

# EZIO RICCA

**Birthday:**  
**Birthplace:**  
**Nationality:**

**Address:** Department of Biology  
 University Federico II  
 via Cinthia, MSA,  
 80126 Naples, Italy  
 Tel: +39-081-679036  
 Fax: +39-081-679233  
 e-mail: ericca@unina.it

**Total citations / H-index:** 2300 / 27 ([orcid.org/0000-0002-7355-0332](http://orcid.org/0000-0002-7355-0332))

## Research & Professional experience

- 2002-** *Professor of Microbiology.* Dept of Biology, Federico II Univ, Naples, Italy.
- 1998-02** *Associate Professor of Microbiology.* Federico II Univ, Naples, Italy.
- 1992-98** *Researcher.* University Federico II, Naples, Italy.
- 1993** *FEMS fellow.* Institute de Biologie Physico-Chimique. Paris, France.
- 1990-92** *Research Associate.* Dept. of Cell and Develop. Biology, Harvard University, Cambridge, USA. Supervisor: Prof. R. Losick
- 1988-90** *Post-doctoral fellow.* International Institute of Genetics and Biophysics, C.N.R., Naples, Italy. Supervisor: Prof. M. De Felice
- 1985-87** *Post-doctoral fellow.* Dept. Biochemistry Molec. and Cell Biology, Cornell University, Ithaca, NY, USA. Supervisor: Prof. J.M. Calvo
- 1979-84** *Student.* University of Napoli, Italy. Thesis work performed at the International Institute of Genetics and Biophysics, C.N.R., Naples, Italy.  
Advisor: Prof. M. De Felice

## Other activities

- President of the Italian Society of General Microbiology and Microbial Biotechnology (SIMGBM) 2016-2018.
- Chair of the Department of Biology of the Federico II University of Naples, Italy (2016-2018).
- *Editor* of FEMS Microbiology Letters (since 2003).
- *Associate Editor* of Microbial Cell Factories (since 2016)
- Referee for scientific journals (*Molecular Microbiology*, *Journal of Bacteriology*, *Applied and Environmental Microbiology*, *Microbiology and Molecular Biology Reviews*, *Gene*, *Research in Microbiology*, *FEMS Microbiology Reviews*, *Journal of Applied Microbiology*, *Journal of Medical Microbiology*, *Applied Microbiology and Biotechnology*, *Microbial Cell Factories*, *PLoS ONE*, *Vaccine*) and granting agencies (*National Science Foundation*, USA; *Biotechnology and Biological Sciences Research Council*, UK; *Ministero Italiano dell'Università e Ricerca*, Italy).
- *Editor* of the scientific book “Bacterial Spore Formers: Probiotics and Emerging Applications” (E. Ricca, A.O. Henriques and S.M. Cutting Editors) Horizon Biosciences, UK (2004).

- Member of the Scientific Committee of the international conferences "European Spores Coference" Bratislava (Slovakia) 2004 and 2006; Naples (Italy) 2008; Cortona (Italy) 2010; Egham (UK) 2012, 2014, 2016 and 2018.

