



Curriculum Vitae Europass



Personal information

First name(s) / surname(s) **Maria Cristina Dehecchi**
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Nationality Italian

Date of birth 21/05/1956

Gender Female

Work experience

Dates 01/09/2006-30/11/2019

Occupation or position held *Dirigente Biologo, Responsabile SSF*, Laboratory of Molecular Pathology, Laboratory of Analyses
Main activities and responsibilities - CFTR molecular analysis. MGMT promoter methylation analysis. Coordinator of multicentre projects supported by the Italian Cystic Fibrosis Research Foundation, aimed to investigation on innovative therapies for

CF basic defect and lung inflammation, utilizing different approaches of cellular and molecular biology. Coordinator of multicentre projects supported by Regione Veneto (Prihta) on CFTR and ENaC molecular analysis. Coordinator of multicentre projects supported by Regione Veneto (Prihta) on methylation analysis of MGMT. Coordinator of research project on miRNA expression in serum of patients with gliomas.

Name and address of employer
Type of business or sector

Azienda Ospedaliera Universitaria Integrata di Verona, Piazzale Stefani 1, 37126 Verona, Italy
Biomedical research- Molecular genetics

Dates

08/08/1984-31/08/2006

Occupation or position held *Dirigente Biologo, alta specializzazione*-Laboratory of Molecular Pathology of the Cystic Fibrosis Center- CFTR molecular analysis. Coordinator of multicentre projects supported by the Italian Cystic Fibrosis Research Foundation, aimed to investigation on innovative therapies for lung inflammation, utilizing different approaches of cellular and molecular biology. Research field: biological membrane transport processes, CFTR function regulation, CF gene transfer, inflammation.

Name and address of employer
Type of business or sector

Azienda Ospedaliera Universitaria Integrata di Verona, Piazzale Stefani 1, 37126 Verona, Italy
Biomedical research- Molecular genetics

Dates

01/01/1981-31/07/1984

Occupation or position held	Research fellow- Laboratory of Clinical Enzymology.				
Main activities and responsibilities	Research field: clinical enzymology Ospedale Civile Maggiore, Piazzale Stefani 1, 37126 Verona, Italy				
Name and address of employer					
Type of business or sector					
Dates	01/01/1980-31/12/1980				
Occupation or position held	External Consultant of the Progetto finalizzato CNR, Laser of Potenza				
Main activities and responsibilities	Institute of Biochemistry, University of Bari Research field: biochemistry of NADH irradiated by Laser				
Name and address of employer	University of Bari, Via Amendola 126/B, 70126 Bari, Italy				
Type of business or sector	Research field: biochemistry of NADH irradiated by Laser				
Education and training					
Dates	1986-1990				
Title of qualification awarded	Specialist in Biochemistry				
Principal subjects/occupational skills covered	Biochemistry, Molecular Biology and Clinical Chemistry				
Name and type of organization providing education and training	Department of Biochemistry- University of Brescia, Italy				
Dates	1974-1979				
Title of qualification awarded	Doctor in Biology, summa cum laude				
Principal subjects/occupational skills Covered	Different fields in biology				
Name and type of organization providing education and training	University of Bari, Italy				
Personal skills and competences					
Mother tongue(s)					
Other language(s)	Italian				
Self-assessment European level*					
English	Comprensione		Parlato		Scritto
	Ascolto	Lettura	Interazione orale	Produzione orale	
	B1	B2	B1	B1	B2
(*) Quadro comune europeo di riferimento per le lingue					
Organisational skills and competences	Experience has been gained in the years on different aspects of ion transport through biological membranes and transmembrane signaling in inflammation, mainly in relation to cystic fibrosis and metabolism of sphingolipids, as reported in the publications listed in the PubMed. Recently research activity has been also focused on miRNA expression in serum samples obtained from patients with glioma. Main topics include 1) regulation of chloride transport mediated by the Cystic Fibrosis Transmembrane conductance Regulator (CFTR) protein, with special regards to the original identification of alternative activatory pathways, such as protein kinase C (<i>J Biol Chem</i> 268, 11321–11325, 1993); 2) Adenovirus-derived vectors for gene transfer with special regards to the original identification of one of the two major receptors involved in the binding of adenoviruses types 2 and 5 with mammalian cells (<i>J Virol</i> 75, 8772-8780, 2001); 3) modulation of inflammatory response elicited by bacterial pathogens in human and murine respiratory models <i>in vitro</i> and <i>in vivo</i> .; miRNA analysis in serum of patients with brain tumors.				

