

CURRICULUM VITAE



PERSONAL INFORMATION

Name **DE SANCTIS, FRANCESCO**
Address **VIA Centro N.19, 37135, Verona (VR), Italy**
Telephone **+393284840987**
E-mail **francesco.desanctis82@gmail.com;**
Nationality **Italy**
Date of birth **9 October 1982**

WORK EXPERIENCE

EDUCATION AND TRAINING

- Dates **1 February 2020 – 31 January 2023**
- Name and type of organisation providing education and training **RTDA – Research fellow (Temporary Assistant Professor)** working in the Immunology Section, Department of Medicine, University of Verona, G.B. Rossi Hospital
- Principal subjects covered **Cancer Immunology and immunotherapy**
- Main activities and responsibilities **Leader of 2 research projects on immunotherapy approaches of pancreatic cancer and biomarker discovery of immunotherapy efficacy. Supervisor of post-Doc, Ph.D students, technicians and bachelor students on this and other projects.**

- Dates **December 2008 – December 2012**
- Name and type of organisation providing education and training **Ph.D in Biology and Molecular Biotechnology – Università degli studi di Perugia, research activity performed at UPENN (University of Pennsylvania) - School of Medicine - OCRC Ovarian Cancer Research Center –Pennsylvania, USA**
- Principal subjects covered **Cancer Immunology**
- Main activities and responsibilities **Immunity studies and tumor immunotherapy approaches. Conducting research, monitoring experiments, analyzing and expose data.**

- Dates **November 2007-December 2008**
- Employer **I.R.B.M.: Via Pontina km 30,600; 0040 – Pomezia, Rome – Italy**
- Type of business or sector **Pharmaceuticals Company – Merck Sharp & Dohme**
- Occupation **Biologist**
- Main activities and responsibilities **Performing molecular biology research: construction of antibody fragment libraries in phage display screening systems and use of commercial libraries with the aim of finding new human antibodies against cancer targets and new cancer target candidates.**

- Dates **October 2004 – October 2007**
- Name and type of organisation providing education and training **Master Degree in Biotechnology of the Reproduction (Medical Biotechnology) – Università degli studi di Teramo. Score: summa cum laude (110 out of 110, and honors). 1 Year experimental thesis in I.R.B.M.**
- Principal subjects covered **Anatomy, Reproductive Physiopathology, Andrology, Gametes Physiology, Embriology, Infertility's Genetic, Cryobiology, Micromanipulation techniques.**
- Title of qualification **Master Degree**

• Dates	October 2001 – September 2004
• Name and type of organisation providing education and training	Bachelor Degree in Biotechnology – Università degli studi di Teramo. Score: summa cum laude (110 out of 110, and honors). Experimental degree thesis in molecular biology - Università degli studi di Teramo.
• Principal subjects covered	Molecular Biology, Biochemistry, Recombinant techniques, Cellular Physiology, Immunology, Cytology, Microbiology, Genetics, Chemistry.
• Title of qualification	Bachelor Degree

SCIENTIFIC ACTIVITY

15 years of research activity (2004-2019) performed in different laboratories. 3 years research experience in Merck Sharp & Dohme pharma company and 3 years of research studies performed in University of Pennsylvania, perfectly bridge the requirements for performing translational research at highest levels. Since February 2013 I am post-doc researcher in the laboratory of Immunology section (University of Verona) with the following fellowship positions: 2013 one year of research fellowship, 2014-2017 3 years of AIRC fellowship, 2017-2019 research fellowship.

During this long lasting working activity I developed great research experience in the oncoimmunology field, technical and scientific know-how, scientific independence, tutoring and management skills in order to guide Ph.D students, young post-docs research, and to establish fruitful collaboration with biotech and pharma companies. Awesome team-work ability, goal-directed and problem-solving attitude, excellent communication skills, attention to detail and pragmatism, complete my profile.

