Curriculum Vitae

Personal information

Giulio Cabrini

Work experience

Positions and Employment

- 27/10/2020-present: *Director*, Research Center on Innovative Therapies for Cystic Fibrosis
  Department of Life Sciences and Biotechnologies, University of Ferrara, Italy
  Main activities: Coordinator of the inter-department Research Center
- 09/10/2018-present: *Emeritus*
  Department of Life Sciences and Biotechnologies, University of Ferrara, Italy
  Main activities: Teaching and research activity in the scientific areas of general and molecular pathology
- 1995-2017: *Adjunct Professor of General Pathology* (SSD MED0/4) and Tutor at the Universities of Ferrara and Verona, IT.
- 01/03/1986-30/06/2017
  Head, Laboratory of Molecular Pathology, University Hospital of Verona, Italy
  Main activities: Group leader of experimental research projects in biomedicine, mainly focused on the genetic disease cystic fibrosis:
  investigation on the mechanisms of the genetic defect, development of pre-clinical approaches of gene transfer and small organic
  molecules to be applied to innovative therapies to correct the genetic defect and the lung inflammatory process. Preclinical investigator
  on malignant brain tumors as gliomas.
- 01/02/1985 - 28/02/1986: *Visiting Scientist*, Laboratory of Membrane Biophysics, Cardiovascular Research Institute,
  University of California San Francisco, CA, U.S.A.
  Main activities: Experimental research on biochemistry and biophysics of biological membranes in Alan S. Verkman's team
- 01/01/1982 - 31/01/1985: *Research Fellow*, Institute of General Pathology, University of Verona, Italy
  Main activities: Experimental research in biomedicine, mainly on the transmembrane signalling involved in the inflammatory response in Filippo Rossi's team
  01/09/1979 - 31/12/1981: *Clinical Fellow,* Cystic Fibrosis Center, Hospital of Verona, Italy
  Main activities: Physician in the field of pediatrics at the Cystic Fibrosis Center in Gianni Mastella's team

Education and training

1989 University of Pavia, Italy - Residency in Clinical Biology
1984 University of Padova, Italy - Residency in Clinical Pediatrics
1979 School of Medicine, University of Padova, Italy - Doctor in Medicine (M.D.)

Additional information

Publications

Publications as senior author (**), correspondence author (**), co-senior author (*)

Bezzerri V, Gentili V, Api M, Finotti A, Papi C, Tamanini A, Boni C, Baldisseri E, Olioso D, Duca M, Tedesco E, Leo S, Borgatti M, Volpi S, Pinton P, **Cabrini G**, Gambari R, Blasi F, Lippi G, Rimessi A, Rizzo R, Cipolli M. SARS-CoV-2 viral entry and replication is impaired in Cystic Fibrosis airways due to ACE2 downregulation.
Nat Commun. 2023;14:132.

Ribeiro CMP, Higgs MG, Muhlebach MS, Wolfgang MC, Borgatti M, Lampronti I, **Cabrini G****. Revisiting Host-Pathogen Interactions in Cystic Fibrosis Lungs in the Era of CFTR Modulators.
Int J Mol Sci. 2023;24:5010.

Cabrini G**. CFTR Modulators and Reduction of Airway Inflammation in Cystic Fibrosis: How Much is Enough ?
Curr Med Chem. 2023;30:2205-2208.

Tupini C, Chilin A, Rossi A, De Fino I, Bragonzi A, D'Aversa E, Cosenza LC Vaccarin C, Sacchetti G, Borgatti M, Tamanini A, Dechecchi MC, Sanvito F, Gambari R, **Cabrini G**, Lampronti I. New TMA (4,6,4'-Trimethyl angelicin) Analogues as Anti-Inflammatory Agents in the Treatment of Cystic Fibrosis Lung Disease.
Int J Mol Sci. 2022;23:14483.

Vaccarin C, Gabbia D, Franceschinis E, De Martin S, Roverso M, Bogialli S, Sacchetti G, Tupini C, Lampronti I, Gambari R, **Cabrini G**, Dechecchi MC, Tamanini A, Marzaro G, Chilin A. Improved Trimethylangelicin Analogs for Cystic Fibrosis: Design, Synthesis and Preliminary Screening.
Int J Mol Sci. 2022;23:11528.

Papi C, Gasparello J, Zurlo M, Manicardi A, Corradini R, **Cabrini G**, Gambari, R, Finotti A. Combined Treatment of Bronchial Epithelial Calu-3 Cells with Peptide Nucleic Acids Targeting miR-145-5p and miR-101-3p: Synergistic Enhancement of the Expression of the Cystic Fibrosis Transmembrane Conductance Regulator (CFTR) Gene.
Int J Mol Sci. 2022;23:9348.

Rossi A, Bragonzi A, Medede M, De Fino I, Lippi G, Prosdocimi M, Tamanini A, **Cabrini G***, Dechecchi MC. β-sitosterol ameliorates inflammation and Pseudomonas aeruginosa lung infection in a mouse model.
J Cyst Fibros. 2023;22:156-160.

Catelan S, Olioso D, Santangelo A, Scapoli C, Tamanini A, Pinna G, Sala F, Lippi G, Nicolato A, **Cabrini G***, Dechecchi MC. miRNAs in Serum Exosomes for Differential Diagnosis of Brain Metastases.
Cancers (Basel). 2022;14:3493.

Cabrini G**, Rimessi A, Borgatti M, Pinton P, Gambari R. Overview of CF lung pathophysiology.
Curr Opin Pharmacol. 2022;64:102214.

Ribeiro CMP, McElvaney NG, **Cabrini G****.
Editorial: Novel Anti-Inflammatory Approaches for Cystic Fibrosis Lung Disease: Identification of Molecular Targets and Design of Innovative Therapies.
Front Pharmacol. 2021;12:794854.

Olioso D, Caccese M, Santangelo A, Lippi G, Zagonel V, **Cabrini G*,** Lombardi G, Dechecchi MC. Serum Exosomal microRNA-21, 222 and 124-3p as Noninvasive Predictive Biomarkers in Newly Diagnosed High-Grade Gliomas: A Prospective Study. Cancers (Basel). 2021;13:3006.

Tamanini A, Fabbri E, Jakova T, Gasparello J, Manicardi A, Corradini R, Finotti A, Borgatti M, Lampronti I, Munari S, Dechecchi MC, **Cabrini G**, Gambari R. A Peptide-Nucleic Acid Targeting miR-335-5p Enhances Expression of Cystic Fibrosis Transmembrane Conductance Regulator (CFTR) Gene with the Possible Involvement of the CFTR Scaffolding Protein NHERF1.
Biomedicines. 2021;9:117.