Additional information

She was responsible for CFTR molecular analysis and from 2011 to 2019. Since 2006 she has been focused her research interest on modulators of sphingolipid metabolism as new drugs for CF lung inflammation. She has been PI or Coordinator or collaborator of different research projects (Telethon Foundation, Italian Cystic Fibrosis Research Foundation, Regione Veneto). Co-Inventor in 1 National Patent. Publications reported in the PubMed

List of selected full papers published in international scientific journals (last five years)

Milani R, Brognara E, Fabbri E, Manicardi A, Corradini R, Finotti A, Gasparello J, Borgatti M, Cosenza LC, Lampronti I, **Dehecchi MC**, Cabrini G, Gambari R. Targeting miR-155-5p and miR-221-3p by peptide nucleic acids induces caspase-3 activation and apoptosis in temozolomide-resistant T98G glioma cells. *Int J Oncol.* 2019 Jul;55(1):59-68.

De Fenza M, D'Alonzo D, Esposito A, Munari S, Loberto N, Santangelo A, Lampronti I, Tamanini A, Rossi A, Ranucci S, De Fino I, Bragonzi A, Aureli M, Bassi R, Tironi M, Lippi G, Gambari R, Cabrini G, Palumbo G, **Dehecchi MC**, Guaragna A. Exploring the effect of chirality on the therapeutic potential of N-alkyl-deoxyiminosugars: anti-inflammatory response to *Pseudomonas aeruginosa* infections for application in CF lung disease. *Eur J Med Chem.* 2019 Aug1;175:63-71.

Finotti A, Gasparello J, Fabbri E, Tamanini A, Corradini R, **Dehecchi MC**, Cabrini G, Gambari R. Enhancing the Expression of CFTR Using Antisense Molecules against MicroRNA miR-145-5p. *Am J Respir Crit Care Med.* 2019 Jun1;199(11):1443-1444.

Dehecchi MC, Tamanini A, Cabrini G. Molecular basis of cystic fibrosis: from bench to bedside. *Ann Transl Med.* 2018 Sep;6(17):334. Review.

Laselva O, Marzaro G, Vaccarin C, Lampronti I, Tamanini A, Lippi G, Gambari R, Cabrini G, Bear CE, Chilin A, **Dehecchi MC**. Molecular Mechanism of Action of Trimethylangelicin Derivatives as CFTR Modulators. *Front Pharmacol.* 2018 Jul 4;9:719.

Chiricozzi E, Loberto N, Schiumarini D, Samarani M, Mancini G, Tamanini A, Lippi G, **Dehecchi MC**, Bassi R, Giussani P, Aureli M. Sphingolipids role in the regulation of inflammatory response: From leukocyte biology to bacterial infection. *J Leukoc Biol.* 2018 Mar;103(3):445-456.

Rimessi A, Bezzerri V, Salvatori F, Tamanini A, Nigro F, **Dehecchi MC**, Santangelo A, Prandini P, Munari S, Provezza L, Garreau de Loubresse N, Muller J, Ribeiro CMP, Lippi G, Gambari R, Pinton P, Cabrini G. PLCB3 Loss of Function Reduces *Pseudomonas aeruginosa*-Dependent IL-8 Release in Cystic Fibrosis. *Am J Respir Cell Mol Biol.* 2018 Oct;59(4):428-436.

Marzaro G, Lampronti I, D'Aversa E, Sacchetti G, Miolo G, Vaccarin C, Cabrini G, **Dehecchi MC**, Gambari R, Chilin A. Design, synthesis and biological evaluation of novel trimethylangelicin analogues targeting nuclear factor κ B (NF- κ B). *Eur J Med Chem.* 2018 May 10;151:285-293.

Santangelo A, Imbrucè P, Gardenghi B, Belli L, Agushi R, Tamanini A, Munari S, Bossi AM, Scambi I, Benati D, Mariotti R, Di Gennaro G, Sbarbati A, Eccher A, Ricciardi GK, Ciceri EM, Sala F, Pinna G, Lippi G, Cabrini G, **Dehecchi MC**. A microRNA signature from serum exosomes of patients with glioma as complementary diagnostic biomarker. *J Neurooncol.* 2018 Jan;136(1):51-62.

Lampronti I, Manzione MG, Sacchetti G, Ferrari D, Spisani S, Bezzerri V, Finotti A, Borgatti M, **Dehecchi MC**, Miolo G, Marzaro G, Cabrini G, Gambari R, Chilin A. Differential Effects of Angelicin Analogues on NF- κ B Activity and IL-8 Gene Expression in Cystic Fibrosis IB3-1 Cells. *Mediators Inflamm.* 2017; 2017: 2389487.

Fabbri E, Tamanini A, Jakova T, Gasparello J, Manicardi A, Corradini R, Sabbioni G, Finotti A, Borgatti M, Lampronti I, Munari S, **Dehecchi MC**, Cabrini G, Gambari R. A Peptide Nucleic Acid against MicroRNA miR-145-5p Enhances the Expression of the Cystic Fibrosis Transmembrane Conductance Regulator (CFTR) in Calu-3 Cells. *Molecules.* 2017 Dec 29;23(1).