My research activity aims to:

- Transcriptomic fingerprinting of myeloid derived suppressor cells (MDSCs) and tumor cells for the identification of new molecular insights of immune dysfunction and tumor induced immune editing.
- Silencing, knocking out and up-regulation of candidate genes directly or indirectly involved in metastatic and immunescape processes through many editing technologies: CRISPR, ShRNA, siRNA, lentiviral transductions, mRNA- and DNA-based transfections.
- Investigations on the role of MDSCs in metastatic spreading.
- Investigations on the molecular switches triggered by tumor on immune system to induce tumor spreading.
- Investigations on the molecular switches triggered by tumor to exclude cytotoxic T lymphocytes from tumor bed, thus limiting them on tumor borders to avoid immune attack.
- Investigations on the role of the complement activation in directing T cell recruitment in tumor mass.
- Active and passive immune therapy approaches by exploiting DNA- DCs- peptides-based vaccination strategies in preclinical models and evaluation of activated T cell immune response against tumor associated antigens.
- Investigations on the role of specific murine retrovirus in activating a protective T cell-based immune response against tumor challenge.
- Investigations of the immune suppressive strategies enrolled by MDSCs in the anti tumor immune response context
- Passive cancer immune therapy approaches based on the adoptive cell transfer of Telomerase specific CD8⁺ T lymphocytes
- Immunotherapy approaches designed to target tumor endothelium in ovarian cancer models
- Development of gene therapy protocols to disrupt MDSC immune suppressive properties.

TECHNICAL SKILLS AND COMPETENCES

***In vivo* experience:**

- Mice handling for tumor growth and immune response studies: IP (Intraperitoneal), SC (Subcutaneous), IM (Intramuscular), IV (Intravenous), orthotopic (pancreas and breast) Injections, surgeries, mice vaccination, administration of biologics (tumor specific CTLs, Immune checkpoint inhibitors, Chemo) tumor measurement, organ dissections, bleeding.
- Establishment of transgenic autochthonous mouse models developing spontaneous tumors
- Development of human immune reconstituted (HIR) mice for studying the functional interaction between tumors and immune system in human set up.
- *In vivo* imaging: IVIS (bioluminescence and fluorescence) and VEVO (ultra sound imaging)

***Ex vivo* experience:**

- Tumor and organs (spleen, lymphonodes, lungs etc) dissociation and preparation for flow cytometry, magnetic sorting, functional assays (ELISPOT, ICS, Proliferation, Killing assays, MLPC, MLTC, Suppression assays)
- Tumor and organs (spleen, lymphonodes, lungs etc) dissection and preparation for IHC, IF stainings

***In Vitro* experience:**

- **Molecular Biology:** Phage display technology for antibody selection, cloning, gene expression (RT-PCR, microarrays), Genetic editing (CRISPR, shRNA, siRNA technologies)
- **Biochemistry:** Electrophoresis, Western Blot, ELISA, Luminex technology; protein synthesis in prokaryotic and eukaryotic systems
- **Cell Cultures:** Transient and stable transfections (DNA plasmids, mRNA, siRNA, lentivirus, CRISPR), adhesion, migration and invasion assays, flow cytometry, 3D organoid cultures, confocal microscopy

Use of Scientific software:

- FlowJo
- SigmaPlot
- Vector NTI
- Aperio Image Scope
- LasX
- EndNote
- Corel Draw
- Office

PUBLICATIONS: 25 (FIRST AUTHOR: 9, LAST NAMES:2)