### Main grants

- EU project (IV Framework) "Recombinant spores of *Bacillus subtilis* as vaccine vehicles for mucosal immunisation" 1998-2000.
- EU project (V Framework) "Spore probiotics: an alternative to antibiotics" 2001-2004.
- Italian FIRB Project "Analisi comparata in vitro ed in vivo di vaccini ricombinanti innovativi basati su sistemi procariotici di display, proteine di fusione e peptidi bioattivi" 2001-2004.
- Italian COFIN 2002 "Biogenesi di una struttura cellulare complessa: la tunica sporale di *Bacillus subtilis*" 2002-03.
- Italian COFIN 2006 "La tunica sporale di *Bacillus subtilis*: un modello per lo studio di strutture cellulari complesse ed uno strumento biotecnologico per la presentazione di proteine eterologhe" 2006-07.
- Bilateral Italy-Portugal project (C.N.R.-JNICT) 1997-98.
- Bilateral Italy-UK project (CRUI-British Council) 1997.
- Bilateral Italy-UK project (CRUI-British Council) 2001.
- EU project (VII Framework) "Colorspore: New Sources of Natural, Gastric Stable, Food Additives, Colourants and Novel Functional Foods" 2008-11.
- EU project (VII Framework) "Use of Microorganisms for Carotenoids Delivery: Next Generation of Probiotics for Cardiovascular Disease" 2013-15.
- EU project (VII Framework) "Innovative multifunctional sensors for in-situ monitoring of marine environment and related maritime activities" 2014-18.
- PON - Biopolis "Sviluppo e ottimizzazione di tecnologie di produzione di biochemicals a partire da materie prime rinnovabili" 2014-2016.
- ASI - "Dalla Ricerca alle Applicazioni Spaziali e Cliniche: verifica dell'efficacia di molecole citoprotettive, antiossidanti e radioprotettrici, per facilitarne trasferimento tecnologico" 2016-18.

### Publications

1. **E. Ricca**, D. Limauro, C. T. Lago and M. De Felice. "Enhanced acetohydroxy acid synthase III activity in an *ilvH* mutant of *Escherichia coli* K-12". *J. Bacteriol.* 170:5197-5199 (1988).
2. M. De Felice, G. Griffio, C. T. Lago, D. Limauro and **E. Ricca**. "Selective detection of the acetohydroxy acid synthase I and III of *Escherichia coli* K-12". *Methods in Enzymology* vol.166:241-244 (1988).
3. **E. Ricca**, D. A. Aker and J. M. Calvo. "A protein that binds to the regulatory region of the *Escherichia coli* *ilvIH* operon". *J. Bacteriol.* 171:1658-1664 (1989).
4. **E. Ricca** and J.M. Calvo. "The nucleotide sequence of *leuA* from *Salmonella typhimurium*". *Nucleic Acids Res.* 18:1290 (1990).
5. **E. Ricca**, C. T. Lago, M. Sacco and M. De Felice "Absence of acetohydroxy acid synthase III in *Salmonella typhimurium* is due to early termination of translation within the *ilvI* gene". *Mol. Microbiol.* 5:1741-1743 (1991).
6. **E. Ricca**, S. Cutting and R. Losick. "Characterization of *bofA*, a gene involved in inter-compartmental regulation of pro- $\sigma^K$  processing during sporulation in *Bacillus subtilis*". *J. Bacteriol.* 174:3177-3184 (1992).
7. Campanile, C., Forlani, G., Basso, A. L., Marasco, R., **Ricca, E.**, Sacco, M., Ferrara, L. and De Felice, M. "Identification and characterization of the *proBA* operon of *Streptococcus bovis*". *Appl. Environ. Microbiol.* 59:519-522 (1993).
8. Wang, Q., Sacco, M., **Ricca, E.**, Lago, C. T., De Felice M., and J. M. Calvo."Organization of Lrp binding sites upstream of *ilvIH* in *Salmonella typhimurium*". *Mol. Microbiol.* 7: 883-891 (1993).
9. Sacco, M., **Ricca, E.**, Marasco, R., Paradiso, R. and De Felice, M. "A stereo-specific alignment between the promoter and the *cis*-acting sequence is required for Lrp-dependent activation of *ilvIH* transcription in *Escherichia coli*". *FEMS Microbiol. Letters*, 107:331-336 (1993).