Fabbri E, Tamanini A, Jakova T, Gasparello J, Manicardi A, Corradini R, Finotti A, Borgatti M, Lampronti I, Munari S, Dechecchi MC, **Cabrini G**, Gambari R. Treatment of human airway epithelial Calu-3 cells with a peptide-nucleic acid (PNA) targeting the microRNA miR-101-3p is associated with increased expression of the cystic fibrosis Transmembrane Conductance Regulator () gene.
Eur J Med Chem. 2021; 209:112876

Santangelo A, Rossato M, Lombardi G, Benfatto S, Lavezzari D, De Salvo GL, Indraccolo S, Dechecchi MC, Prandini P, Gambari R, Scapoli C, Di Gennaro G, Caccese M, Eoli M, Rudà R, Brandes AA, Ibrahim T, Rizzato S, Lolli I, Lippi G, Delledonne M, Zagonel V, **Cabrini G****. A Molecular Signature associated with prolonged survival in Glioblastoma patients treated with Regorafenib.
NeuroOncol. 2021;23:264-276.

Mancini G, Loberto N, Olioso D, Dechecchi MC, **Cabrini G**, Mauri L, Bassi R, Schiumarini D, Chiricozzi E, Lippi G, Pesce E, Sonnino S, Pedemonte N, Tamanini A, Aureli M. GM1 as Adjuvant of Innovative Therapies for Cystic Fibrosis Disease.
Int J Mol Sci. 2020;21:4486.

Rimessi A, Pozzato C, Carparelli L, Rossi A, Ranucci S, De Fino I, Cigana C,Talarico AWieckowski MR, Ribeiro CMP, Trapella C, Rossi G, **Cabrini G**, Bragonzi A, Pinton P. Pharmacological modulation of mitochondrial calcium uniporter controls lung inflammation in cystic fibrosis.
Sci Adv. 2020;6:eaax9093.

Cabrini G**, Rimessi A, Borgatti M, Lampronti I, Finotti A, Pinton P, Gambari R. Role of Cystic Fibrosis Bronchial Epithelium in Neutrophil Chemotaxis.
Front Immunol. 2020;11:1438.

Sultan S, Rozzi A, Gasparello J, Manicardi A, Corradini R, Papi C, Finotti A, Lampronti I, Reali E, **Cabrini G**, Gambari R, Borgatti M. A Peptide Nucleic Acid (PNA) Masking the miR-145-5p Binding Site of the 3'UTR of the Cystic Fibrosis Transmembrane Conductance Regulator (CFTR) mRNA Enhances CFTR Expression in Calu-3 Cells.
Molecules. 2020;25(7):1677.

Milani R, Brognara E, Fabbri E, Manicardi A, Corradini R, Finotti A, Gasparello J, Borgatti M, Cosenza LC, Lampronti I, Dechecchi 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;55:59-68.

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, Dechecchi 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;175:63-71.

Finotti A, Gasparello J, Fabbri E, Tamanini A, Corradini R, Dechecchi 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;199:1443-1444.

Cabrini G.** Innovative Therapies for Cystic Fibrosis: The Road from Treatment to Cure. Mol Diagn Ther. 2018 Nov 26.

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

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

Rimessi A, Bezzerri V, Salvatori F, Tamanini A, Nigro F, Dechecchi 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 P. aeruginosa-dependent IL-8 Release in Cystic Fibrosis.
Am J Respir Cell Mol Biol. 2018;59:428-436.

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

Schiumarini D, Loberto N, Mancini G, Bassi R, Giussani P, Chiricozzi E, Samarani M, Munari S, Tamanini A, **Cabrini G**, Lippi G, Dechecchi 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.

Fabbri E, Tamanini A, Jakova T, Gasparello J, Manicardi A, Corradini R, Sabbioni G, Finotti A, Borgatti M, Lampronti I, Munari S, Dechecchi 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;23: E71.

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

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***, Dechecchi MC. A microRNA signature from serum exosomes of patients with glioma as complementary diagnostic biomarker.
J Neurooncol. 2018;136:51-62.

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

Lampronti I, Dechecchi 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;8:236.

Brunelli M, Eccher A, Cima L, Trippini T, Pedron S, Chilosi M, Barbareschi M, Scarpa A, Pinna G, **Cabrini G**, Pilotto S, Carbognin L, Bria E, Tortora G, Schiavo N, Meglio M, Sava T, Belli L, Martignoni G, Ghimenton C.
Next-generation repeat-free FISH probes for DNA amplification in glioblastoma in vivo: Improving patient selection to MDM2-targeted inhibitors.
Cancer Genet. 2017;210:28-33.

Montagner G, Bezzerri V, **Cabrini G**, Fabbri E, Borgatti M, Lampronti I, Finotti A, Nielsen PE, Gambari R. An antisense peptide nucleic acid against Pseudomonas aeruginosa inhibiting bacterial-induced inflammatory responses in the cystic fibrosis IB3-1 cellular model system.
Int J Biol Macromol. 2017;99:492-498.

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, Dechecchi 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;55:645-656.

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

Brognara E, Fabbri E, Montagner G, Gasparello J, Manicardi A, Corradini R, Bianchi N, Finotti A, Breveglieri G, Borgatti M, Lampronti I, Milani R, Dechecchi 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;48:1029-38.

Cigana C, Lorè NI, Riva C, De Fino I, Spagnuolo L, Sipione B, Rossi G, Nonis A, **Cabrini G**, Bragonzi A. Tracking the immunopathological response to Pseudomonas aeruginosa during respiratory infections.
Sci Rep. 2016;6:21465.

Fabbri E, Montagner G, Bianchi N, Finotti A, Borgatti M, Lampronti I, **Cabrini G**, Gambari R. MicroRNA miR-93-5p regulates expression of IL-8 and VEGF in neuroblastoma SK-N-AS cells.
Oncol Rep. 2016;35:2866-72.

Khalil S, Fabbri E, Santangelo A, Bezzerri V, Cantù C, Di Gennaro G, Finotti A, Ghimenton C, Eccher A, Dechecchi M, 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;7:28195-206.

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

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, Dechecchi 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;55:645-656.

Fabbri E, Brognara E, Montagner G, Ghimenton C, Eccher A, Cantù C, Khalil S, Bezzerri V, Provezza L, Bianchi N, Finotti A, Borgatti M, Moretto G, Chilosi M, **Cabrini G**.**, Gambari R. Regulation of IL-8 gene expression in gliomas by microRNA miR-93.
BMC Cancer. 2015;15:661.

