

SILVIA CERANTOLA, PhD

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Date & Place of Birth: 26.11.1991, Bassano del Grappa (Vicenza, Italy)

Citizenship: Italian

PROFESSIONAL EXPERIENCE

OCTOBER 2019 – PRESENT

Post-Doc at the Department of Pharmaceutical and Pharmacological Sciences, Pharmacology section, University of Padova, Italy. (*Supervisor:* Maria Cecilia Giron, PharmD, PhD).

EDUCATION

JANUARY 2020

PhD Defense, *Doctor Europaeus* in Pharmacological Sciences at the Department of Pharmaceutical and Pharmacological Sciences, University of Padova, Italy. Research Thesis entitled “Toll-like receptor 4, enteric nervous system and gut neuromuscular function in models of functional and inflammatory bowel disorders”.

OCTOBER 2016 – SEPTEMBER 2019

PhD student in the Graduate Program in Pharmacological Sciences (Pharmacology, Toxicology and Therapy), Department of Pharmaceutical and Pharmacological Sciences, Pharmacology section, University of Padova, Italy. (*Supervisor:* Maria Cecilia Giron, PharmD, PhD).

OCTOBER 2018 – APRIL 2019

ERASMUS+ Traineeship Program at the Lab for Enteric NeuroScience (LENS) in the Chrometa Department of KU Leuven, Belgium (*Supervisor:* Prof. Pieter Vanden Berghe, PhD).

JANUARY 2016 - JULY 2016

Research Fellowship at the Department of Pharmaceutical and Pharmacological Sciences, Pharmacology section, University of Padova, Italy (*Supervisor:* Maria Cecilia Giron, PharmD, PhD).

JULY 2016

Board Certified as Community Pharmacist, University of Padova, Italy.

DECEMBER 2015

Master's degree in Pharmaceutical Chemistry and Technology (final mark 108/110) at University of Padova, Italy (five years from October 2010 to December 2015).

Research Internship at the Department of Pharmaceutical and Pharmacological Sciences, Pharmacology section, University of Padova, Italy (*Supervisor:* Maria Cecilia Giron, PharmD, PhD) for performing the master's degree Research Thesis entitled “Neuropathological alterations of the mouse enteric nervous system induced by high-fat diet”.

PUBLICATIONS

1. Marsilio I, Caputi V, Latorre E, **Cerantola S**, Paquola A, Alcalde AI, Mesonero JE, Mahony SO, Bertazzo A, Giaroni C, Giron MC, Oxidized Phospholipids Affect Small Intestine Neuromuscular Transmission and Serotonergic Pathways In Juvenile Mice. *Neurogastroenterology and Motility*, 2020, *Accepted with major revision*.
2. D'Antongiovanni V, Benvenuti L, Fornai M, Pellegrini C, van den Wijngaard R, **Cerantola S**, Giron MC, Caputi V, Colucci R, Haskó G, Németh ZH, Blandizzi C, Antonioli L. Glial A2B Adenosine Receptors Modulate Abnormal Tachykininergic Responses and Prevent Enteric Inflammation Associated with High Fat Diet-Induced Obesity. *Cells*. 2020 May 18;9(5):E1245.