10. Levin, P. A., Fan, N., **Ricca, E.**, Driks, A., Losick, R., and Cutting, S. "An unusually small gene required for sporulation by *Bacillus subtilis*". Mol. Microbiol. 9:761-771 (1993).
11. Basso, A.L., **Ricca, E.**, Caruso, C., Ferrara, L. and De Felice, M. "Acetohydroxy acid synthase and threonine deaminase activities, and the biosynthesis of isoleucine-leucine-valine in *Streptococcus bovis*". Res. Microbiol. 144:539-545 (1993).
12. Naclerio, G., **Ricca, E.**, Sacco, M. and De Felice, M. "Antimicrobial activity of a newly identified bacteriocin of *Bacillus cereus*". Appl. Environ. Microbiol. 59:4313-4316 (1993).
13. Marasco, R., Varcamonti, M., La Cara, F., **Ricca, E.**, De Felice, M. and Sacco, M. "*In vivo* footprinting analysis of Lrp binding to the *ilvIH* promoter region of *Escherichia coli*". J. Bacteriol. 176: 5197-5201 (1994).
14. Sacco, M., **Ricca, E.**, R. Losick, and S. Cutting. "An additional GerE-controlled gene encoding an abundant spore coat protein from *Bacillus subtilis*". J. Bacteriol. 177:372-377 (1995).
15. Baccigalupi, L., Marasco, R., **Ricca, E.**, De Felice, M. and M. Sacco. "Control of *ilvIH* transcription during amino acid downshift in stringent and relaxed strains of *E. coli*". FEMS Microbiol. Lett. 131:95-98 (1995).
16. Naclerio, G., Baccigalupi, L., Caruso, C., De Felice, M. and **E. Ricca**. "*Bacillus subtilis* vegetative catalase is an extracellular enzyme". Appl. Environ. Microbiol. 61:4471-4473 (1995).
17. Naclerio, G., Baccigalupi, L., Zilhao, R., De Felice, M. and **E. Ricca**. "*Bacillus subtilis* spore coat assembly requires *cotH* gene expression". J. Bacteriol. 178:4375-4380 (1996).
18. Marasco, R., Varcamonti, M., **Ricca, E.** and M. Sacco. "New *Bacillus subtilis* gene with homology to *Escherichia coli prc* gene". Gene 183:149-152 (1996).
19. **Ricca, E.**, Baccigalupi, L., Naclerio, G. and S. Cutting. "Spore coat differentiation in *Bacillus subtilis*". Res. Microbiol. 148:5-9 (1997).
20. Zilhao, R., Naclerio, G., Baccigalupi, L., Henriques, A., Moran, C. and **E. Ricca**. "Assembly requirements and role of CotH during spore coat formation in *Bacillus subtilis*". J. Bacteriol. 181:2631-2633 (1999).
