

# List of publications by Michele Castelli

## Articles in international peer-reviewed journals with Impact Factor

1. Mancini P, **Castelli M**, Vignali R (2013) Identification and evolution of molecular domains involved in differentiating the cement gland-promoting activity of Otx proteins in *Xenopus laevis*. *Mechanisms of Development* 130: 628-639. doi: 10.1016/j.mod.2013.09.002
2. **Castelli M**, Lanzoni O, Fokin SI, Schrällhammer M, Petroni G (2015) Response of the bacterial symbiont *Holospora caryophila* to different growth conditions of its host. *European Journal of Protistology* 51: 98-108. doi: 10.1016/j.ejop.2014.11.006
3. Pucciarelli S, Devaraj RR, Mancini A, Ballarini P, **Castelli M**, Schrällhammer M, Petroni G, Miceli C (2015) Microbial consortium associated with the Antarctic marine ciliate *Euplotes focardii*: an investigation from genomic sequences. *Microbial Ecology* 70: 484-497. doi: 10.1007/s00248-015-0568-9
4. **Castelli M\***, Lanzoni O, Rossi L, Potekhin A, Schrällhammer M, Petroni G (2016) Evaluation of enrichment protocols for bacterial endosymbionts of ciliates by real-time PCR. *Current Microbiology* 72: 723-732. doi: 10.1007/s00284-016-1006-z (**corresponding author**)
5. Senra MVX, Junio RDP, **Castelli M**, Da Silva-Neto ID, Verni F, Soares CAG, Petroni G (2016) A house for two – double bacterial infection in *Euplotes woodruffi* Sq1 (Ciliophora : Euplotida) sampled in southeastern Brazil. *Microbial Ecology* 71: 505-517. doi: 10.1007/s00248-015-0668-6
6. Szokoli F, Sabaneyeva E, **Castelli M**, Krenek S, Schrällhammer M, Soares CAG, Da Silva-Neto ID, Berendonk TU, Petroni G\*(2016b) “*Candidatus Fokinia solitaria*”, a novel “stand-alone” symbiotic lineage of *Midichloriaceae* (*Rickettsiales*). *PLoS One* 11: e0145743. doi: 10.1371/journal.pone.0145743
7. Szokoli F, **Castelli M**, Sabaneyeva E, Schrällhammer M, Krenek S, Doak TG, Berendonk TU, Petroni G (2016a) Disentangling the taxonomy of *Rickettsiales* and description of two novel symbionts (“*Candidatus Bealeia paramacronuclearis*” and “*Candidatus Fokinia cryptica*”) sharing the cytoplasm of the ciliate protist *Paramecium bialveolare*. *Applied and Environmental Microbiology* 82: 7236-7724. doi: 10.1128/AEM.02284-16
8. Serra V, Fokin SI, **Castelli M**, Basuri CK, Nitla V, Verni F, Sandeep BV, Kalavati C, Petroni G (2016) “*Candidatus Gortzia shahrazadis*”, a novel endosymbiont of *Paramecium multimicronucleatum* and a revision of the biogeographical distribution of *Holospora*-like bacteria. *Frontiers in Microbiology* 7:1704. doi: 10.3389/fmicb.2016.01704
9. Floriano AM, **Castelli M**, Krenek S, Berendonk TU, Bazzocchi C, Petroni G, Sassera D (2018) The genome sequence of “*Candidatus Fokinia solitaria*”: insights on reductive evolution in *Rickettsiales*. *Genome biology and evolution* 10: 1120-1126. doi: 10.1093/gbe/evy072
10. Schrällhammer M, **Castelli M**, Petroni G (2018) Phylogenetic relationships among endosymbiotic R-body producer: bacteria providing their host the killer trait. *Systematic and Applied Microbiology*. doi: 10.1016/j.syapm.2018.01.005

