

Curriculum Vitae

Personal information Bianca Barletta

Work experience

- Employer: Istituto Superiore di Sanità (Italian National Public Health Institute)
Start date: 012021
End date:
Position: Senior Research scientist in the National Center for Preclinical and Clinical Drug Research - Unit of Preclinical and Clinical evaluation of medicinal drugs - Istituto Superiore di Sanità
Activities: evaluation of quality documentation concerning biological investigational medicinal products in clinical trials (Phase I). Scientific technical activity for the Secretary of Phase I clinical trial Committee.
- Employer: Istituto Superiore di Sanità (Italian National Public Health Institute)
Start date: 111998
End date: 122020
Position: Researcher scientist in the National Center for Preclinical and Clinical Drug Research - Unit of Preclinical and Clinical evaluation of medicinal drugs / Department of Infectious, Parasitic and Immune-mediated Diseases / Laboratory of Immunology - Istituto Superiore di Sanità
Activities: evaluation of quality documentation concerning biological investigational medicinal products in clinical trials (Phase I). Scientific technical activity for the Secretary of Phase I clinical trial Committee. GMP compliance inspections to manufacturing sites of finished products and Active Pharmaceutical Ingredients. Translational research activity (Immunology, Allergy, Nanotoxicology): project development; experimental activity; data processing; article writing and reviewing.
- Employer: Istituto Superiore di Sanità (Italian National Public Health Institute)
Start date: 051994
End date: 101998
Position: Postgraduate fellow in the Laboratory of Immunology - Istituto Superiore di Sanità
Activities: - Immunochemical characterization of antigens. Production and characterization of monoclonal antibodies. Regulation of the IgE production. Characterization and standardization of allergenic extracts. Production and characterization of recombinant allergens. Epidemiologic aspects of allergic disease.

Education and training

- University of Rome "La Sapienza".
051994: Degree in Biological Sciences
• Organisation: Thesis on Allergen characterisation and standardisation.
• Country: Italy
- Laboratory of Immunology, Allergy Unit, Istituto Superiore di Sanità
• Start date: 111992
• End date: 051994
• Qualification: Training student
• Organisation:
- Immunochemical characterization of antigens.
- Production and characterization of monoclonal antibodies.
- Regulation of the IgE production.
- Characterization and standardization of allergenic extracts.
- Production and characterization of recombinant allergens.
- Epidemiologic aspects of allergic disease
• Country: Italy

Additional information

Publications

- Barletta B, Corinti S, Maranghi F, Tait S, Tassinari R, Martinelli A, Longo A, Longo V, Colombo P, Di Felice G, Butteroni C. The environmental pollutant BDE-47 modulates immune responses in in vitro and in vivo murine models. *Chemosphere* 2024;349:140739.
- Andreoli C, Prota V, De Angelis I, Facchini E, Zijno A, Meccia E, Barletta B, Butteroni C, Corinti S, Chatgililoglu C, Krokidis MG, Masi A, Condello M, Meschini S, Di Felice G, Barone F. A harmonized and standardized in vitro approach produces reliable results on silver nanoparticles toxicity in different cell lines. *Journal of applied toxicology* 2021;41(12):1980-1997.
- Tassinari R, Cordelli E, Eleuteri P, Villani P, Pacchierotti F, Narciso L, Tait S, Valeri M, Martinelli A, Di Felice G, Butteroni C, Barletta B, Corinti S, Lori G, Maranghi F. Effects of sub-chronic oral exposure to pyrogenic synthetic amorphous silica (NM-203) in male and female rats: focus on reproductive systems. *Reprod Toxicol.* 2021 Oct;105:17-24. doi: 10.1016/j.reprotox.2021.08.001. Epub 2021 Aug 8.
- Tassinari R, Di Felice G, Butteroni C, Barletta B, Corinti S, Cubadda F, Aureli F, Raggi A, Narciso L, Tait S, Valeri M, Martinelli A, Di Virgilio A, Pacchierotti F, Cordelli E, Eleuteri P, Villani P, Fessard V, Maranghi F. Hazard

identification of pyrogenic synthetic amorphous silica (NM-203) after subchronic oral exposure in rat: a multitarget approach. *Food and chemical toxicology* 2020;137:111168.