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

Rimessi A, Bezzerri V, Patergnani S, Marchi S, **Cabrini G*,** Pinton P. Mitochondrial Ca2+-dependent NLRP3 activation exacerbates the Pseudomona aeruginosa-driven inflammatory response in cystic fibrosis.
Nat Commun. 2015 Feb 4;6:6201.

Bezzerri V, Avitabile C, Dechecchi 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;20:822-30.

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**, Dechecchi MC. GBA2-encoded β-glucosidase activity is involved in the inflammatory response to Pseudomonas aeruginosa.
PLoS One. 2014;9:e104763.

Favia M, Mancini MT, Bezzerri V, Guerra L, Laselva O, Abbattiscianni AC, Debellis L, Reshkin SJ, Gambari R, **Cabrini G***, Casavola V. Trimethylangelicin promotes the functional rescue of mutant F508del CFTR protein in cystic fibrosis airway cells.
Am J Physiol Lung Cell Mol Physiol. 2014;307:L48-61.

Rubino R, Bezzerri V, Favia M, Facchini M, Tebon M, Singh AK, Riederer B, Seidler U, Iannucci A, Bragonzi A, **Cabrini G**, Reshkin SJ, Tamanini A. Pseudomonas aeruginosa reduces the expression of CFTR via post-translational modification of NHERF1.
Pflugers Arch. (Eur J Physiol) 2014;466:2269-78

Brognara E, Fabbri E, Bazzoli E, Montagner G, Ghimenton C, Eccher A, Cantù C, Manicardi A, Bianchi N, Finotti A, Breveglieri G, Borgatti M, Corradini R, Bezzerri V, **Cabrini G**, Gambari R. Uptake by human glioma cell lines and biological effects of a peptide-nucleic acids targeting miR-221.
J Neurooncol. 2014;118:19-28.

Fabbri E, Borgatti M, Montagner G, Bianchi N, Finotti A, Lampronti I, Bezzerr V, Dechecchi 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;50:1144-55.

Finotti A, Borgatti M, Bezzerri V, Nicolis E, Lampronti I, Dechecchi M, Mancini I, **Cabrini G**, Saviano M, Avitabile C, Romanelli A, Gambari R. Effects of decoy molecules targeting NF-kappaB transcription factors in Cystic fibrosis IB3-1 cells: recruitment of NF-kappaB to the IL-8 gene promoter and transcription of the IL-8 gene.
Artif DNA PNA XNA. 2012;3:97-296.

Galli F, Battistoni A, Gambari R, Pompella A, Bragonzi A, Pilolli F, Iuliano L, Piroddi M, Dechecchi MC, **Cabrini G**;** Working Group on Inflammation in Cystic Fibrosis. Oxidative stress and antioxidant therapy in cystic fibrosis.
Biochim Biophys Acta. 2012;1822:690-713.

Bezzerri V, Borgatti M, Finotti A, Tamanini A, Gambari R, **Cabrini G**.** Mapping the transcriptional machinery of the IL-8 gene in human bronchial epithelial cells.
J Immunol. 2011;187:6069-81.

Dechecchi MC, Nicolis E, Mazzi P, Cioffi F, Bezzerri V, Lampronti I, Huang S, Wiszniewski L, Gambari R, Scupoli MT, Berton G, **Cabrini G****. Modulators of sphingolipid metabolism reduce lung inflammation.
Am J Respir Cell Mol Biol. 2011;45:825-33.

Bezzerri V, d'Adamo P, Rimessi A, Lanzara C, Crovella S, Nicolis E, Tamanini A, Athanasakis E, Tebon M, Bisoffi G, Drumm ML, Knowles MR, Pinton P, Gasparini P, Berton G, **Cabrini G**.** Phospholipase C-{beta}3 Is a Key Modulator of IL-8 Expression in Cystic Fibrosis Bronchial Epithelial Cells.
J Immunol. 186, 4946-58, 2011.

Tamanini A, Borgatti M, Finotti A, Piccagli L, Bezzerri V, Favia M, Guerra L, Lampronti I, Bianchi N, Dall'acqua F, Vedaldi D, Salvador A, Fabbri E, Mancini I, Nicolis E, Casavola V, **Cabrini G*/**,** Gambari R. Trimethylangelicin Reduces IL-8 Transcription and Potentiates CFTR Function.
Am J Physiol Lung Cell Mol Physiol. 300, L380-90, 2011

Crovella S, Segat L, Amato A, Athanasakis E, Bezzerri V, Braggion C, Casciaro R, Castaldo G, Colombo C, Covone AE, De Rose V, Gagliardini R, Lanzara C, Minicucci L, Morgutti M, Nicolis E, Pardo F, Quattrucci S, Raia V, Ravazzolo R, Seia M, Stanzial V, Termini L, Zazzeron L, **Cabrini G**, Gasparini P. A polymorphism in the 5' UTR of the DEFB1 gene is associated with the lung phenotype in F508del homozygous Italian cystic fibrosis patients.
Clin Chem Lab Med. 49, 49-54, 2011

Piccagli L, Borgatti M, Nicolis E, Bianchi N, Mancini I, Lampronti I, Vevaldi D, Dall'Acqua F, **Cabrini G**, Gambari R. Virtual screening against nuclear factor kB (NF-kB) of a focus library: Identification of bioactive furocoumarin derivatives inhibiting NF-kB dependent biological functions involved in cystic fibrosis.
Bioorg Med Chem. 18, 8341-9, 2010

Cabrini G, Bezzerri V, Mancini I, Nicolis E, Dechecchi MC, Tamanini A, Lampronti I, Piccagli L, Bianchi N, Borgatti M, Gambari R. Targeting transcription factor activity as a strategy to inhibit pro-inflammatory genes involved in cystic fibrosis: decoy oligonucleotides and low-molecular weight compounds.
Curr Med Chem. 17, 4392-404, 2010

Gambari R, Borgatti M, Bezzerri V, Nicolis E, Lampronti I, Dechecchi MC, Mancini I, Tamanini A, **Cabrini G**. Decoy oligodeoxyribonucleotides and peptide nucleic acids-DNA chimeras targeting nuclear factor kappa-B: inhibition of IL-8 gene expression in cystic fibrosis cells infected with Pseudomonas aeruginosa.
Biochem Pharmacol. 80, 1887-94, 2010

Piccagli L, Fabbri E, Borgatti M, Bianchi N, Bezzerri V, Mancini I, Nicolis E, Dechecchi CM, Lampronti I, **Cabrini G**, Gambari R. Virtual screening against p50 NF-kappaB transcription factor for the identification of inhibitors of the NF-kappaB-DNA interaction and expression of NF-kappaB upregulated genes.
ChemMedChem. 4, 2024-33, 2009

Nicolis E, Lampronti I, Dechecchi MC, Borgatti M, Tamanini A, Bezzerri V, Bianchi N, Mazzon M, Mancini I, Giri MG, Rizzotti P, Gambari R, **Cabrini G****. Modulation of expression of IL-8 gene in bronchial epithelial cells by 5-methoxypsoralen.
Int Immunopharmacol. 9, 1411-22, 2009

Copreni E, Nicolis E, Tamanini A, Bezzerri V, Castellani S, Palmieri L, Giri MG, Vella A, Colombatti M, Rizzotti P, Conese M, **Cabrini G**.** Late generation lentiviral vectors: evaluation of inflammatory potential in human airway epithelial cells.
Virus Res. 144, 8-17, 2009.