3. **Cerantola S**, Caputi V, Marsilio I, Ridolfi M, Faggin S, Bistoletti M, Giaroni C, Giron MC. Involvement of Enteric Glia in Small Intestine Neuromuscular Dysfunction of Toll-Like Receptor 4-Deficient Mice. *Cells*. 2020 Mar 31;9(4). pii: E838. doi: 10.3390/cells9040838.
4. Antonioli L, D'Antongiovanni V, Pellegrini C, Fornai M, Benvenuti L, di Carlo A, van den Wijngaard R, Caputi V, **Cerantola S**, Giron MC, Németh ZH, Haskó G, Blandizzi C, Colucci R. Colonic dysmotility associated with high-fat diet-induced obesity: Role of enteric glia. *FASEB J*. 2020 Apr;34(4):5512-5524. doi:10.1096/fj.201901844R.
5. Bistoletti M, Caputi V, Baranzini N, Marchesi N, Filpa V, Marsilio I, **Cerantola S**, Terova G, Baj A, Grimaldi A, Pascale A, Frigo G, Crema F, Giron MC, Giaroni C. Antibiotic treatment-induced dysbiosis differently affects BDNF and TrkB expression in the brain and in the gut of juvenile mice. *PLoS One*. 2019;14(2):e0212856. doi: 10.1371/journal.pone.0212856.
6. Caputi V, Marsilio I, **Cerantola S**, Roozfarakh M, Lante I, Galuppini F, Rugge M, Napoli E, Giulivi C, Orso G, Giron MC. Toll-like receptor 4 modulates small intestine neuromuscular function through nitrergic and purinergic pathways. *Front Pharmacol*. 2017; 8:350. doi: 10.3389/fphar.2017.00350.
7. Caputi V, Marsilio I, Filpa V, **Cerantola S**, Orso G, Bistoletti M, Paccagnella N, De Martin S, Montopoli M, Dall'Acqua S, Crema F, Di Gangi IM, Galuppini F, Lante I, Bogialli S, Rugge M, Debetto P, Giaroni C, Giron MC. Antibiotic-induced microbiota depletion impairs neuromuscular function in adolescent mice: implications for functional gastrointestinal disorders. *Br J Pharmacol*. 2017;174(20):3623-3639. doi: 10.1111/bph.13965.

ABSTRACTS

1. **Cerantola S**, Ridolfi M, Faggin S, Bistoletti M, Caputi V, Rambaldo A, Porzionato A, Giaroni C, Giron MC. Toll-Like receptor 4 signaling influences small intestine neuromotor function in a mouse model of dextran sulfate sodium-induced colitis. Submitted at EPHAR 2020 – Prague (6-9 July 2020).
2. **Cerantola S**, Ridolfi M, Faggin S, Bussolaro G, Tegon M, Caputi V, Giron M C. Involvement of Toll-Like Receptor 4 signaling and dopaminergic neurotransmission in high-fat diet-induced small intestine dysmotility. Accepted as Poster Presentation at FNM 2020, March 25-28 March, Adelaide, Australia. *Neurogastroenterology & Motility*, 2020; 32(S1):144.
3. **Cerantola S**, Ridolfi M, Faggin S, Tegon M, Bussolaro G, Caputi V, Giron M C. Toll-Like Receptor 4 interaction with enteric dopaminergic pathways in A Mouse Model of Dextran Sulfate Sodium-Induced colitis. Accepted as Poster Presentation at FNM 2020, March 25-28 March, Adelaide, Australia. *Neurogastroenterology & Motility*, 2020; 32 (S1): 143-144.
4. **Cerantola S**, Ridolfi M, Faggin S, Tegon M, Bussolaro G, Salviato E, Bistoletti M, Caputi V, Giaroni C, Giron M C. Crosstalk between Toll-like receptor 4 and enteric serotonergic pathways in a mouse model of dinitrobenzene sulfonic acid-induced colitis. Accepted as Poster Presentation at ECCO 2020, February 13-15, 2020, Vienna, Austria. *Journal of Crohn's and Colitis*, 2020; Suppl.1:S182.
5. **Cerantola S**, Marsilio I, Caputi V, Bistoletti M, Bertazzo A, Giaroni C, Giron MC. Interaction between Toll-like receptor 4 and serotonin signaling in a mouse model of high-fat.diet. Accepted as Oral Presentation at 39° National Congress Italian Society of Pharmacology, November 20-23 2019, Firenze, Italy.
6. Marsilio I, Caputi V, **Cerantola S**, Bistoletti M, Giaroni C, Zusso M, Giron MC. Effect of high-fat diet and Toll-like receptor 4 on the integrity of mouse enteric and central nervous systems. Accepted as Oral Presentation at 39° National Congress Italian Society of Pharmacology, November 20-23 2019, Firenze, Italy.
7. Caputi V, Marsilio I, **Cerantola S**, Calanni F, Renzulli C, Viscomi GC, De Martin S, Giron MC. Ciprofloxacin treatment affects the structure and activity of enteric nervous system in mouse small intestine. Accepted as Oral Presentation at UEG Week 2019, October 19-23, Barcelona, Spain.
8. **Cerantola S**, Marsilio I, Caputi V, Bistoletti M, Bertazzo A, Giaroni C, Giron MC. Small intestine neuromuscular dysfunctions in a mouse model of high-fat diet-induced obesity: involvement of Toll-like receptor 4 and serotonin. Accepted as Oral Presentation at NeuroGastro 2019, September 5-7 2019, Lisbon, Portugal. *Neurogastroenterology & Motility*, 2019; 31 (S4): 41.

