di Fede E, Castiglioni S, Marchetti D, Chiarini M, Sottini A, Iascone M, Cazzaniga G, Imberti L, Biondi A, Gervasini C, Badolato R. Identical EP300 variant leading to Rubinstein-Taybi syndrome with different clinical and immunologic phenotype. *Am J Med Genet A*. 2022 Jul;188(7):2129-2134. doi: 10.1002/ajmg.a.62719. Epub 2022 Mar 9. PMID:

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38: Cheng A, Badolato R, Segoshi A, McDonald R, Malone M, Vasudevan K, Badieli B, Sugarman A, Macdonald R, Mangat J, Giftos J, Lee JD, Tofighi B. Perceptions and experiences toward extended-release buprenorphine among persons leaving jail with opioid use disorders before and during COVID-19: an in-depth qualitative study. *Addict Sci Clin Pract.* 2022 Jan 29;17(1):4. doi: 10.1186/s13722-022-00288-4. PMID: 35093164; PMCID: PMC8800291.

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40: Alberici F, Affatato S, Moratto D, Mescia F, Delbarba E, Guerini A, Tedesco M, Burbelo PD, Zani R, Castagna I, Gallico A, Tonoli M, Venturini M, Roccaro AM, Giacomelli M, Cohen JI, Giustini V, Dobbs K, Su HC, Fiorini C, Quaresima V, Viola FB, Vizzardi V, Gaggiotti M, Bossini N, Gaggia P, Badolato R, Notarangelo LD, Chiarini M, Scolari F. SARS-CoV-2 infection in dialysis and kidney transplant patients: immunological and serological response. *J Nephrol.* 2022 Apr;35(3):745-759. doi: 10.1007/s40620-021-01214-8. Epub 2022 Jan 24. PMID: 35067905; PMCID: PMC8784230.

41: Chiappini E, Lisi C, Giacomet V, Erba P, Bernardi S, Zangari P, Di Biagio A, Taramasso L, Giaquinto C, Rampon O, Gabiano C, Garazzino S, Tagliabue C, Esposito S, Bruzzese E, Badolato R, Zanaboni D, Cellini M, Dedoni M, Mazza A, Pession A, Giannini AM, Salvini F, Dodi I, Carloni I, Cazzato S, Tovo PA, de Martino M, Galli L; Italian Register for HIV Infection in Children. Off-label use of combined antiretroviral therapy, analysis of data collected by the Italian Register for HIV-1 infection in paediatrics in a large cohort of children. *BMC Infect Dis.* 2022 Jan 15;22(1):55. doi: 10.1186/s12879-022-07026-w. PMID: 35033018; PMCID: PMC8760752.

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- Projects 2022** **Responsabile scientifico “Implementation of an Italian Network for advanced diagnosis and targeted treatment of Inborn errors of Immunity” da Ministero della Salute PNRR-Malattie rare € 200000.**
- 2020** **Responsabile scientifico Unità di Brescia progetto CoRONAID IperImmuni finanziato da Fondazione Spedali civili € 20000.**
- 2020** **Responsabile scientifico Unità di Brescia progetto multicentrico “Joint artificial intelligence and protein structure modelling to guide large-scale screenings for anti-SARS-Cov2 neutralizing antibodies” (CORONAid) finanziato da Regione Lombardia, Fondazione Cariplo € 60000**
- 2018** **Responsabile Scientifico progetto RF-2016-02362384 , dal titolo “From allergic and autoimmune diseases to immune-dysregulated disorders: clinical, immunological, genetic characterization and proposal of diagnostic and therapeutic protocols”, Progetto Finalizzato Ministero della Salute € 148500**
- 2016** **Responsabile Workpackage “Genetic and immunological study of children with Crohn's disease receiving thalidomide treatment”, Progetto di rete Ministero della**