- 1) The engagement between MDSCs and metastases: partners in crime. Ugel S.; Trovato R.; Canè S.; Petrova V.; Sartoris S.; **De Sanctis F.** *Frontiers in Oncology Molecular and Cellular Oncology* - accepted
- 2) Tandem Dye Doped Nanoparticles for NIR Imaging via Cerenkov Resonance Energy Transfer. Zaccheroni N.; Genovese D.; Petrizza L.; Prodi L.; Rampazzo E.; **De Sanctis F.**; Spinelli A.E.; Boschi F. *Frontiers in Chemistry Nanoscience* – accepted
- 3) Immunosuppression by monocytic myeloid-derived suppressor cells in patients with pancreatic ductal carcinoma is orchestrated by STAT3. Trovato R.; Fiore A.; Sartori S.; Canè S.; Giugno R.; Cascione L.; Paiella S.; Salvia R.; **De Sanctis F.**; Poffe O.; Anselmi C.; Hofer F.; Sartoris S.; Piro G.; Carbone C.; Corbo V.; Lawlor R.; Solito S.; Pinton L.; Mandruzzato S.; Bassi C.; Scarpa A.; Bronte V.; Ugel S. *Journal for ImmunoTherapy of Cancer* 2019
- 4) The Endless Saga of Monocyte Diversity. Canè S., Ugel S., Trovato R., Marigo I., **De Sanctis F.**, Sartoris S. and Bronte V. *Front Immunol.* 2019
- 5) Immuno-evolution of mouse pancreatic organoid isografts from preinvasive to metastatic disease. Filippini D, Agosto S, Delfino P, Simbolo M, Piro G, Rusev B, Veghini L, Cantù C, Lupo F, Ugel S, **De Sanctis F**, Bronte V, Milella M, Tortora G, Scarpa A, Carbone C, Corbo V. *Scientific Reports* 2019
- 6) Induction of immunosuppressive functions and NF-κB by FLIP in monocytes. Fiore A, Ugel S, **De Sanctis F**, Sandri S, Fracasso G, Trovato R, Sartoris S, Solito S, Mandruzzato S, Vascotto F, Hippen KL, Mondanelli G, Grohmann U, Piro G, Carbone C, Melisi D, Lawlor RT, Scarpa A, Lamolinara A, Iezzi M, Fassan M, Bicciato S, Blazar BR, Sahin U, Murray PJ, Bronte V. *Nature Communication* 2018
- 7) Methods to Measure MDSC Immune Suppressive Activity In Vitro and In Vivo. Solito S, Pinton L, **De Sanctis F**, Ugel S, Bronte V, Mandruzzato S, Marigo I. *Curr Protoc Immunol.* 2018
- 8) Four-class tumor staging for early diagnosis and monitoring of murine pancreatic cancer using magnetic resonance and ultrasound. Dugnani E., Pasquale V. Marra P., Liberati D., Canu T., Perani L., **De Sanctis F.**, Ugel S., Invernizzi F., Citro A., Venturini M., Doglioni C., Esposito A., Piemonti L. *Carcinogenesis* 2018
- 9) T-cell tracking using Cerenkov and Radioluminescence imaging. Boschi F*, **De Sanctis F***, Ugel S, Spinelli AE. *J Biophotonics.* 2018
- 10) Hyperthermic treatment at 56 °C induces tumour-specific immune protection in a mouse model of prostate cancer in both prophylactic and therapeutic immunization regimens. **De Sanctis F**, Sandri S, Martini M, Mazzocco M, Fiore A, Trovato R, Garetto S, Brusa D, Ugel S, Sartoris S. *Vaccine.* 2018
- 11) The dark side of tumor-associated endothelial cells. **De Sanctis F**, Ugel S, Facciponte J, Facciabene A. *Semin. Immunol.* 2018
- 12) Anti-telomerase T cells adoptive transfer. **De Sanctis F**, Trovato R, Ugel S. *Aging.* 2017
- 13) Optical emission of ²²³Radium: in vitro and in vivo preclinical applications. Boschi F, **De Sanctis F**, Spinelli AE. *J Biophotonics.* 2017
- 14) Overview of the optical properties of fluorescent nanoparticles for optical imaging. Boschi F, **De Sanctis F.** *Eur J Histochem.* 2017 Aug 29;61(3):2830
- 15) Effective control of acute myeloid leukaemia and acute lymphoblastic leukaemia progression by telomerase specific adoptive T-cell therapy. Sandri S*, **De Sanctis F***, Lamolinara A, Boschi F, Poffe O, Trovato R, Fiore A, Sartori S, Sbarbati A, Bondanza A, Cesaro S, Krampera M, Scupoli MT, Nishimura MI, Iezzi M, Sartoris S, Bronte V, Ugel S. *Oncotarget.* 2017
- 16) Local Endothelial Complement Activation Reverses Endothelial Quiescence, Enabling T-cell Homing and Tumor Control during T-cell Immunotherapy. Facciabene A.*, **De Sanctis F.***, Pierini S.*, Reis E.S.*, Balint K., Magotti P., Lanitis E., DeAngelis R.A., Yian J., Buckanovich R., Song W.C., Lambris J.D.***, Coukos G.** *Oncimmunology* 2017 (accepted)
- 17) Tumor-Induced Myeloid-Derived Suppressor Cells. **De Sanctis F**, Bronte V, Ugel S. *Microbiol Spectr.* 2016