9. **Cerantola S**, Marsilio I, Caputi V, Salviato E, Ridolfi M, Zuanetti S, Bistoletti M, Giaroni C, Bertazzo A, Giron MC. Small intestine neuromuscular dysfunction in a mouse model of dextran sulfate sodium-induced colitis: involvement of Toll-like receptor-4. Accepted as Poster Presentation at NeuroGastro 2019, September 5-7 2019, Lisbon, Portugal. *Neurogastroenterology & Motility*, 2019; 31 (S4): 62.
10. Marsilio I, Caputi V, **Cerantola S**, Bistoletti M, Giaroni C, Zusso M, Giron MC. Impact of high-fat diet and Toll-like receptor 4 signaling on the integrity of mouse enteric and central nervous systems. Accepted as Poster Presentation at NeuroGastro 2019, September 5-7 2019, Lisbon, Portugal. *Neurogastroenterology & Motility*, 2019; 31 (S4): 39.
11. **Cerantola S**, Marsilio I, Caputi V, Garelli F, Nericcio A, Colucci R, Giron MC. Involvement of Toll-like receptor 4 on small intestine neuromuscular dysfunctions in a mouse model of high-fat diet-induced obesity. Accepted as Oral presentation at XXI Seminar of Italian Society of Pharmacology, 19-22 September 2018, Bresso, Italy.
12. **Cerantola S**, Marsilio I, Caputi V, Garelli F, Nericcio A, Colucci R, Giron MC. Influence of Toll-like receptor 4 signaling on high-fat diet induced dysmotility in mouse small intestine. Accepted as Poster Presentation at FNM 2018, August 29th to September 1, 2018, Amsterdam, The Netherlands. *Neurogastroenterology & Motility*, 2018;30(S1):55.
13. Caputi V, **Cerantola S**, Marsilio I, Bistoletti M, Gucciardi A, Mereu M, Giordano G, Papaleo F, Giaroni C, Giron MC. Genetically-driven reduction of catechol-O-methyltransferase expression affects dopaminergic pathways on mouse small intestine. Accepted as Poster Presentation at FNM 2018, August 29th to September 1, 2018, Amsterdam, The Netherlands. *Neurogastroenterology & Motility*, 2018; 30(S1):49-50.
14. Marsilio I, **Cerantola S**, Paquola A, Caputi V, Bucciol C, Bertazzo A, Giron MC. Regulation of serotonergic neurotransmission by microbiota-gut axis in mouse small intestine. Accepted as Poster Presentation at FNM 2018, August 29th to September 1, 2018, Amsterdam, The Netherlands. *Neurogastroenterology & Motility*, 2018;30(S1):72.
15. **Cerantola S**, Marsilio I, Caputi V, Battistella B, Orso G, Giaroni C, Giron MC. Enteric glia control morphofunctional remodeling of small intestine in Toll-like receptor 4-null mice. Accepted as Poster Presentation at ENS Development 2018 meeting, 8-11 April 2018, Boston, MA, USA.