Zijno A, Cavallo D, Di Felice G, Ponti J, Barletta B, Butteroni C, Corinti S, De Berardis B, Palamides J, Ursini CL, Fresegna AM, Ciervo A, Maiello R, Barone F (2020). Use of a common European approach for nanomaterials' testing to support regulation: a case study on titanium and silicon dioxide representative nanomaterials. *J Appl Toxicol*. Nov;40(11):1511-1525. doi: 10.1002/jat.4002. Epub 2020 Jun 30.

Maranghi F, Tassinari R, Narciso L, Tait S, La Rocca C, Di Felice G, Butteroni C, Corinti S, Barletta B, Cordelli E, Pacchierotti F, Eleuteri P, Villani P, Le Hegarat L, Fessard V, Reale O (2018). In vivo toxicity and genotoxicity of beauvericin and enniatins. Combined approach to study in vivo toxicity and genotoxicity of mycotoxins beauvericin (BEA) and enniatin B (ENN). EFSA Supporting publications; EN-1406:1-183.

Bonura A, Di Blasi D, Barletta B, Butteroni C, Corinti S, Gervasi F, Melis MR, Uasuf C, Cibella F, Di Felice G, Colombo P (2018). Modulating allergic response by engineering the major Parietaria allergens. *J Allergy Clin Immunol* Mar;141(3):1142-1144.

Ludovisi A, Di Felice G, Carballeda-Sangiao N, Barletta B, Butteroni C, Corinti S, Marucci G, González-Muñoz M, Pozio E, Gómez-Morales MA (2017). Allergenic activity of *Pseudoterranova decipiens* (Nematoda: Anisakidae) in BALB/c mice. *Parasit Vectors*;10(1):290. IF 3.16
Di Felice G, Barletta B, Bonura A, Butteroni C, Corinti S, Colombo P. (2015). Nanoparticles Adjuvants in Allergology: New Challenges and Pitfalls. *Curr Pharm Design*; 21(29):4229-39.

Gabriella Di Felice, Bianca Barletta, Angela Bonura, Cinzia Butteroni, Silvia Corinti, Paolo Colombo. Nanoparticles Adjuvants in Allergology: New Challenges and Pitfalls. *Current Pharmaceutical Design*. Special issue: "Nanotechnology for Drug Delivery". *Curr Pharm Design* 2015; 21(29):4229-39.

Barletta B, Butteroni C, Bonura A, Bondi ML, Colombo P, Di Felice G (2015) Dimerisation increases the immunogenicity of recombinant Parj1/Parj2 allergens. *Int J Immunopathol Pharmacol*; 28(1):142-5.

Barletta B, Rossi G, Schiavi E, Butteroni C, Corinti S, Boirivant M, Di Felice G. (2013) Probiotic VSL#3-induced TGF- β ameliorates food allergy inflammation in a mouse model of peanut sensitization through the induction of regulatory T cells in the gut mucosa. *Mol Nutr Food Res*. 57: 2233-2244.

Myrset HR, Barletta B, Di Felice G, Egaas E, Dooper MM. Structural and immunological characterization of recombinant Pan b 1, a major allergen of northern shrimp, *Pandalus borealis*. *Int Arch Allergy Immunol*, 160(3):221-32, 2013.

Bonura A, Passantino R, Costa M.A., Montana G, Melis M, Bondi M.L., Butteroni C, Barletta B, Corinti S, Di Felice G, Colombo P (2012) Characterization of a Par j 1/Par j 2 mutant hybrid with reduced allergenicity for immunotherapy of Parietaria allergy. *Clinical & Experimental Allergy* 42: 471 – 480.

