

**UNIVERSITÀ DEGLI STUDI DI MILANO**

selezione pubblica per n. \_\_\_\_ posto/i di Ricercatore a tempo determinato ai sensi dell'art.24, comma 3, lettera a) della Legge 240/2010 per il settore concorsuale \_\_05/I2 - Microbiologia, settore scientifico-disciplinare BIO/19 Microbiologia presso il Dipartimento di SCIENZE FARMACOLOGICHE E BIOMOLECOLARI, (avviso bando pubblicato sulla G.U. n. \_\_68\_\_ del \_\_01/09/2020\_\_) Codice concorso \_\_4426\_\_

**[Raffaella Parente]  
CURRICULUM VITAE****INFORMAZIONI PERSONALI (NON INSERIRE INDIRIZZO PRIVATO E TELEFONO FISSO O CELLULARE)**

COGNOME	PARENTE
NOME	RAFFAELLA
DATA DI NASCITA	[ 27/02/1990 ]

**INSERIRE IL PROPRIO CURRICULUM  
(non eccedente le 30 pagine)***PhD*

Laboratory of Immunopharmacology

Department of Inflammation and Immunology

Humanitas Research Hospital

Email:rafparente90@gmail.com

**Professional experiences**

- 2019 -** **Humanitas Research Hospital, Pieve Emanuele (Italy)**  
*Post doc, Immunopharmacology (Innate immunity and infection)*
- 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)*

**Education**

- 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 interaction).

**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 (e.g., intraperitoneal, intranasal, intratracheal, intrafemur infection), 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, SP8I)
- Analytical software (e.g., ImageJ, ExcellenceXT, FACS DIVA)
- Statistical software (e.g., GraphPad Prism)

## **AWARDS**

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

## **PUBLICATIONS**

- ***The complement system in Aspergillus fumigatus infections and its crosstalk with pentraxins.*** Raffaella Parente, Andrea Doni, Barbara Bottazzi, Cecilia Garlanda and Antonio Inforzato. FEBS Letter, February 2020 doi:10.1002/1873-3468.13744. Review.
- ***The Long Pentraxin PTX3 in Bone Homeostasis and Pathology.*** Raffaella Parente, Cristina Sobacchi, Barbara Bottazzi, Alberto Mantovani, Danka Grcevic and Antonio Inforzato. Front. Immunol. 10:2628. doi: 10.3389/fimmu.2019.02628

- ***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. Front Immunol. 2019 Apr 12;10:794. doi: 10.3389/fimmu.2019.00794. eCollection 2019. Review.
- ***"Complement factor H in host defense and immune evasion."*** Raffaella Parente, Simon J. Clark, Antonio Inforzato, Anthony J. Day. Cell Mol Life Sci. 2017 May;74(9):1605-1624. doi: 10.1007/s00018-016-2418-4. Epub 2016 Dec 10. Review.
- ***"Human Chitotriosidase: Catalytic Domain or Carbohydrate Binding Module, Who's Leading HCHT's Biological Function."*** Crasson O, Courtade G, Léonard RR, Aachmann FL, Legrand F, **Parente R**, Baurain D, Galleni M, Sørli M, Vandevenne M. Sci Rep. 2017 Jun 5;7(1):2768. doi: 10.1038/s41598-017-02382-z.

### **Book Chapters, Data Contribution, and Unpublished Manuscripts**

- **Raffaella Parente**, Barbara Bottazzi, Alberto Mantovani, Antonio Inforzato. ***"PTX3: from pathogens recognition to inflammation."*** Chapter contribution in the "Encyclopedia of Signaling Molecules", 2nd Edition, Sangdun Choi Editor, Springer, Basel 2016 (ISBN:978-1-4614-6438-9).
- **R. Parente**, F. Petroni, M. Stravalaci, M. Sironi, R. Leone, S. Valentino, AJ Day, B. Bottazzi, A. Mantovani, A. Inforzato. ***"The long pentraxin PTX3 as a functional ancestor of antibodies in the immune response to Aspergillus fumigatus"*** (to submit).
- ***"The long pentraxin PTX3: process development of a 340 kDa multimeric glycoprotein"*** (to submit).

### **Presentations and Abstracts**

- Novel Concepts in Innate Immunity, Tübingen, Germany. June 12<sup>th</sup>-14<sup>th</sup> 2019. ***"Functional cooperation between complement factor H and the long pentraxin PTX3 in the immune response to Aspergillus fumigatus."*** **R. Parente**, F. Petroni, M. Stravalaci, M. Sironi, R. Leone, S. Valentino, AJ Day, B. Bottazzi, A. Mantovani, A. Inforzato. (Oral communication, presenting author).
- 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, presenting author).
- 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, presenting author).
- 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, presenting author)

- 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, presenting author*).
- 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, 2<sup>nd</sup> edition, Mario Negri Institute of Pharmacological Research, Milan, Italy. July 9<sup>th</sup>- 10<sup>th</sup>, 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 Protéins, Allée de la chimie B6, Liège B-4000, Belgium; 2ProGenosis S.A, Bvd du doctorat, 27b, B22, Liège B-4000, Belgium.
- **"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.

Data

15/09/2020

Luogo

Milano