Dechecchi MC, Nicolis E, Norez C, Bezzerri V, Borgatti M, Mancini I, Rizzotti P, Ribeiro CM, Gambari R, Becq F, **Cabrini G**.** Anti-inflammatory effect of miglustat in bronchial epithelial cells.
J Cyst Fibros. 7, 555-65, 2008

Piccagli L, Fabbri E, Borgatti M, Bezzerri V, Mancini I, Nicolis E, Dechecchi MC, Lampronti I, **Cabrini G**, Gambari R. Docking of molecules identified in bioactive medicinal plants extracts into the p50 NF-kappaB transcription factor: correlation with inhibition of NF-kappaB/DNA interactions and inhibitory effects on IL-8 gene expression.
BMC Struct Biol. 8, 38, 2008

Nicolis E, Lampronti I, Dechecchi MC, Borgatti M, Tamanini A, Bianchi N, Bezzerri V, Mancini I, Giri MG, Rizzotti P, Gambari R, **Cabrini G**.** Pyrogallol, an active compound from the medicinal plant Emblica officinalis, regulates expression of pro-inflammatory genes in bronchial epithelial cells.
Int Immunopharmacol. 8, 1672-80, 2008

Norez C, Pasetto M, Dechecchi MC, Barison E, Anselmi C, Tamanini A, Quiri F, Cattel L, Rizzotti P, Dosio F, **Cabrini G*,** Colombatti M. Chemical conjugation of DeltaF508-CFTR corrector deoxyspergualin to transporter human serum albumin enhances its ability to rescue Cl- channel functions.
Am J Physiol Lung Cell Mol Physiol. 295, L336-47, 2008

Bezzerri V, Borgatti M, Nicolis E, Lampronti I, Dechecchi MC, Mancini I, Rizzotti P, Gambari R, **Cabrini G**.** Transcription factor oligodeoxynucleotides to NF-kappaB inhibit transcription of IL-8 in bronchial cells.
Am J Respir Cell Mol Biol. 39, 86-96, 2008

Borgatti M, Bezzerri V, Mancini I, Nicolis E, Dechecchi MC, Lampronti I, Rizzotti P, **Cabrini G**, Gambari R. Induction of IL-6 gene expression in a CF bronchial epithelial cell line by Pseudomonas aeruginosa is dependent on transcription factors belonging to the Sp1 superfamily.
Biochem Biophys Res Commun. 357, 977-83, 2007

Dechecchi MC, Nicolis E, Bezzerri V, Vella A, Colombatti M, Assael BM, Mettey Y, Borgatti M, Mancini I, Gambari R, Becq F, **Cabrini G**.** MPB-07 Reduces the Inflammatory Response to Pseudomonas aeruginosa in Cystic Fibrosis Bronchial Cells.
Am J Respir Cell Mol Biol. 36, 615-624, 2007

Tamanini A, Nicolis E, Bonizzato A, Bezzerri V, Melotti P, Assael BM, **Cabrini G****. Interaction of adenovirus type 5 fiber with the coxsackievirus and adenovirus receptor activates inflammatory response in human respiratory cells.

J Virol. 80, 11241-54, 2006

Cabrini G,** Falzoni S, Forchap SL, Pellegatti P, Balboni A, Agostini P, Cuneo A, Castoldi G, Baricordi OR, Di Virgilio F. An His-155 to Tyr Polymorphism Confers Gain-of-function to the Human P2X7 Receptor of Human Leukemic Lymphocytes
J Immunol 175, 82-89, 2005

Tamanini A, Rolfini R, Nicolis E, Melotti P, **Cabrini G**.** MAP Kinases and NF-kB collaborate to induce ICAM-1 gene expression in the early phase of adenovirus infection.
Virology 307, 228-242, 2003

Cabrini G,** Zanolla L. Cystic fibrosis conductance regulator and lung clearance of Pseudomonas aeruginosa. J Clin Invest, eLetter to the Editor (www.jci.org), in reference to Worlizsch D. et al. J Clin Invest 109, 317-325, 2002

Zegarra-Moran O, Romio L, Folli C, Caci E, Becq F, Vierfond J.-M, Mettey Y, **Cabrini G,** Fanen P, Galietta LJV. Correction of G551D-CFTR transport defect by genistein in polarized respiratory monolayers.
Brit J Pharmacol 137, 504-512, 2002

Campello S, Tombola F, **Cabrini G**, Zoratti M. The vacuolating toxin of Helicobacter pylori mimicks the CFTR-mediated chloride conductance.
FEBS Lett 532, 237-240, 2002

Galietta LJV, Pagesy P, Folli C, Caci E, Romio L, Costes B, Nicolis E, **Cabrini G**, Goossens M, Ravazzolo R, Zegarra-Moran O. IL-4 is a potent modulator of ion transport in the human bronchial epithelium.
J Immunol 168, 839-845, 2002

Melotti P, Nicolis E, Tamanini A, Rolfini R, Pavirani A, and **Cabrini G****. Activation of NF-kB mediates ICAM-1 induction in respiratory cells exposed to an adenovirus-derived vector.
Gene Ther 8, 1436-1442, 2001

Dechecchi MC, Melotti P, Bonizzato A, Santacatterina M, Chilosi M, **Cabrini G****. Heparan sulfate glycosaminoglycans are receptors sufficient to mediate initial binding of adenovirus types 2 and 5. J Virol 75, 8772-8780, 2001

Lerondel S, Le Pape A, Sené C, Faure L, Bernard S, Diot P, Nicolis E, Mehtali M, Lusky M, **Cabrini G**, Pavirani A. Radioisotopic imaging allows optimization of adenovirus lung deposition for cystic fibrosis gene therapy.
Hum Gene Ther 12, 1-11, 2001