Schiavi E, Barletta B, Butteroni C, Corinti S, Boirivant M, Di Felice G. (2011) Oral therapeutic administration of a probiotic mixture suppresses established Th2 responses and systemic anaphylaxis in a murine model of food allergy. *Allergy* 66: 499-508.

Brescianini S, Brunetto B, Iacovacci P, D'Ippolito C, Alberti G, Schirru MA, Stazi MA, Pini C, Di Felice G, Barletta B. Prevalence of self-perceived allergic diseases and risk factors in Italian adolescents. *Pediatric allergy and immunology* 2009;20(6):578-584.

Di Felice G, Barletta B, Butteroni C, Corinti S, Tinghino R, Colombo P, Boirivant M (2008). Use of probiotic bacteria for prevention and therapy of allergic diseases: studies in mouse model of allergic sensitisation. *Journal of clinical gastroenterology* 42(Suppl 3 Pt 1): S130-S132.

Capobianco F, Butteroni C, Barletta B, Corinti S, Afferni C, Tinghino R, Boirivant M, Di Felice G (2008). Oral sensitization with shrimp Tropomyosin induces in mice allergen-specific IgE, T cell response and systemic anaphylactic reactions. *International immunology*; 20 (8): 1077-1086.
Barletta B, Di Felice G, Pini C. Biochemical and molecular biological aspects of silverfish allergens. *Protein Pept Lett*. 2007;14(10):970-4. Review.

Gizzarelli F, Corinti S, Barletta B, Iacovacci P, Brunetto B, Butteroni C, Afferni C, Onori R, Miraglia M, Panzini G, Di Felice G, Tinghino R (2006). Evaluation of allergenicity of genetically modified soybean protein extract in a murine model of oral allergen-specific sensitization. *Clinical and experimental allergy*;36(2):238-248.

Butteroni C, Afferni C, Barletta B, Iacovacci P, Corinti S, Brunetto B, Tinghino R, Ariano R, Panzani RC, Pini C, Di Felice G (2005). Cloning and expression of the Olea europaea allergen Ole e 5, the pollen Cu/Zn superoxide dismutase. *International archives of allergy and immunology*;137(1):9-17.

Barletta B, Butteroni C, Puggioni EM, Iacovacci P, Afferni C, Tinghino R, Ariano R, Panzani RC, Pini C, Di Felice G (2005). Immunological characterisation of a recombinant tropomyosin from a new indoor source, *Lepisma saccharina*. *Clinical and experimental allergy*; 35:483-489.

Ronchetti R, Villa MP, Rennerova Z, Haluszka J, Dawi EB, Di Felice G, Al-Bousafy A, Zakrzewski J, Barletta B, Barreto M. Allergen skin weal/radioallergosorbent test relationship in childhood populations that differ in histamine skin reactivity: a multi-national survey. *Clin Exp Allergy*. 2005 Jan;35(1):70-4. Erratum in: *Clin Exp Allergy*. 2005 Apr;35(4):547. Felice, GD [corrected to Di Felice, G].

Ramoni C, Spadaro F, Barletta B, Dupuis ML, Podo F. Phosphatidylcholine-specific phospholipase C in mitogen-stimulated fibroblasts. *Experimental Cell Research*. 2004;299(2):370-82.

Barletta B, Pini C. Does occupational exposure to insects lead to species-specific sensitisation. *Allergy* 2003;58(9):868-70.

Iacovacci P, Afferni C, Butteroni C, Pironi L, Puggioni EM, Orlandi A, Barletta B, Tinghino R, Ariano R, Panzani RC, Di

Felice G, Pini C. Comparison between the native glycosylated and the recombinant Cup a1 allergen: role of carbohydrates in the histamine release from basophils. Clin Exp Allergy 2002;32(11):1620-27.