16. **Cerantola S**, Marsilio I, Caputi V, Orso G, Debetto P, Giaroni C, Giron MC. Antibiotic-induced dysbiosis affects the structure and activity of enteric nervous system in mouse small bowel during adolescence. Accepted as Poster Presentation at 38° National Congress Italian Society of Pharmacology, Rimini, Italy, 25-28 October 2017.
17. Marsilio I, **Cerantola S**, Caputi V, Napoli E, Giulivi C, Orso G, Giron MC. Changes of small bowel inhibitory neurotransmission in mice lacking TLR4 signaling. Accepted as Poster Presentation at 38° National Congress Italian Society of Pharmacology, Rimini, Italy, 25-28 October 2017.
18. Caputi V, Marsilio I, **Cerantola S**, Contarini G, Mereu M, Galuppini F, Ruge M, Orso G, Crema F, Giaroni C, Papaleo F, Giron MC. Involvement of Catechol-O-methyltransferase activity in the modulation of enteric neuromotor function: implication in functional gastrointestinal disorders. Accepted as Poster Presentation at 38° National Congress Italian Society of Pharmacology, Rimini, Italy, 25-28 October 2017.
19. **Cerantola S**, Caputi V, Marsilio I, Paquola A, Contarini G, Debetto P, Orso G, Giron MC. Small intestine neuromuscular dysfunctions in Toll-like receptor 4-null mice: role of enteric glia. Accepted as Oral presentation at NeuroGASTRO 2017, 24-26 August 2017, Cork, Ireland. *Neurogastroenterology & Motility*, 2017; 29 (S2):9.
20. Marsilio I, Caputi V, **Cerantola S**, Latorre E, Paquola A, Pattarello A, Orso G, Mesonero JE, Bertazzo A, Giron MC. Involvement of the serotonin pathway in ileal neuromotor dysfunction associated with TLR2 and TLR4 inhibition in juvenile mice. Accepted as Oral presentation at NeuroGASTRO 2017, 24-26 August 2017, Cork, Ireland. *Neurogastroenterology & Motility*, 2017; 29(S2):12.
21. Caputi V, Marsilio I, **Cerantola S**, Mereu M, Contarini G, Paquola A, Orso G, Giaroni C, Papaleo F, Giron MC. Dopamine transporter genetic reduction affects small-bowel neuromuscular contractility in mice. Accepted as Oral presentation at NeuroGASTRO 2017, 24-26 August 2017, Cork, Ireland. *Neurogastroenterology & Motility*, 2017; 29(S2):17.
22. Giaroni C; Bistoletti M; Caputi V; Fagiani F; Filpa V; Marsilio I; **Cerantola S**; Crema F; Baj A; Pascale A; Giron MC. nELAV mRNA- binding protein, HuC/D alteration in adolescent mice small intestine after antibiotic treatment-