Dechecchi MC, Tamanini A, Bonizzato A, **Cabrini G**.** Heparan sulfate glycosaminoglycans are involved in adenovirus type 5 and 2 – host cell interactions.
Virology 268, 382-390, 2000

Nicolis E, Melotti P, Tamanini A, Lusky M, Mehtali M, Pavirani A, **Cabrini G**.** Quantitative detection of CFTR mRNA in gene transfer studies in human, murine and simian respiratory tissues in vitro and in vivo.
Gene Ther Mol Biol 4, 221-232, 1999

Nicolis E, Tamanini A, Melotti P, Rolfini R, Berton G, Cassatella MA, Bout A, Pavirani A, **Cabrini G**.** ICAM-1 induction in respiratory cells exposed to a replication-deficient recombinant adenovirus in vitro and in vivo.
Gene Ther 5: 131-136, 1998

Rotoli BM, Bussolati O, Dall' Asta V, Hoffman EK, **Cabrini G**, and Gazzola GC. CFTR expression in C127 cells is associated with enhanced cell shrinkage and ATP extrusion in Cl-free medium.
Biochem Biophys Res Comm 227, 755-761, 1996

Renier M, Tamanini A, Nicolis E, Rolfini R, Imler J-L, Pavirani A, and **Cabrini G**.** Use of a membrane potential-sensitive probe to assess biological expression of the cystic fibrosis transmembrane conductance regulator.
Hum Gene Ther 6, 1275-1233, 1995

Bonizzato A, Bisceglia L, Marigo C, Nicolis E, Bombieri C, Castellani C, Borgo G, Zelante L, Mastella G, **Cabrini G**, Gasparini P, Pignatti PF. Analysis of the complete coding region of the CFTR gene in a cohort of CF patients from North-Eastern Italy: identification of 90 % of mutations. Hum Genet 95, 397-402, 1995

Russo MP, Romeo G, Devoto M, Barbujani G, **Cabrini G,** Giunta A, D'Alcamo E, Leoni G, Sangiuolo F, Magnani C, Cremonesi L, Ferrari M. Analysis of linkage disequilibrium between different cystic fibrosis mutations and three intragenic microsatellites in the italian population.
Hum Mutat 5, 23-27, 1995

Rotoli BM, Bussolati O, Sironi M, **Cabrini G,** Gazzola GC. CFTR protein is involved in the efflux of neutral aminoacids.
Biochem Biophys Res Comm 204, 653-658, 1994

Laudanna C, Constantin G, Baron P, Scarpini E, Scarlato G, **Cabrini G**, Dechecchi C, Rossi F, Cassatella M, Berton G. Sulfatides trigger increase of cytosolic free calcium and enhanced expression of tumor necrosis factor-alpha, and interleukin-8 mRNA in human neutrophils.
J Biol Chem 269, 4021-4026, 1994

Rolfini R, **Cabrini G**.** Nonsense mutation R1162X of the cystic fibrosis transmembrane conductance regulator gene does not reduce messenger RNA expression in nasal epithelial tissue.
J Clin Invest 92, 2683-2687, 1993

Dechecchi MC, Tamanini A, Berton G, **Cabrini G**.** Protein kinase C activates chloride conductance in C127 cells stably expressing the cystic fibrosis gene.
J Biol Chem 268, 11321-11325, 1993

Melo CA, Serra C, Stoyanova V, Aguzzoli C, Faraguna D, Tamanini A, Berton G, **Cabrini G**, Baralle F. Alternative splicing of a previously unidentified CFTR exon introduces an in-frame stop codon 5' of the R region.
FEBS Lett 329, 159-162, 1993

Gasparini P, Marigo C, Bisceglia G, Nicolis E, Zelante L, Bombieri C, Borgo G, Pignatti PF, **Cabrini G.** Screening of 62 mutations in a cohort of cystic fibrosis patients from North Eastern Italy: their incidence and clinical features of defined genotypes.
Hum Mut 2, 389-394, 1993

Papini E, **Cabrini G,** Montecucco C. The sensitivity of cystic fibrosis cells to diphteria toxin.
Toxicon 31, 359-362, 1993

Dechecchi MC, Rolfini R, Tamanini A, Gamberi C, Berton G, **Cabrini G**.** Effect of modulation of protein kinase C on the cAMP-dependent chloride conductance in T84 cells.
FEBS Lett 311, 25-28, 1992

Placchi P, Lombardo R, Tamanini A, Brusa P, Berton G, **Cabrini G**.** cAMP-dependent protein kinase inhibits the chloride conductance in apical membrane vesicles of human placenta.

J Membrane Biol 119, 25-32, 1991

Tamanini A, Berton G, **Cabrini G****. Adenosine 3':5'-monophosphate-dependent protein kinase from human placenta: characterization of the catalytic subunit.
Enzyme 45, 97-108, 1991

Squassoni E., **Cabrini G**., Berton G. cAMP dependent chloride conductance is not different in cystic fibrosis fibroblasts.
Life Sci 46, 1265-70, 1990

Dechecchi MC, **Cabrini G**.** Chloride conductance in membrane vesicles from human placenta using a fluorescent probe. Implications for cystic fibrosis.
Biochim Biophys Acta 945, 113-120, 1988

Dechecchi MC, Girella E, **Cabrini G**, Berton G. The Km of NADH dehydrogenase in mitochondria of cystic fibrosis fibroblast cell. Enzyme 40, 45-50, 1988

Cabrini G, Illsley NP, Verkman AS. External anions regulate stilbene -sensitive proton conductance in placental brush border vesicles.
Biochemistry 25, 6300-6305, 1986

Cabrini G, Verkman AS. Localization of cyanine dye binding to brush border membranes by quenching of n-(9-anthroyloxy) fatty acid probes.
Biochim Biophys Acta 862, 285-293, 1986

Cabrini G, Verkman AS. Potential sensitive response mechanism of DiS-C3(5) in biological membranes.
J Membrane Biol 92, 171-182, 1986

Cabrini G, Verkman AS. Mechanism of interaction of the cyanine dye DiS-C3(5) with renal brush border vesicles.
J Membrane Biol 90, 163-175, 1986

Berton G, Cassatella M, **Cabrini G**, Rossi F. Activation of mouse macrophages causes no changes in expression and function of phorbol diesters receptors but is accompanied by alterations in the activity and kinetic parameters of NADPH oxidase.
Immunology 54, 371-379, 1985

Rossi F, Della Bianca V, Greskowiak M, De Togni P, **Cabrini G**. Relationship between phosphoinositide metabolism Ca2+ changes and respiratory burst in formyl-leucyl-phenilalanine stimulated human neutrophils. The breakdown of phosphoinositide is not involved in the rise of cytosolic free Ca2+.
FEBS Lett 181, 253-258, 1985

De Togni P, **Cabrini G**, Di Virgilio F. Cyclic AMP inhibition of fMet-Leu-Phe-dependent metabolic responses in human neutrophils is not due to its effect on cytosolic calcium.
Biochem J 224, 629-635, 1984

Projects

Personal statement

From 1986, after founding the Laboratory of Molecular Pathology at the Cystic Fibrosis Center of the Hospital of Verona, Italy, I worked on the genetic disease cystic fibrosis with the original identification of the role of protein kinase C in the alternative activation of CFTR protein function (J Biol Chem.1993;268:11321) and on the effect of nonsense mutations on CFTR gene expression (J Clin Invest.1993;92:2683).