21. Serrano, M., Zilhao, R., **Ricca, E.**, Ozin, A., Moran, C. and A. Henriques. "A *Bacillus subtilis* secreted protein with a role in endospore coat assembly and function". J. Bacteriol. 181:3632-3643 (1999).
22. Green, D., Wakeley, P., Page, A., Barnes, A., Baccigalupi, L., **Ricca, E.** and S. Cutting. "Characterization of two *Bacillus* probiotic species". Appl. Environ. Microbiol. 65:4288-4291 (1999).
23. Massarelli, I., Forlani, G., **Ricca, E.** and M. De Felice. "Enhanced and feedback-resistant  $\gamma$ -glutamyl kinase activity of an *Escherichia coli* transformant carrying a mutated *proB* gene of *Streptococcus thermophilus*". FEMS Microbiol. Letters 182:143-147 (2000).
24. Spinosa, M. R., Braccini, T., **Ricca, E.**, De Felice, M., Morelli, L., Pozzi, G. and M. R. Oggioni. "On the fate of ingested *Bacillus* spores". Res. Microbiol. 151:361-368 (2000).
25. Hoa, N.-T., Baccigalupi, L., Huxham, A., Smertenko, A., Van, P.-H., Ammendola, S., **Ricca, E.** and S. Cutting. "Characterization of *Bacillus* species used for oral bacteriotherapy and bacterioprophylaxis of gastrointestinal disorders". Appl. Environ. Microbiol. 66:5241-5247 (2000).
26. Baccigalupi, L., Naclerio, G., M. De Felice and **E. Ricca**. "Efficient insertional mutagenesis in *Streptococcus thermophilus*". Gene 258:9-14 (2000).
27. Martirani, L., Raniello, R., Naclerio, G., **Ricca, E.** and M. De Felice. "Identification of the DNA binding protein, HrcA, of *Streptococcus thermophilus*". FEMS Microbiol. Lett. 198:177-182 (2001).
28. Hoa, T.-T., Duc, L.H., Isticato, R., Baccigalupi, L., **Ricca, E.**, Van, P.H. and S.M. Cutting "Fate and dissemination of *Bacillus subtilis* spores in a murine model" Appl. Environ. Microbiol. 67:3819-3823 (2001).
29. Isticato, R., Cangiano, G., Tran, T.-H., Ciabattini, A., Medaglini, D., Oggioni, M.R., De Felice, M., Pozzi, G. and **E. Ricca**. "Surface display of recombinant proteins on *Bacillus subtilis* spores". J. Bacteriol. 183:6294-6301 (2001).
30. Giliberti, G., Naclerio, G., Martirani, L., **Ricca E.** and M. De Felice "Alteration of cell morphology and viability in a *recA* mutant of *Streptococcus thermophilus* upon induction of heat shock and nutrient starvation". Gene 295:1-6 (2002).
31. Duc, L.H., Huynh, H.A., Fairweather, N., **Ricca E.** and S.M. Cutting. "Bacterial Spores as Vaccine Vehicles". Infect.&Immun. 71:2810-2818 (2003).