- 18) Feasibility of Telomerase-Specific Adoptive T-cell Therapy for B-cell Chronic Lymphocytic Leukemia and Solid Malignancies. Sandri S, Bobisse S, Moxley K, Lamolinara A, **De Sanctis F**, Boschi F, Sbarbati A, Fracasso G, Ferrarini G, Hendriks RW, Cavallini C, Scupoli MT, Sartoris S, Iezzi M, Nishimura MI, Bronte V, Ugel S. *Cancer Res*. 2016
- 19) A Tumor Mitochondria Vaccine Protects against Experimental Renal Cell Carcinoma. Pierini S, Fang C, Rafail S, Facciponte JG, Huang J, **De Sanctis F**, Morgan MA, Uribe-Herranz M, Tanyi JL, Facciabene A. *J Immunol*. 2015 Oct
- 20) Tumor-induced myeloid deviation: when myeloid-derived suppressor cells meet tumor-associated macrophages. Ugel S, **De Sanctis F**, Mandruzzato S, Bronte V. *J Clin Invest*. 2015 Sep
- 21) Targeting tumor vasculature: expanding the potential of DNA cancer vaccines. Ugel S, Facciponte JG, **De Sanctis F**, Facciabene A. *Cancer Immunol Immunother*. 2015 Oct
- 22) Autologous cellular vaccine overcomes cancer immunoediting in a mouse model of myeloma. Mazzocco M, Martini M, Rosato A, Stefani E, Matucci A, Dalla Santa S, **De Sanctis F**, Ugel S, Sandri S, Ferrarini G, Cestari T, Ferrari S, Zanovello P, Bronte V, Sartoris S. *Immunology*. 2015 Sep
- 23) MDSCs in cancer: Conceiving new prognostic and therapeutic targets. **De Sanctis F**, Solito S, Ugel S, Molon B, Bronte V, Marigo I. *Biochim Biophys Acta*. 2015 Aug 6
- 24) Tumor endothelial marker 1-specific DNA vaccination targets tumor vasculature. Facciponte JG, Ugel S, **De Sanctis F**, Li C, Wang L, Nair G, Sehgal S, Raj A, Matthaiou E, Coukos G, Facciabene A. *J Clin Invest*. 2014 Apr
- 25) The emerging immunological role of post-translational modifications by reactive nitrogen species in cancer microenvironment. **De Sanctis F**, Sandri S, Ferrarini G, Pagliarello I, Sartoris S, Ugel S, Marigo I, Molon B, Bronte V. *Front Immunol*. 2014 Feb

The research activity of Dr Francesco De Sanctis is confirmed by the following bibliographic database.

SCOPUS:

Hirsch h index: 10

Citations: 400

<https://www2.scopus.com/authid/detail.uri?authorId=56188636900>

AWARDS

- **November 2013 – Italy.** Winner of a 3 years **AIRC fellowship for Italy** with a research project focused on immunotherapeutic approaches of Pancreatic cancer.
- **November 2012 - Athens Inspire 2012 Conference:** Progress in combination therapy of cancer using novel immunomodulators. Abstract selected for oral presentation and winner of the best presentation award. *F. De Sanctis et al. Local Complement Activation Abrogates the Tumor-Endothelial Barrier and Mediates T Cell Homing and Tumor Immune Attack*
- **December 2004 - University of Teramo:** *Corradino Motti Award for the best experimental thesis of the year 2004 (Bachelor Degree)*