- Salute € 348000
- 2012 **eRare**: European grant agency WHIM syndrome : Pathological basis and Development of therapeutic molecules (WHIM-Thernet) € 47000
- 2011 Progetto **PRIN 2009** “Meccanismi patogenetici della dermatite atopica e delle manifestazioni cutanee in corso di immunodeficienze primitive”. Finanziamento del Ministero Università e Ricerca di € 77857 con incarico di responsabile dell’Unità Operativa di Brescia
- 2010 Journal of Translational Medicine **Bedside to Bench Award**: premio di 5000 €
- Progetto **Telethon** GGP10170: Understanding the WHIM syndrome : new roles for CXCR4 activation. Finanziamento di €116000 con incarico di responsabile dell’Unità Operativa di Brescia.
- 2009 Progetto **Cariplo** “Ricerca Scientifica in ambito biomedico”The Role and mechanism of function of CXCR4 in the adaptive response related pathology of WHIM syndrome patients” di 50000 € con incarico di responsabile dell’Unità Operativa di Brescia.
- 2008 Progetto Unione Europea FP7-HEALTH-2007-A European initiative to improve knowledge. Finanziamento di € 346200 del progetto “Treatment and survival of haemophagocytic syndromes in children: CureHLH”, con incarico di responsabile dell’Unità Operativa di Brescia.
- Progetto **PRIN 2007** “Difetti dell’omeostasi linfocitaria come causa di malattie cutanee in corso di immunodeficienza primitiva”. Finanziamento del Ministero Università e Ricerca di € 41000 con incarico di responsabile dell’Unità Operativa di Brescia.
- 2007 Incarico di Tutoraggio Scientifico e individuale nell’ambito del progetto Sovvenzione Globale Ingenio, Finlombarda SpA
- Progetto **Telethon** GGP07241 “From Foxp3 mutation to IPEX: genotype, phenotype, pathogenetic mechanisms and therapeutic options”. Finanziamento di €79000 con incarico di responsabile dell’Unità Operativa di Brescia.
- Progetto **Telethon** GGP07134 “Understanding the WHIM

syndrome”. Finanziamento di €77000 con incarico di responsabile dell’Unità Operativa di Brescia.

2005-06 Progetto **PRIN 2005** “Studio dell’immunopatogenesi delle dermatiti in bambini con difetti genetici del sistema immunitario”. Finanziamento del Ministero Università e Ricerca di € 56300 con incarico di responsabile dell’Unità Operativa di Brescia.

Progetto di Ricerca NOBEL concesso dalla **Fondazione Cariplo** “Genetic And Functional Genomics Of Myelomonocytic Cells”. Finanziamento di € 429870 con incarico di responsabile dell’Unità Operativa di Brescia.

2004-05 Progetto **Telethon** GGP04285 “From Foxp3 mutation to IPEX: genotype, phenotype, pathogenetic mechanisms and therapeutic options”. Finanziamento di €19750 con incarico di responsabile dell’Unità Operativa di Brescia.

2003-04 Progetto Ricerca Finalizzata (RF2003) del **Ministero della Salute** “Caratterizzazione della risposta immune nella malattia di Crohn, correlazione con il genotipo del gene NOD2 e studio dell'azione in vitro di nuovi farmaci immunoregolatori.” Finanziamento di € 16000 con l’incarico di responsabile dell’Unità Operativa di Brescia.

1996-97 Borsa di Studio biennale **Telethon** per svolgere attività di ricerca presso la Clinica Pediatrica dell' Università' degli Studi di Brescia (Supervisore: Prof LD Notarangelo)

1992 Borsa di Studio biennale concessa della **Associazione Italiana per la Ricerca sul Cancro** (AIRC) per attività di ricerca da svolgersi presso il “Laboratory of Molecular Immunoregulation, National Cancer Institute (NCI-FCRDC, NIH)”, Frederick, MD, USA (Supervisore: Dr JJ Oppenheim)

Memberships 2014- to date Chief Specialty Editor per Frontiers in Pediatric Immunology

2020- to date Editorial Board member for Pediatric Allergy and Immunology

2014-2017 Section Edition per Pediatric Allergy and Immunology

2007-to date Editorial Board of The Journal of Leukocyte Biology

2006-2011 Member of Editorial Board for Clinical Immunology

Raffaele Badolato serves as Reviewer for several biomedical and

immunology Journals, including New England Journal of Medicine, The Journal of Experimental Medicine, *Journal of Clinical Investigation*, *Journal of Allergy and Clinical Immunology*, *Blood*, *Journal of Immunology*, *Journal of Clinical Immunology*, *Clinical Experimental Immunology*, *Rheumatology*, *Clinical Immunology*, *Cytokine*, *Pediatric Infectious Disease Journal*.

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