

Raffaella Parente

MSc (PhD exam passed, degree to be awarded)
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EDUCATION

- 2015 - 2018** **Humanitas Research Hospital, Pieve Emanuele (Italy)**
Doctor of Philosophy, Immunopharmacology (Innate immunity and infection)
- 2014** **Mario Negri Institute, Milan (Italy)**
Telethon Fellowship, Biochemistry (Signal transduction)
- 2011 - 2013** **University of Naples "Federico II", Naples (Italy)**
Master of Science, Molecular and Industrial Biotechnologies (Organic Chemistry and Biochemistry)
- 2013** **Université de Liège, Liège (Belgium)**
ERASMUS student, Molecular and Industrial Biotechnologies (Proteins Engineering)
- 2008 – 2011** **University of Naples "Federico II", Naples (Italy)**
Bachelor of Science, Biomolecular and Industrial Biotechnologies (Mass spectrometry)

TECHNICAL EXPERTISE

Microbiology: prokaryotic cell cultures, bacteria transformation, fungal cell cycle assessment, *in vitro* and *in vivo* models of fungal infections with major regard to the analysis of phagocytosis and killing of fungal pathogens by human and murine leukocytes (host-pathogen interface).

Cell biology: eukaryotic cell cultures and maintenance (e.g., 293T, C2C12 and CHO cells). Isolation and functional/morphological characterization of leukocytes from human peripheral blood (e.g., polymorphonuclear neutrophils, PMNs, and peripheral blood mononuclear cells, PBMCs). Stimulation of *in vitro* cultured cells and extraction/analysis of molecules of interest (e.g., by flow cytometry, western blotting, PCR).

Molecular biology and biochemistry: PCR, gene cloning and expression analysis, agarose electrophoresis, protein extraction and purification, SDS-PAGE, western blotting, mini and midi preparation of plasmid DNA, enzymatic assays, protein engineering, chromatographic techniques (FPLC, HPLC).

In vivo expertise: mouse models of fungal infections, collection of organs and dosage of molecules of interest in tissue homogenates and blood.

Advanced technologies:

- Flow cytometry (e.g., CANTO I, CANTO II, Fortessa)
- Fluorescence microscopy (e.g., CellR, FV1000 Confocal Microscope)
- Analytical software (e.g., ImageJ, ExcellenceXT, FACS DIVA)
- Statistical software (e.g., GraphPad Prism)

AWARDS

- 2017 **SIICA Travel grant** - International retreat of PhD students in Immunology, Verona, Italy. October 6th - 7th, 2017 (*oral presentation*)
- 2017 **Travel awards** - 14th International Conference on Innate Immunity, Aldemar Knossos Royal Village Conference Center, Crete, Greece. June 19th - 24th, 2017 (*poster presentation*)
- 2016 **Travel awards** - 9th Complement therapeutics conference, Sheraton Conference Center, Rhodes, Greece. June 28th - July 3rd, 2016 (*poster presentation*)
- 2016 **SIICA Travel grant** - International Summer Course "Intrinsic and innate immunity to pathogens". Novarello Congress Center, Novara, Italy. June 23rd - 25th, 2016 (*poster and oral presentation*)

PUBLICATIONS

- **"PTX3: from pathogens recognition to inflammation."** Parente R, Bottazzi B, Mantovani M, Inforzato A. Chapter contribution in the *"Encyclopedia of Signaling Molecules"*, 2nd Edition, Sangdun Choi Editor, Springer, Basel 2016 (ISBN:978-1-4614-6438-9)
- **"Human Chitotriosidase: Catalytic Domain or Carbohydrate Binding Module, Who's Leading HCHT's Biological Function."** Crasson O, Courtade G, Léonard RR, Achmann FL, Legrand F, Parente R, Baurain D, Galleni M, Sørli M, Vandevenne M. *Sci Rep.* 2017, **7**(1):2768
- **"Complement factor H in host defense and immune evasion."** Parente R, Clark SJ, Inforzato A, Day AJ. *Cell Mol Life Sci.* 2017 **74**(9):1605-1624
- **"Functional cooperation between complement factor H and the long pentraxin PTX3 in the immune response to *Aspergillus fumigatus*"** Parente R, Petroni F, Stravalaci M, Sironi M, Leone R, Valentino S, Day AJ, Bottazzi B, Mantovani A, Inforzato A (*manuscript in preparation*)
- **"The long pentraxin PTX3 as a humoral innate immunity functional player and biomarker of infections and sepsis"** Porte R, Davoudian S, Asgari F, Parente R, Mantovani A, Garlanda C, Bottazzi B (*manuscript in preparation*)
- **"The long pentraxin PTX3: process development of a 340 kDa multimeric glycoprotein"** Martellato D, Sousa V, Lalli S, Sironi M, Parente R, Messa M, Roda B, Jowitt TA, Day AJ, Mantovani A, Bottazzi B, Inforzato A, Salvatori G (*manuscript in preparation*)