32. Ricca, E. and S. M. Cutting "Emerging Applications of Bacterial Spores in Nanobiotechnology" *J. Nanobiotechnology*. 1:6 (2003)
33. Isticato, R., Esposito, G., Zilhão, R., Nolasco, S., Cangiano, G., De Felice, M., Henriques A. O. and Ricca, E. "Assembly of Multiple CotC Forms into the *Bacillus subtilis* Spore Coat". *J. Bacteriol.* 186:1129-1135 (2004).
34. Zilhao, R., Serrano, M., Isticato, R., Ricca, E., Moran Jr., C. P. and Henriques, A. O. "Interactions among CotB, CotG, and CotH during assembly of the *Bacillus subtilis* spore coat" *J. Bacteriol.* 186:1110-1119 (2004).
35. Mauriello, E.M.F., Duc, L. H., Isticato, R., Cangiano, G., Hong, H. A., De Felice, M., Ricca E. and Cutting, S. M. "Display of Heterologous Antigens on the *Bacillus subtilis* Spore Coat Using CotC as a Fusion Partner". *Vaccine* 22:1177-1187(2004).
36. Baccigalupi, L., Castaldo, G., Cangiano, G., Isticato, R., Marasco, R., De Felice, M and Ricca, E. "GerE-independent expression of cotH leads to CotC accumulation in the mother cell compartment during *Bacillus subtilis* sporulation". *Microbiology* 150:3441-3449 (2004).
37. Barák, I., Ricca, E. and Cutting, S.M. "From Fundamental Studies of Sporulation To Applied Spore Research". *Mol. Microbiol.* 55:330-338 (2005).
38. Baccigalupi, L., Di Donato, A., Parlato, M., Luongo, D., Carbone, V., Rossi, M., Ricca, E. and De Felice, M. "Small, surface-associated factors mediate adhesion of a food-isolated strain of *Lactobacillus fermentum* to Caco-2 cells". *Res. Microbiol.* 156:830-836 (2005).
39. Cordone, A., Mauriello, E.M.F., Pickard, D., Dougan, G., De Felice, M. and Ricca, E. "The *lrp* Gene and Its Role in Type I Fimbriation in *Citrobacter rodentium*" *J. Bacteriol.* 187:7009-7017 (2005).
40. Zilhão, R., Isticato, R., Martins, L.O., Steil, L., Völker, U., Ricca, E., Moran Jr., C.P., and Henriques, A.O. "Assembly and function of a transglutaminase at the surface of the developing spore in *Bacillus subtilis*". *J. Bacteriol.* 187:7753-7764 (2005).
41. D'Arienzo, R., Maurano, F., Mazzarella, G., Luongo, D., Stefanile, R., Ricca, E., and Rossi, M. "*Bacillus subtilis* spores reduce susceptibility to *Citrobacter rodentium*-mediated enteropathy in a mouse model". *Res. Microbiol.* 157:891-897 (2006).
42. Giliberti, G., Baccigalupi, L., Cordone, A., Ricca, E. and De Felice, M. "Transcriptional analysis of the *recA* gene of *Streptococcus thermophilus*" *Microbial Cell Factories* 5:29 (2006).
43. Mauriello, E.M.F., Cangiano, G., Maurano, F., Saggese, V., De Felice, M., Rossi, M. and Ricca, E. "Germination-Independent Induction of Cellular Immune Response by *Bacillus subtilis* Spores Displaying the C Fragment of the Tetanus Toxin". *Vaccine* 25:788-793 (2007).
44. Isticato, R., Scotto Di Mase, D., Mauriello, E.M.F., De Felice, M. and Ricca, E. "Amino terminal fusion of heterologous proteins to CotC increases display efficiencies in the *Bacillus subtilis* spore system". *BioTechniques* 42:151-156 (2007).
45. D'Apice, L., Sartorius, R., Caivano, A., Mascolo, D., Del Pozzo, G., Scotto Di Mase, D., Ricca, E., Li Pira, G., Manca, F., Malanga, D., De Palma, R. and De Berardinis, P. "Comparative analysis of new innovative vaccine formulations based on the use of prokaryotic display systems" *Vaccine* 25:1993-2000 (2007).
46. Isticato, R., Pelosi, A., Zilhao, R., Baccigalupi, L., Henriques, A.O., De Felice, M., Ricca, E. "CotC-CotU heterodimerization during assembly of the *Bacillus subtilis* spore coat". *J. Bacteriol.* 190:1267-1275 (2008).
47. D'Arienzo, R., Maurano, F., Luongo, D., Mazzarella, G., Stefanile, R., Troncone, R., Auricchio, S., Ricca, E., David, C. and Rossi, M. "Adjuvant effect of *Lactobacillus casei* in a mouse model of gluten sensitivity" *Immunology Letters* 119: 78-83 (2008).
48. Fakhry, S., Sorrentini, I., Ricca, E., De Felice, M. and Baccigalupi, L. "Characterisation of spore forming Bacilli isolated from the human gastrointestinal tract" *J. Applied Microbiology* 105:2178-2186 (2008).
49. Ceragioli, M., Cangiano, G., Esin, S., Ghelardi, E., Ricca, E. and Senesi, S. "Phagocytosis, Germination and Killing of *Bacillus subtilis* Spores Presenting Heterologous Antigens in Human Macrophages". *Microbiology* 155:338-346 (2009).
50. Hong, H.A., To, E., Fakhry, S., Baccigalupi, L., Ricca, E. and Cutting, S.M. "Defining the natural habitat of *Bacillus* spore-formers". *Res. Microbiol.* 160:375-379 (2009).
51. Cutting, S.M., Hong, H.A., Baccigalupi, L. and Ricca, E. "Oral Vaccine Delivery by Recombinant Spore Probiotics". *Intern. Rev. Immunol.* 28:487-505 (2009).