CONFERENCE POSTERS

- Ugel S., Rueter J., **De Sanctis F.**, Scarselli E., Mennuni C., La Monica N., Coukos G. And Facciabene A. *mTERT genetic vaccine combined with chemotherapy augments antigen-specific immune response and confers tumor protection in time depended fashion*. Gene Vaccination in Cancer, Ascoli Piceno (Italia), 2011
- Sandri S., Bobisse S., Moxley K., Lamolinara A., **De Sanctis F.**, Boschi F., Sbarbati A., Fracasso G., Ferrarini G., Hendriks R.W., Cavallini C., Scupoli M.T., Sartoris S., Iezzi M., Nishimura M.I., Bronte V.* and Ugel S.* *Anti-telomerase adoptive cell therapy to target B-cell lymphocytic leukemia*. CIMT, Mainz (Germania), 2013.
- **De Sanctis F.**, Ugel S., Fassan M., Iezzi M., Boschi F., Youngkyu P., Stramucci L., Lamolinara A., Sandri S., Ferrarini G., Cristovao Borges L., Sartoris S., Sbarbati A., Tuveson D., Scarpa A. e Bronte V. *Targeting telomerase in pancreatic cancer*. NIBIT, Siena (Italia), 2014.
- Ugel S., Facciponte J.G., **De Sanctis F.**, Li C, Wang L., Nair G., Sehgal S., Raj A. ,Matthaiou E., Coukos G. and Facciabene A. *Tumor endothelial marker 1-specific DNA vaccination targets tumor vasculature*. NIBIT, Siena (Italia), 2014.
- Sandri S., Bobisse S., Moxley K., Lamolinara A., **De Sanctis F.**, Boschi F., Sbarbati A., Fracasso G., Ferrarini G., Hendriks R.W., Cavallini C., Scupoli M.T., Sartoris S., Iezzi M., Nishimura M.I., Bronte V.* and Ugel S.* *Targeting B-cell lymphocytic leukemia by adoptive transfer of telomerase specific T cells*. PIVAC, Roma (Italia), 2014. **Poster award:** Signori E, Cavallo F. *The Fourteenth International Conference on Progress in Vaccination Against Cancer (PIVAC-14), September 24-26, 2014, Rome, Italy: rethinking anti-tumor vaccines in a new era of cancer immunotherapy*. *Cancer Immunol Immunother*. 2015
- Sandri S., Bobisse S., Moxley K., Lamolinara A., **De Sanctis F.**, Boschi F., Sbarbati A., Fracasso G., Ferrarini G., Hendriks R.W., Cavallini C., Scupoli M.T., Sartoris S., Iezzi M., Nishimura M.I., Bronte V.* and Ugel S.* *Feasibility of Telomerase-Specific Adoptive T-cell Therapy for B-cell Chronic Lymphocytic Leukemia and Solid Malignancies*. CIMT, Mainz (Germania), 2016

- **De Sanctis F.**, Fassan M, Lamolinara A., Iezzi M., Boschi F., Sbarbati A., Youngkyu P., Sandri S., Trovato R., Fiore A., Sartori S., Poffe O., Fracasso G., Anselmi C., Tuveson D, Lawlor R.T., Scarpa A., Sartoris S., Ugel S. and Bronte V. *Telomerase specific adoptive cell therapy in pancreatic cancer*. CIMT, Mainz (Germany), 2016
- Trovato R., **De Sanctis F.**, Fiore A., Sandri S., Sartori S., Poffe O., Anselmi C., Fracasso G, Iezzi M., Lamolinara A., Fassan M., Rusev B., Scarpa A., Boschi F., Ruggeri L., Tuveson D., Sartoris S., Ugel S. and Bronte V. *Tumor-infiltrating myeloid cells in pancreatic ductal adenocarcinoma*. Regulatory Myeloid-Suppressor Cell Conference, Philadelphia (USA), 2016.
- Sandri S., **De Sanctis F.**, Bobisse S., Moxley K., Lamolinara A., Boschi F., Sbarbati A., Fracasso G., Ferrarini G., Hendriks R.W., Cavallini C., Scupoli M.T., Sartoris S., Iezzi M., Nishimura M.I., Bronte V., Ugel S. *Feasibility of telomerase-specific adoptive T-cell therapy for hematologic and solid malignancies*. SIC, Verona (Italy), 2016. **Poster award**
- **De Sanctis F.**, Fassan M, Lamolinara A., Iezzi M., Boschi F., Sbarbati A., Youngkyu P., Sandri S., Trovato R., Fiore A., Sartori S., Poffe O., Fracasso G., Anselmi C., Tuveson D, Lawlor R.T., Scarpa A., Sartoris S., Ugel S. and Bronte V. *Telomerase specific adoptive cell therapy in pancreatic cancer*. NIBIT, Siena (Italy), 2016.
- Trovato R, **De Sanctis F**, Fiore A, Sandri S, Sartori S, Poffe O, Anselmi C, Fracasso G, Ruggeri L, Iezzi M, Lamolinara A, Fassan M, Rusev B, Lawlor RT, Scarpa A, Boschi F, Tuveson D, Sartoris S, Ugel S and Bronte V. "Tumor-infiltrating myeloid cells in pancreatic ductal adenocarcinoma" Cancer Bio-immunotherapy XIV NIBIT meeting, Siena, Italy, 13-15 October 2016
- **De Sanctis F.**, Fassan M, Lamolinara A., Iezzi M., Boschi F., Sbarbati A., Youngkyu P., Sandri S., Trovato R., Fiore A., Sartori S., Poffe O., Fracasso G., Anselmi C., Tuveson D, Lawlor R.T., Scarpa A., Sartoris S., Ugel S. and Bronte V. *Telomerase specific adoptive cell therapy in pancreatic cancer*. 58th annual meeting of the Italian cancer society (SIC 2016), Verona, Italy, 5-8 September 2016.
- Trovato R, **De Sanctis F**, Fiore A, Sandri S, Sartori S, Poffe O, Anselmi C, Fracasso G, Ruggeri L, Iezzi M, Lamolinara A, Fassan M, Rusev B, Lawlor RT, Scarpa A, Boschi F, Tuveson D, Sartoris S, Ugel S and Bronte V. "Tumor-infiltrating myeloid cells in pancreatic ductal adenocarcinoma" 58th annual meeting of the Italian cancer society (SIC 2016), Verona, Italy, 5-8 September 2016.
- **De Sanctis F**, Sandri S, Martini M, Mazzocco M, Fiore A, Trovato R, Garetto S, Brusa D, Ugel S, Sartoris S. Hyperthermic treatment at 56°C induces tumour-specific immune protection in a mouse model of prostate cancer in both prophylactic and therapeutic immunization regimens. EMDS, Verona, September 2018
- Trovato R, , Fiore A, Sartori S, Canè S, Giugno R, Cascione L, Paiella S, Salvia R, **De Sanctis F**, Poffe O, Anselmi C, Hofer F, Sartoris S, Piro G; Carbone C; Corbo V, Lawlor R, Solito S, Pinton L, Mandruzzato S, Bassi C, Scarpa A, Bronte V and Ugel S. Immunosuppression by monocytic myeloid-derived suppressor cells in patients with pancreatic ductal carcinoma is orchestrated by STAT3. Cimt2019, Mainz, May 2019
- Trovato R, Fiore A, Sartori S, Canè S, Giugno R, Cascione L, Paiella S, Salvia R, **De Sanctis F**, Poffe O, Anselmi C, Hofer F, Sartoris S, Piro G; Carbone C; Corbo V, Lawlor R, Solito S, Pinton L, Mandruzzato S, Bassi C, Scarpa A, Bronte V and Ugel S. Immunosuppression by monocytic myeloid-derived suppressor cells in patients with pancreatic ductal carcinoma is orchestrated by STAT3. Nibit 2019, Verona, October 2019