11. Sabaneyeva E, **Castelli M**, Szokoli F, Benken K, Lebedeva N, Salvetti A, Schweikert M, Fokin S, Petroni G (2018) Host and symbiont intraspecific variability: the case of *Paramecium calkinsi* and "*Candidatus* Trichorickettsia mobilis". *European Journal of Protistology* 62: 79-94. doi: 10.1016/j.ejop.2017.12.002
12. **Castelli M\***, Serra V, Senra MVX, Basuri CK, Soares CAG, Fokin SI, Modeo L, Petroni G (2019) The hidden world of *Rickettsiales* symbionts: "*Candidatus* Spectririckettsia obscura," a novel bacterium found in Brazilian and Indian *Paramecium caudatum*. *Microbial Ecology* 77:748-758. doi: 10.1007/s00248-018-1243-8 (**corresponding author**)
13. Lanzoni O, Sabaneyeva E, Modeo L, **Castelli M**, Lebedeva N, Verni F, Schrällhammer M, Potekhin A, Petroni G (2019) Diversity and environmental distribution of the cosmopolitan endosymbiont "*Candidatus* Megaira". *Scientific Reports* 9:1179. doi: 10.1038/s41598-018-37629-w
14. **Castelli M**, Sabaneyeva E, Lanzoni O, Lebedeva N, Floriano AM, Gaiarsa S, Benken K, Modeo L, Bandi C, Potekhin A, Sasser D, Petroni G (2019) *Deianiraea*, an extracellular bacterium associated with the ciliate *Paramecium*, suggests an alternative scenario for the evolution of *Rickettsiales*. *ISME Journal* 9:2280-2294. doi: 10.1038/s41396-019-0433-9
15. Olivieri E, Epis S, **Castelli M**, Varotto Boccazzi I, Romeo C, Desirò A, Bazzocchi C, Bandi C, Sasser D (2019) Tissue tropism and metabolic pathways of *Midichloria mitochondrii* suggest tissue-specific functions in the symbiosis with *Ixodes ricinus*. *Ticks and Tick-borne Diseases* 10:1070-1077. doi: 10.1016/j.ttbdis.2019.05.019
16. Gaiarsa S, Batisti Biffignandi G, Esposito EP, **Castelli M**, Jolley KA, Brisse S, Sasser D, Zarrilli R (2019) Comparative analysis of the two *Acinetobacter baumannii* multilocus sequence typing (MLST) schemes. *Frontiers in Microbiology* 10:00930. doi: 10.3389/fmicb.2019.00930
17. Modeo L, Salvetti A, Rossi L, **Castelli M**, Szokoli F, Krenek S, Serra V, Sabaneyeva E, Di Giuseppe G, Fokin SI, Verni F, Petroni G (2020) "*Candidatus* Trichorickettsia mobilis", a *Rickettsiales* bacterium, can be transiently transferred from the unicellular eukaryote *Paramecium* to the planarian *Dugesia japonica*. *Peer J* 2020: e8977. doi: 10.7717/peerj.8977
18. Mariani B, Corbella M, Merla C, Tallarita M, Piralla A, Girello A, **Castelli M**, Bracchi C, Marone P, Cambieri P (2020) Bloodstream infections caused by *Escherichia coli* carrying mcr-1 gene in hospitalized patients in northern Italy from 2012 to 2018. *Infection* 48: 223–230. doi: 10.1007/s15010-019-01377-4
19. Serra V, Gammuto L, Nitla V, **Castelli M**, Lanzoni O, Sasser D, Bandi C, Sandeep BV, Verni F, Modeo L, Petroni G (2020) Morphology, ultrastructure, genomics, and phylogeny of *Euplotes vanleeuwenhoekii* sp. nov. and its ultra-reduced endosymbiont "*Candidatus* Pinguicoccus supinus" sp. nov. *Scientific Reports* 10: 20311. doi: 10.1038/s41598-020-76348-z
20. Kashkouli M, **Castelli M**, Floriano AM, Bandi C, Epis S, Fathipour Y, Mehrabadi M, Sasser D (2021) Characterization of a novel *Pantoea* symbiont allows inference of a pattern of convergent genome reduction in bacteria associated with Pentatomidae. *Environmental Microbiology* 23: 36-50. doi: 10.1111/1462-2920.15169
21. Serra V, Fokin SI, Gammuto L, Nitla V, **Castelli M**, Basuri CK, Satyaveni K, Sandeep BV, Modeo L, Petroni G (2021) Phylogeny of *Neobursaridium* reshapes the systematics of *Paramecium* (Oligohymenophorea, Ciliophora). *Zoologica Scripta* 50: 241-268. doi: 10.1111/zsc.12464