From 1992, I focused my research interests on replication-defective virus-derived vectors for CFTR
gene transfer, by setting a novel functional analysis of CFTR in single cell based on membrane potential sensitive probes (Telethon project, ref. Hum Gene Ther 6, 1275−1233, 1995). To the aim of defining the precise molecular bases of interaction of adenoviruses with host cells, I leaded my research group in Verona to the identification of one of the two major receptors involved in the binding of adenoviruses types 2 and 5 with mammalian cells (Telethon project, ref. J Virol 75, 8772−8780, 2001). In parallel, I extended and performed studies on the biosafety of vectors for gene transfer by investigating how adenoviruses elicit the early pro−inflammatory response by interacting with human respiratory cells, in terms of transcriptional regulation of pro−inflammatory genes (key ref. J Virol 80,11241-54,2006).
From 2001, mainly in collaboration with Colleagues at the University of Ferrara, IT, I further focused my interests on cystic fibrosis lung disease, to identify both novel molecular targets and innovative therapeutic molecules to correct CFTR genetic defect and to treat the inflammatory response in the

lung of patients affected by cystic fibrosis, with special attention to the overexpression of the neutrophilic chemokine CXCL8/IL-8, hallmark of cystic fibrosis lung inflammation, on which I contributed in the mapping the transcriptional machinery activated upon bacteria-bronchial epithelial cells interactions.

From 2010, I extended my scientific interests to malignant brain tumors, mainly gliomas, with special regards to the epigenetic modulation of genes relevant to the response to first-line therapy and genes relevant to neo-angiogenesis in glioblastoma. I am now applying these basic findings to develop translational tools a) to detect the presence of glioma and monitor the progression with liquid biopsy and b) to identify biomarkers able to predict the response to second-line targeted therapy of glioblastomas (key ref. Neuro Oncol. 2021;23:264-276)

My main research focus is presently the investigation of the chronic inflammatory process intervening in the lungs of the people with cystic fibrosis, even in the era of the new potent modulators of the mutant CFTR protein, the interplay between CFTR modulators, bacterial infection, proinflammatory mediators, anti-inflammatory drugs, in the aim of identifying more relevant molecular targets to halt the progression of the respiratory tissue damage.

Research grants

1) Italian Cystic Fibrosis Research Foundation. FFC #3/2016 MicroRNA therapeutics in CF: targeting
CFTR and inflammation networks. 01/09/2016 – 31/08/2017
2) Italian Cystic Fibrosis Research Foundation FFC #1/2016 New generation trimethylangelicin
(TMA) analogues for selective modulation of defective CFTR or inflammation 01/09/2016 –
31/08/2018
3) Italian Cystic Fibrosis Research Foundation FFC #22/2015 A systematic investigation of
miglustat-derivative iminosugars clusters as possible anti-inflammatory agents for cystic fibrosis lung
disease
01/09/2015 – 31/08/2017
4) Italian Cystic Fibrosis Research Foundation FFC #20/2015 Mitochondrial quality control
machinery a role in the P.aeruginosa-triggered inflammatory response in cystic fibrosis 01/09/2015
– 31/08/2017
5) Italian Cystic Fibrosis Research Foundation FFC #9/2015 Identification of molecular targets to
reduce the side effect of gating potentiators on the F508del-CFTR plasma membrane stability
01/09/2015 – 31/08/2017
6) Italian Cystic Fibrosis Research Foundation FFC #28/2014 In vitro study of potential pro-fibrotic
effect of everolimus in different human airway cell lines. Searching for new biomarkers to optimize

MTOR-inhibitor immunosuppressive treatment of cystic fibrosis patients undergoing lung
transplantation 01/09/2014 – 31/08/2016
7) Italian Cystic Fibrosis Research Foundation FFC #24/2014 The role of GBA2 in cystic fibrosis
lung inflammation:from molecular mechanism to therapeuthic strategies 01/09/2014 – 31/08/2016
8) Italian Cystic Fibrosis Research Foundation FFC #19/2014 Mitochondrial Ca2+ dependent
inflammosome activation exacerbates the P.aeruginosa-driven inflammatory response 01/09/2014
– 31/08/2016
9) Italian Cystic Fibrosis Research Foundation FFC #17/2014 TRPA1 channels as novel targets for
anti-inflammatory therapies in CF lung 01/09/2014 – 31/08/2016

10) Italian Cystic Fibrosis Research Foundation FFC #8/2014 Design and synthesis of improved
analogs of TMA for personalized treatment of cystic fibrosis 01/09/2014 – 31/08/2015
11) Italian Cystic Fibrosis Research Foundation FFC #1/2013 Mechanisms of action of trimethyl
angelicin in rescuing F508del CFTR functional expression Durata: 01/09/2013 – 31/08/2015
12) Italian Cystic Fibrosis Research Foundation FFC #14/2012 Structure-activity relationships (SAR)
of neoglycoconjugates derived from deoxynojirimycin as possible therapeutic agents for Cystic
Fibrosis lung disease, by modulating the metabolism of sphingolipids 01/09/2012 – 31/08/2014
13) Italian Cystic Fibrosis Research Foundation FFC #1/2012 The read-through approach for the
treatment of cystic fibrosis caused by premature termination codons 01/09/2012 – 31/08/2014
14) Italian Cystic Fibrosis Research Foundation FFC #19/2011 Phospholipase C beta (PLCB) as
candidate therapeutic target in CF lung proinflammatory signaling 01/09/2011 – 31/08/2013
15) Italian Cystic Fibrosis Research Foundation FFC #5/2011 European Cystic Fibrosis Modifier
Gene Study 01/09/2011 – 31/08/2014
16) Italian Cystic Fibrosis Research Foundation FFC #1/2011 Properties of trimethylangelicin in
F508del CFTR rescue 01/09/2011 – 31/08/2013
17) Italian Cystic Fibrosis Research Foundation FFC #17/2010 Molecular characterization of
trimethylangelicin (TMA) and structurally-related compounds in CF lung disease: anti-inflammatory
effects and potentiation of the CFTR biological activity 01/09/2010 – 31/08/2012
18) Italian Cystic Fibrosis Research Foundation FFC #16/2010 Modulation of sphingolipid

metabolism as a strategy for the treatment of CF lung inflammation 01/09/2010 – 31/08/2012
19) Italian Cystic Fibrosis Research Foundation FFC #12/2010 Calcium signaling and PKC as
targets of Pseudomonas aeruginosa infection 01/09/2010 – 31/08/2012
20) Italian Cystic Fibrosis Research Foundation FFC #8/2010 Decrease apical infection of CFTR by
Pseudomonas aeruginosa infection: role of NHERF1 phosphorylation 01/09/2010 – 31/08/2011