induced dysbiosis. Accepted as Poster Presentation at NeuroGASTRO 2017, 24-26 August 2017, Cork, Ireland. Neurogastroenterology & Motility, 2017; 29(S2):28.

23. Caputi V, Marsilio I, **Cerantola S**, Filpa V, Lante I, Debetto P, Orso G, Crema F, Colucci R, Giaroni C, Giron MC. Impact of antibiotic-induced microbiota depletion on small bowel excitatory and inhibitory neuromuscular pathways in adolescent mice. Accepted as Poster presentation at DDW 2017, Chicago (IL, USA). Gastroenterology, 2017;152(5):S710.
24. Marsilio I, Caputi V, **Cerantola S**, Ravazzolo C, Brigato A, Lante I, Napoli E, Giulivi C, Orso G, Giron MC. Toll-like receptor 4 modulates neuromuscular function through nitroergic and purinergic pathways in mouse small intestine. Accepted as Poster presentation at DDW 2017, Chicago (IL, USA). Gastroenterology, 2017;152(5):S710.
25. Antonioli L, Fornai M, Pellegrini C, Tirota E, Gentile D, Benedetti L, Caputi V, **Cerantola S**, Giron MC, Orso G, Bernardini N, Ippolito C, Segnani C, Scarpignato C, Blandizzi C, Colucci R. Colonic dysmotility associated with high fat diet-induced obesity: role of the enteric glia. Gastroenterology, 2017;152(5):S180.
26. Caputi V, Marsilio I, **Cerantola S**, et al. Gut microbiota depletion affects enteric nervous system homeostasis in juvenile mice. Gastroenterology, 2016;150(4 Suppl 1):S96
27. Latorre E, Marsilio I, Caputi V, Layunta E, **Cerantola S**, et al. Effects of toll-like receptors 2 and 4 inhibition on intestinal contractility and serotonergic system of mouse enteric nervous system. Poster Presentation at 38th Congress of Spanish society of Physiological Sciences, 13-16 September 2016 (Zaragoza).

AWARDS

1. Selected for participation to “Tecnologia e Managerialità: le competenze trasversali per l’impresa course” organized by Department of Pharmaceutical & Pharmacological Sciences and Department of Economics and Management “Marco Fanno”. Padova, Italy.
2. Erasmus⁺ Traineeship Unipharma-Graduates 2017-2018.
3. Selected for participation to UEG Basic Science Course, July 6-8, 2017. Fondazione Policlinico Universitario “A. Gemelli”, Rome, Italy.
4. NeuroGASTRO 2017 ESNM award for the best submitted abstract”, Cork, Ireland, 24 – 26 August 2017.
5. Best Poster Prize at 38° National Congress of Italian Society of Pharmacology, Rimini 2017 (Italy).
6. Poster of Distinction Award at DDW 2017 Conference in Chicago (IL, USA).

INTERNATIONAL MEETING PARTECIPATION

1. 39° National Congress Italian Society of Pharmacology, Firenze, Italy, November 20-23 2019. Oral presentation of the abstract, entitled “Interaction between Toll-like receptor 4 and serotonin signaling in a mouse model of high-fat diet”.
2. NeuroGASTRO 2019 Congress, European Neurogastroenterology and Motility Association, Lisbon, Portugal, 5-7 September 2019. Oral presentation of the abstract, entitled “Small intestine neuromuscular dysfunctions in a mouse model of high-fat diet-induced obesity: involvement of Toll-like receptor 4 and serotonin”.
3. Belgian Week of Gastroenterology 2019, Antwerpen, Belgium, February 21, 2019.
4. XXI SIF Seminar for PhD students and Postdoctoral fellows, Bresso (MI), September 19-22, 2018. Oral presentation of the abstract, entitled “Involvement of Toll-like receptor 4 on small intestine neuromuscular dysfunctions in a mouse model of high-fat diet-induced obesity”.
5. 3rd Meeting of the Federation of Neurogastroenterology and Motility (FNM), Amsterdam, The Netherlands, August 29-September 1, 2018.
6. 5th International Symposium ENS Development 2018, Boston, USA, April 8-11, 2018.
7. 38° National Congress Italian Society of Pharmacology, Rimini, Italy, October 25-28, 2017.
8. UEG Basic Science Course for selected students based on their CV and topic of their research on “Gut microbiota: Relevance, analysis and modulation” July 6-8, 2017. Fondazione Policlinico Universitario “A. Gemelli”, Rome, Italy.

9. NeuroGASTRO 2017 Congress organized by the European Neurogastroenterology and Motility Association, Cork, Ireland, 24-26 August 2017. Oral presentation of the abstract, entitled “Small intestine neuromuscular dysfunctions in Toll-like receptor 4-null mice: role of enteric glia”.

Padova, 09th of September 2020

Silvia Cerantola