Lampronti I, **Dehecchi MC**, Rimessi A, Bezzerri V, Nicolis E, Guerrini A, Tacchini M, Tamanini A, Munari S, D'Aversa E, Santangelo A, Lippi G, Sacchetti G, Pinton P, Gambari R, Agostini M, Cabrini G. β -Sitosterol Reduces the Expression of Chemotactic Cytokine Genes in Cystic Fibrosis Bronchial Epithelial Cells. *Front Pharmacol.* 2017 May 12;8:236.

Schiumarini D, Loberto N, Mancini G, Bassi R, Giussani P, Chiricozzi E, Samarani M, Munari S, Tamanini A, Cabrini G, Lippi G, **Dehecchi MC**, Sonnino S, Aureli M. Evidence for the Involvement of Lipid Rafts and Plasma Membrane Sphingolipid Hydrolases in *Pseudomonas aeruginosa* Infection of Cystic Fibrosis Bronchial Epithelial Cells. *Mediators Inflamm.* 2017;2017:1730245.

Santangelo A, Tamanini A, Cabrini G, **Dehecchi MC**. Circulating microRNAs as emerging non-invasive biomarkers for gliomas. *Ann Transl Med.* 2017 Jul;5(13):277. Review

Brognara E, Fabbri E, Montagner G, Gasparello J, Manicardi A, Corradini R, Bianchi N, Finotti A, Breveglieri G, Borgatti M, Lampronti I, Milani R, **Dehecchi MC**, Cabrini G, Gambari R. High levels of apoptosis are induced in human glioma cell lines by co administration of peptide nucleic acids targeting miR-221 and miR-222. *Int J Oncol.* 2016 Mar;48(3):1029-38.

Khalil S, Fabbri E, Santangelo A, Bezzerri V, Cantù C, Di Gennaro G, Finotti A, Ghimenton C, Eccher A, **Dehecchi MC**, Scarpa A, Hirshman B, Chen C, Ferracin M, Negrini M, Gambari R, Cabrini G. miRNA array

screening reveals cooperative MGMT-regulation between miR-181d-5p and miR-409-3p in glioblastoma. *Oncotarget*. 2016 May 10;7(19):28195-206.

Aureli M, Schiumarini D, Loberto N, Bassi R, Tamanini A, Mancini G, Tironi M, Munari S, Cabrini G, **Dehecchi MC**, Sonnino S. Unravelling the role of sphingolipids in cystic fibrosis lung disease. *Chem Phys Lipids*. 2016 Oct;200:94-103. Review.

Prandini P, De Logu F, Fusi C, Provezza L, Nassini R, Montagner G, Materazzi S, Munari S, Gilioli E, Bezzerri V, Finotti A, Lampronti I, Tamanini A, **Dehecchi MC**, Lippi G, Ribeiro CM, Rimessi A, Pinton P, Gambari R, Geppetti P, Cabrini G. Transient Receptor Potential Ankyrin 1 Channels Modulate Inflammatory Response in Respiratory Cells from Patients with Cystic Fibrosis. *Am J Respir Cell Mol Biol*. 2016 Nov;55(5):645-656.

Cabrini G, Fabbri E, Lo Nigro C, **Dehecchi MC**, Gambari R. Regulation of expression of O6-methylguanine-DNA methyltransferase and the treatment of glioblastoma (Review). *Int J Oncol*. 2015 Aug;47(2):417-28. Review.

Bezzetti V, Avitabile C, **Dehecchi MC**, Lampronti I, Borgatti M, Montagner G, Cabrini G, Gambari R, Romanelli A. Antibacterial and anti-inflammatory activity of a temporin B peptide analogue on an in vitro model of cystic fibrosis. *J Pept Sci*. 2014 Oct;20(10):822-30.

Loberto N, Tebon M, Lampronti I, Marchetti N, Aureli M, Bassi R, Giri MG, Bezzerri V, Lovato V, Cantù C, Munari S, Cheng SH, Cavazzini A, Gambari R, Sonnino S, Cabrini G, Dehecchi MC. GBA2-encoded β -glucosidase activity is involved in the inflammatory response to *Pseudomonas aeruginosa*. *PLoS One*. 2014 Aug 20;9(8)

Fabbri E, Borgatti M, Montagner G, Bianchi N, Finotti A, Lampronti I, Bezzerri V, Dehecchi MC, Cabrini G, Gambari R. Expression of microRNA-93 and Interleukin-8 during *Pseudomonas aeruginosa*-mediated induction of proinflammatory responses. *Am J Respir Cell Mol Biol*. 2014 Jun;50(6):1144-55.

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