22. **Castelli M**, Lanzoni O, Nardi T, Lometto S, Modeo L, Potekhin A, Sassera D\*, Petroni G (2021) '*Candidatus Sarmatiella mevalonica*' endosymbiont of the ciliate *Paramecium* provides insights on evolutionary plasticity among *Rickettsiales*. *Environmental Microbiology*. doi: 10.1111/1462-2920.15396
23. Nardi T, Olivieri E, Kariuki E, Sassera D, **Castelli M** (2021) Sequence of a *Coxiella* endosymbiont of the tick *Amblyomma nuttalli* suggests a pattern of convergent genome reduction in the *Coxiella* genus. *Genome Biology and Evolution* 13: evaa253. doi: 10.1093/gbe/evaa253
24. Olivieri E, Kariuki E, Floriano AM, **Castelli M**, Tafesse YM, Magoga G, Kumsa B, Montagna M, Sassera D (2021) Multi-country investigation of the diversity and associated microorganisms isolated from tick species from domestic animals, wildlife and vegetation in selected african countries. *Experimental and Applied Acarology* 83: 427-448. doi: 10.1007/s10493-021-00598-3
25. Batisti Biffignandi G, Gibbon MJ, Corbella M, Thorpe HA, Merla C, Castelli M, Kallonen T, Pegrum K, Brisse S, Corander J, Marone P, Feil EJ, Sassera D (2021) Genome of *Superficieibacter maynardsmithii*, a novel, antibiotic susceptible representative of *Enterobacteriaceae*. *G3 (Bethesda)* 11: jkab019. doi: 10.1093/g3journal/jkab019
26. Barbieri G, Ferrari C, Mamberti S, Gabrieli P, **Castelli M**, Sassera D, Ursino E, Scoffone VC, Radaelli G, Clementi E, Sacchi L, Ferrari E, Gasperi G, Albertini AM (2021) Identification of a novel *Brevibacillus laterosporus* strain with insecticidal activity against *Aedes albopictus* larvae. *Frontiers in Microbiology* 12: 624014. doi: 10.3389/fmicb.2021.624014
27. Merla C, Corbella M, Batisti Biffignandi G, Gaiarsa S, **Castelli M**, Andreoli G, Fabbi M, Mariani B, Sassera D, Marone P, Cambieri P (2021) Epidemiological characterization of *Listeria monocytogenes* infections in Pavia province in 2017 reveals the presence of multiple concurrently circulating strains. *Foodborne Pathogens and Disease*. doi: 10.1089/fpd.2020.2849

## **Book chapters**

1. **Castelli M**, Sassera D, Petroni G (2016) Biodiversity of “non-model” *Rickettsiales* and their association with aquatic organisms. In (Sunil T, Editor) *Rickettsiales - Biology, Molecular Biology, Epidemiology, and Vaccine Development*. Springer doi: 10.1007/978-3-319-46859-4\_3
2. **Castelli M**, McCarthy U, Petroni G, Bazzocchi C (2016) Transmission of members of the “*Candidatus* Midichloriaceae” family to vertebrates and possible involvement in disease pathogenesis. In (Sunil T, Editor) *Rickettsiales - Biology, Molecular Biology, Epidemiology, and Vaccine Development*. Springer doi: 10.1007/978-3-319-46859-4\_14