PRESENTATIONS AND ABSTRACTS

- International retreat of PhD students in immunology, Verona, Italy. October 6th-7th, 2017. **"PTX3 and factor H functionally cooperate in promoting phagocytosis of *Aspergillus fumigatus*."** Raffaella Parente, Francesca Petroni, Marina Sironi, Sonia Valentino, Marco Gobbi, Barbara Bottazzi, Alberto Mantovani, Antonio Inforzato (*Oral communication*).
- XI National Congress SIICA - Italian Society of Immunology, Clinical Immunology and Allergology, Bari, Italy. May 28th - 31st, 2017. **"PTX3 and factor H functionally cooperate in promoting phagocytosis and killing of *Aspergillus fumigatus*."** Raffaella Parente, Francesca Petroni, Marina Sironi, Sonia Valentino, Marco Gobbi, Barbara Bottazzi, Alberto Mantovani, Antonio Inforzato (*Oral communication*).
- International retreat of PhD students in immunology, Napoli, Italy. September 29th – October 1st, 2016. **"The Long Pentraxin PTX3 and the Alternative Complement Pathway cooperate in the immune response to *Aspergillus fumigatus*."** Raffaella Parente, Francesca Petroni, Marina Sironi, Sonia Valentino, Marco Gobbi, Barbara Bottazzi, Alberto Mantovani, Antonio Inforzato (*Poster presentation*).

- 9th Complement therapeutics conference, Sheraton Conference Center, Rhodes, Greece. June 28th –July 3rd, 2016. **“The Long Pentraxin PTX3 and the Alternative Complement Pathway cooperate in the immune response to *Aspergillus fumigatus*.”** Raffaella Parente, Francesca Petroni, Marina Sironi, Sonia Valentino, Marco Gobbi, Barbara Bottazzi, Alberto Mantovani, Antonio Inforzato (*Poster presentation*).
- International Summer Course “Intrinsic and innate immunity to pathogens”. Novarello Congress Center, Novara, Italy. June 23rd- 25th, 2016 . **“Crosstalk between the long pentraxin PTX3 and the Complement system in the immune response to *Aspergillus fumigatus*”.** Raffaella Parente, Francesca Petroni, Marina Sironi, Sonia Valentino, Marco Gobbi, Barbara Bottazzi, Alberto Mantovani, Antonio Inforzato (*Oral communication*)
- X National Congress SIICA - Italian Society of Immunology, Clinical Immunology and Allergology. Abano Terme, Padova, Italy. May 25th -28th, 2016. **“The Long Pentraxin PTX3 and the Alternative Complement Pathway cooperate in the immune response to *Aspergillus fumigatus*”.** Raffaella Parente, Francesca Petroni, Marina Sironi, Sonia Valentino, Marco Gobbi, Barbara Bottazzi, Alberto Mantovani, Antonio Inforzato (*Oral communication*).
- Humanitas Research Day, Clinical and Research Institute Humanitas, Rozzano, Italy, May 10th, 2016. **“The Long Pentraxin PTX3 and the Alternative Complement Pathway in the immune response towards *Aspergillus fumigatus*”.** Raffaella Parente, Francesca Petroni, Marina Sironi, Sonia Valentino, Marco Gobbi, Barbara Bottazzi, Alberto Mantovani, Antonio Inforzato (*Poster presentation*).
- PhD Meeting, 2nd edition, Mario Negri Institute of Pharmacological Research, Milan, Italy. July 9th- 10th, 2015. **“Crosstalk between the long pentraxin PTX3 and the Complement system in the immune response to *Aspergillus fumigatus*”.** Raffaella Parente, Francesca Petroni, Marina Sironi, Sonia Valentino, Marco Gobbi, Barbara Bottazzi, Alberto Mantovani, Antonio Inforzato (*Poster presentation*).
- 4th European Congress of Immunology (ECI), Vienna, Austria. September 6th- 9th, 2015. **“The long pentraxin PTX3 shapes activation of the Alternative Pathway of Complement on *Aspergillus fumigatus*”.** Francesca Petroni, Raffaella Parente, Marina Sironi, Sonia Valentino, Marco Gobbi, Barbara Bottazzi, Alberto Mantovani, Antonio Inforzato (*Poster presentation*).
- **“How to build a biological linker dedicated to the engineering of novel drug delivery systems”.** Oscar Crasson, Raffaella Parente, Marylène Vandevenne, Patrice Filée, Moreno Galleni. Laboratoire des Macromolécules Biologiques, Centre d’Ingénierie des Protéines, Allée de la chimie B6, Liège B-4000, Belgium; 2ProGenesis S.A, Bvd du doctorat, 27b, B22, Liège B-4000, Belgium (*Poster presentation*).
- **“Strategies for the discovery and development of therapies for SEPN1-related myopathies”.** Marianna Marino, Tatiana Stoilova, Ilaria Cristina Valente, Raffaella Parente, Alberto Auricchio, Ester Zito. Dulbecco Telethon Institute at IRCCS-Istituto di ricerche farmacologiche Mario Negri, Milan, Italy. Institute of Genetics and Medicine (TIGEM), Naples, and Medical Genetics, Department of Translational Medicine, Federico II University, Naples, Italy (*Poster presentation*).

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