21) Italian Cystic Fibrosis Research Foundation FFC #2/2010 Novel cellular model system and
therapeutic molecules for the development of a read-through approach for CF caused by stop codon
mutations of the CFTR gene 01/09/2010 – 31/08/2011
22) Italian Cystic Fibrosis Research Foundation FFC #19/2009 - Role of CFTR-Connexin interaction
on PGE2 signaling and inflammation: implication for cystic fibrosis 01/09/2009 – 31/08/2011
23) Italian Cystic Fibrosis Research Foundation Project FFC #18/2009 Mapping IL-8 gene
transcription machinery in bronchial epithelial cells 01/09/2009 – 31/08/2011
24) Italian Cystic Fibrosis Research Foundation Project FFC QUANTIGENE/2008 - National Service
for gene expression 01/01/2008 – 31/12/2012
25) Italian Cystic Fibrosis Research Foundation Project FFC #12/2008 Anti-inflammatory effect of
miglustat: sphingolipid ceramide metabolism as a therapeutic target for CF lung disease 01/09/2008
– 31/08/2010
26) Italian Cystic Fibrosis Research Foundation Project FFC #3/2008 - Genetic factors influencing
pulmonary disease in Cystic Fibrosis (CF) patients 01/09/2008 – 31/08/2009
27) Italian Cystic Fibrosis Research Foundation Project FFC#13/2007 A gene-targeted antiinflammatory
approach based on the Transcription Factor "decoy" strategy 01/09/2007 – 31/08/2009
28) Italian Cystic Fibrosis Research Foundation Project FFC #22/2006 Genetic factors involved in
the innate immunity influencing pulmonary disease in Cystic Fibrosis patients 01/09/2006 –
31/08/2007
29) Italian Cystic Fibrosis Research Foundation Project FFC #16/2006 Effect of correctors of
defective CFTR on the Pseudomonas aeruginosa-dependent inflammatory response in respiratory
epithelial cells 01/09/2006 – 31/08/2008
30) Italian Cystic Fibrosis Research Foundation Progetto FFC #1/2006 Novel methods of
intracellular delivery of ΔF508-CFTR correctors 01/09/2006 – 31/08/2008
31) Italian Cystic Fibrosis Research Foundation Project FFC #4/2005 - Novel generation lentiviral

vectors: evaluation of inflammatory potential in human respiratory cells. 01/09/2005 – 31/08/2006

32) Cariverona Foundation Call 2005 – A molecular biosensor of the immunity in the airway tract:
application to safety of innovative therapies in cystic fibrosis 01/01/2006 – 31/12/2008
33) Italian Cystic Fibrosis Research Foundation Project FFC #14/2004 - Interaction in vitro between
cystic fibrosis pathogens and epithelial cells expressing the cystic fibrosis transmembrane
conductance regulator (CFTR). 01/09/2004 – 31/08/2006
34) Italian Cystic Fibrosis Research Foundation Project FFC #4/2004 - Role of Adenovirus Receptors
in the activation of Mitogen-Activated Proteins Kinase pathways and Nuclear Factor - kB in human
airways epithelial cells. 01/09/2004 – 31/08/2005
35) Italian Cystic Fibrosis Research Foundation Project FFC #1/2004 - Dissection of
folding/defolding processes in CFTR and DF508 CFTR. Use of disarmed toxins to target chaperones
and assist refolding and expression of DF508 CFTR. 01/09/2004 – 31/08/2005
36) Telethon Foundation Call 1999 – Research area 2.3 (Advanced research on gene therapy)
Project A.153 Interactions of subgroup C adenoviruses with cell receptors. Relevance to targeting
and efficiency of adenovirus-derived vectors 01/09/1999 – 31/08/2001
37) Telethon Foundation Call 1993 – Research area 2.3 (Research on gene therapy) Project A.04
Gene therapy of cystic fibrosis in airway cells: functional expression of the gene by viral vectors
01/09/1993 – 31/08/1994

Memberships

Professional Memberships and Other Experiences
- Member, Scientific Committee, Italian Cystic Fibrosis Research Foundation (2022-present)
- Member, Steering Committee, Research Center on Innovative Therapies for Cystic Fibrosis, Department of Life Sciences and Biotechnologies, University of Ferrara, IT (2020-present)
- Member, Scientific Advisory Board, Cystic Fibrosis Center, Verona, IT (2020-present)
- Member, Scientific Committe CORIS - Consorzio Ricerca Sanitaria - University of Padova and Regione Veneto, Padova, IT (2016 - present)
- Member, Permanent Committee for Pre-clinical and Clinical Research, Italian Society for Cystic Fibrosis (2017 - 2022)
- Member, Scientific Committee Brain Research Foundation - Verona, IT (2016 - 2023)
- Member, Scientific Advisory Board of Centre de Recherche Saint-Antoine, Universitè Pierre et Marie Curie/INSERM, Paris, F (2016 - 2019)
- Coordinator, Working group on Inflammation, Italian Society for Cystic Fibrosis (2007-2017)

- Member, Working group "Programma Ricerca ed Innovazione - Health Technology Assessment (PRIHTA) Regione Veneto, Venezia, IT (2011-2015)
- Member of the "Nucleo Ricerca ed Innovazione", Azienda Ospedaliera Universitaria Integrata (University Hospital) Verona, IT (2009-2015)

Editorial Board memberships
Frontiers in Pharmacology section Respiratory Pharmacology (from 2015), Associate Editor (from 2023)
Frontiers in Pharmacology section Pharmacology of Ion Channels and Channelopaties (from 2013)
Cancers (from 2020)