R. Tinghino, A. Twardosz, B. Barletta, E.M.R. Puggioni, P. Iacovacci, C. Butteroni, C. Afferni, A. Mari, B. Hayeck, G. Di Felice, M. Focke, K. Westritschnig, R. Valenta, C. Pini (2002). Molecular, structural, and immunologic relationships between different families of recombinant calciumbinding pollen allergens. J Allergy Clin Immunol, 109(2): 314-20.

B.Barletta, E.M.R.Puggioni, C.Afferni, C.Butteroni, P.Iacovacci, R.Tinghino, R.Ariano, R.C.Panzani, G.Di Felice and C.Pini (2002). Preparation and characterization of Silverfish (*Lepisma saccharina*) extract and identification of allergenic components. International Archives of Allergy and Immunology, 128:179-186.

Hiller R, Laffer S, Harwanegg C, Huber M, Schmidt WM, Twardosz A, Barletta B, Becker WM, Blaser K, Breiteneder H, Chapman M, Cramer R, Duchene M, Ferreira F, Fiebig H, Hoffmann-Sommergruber K, King TP, Kleber-Janke T, Kurup VP, Lehrer SB, Lidholm J, Muller U, Pini C, Reese G, Scheiner O, Scheynius A, Shen HD, Spitzauer S, Suck R, Swoboda I, Thomas W, Tinghino R, Van Hage-Hamsten M, Virtanen T, Kraft D, Muller MW, Valenta R. Microarrayed allergen molecules: diagnostic gatekeepers for allergy treatment. FASEB J 2002, 16(3):414-6.

Di Felice G, Barletta B, Tinghino R, Pini C. Cupressaceae pollinosis: identification, purification and cloning of relevant allergens. Int Arch Allergy Immunol 2001, 125:280-289.

Di Felice G, Afferni C, Barletta B, Iacovacci P, Pini C. La standardizzazione degli estratti allergenici e l'uso di allergeni ricombinanti in diagnosi e terapia. Ligand assay 2001;6(4):234-240.

C.Alisi, C.Afferni, P.Iacovacci, B.Barletta, R.Tinghino, C.Butteroni, E.M.R.Puggioni et al. (2001). Rapid isolation, characterization, and glycan analysis of Cup a 1, the major allergen of Arizona cypress (*Cupressus arizonica*) pollen. Allergy, 56:978-984.

Iacovacci P, Pini C, Afferni C, Barletta B, Tinghino R, Schinina' E, Federico R, Mari A, Di Felice G. A monoclonal antibody specific for a carbohydrate epitope recognizes an IgE-binding determinant shared by taxonomically unrelated allergenic pollens. Clinical Experimental Allergy 2001, 31:458-65.

Afferni C, Iacovacci P, Barletta B, Di Felice G, Tinghino R, Mari A, Pini C. Role of carbohydrate moieties in IgE binding to allergenic components of *Cupressus arizonica* pollen extract. Clin Exp Allergy 1999, 29:1087-94.

Mari A, Iacovacci P, Afferni C, Barletta B, Tinghino R, Di Felice G, Pini C. Specific IgE to crossreactive carbohydrate determinants strongly affect the in-vitro diagnosis of allergic diseases. J Allergy Clin Immunol 1999, 103:1005-11.

B. Barletta, R. Tinghino, S. Corinti, C. Afferni, P. Iacovacci, A. Mari, C. Pini, G. Di Felice. Arizona cypress (*Cupressus arizonica*) pollen allergens. Identification of cross-reactive periodate-resistant and -sensitive epitopes using monoclonal antibodies. Allergy 1998, 53:586-93.

P. Iacovacci, C. Afferni, B. Barletta, R. Tinghino, G. Di Felice, C. Pini, A. Mari. Juniperus oxycedrus: a new allergenic pollen from the Cupressaceae family. J.Allergy Clin Immunol 1998,101:755-61.