CONFERENCE ORAL COMMUNICATIONS

- **De Sanctis F.**, Facciabene A.*, Balint K., Magotti P., Facciponte J., Hagemann I.S., Rueter J., De Angelis R.A., Yian J., Buckanovich R., Song W.C., Lambris J.D., Coukos G. *Local Complement Activation Abrogates the Tumor-Endothelial Barrier and Mediates T Cell Homing and Tumor Immune Attack*. TRCCC, Seven Springs (USA), 2012.
- **De Sanctis F.**, Facciabene A.*, Balint K., Magotti P., Facciponte J., Hagemann I.S., Rueter J., De Angelis R.A., Yian J., Buckanovich R., Song W.C., Lambris J.D., Coukos G. *Local Complement Activation Abrogates the Tumor-Endothelial Barrier and Mediates T Cell Homing and Tumor Immune Attack*. Inspire Athens 2012 Atene (Greece), 2012. **Best presentation award**
- **De Sanctis F**, Ugel S, La Molinara A, Boschi F, Trovato R, Fiore A, Canè S, Musiu C, Anselmi C, Poffe O, Cestari T, Sartoris S, Fassan M, Dugnani E, Piemonti L, Youngkyu P, Tuveson D, Paiella S, Bassi C, Corbo V, Lawlor R, Scarpa A, Iezzi M and Bronte V. The nitrosative stress modulation of pancreatic tumor microenvironment favors the immune attack of TERT specific cytotoxic T lymphocytes. Oral Presentation Nibit 2019 Verona, October 2019

EDUCATIONAL ACTIVITY

1. 2015: Bachelor thesis co-tutor of Dr Lorena Cristovao Borges at University of Verona
2. 2016: Bachelor thesis co-tutor of Dr Lorenzo Bombarda at University of Verona
3. 2017: Bachelor thesis co-tutor of Dr Sebastiano Dalla Gassa at University of Verona
4. 2020: Master Degree co-tutor of Dr Ottavia Salvi at University of Verona

DIAGNOSTIC ACTIVITY

- 2016: Biologist national certification achieved at University of Parma.