Scientific dissemination (last years)
GC has been invited for lectures and speeches or as chairperson in several International and National scientific meetings and Universities as reported in this selection:
• European Cystic Fibrosis Conference – New Frontiers in Basic Science of Cystic Fibrosis – Tavira, Portugal, 2009

Co-chaiperson Symposium 7 – Inflammation in Cystic Fibrosis (with T. Bonfield, U.S.A.)
Co-chairperson Special Group Discussion III – Modifier genes – what have we learnt ? (with M. Drumm, U.S.A.)
• European Cystic Fibrosis Society – New Frontiers in Basic Science of Cystic Fibrosis – Carcavelos, Portugal, 2010
Invited speaker: Pharmacological modulation of chemotactic signalling in CF respiratory models.
• European Cystic Fibrosis Conference – New Frontiers in Basic Science of Cystic Fibrosis – Carcavelos, Portugal, 2010
Co-chaiperson Symposium 5 – Inflammatory signalling in CF lung disease (with A. Mehta, U.K.)
• European Cystic Fibrosis Conference – New Frontiers in Basic Science of Cystic Fibrosis – Pisa, IT, 2011
Co-chaiperson Symposium 5 – Inflammatory mechanisms in CF as therapeutic targets (with B. Scholte, NL) and Invited speaker: Modulating chemotactic signaling: novel molecular targets
• 26th Annual North American Cystic Fibrosis Conference - Orlando, Florida 2012
Workshop Session. APP/AD: Inflammation, oxidants and cytokines (Research).
Invited speaker: Introductory overview on inflammation and redox in CF lung pathology.
• Institute Pasteur - Innate host defence and inflammation Unit - Paris, F, 2013
Seminar: Regulation of expression of IL-8 gene induced by P.aeruginosa in epithelial cells: the model of cystic fibrosis lung disease
• European CF Conference - New Frontiers in Basic Science of Cystic Fibrosis – Malaga, Spain, 2013
Co-chaiperson Symposium: Infection, inflammation and immunity (with M. Chignard, Paris, F)
• European Cystic Fibrosis Society – New Frontiers in Basic Science of Cystic Fibrosis – Malaga, Spain, 2013
Invited speaker: Phospholipase C beta and pro-inflammatory signalling in bronchial epithelial cells.
• European CF Society – New Frontiers in Basic Science of Cystic Fibrosis – St. Julians, Malta, 2014
Invited speaker: P. aeruginosa and modulation of IL-8 gene expression in bronchial epithelial cells
• European CF Conference - New Frontiers in Basic Science of Cystic Fibrosis - Pisa, Italy 2016
Co-chaiperson Symposium: Therapeutic approaches (with M. Amaral, Lisboa, PT)
• European Cystic Fibrosis Society –Basic Science Conference - Pisa, Italy, 2016
Invited speaker: Intracellular calcium mobilization as amplifier of the inflammatory response in CF bronchial epithelial cells.
• IRCSS Istituto Neurologico "Carlo Besta" - Ciclo aggiornamenti in neuro-oncologia - Milano 2017 Seminar: Epigenetics of gliomas

Italian National research Council (CNR) - Institute of Protein Biochemistry - Napoli 2017
Seminar: Inflammatory response in cystic fibrosis lungs: in search of druggable targets.
• University of Ferrara - Department of Life Sciences and Biotechnology - Ferrara 2018
Seminar: Innovative Therapies for cystic fibrosis from bench to bedside
• Società Italiana Genetica Umana - XXI Congresso Nazionale - Catania 2018
Plenary Session Lecture: Terapie innovative della fibrosi cistica: dal laboratorio al letto del paziente
• European Cystic Fibrosis Society Congress - Milano, 9-12 giugno 2021
Symposium 18 - Addressing inflammation in cystic fibrosis - Invited Chairperson
• European Cystic Fibrosis Society – Basic Science Conference - Dubrovnik, HR, 2023
Invited speaker: Intracellular calcium mobilization as amplifier of the inflammatory response in CF bronchial epithelial cells.
Co-chaiperson Symposium 4: Mucus and mucins (with C. Ehre, Chapel Hill, NC, USA)

Other Relevant Information

Ad hoc peer reviewing (last 10 years)
Human Gene Therapy, European Respiratory Journal, The Journal of Leukocyte Biology, Clinical Chemistry, The Journal of Biological Chemistry, Molecular Therapy, Human Mutations, Journal of Neurochemistry, PlosOne, Frontiers in Immunology, Frontiers in Pharmacology, European Journal of Pharmacology, Experimental Lung Research, American Journal of Respiratory and Critical Care Medicine, Frontiers in Immunology, Current Medicinal Chemistry, Oncotarget, Molecular Therapy, Epigenomics, Cancers, Scientific Reports, Cells, Epigenomics, European Journal of Pharmacology, Current Opinion in Pharmacology, American Journal of Physiology, Biomolecules, International Journal of Molecular Sciences

Reviewer of applications for grant funding or evaluator of honors (last 10 years)

- Italian Cystic Fibrosis research Foundation (FFC Ricerca) (Verona, IT)
- University of North Carolina UNC, (Chapel Hill, NC, U.S.A.)
- Royal Irish Academia (Dublin, IE)
- Consorzio Italiano Interuniversitario Biotecnologie CIB (Rome, IT)
- Cystic Fibrosis Trust (London, UK).
- University of California (San Diego, CA, USA)
- Swiss Science Foundation (Geneve, CH)
- AFM-Telethon (Paris, F)
- Irish Thoracic Society (Dublin, IE)

Teaching activity
ASN 2012 - Certificate as Associate Professor of General Pathology (MED-04)
- University of Ferrara, IT - Course "Patologia cellulare recettoriale" (1995-96)
- University of Verona, IT - Course "General Pathology" (1996-97)
- University of Verona, IT - Course "General Pathology" - (from 1996 to 2001)
- University of Verona, IT - "Molecular biology" - Residency course Clinical Biochemistry (2000-01)
- University of Verona, IT - Course "General Pathology" - School of Medicine - (from 2004 to 2017)
- University of Ferrara, IT - Lectures on Molecular oncology - Pharmaceutical chemistry course (2018-19; 2019-20; 2020-2021; 2021-2022) and on spectrofluorometric techniques - Biotechnology course (2018-19 and 2019-20)
- University of Ferrara, IT - PhD Program "Life Sciences and Biotechnology" - Course "Biomarkers and Targets in Molecular Oncology" (2023-2024)
GC has been tutor of several students for B.Sci. diplomas, post-graduate residents and PhD attending the University of Ferrara, Verona, Bologna, San Raffaele Vita e Salute (Milano,IT)