Tinghino R, Barletta B, Palumbo S, Afferni C, Iacovacci P, Mari A, Di Felice G, Pini C. Molecular characterization of a cross-reactive Juniperus oxycedrus pollen allergen, Jun o 2, representing a novel calcium binding allergen. J Allergy Clin Immunol 1998, 101:772-77.

Mari, G. Di Felice, C. Afferni, B. Barletta, R. Tinghino, C. Pini. Cypress allergy: an underestimated pollinosis. Allergy, 1997, 52: 355-6.

Barletta B., Afferni C., Tinghino R., Mari A., Di Felice G., Pini C.. Cross reactivity between *Cupressus arizonica* and *Cupressus sempervirens* pollen extracts. J. Allergy Clin. Immunol., 1996, 98: 797-804.

F. Podo, A. Ferretti, A. Knijn, P. Zhang, C. Ramoni, B. Barletta, C. Pini, S. Baccarini and S. Pulciani. Detection of Phosphatidylcholine-Specific Phospholipase C in NIH-3T3 Fibroblasts and Their H-RAS Transformants: NMR and Immunochemical Studies. Anticancer Res., 1996, 16 (3B): 1399 - 1412.

Mari, G. Di Felice, C. Afferni, B. Barletta, R. Tinghino, F. Sallusto, C. Pini. Assessment of Skin Prick Test and serum specific IgE detection in the diagnosis of Cupressaceae pollinosis. J. Allergy Clin. Immunol, 1996, 98:21-31.

Projects

Involved in:

1. "Development of certified reference of materials for allergenic products and validation of methods for their quantification". Contract N° G6RD-CT-2001-00582, Project N° GRD2-2000-30032, Acronym "CREATE", funded by the European Community under the "Competitive and Sustainable Growth" Programme 1998-2002 (dal Novembre 2001 all'Aprile 2005).
2. Project n° 184825/110 del Norwegian Research Council: "Food restrictions of allergic patients resolved by a novel type vaccine", (Maaike Dooper, Norwegian Veterinary Institute, Principal Investigator); Partner Istituto Superiore di Sanità; (2008-2011). Questo progetto ha ottenuto la registrazione EUREKA con il numero EI 4169 ed il titolo "Vaccination against food allergy".
3. European large Scale Integrating Project FP7: "A common European approach to the regulatory testing of nanomaterials" (Project acronym: NANOREG). Grant agreement no: 310584 (dal 1° marzo 2013 al 31 agosto 2016) Coordinatore: Tom Van Teunenbroek, Ministerie van Infrastructuur en Milieu, NL. Partecipazione ai WP4 (task 4.5.5) e WP5 (task 5.5). Fascicoli V65/3 e V65/6.
4. Progetto "FP7 - PARasite Risk ASsessment with Integrated Tools in EUfish production value chains" "PARASITE" Grant agreement no: 312068 (dal 1° febbraio 2013 al 31 gennaio 2016) (Resp. Sc. WP5 Dr. Edoardo Pozio e Dr.ssa Maria Angeles Gomez). Messa a punto e caratterizzazione di modelli murini di anafilassi indotta da larve e antigeni isolati da differenti specie del parassita *Anisakis*.
5. GP/EFSA/BIOCONTAM/2015/02 - In vivo toxicity and genotoxicity of beauvericin and enniatins (Coordinator: Dr.ssa Francesca Maranghi); aprile 2016 - settembre 2017. In vivo Immunotoxicity.
6. Tender EFSA: OC/EFSA/AMU/2014/01 - TECHNICAL OFFER: ISTITUTO SUPERIORE DI SANITA', ROME, ITALY. LOT 2_Chemical/toxicological. Sub-domain 2.5: Pesticides (Coordinator: Dr.ssa Sabrina Tait). Sub-domain 2.6: Nanomaterials (Coordinator: Dr.ssa Francesca Maranghi) 2015-2019. In vivo Immunotoxicity.

Memberships

Other Relevant Information