52. D'Arienzo, R., Maurano, F., Lavermicocca, P., **Ricca, E.** and Rossi, M. "Modulation of the immune response by probiotic strains in a mouse model of gluten sensitivity" *Cytokine* **48**:254-259 (2009).
53. Fakhry, S., Manzo, N., D'Apuzzo, E., Pietrini, L., Sorrentini, I., **Ricca, E.**, De Felice, M. and Baccigalupi, L. "Characterization of intestinal bacteria tightly bound to the human ileal epithelium" *Res. Microbiol.* **160**:817-823 (2009).
54. Khaneja, R., Perez-Fons, L., Fakhry, S., Baccigalupi, L., Steiger, S., To, E., Sandmann, G., Dong, T.C., **Ricca, E.**, Fraser, P.D., and Cutting, S.M. "Carotenoids Found in *Bacillus*" *J. Appl. Microbiol.* **108**:1889-1902 (2010).
55. Iстicato, R., Pelosi, A., De Felice, M. and **Ricca, E.** "CotE binds to CotC and CotU and mediates their interaction during spore coat formation in *Bacillus subtilis*". *J. Bacteriol.* **192**: 949-954 (2010).
56. Hinc, K., Iстicato, R., Dembek, M., Karczewska, J., Iwanicki, A., Peszyńska-Sularz, G., De Felice, M., Obukowski, M. and **Ricca, E.** "Expression and display of UreA of *Helicobacter acinonychis* on the surface of *Bacillus subtilis* spores". *Microbial Cell Factories* **9**:2 (2010).
57. Cangiano, G., Mazzone, A., Baccigalupi, L., Iстicato, R., Eichenberger, P., De Felice, M. and **Ricca, E.** "Direct and indirect control of late sporulation genes by GerR of *Bacillus subtilis*". *J. Bacteriol.* **192**: 3406-3413 (2010).
58. Hinc, K., Ghandili, S., Karbalaei, G., Shali, A., Noghabi, K., **Ricca, E.**, Ahmadian, G. "Efficient binding of nickel ions to recombinant *Bacillus subtilis* spores". *Res. Microbiol.* **161**:757-764 (2010).
59. De Felice, M., Fouet, A., Barak, I., Cutting, S.M., and **Ricca, E.** "Editorial" *Res. Microbiol.* **161**:729 (2010).
60. D'Arienzo R, Stefanile R, Maurano F, Mazzarella G, **Ricca E**, Troncone R, Auricchio S, Rossi M. "Immunomodulatory effects of *Lactobacillus casei* administration in a mouse model of gliadin-sensitive enteropathy". *Scand J Immunol.* **74**:335-341 (2011)
61. Manzo N., D'Apuzzo E, Coutinho PM, Cutting SM, Henrissat B, **Ricca E.** "Carbohydrate-active enzymes from pigmented Bacilli: a genomic approach to assess carbohydrate utilization and degradation" *BMC Microbiol.* **11**:198 (2011).
62. Cordone, A., Lucchini, S., De Felice, M., **Ricca, E.** "Direct and indirect control of Lrp on LEE-pathogenicity genes of *Citrobacter rodentium*". *FEMS Microbiol Lett* **325**:64-70 (2011)
63. Giglio, R., Fani, R., Iстicato, R., De Felice, M., **Ricca, E.**, Baccigalupi, L. "Organization and evolution of the cotG and cotH genes of *Bacillus subtilis*". *J. Bacteriol.* **193**:6664-6673 (2011).
64. Sirec, T., Strazzulli, A., Iстicato, R., De Felice, M., Moracci, M., **Ricca, E.** "Adsorption of beta-galactosidase of *Alicyclobacillus acidocaldarius* on wild type and mutants spores of *Bacillus subtilis*". *Microbial Cell Factories* **11**:100 (2012).
65. Manzo, N., Di Luccia, B., Iстicato, R., D'Apuzzo, E., De Felice, M, **Ricca, E.** "Pigmentation and sporulation are alternative cell fates in *Bacillus pumilus* SF214". *PLoS ONE* **8**(4): e62093. doi:10.1371/journal.pone.0062093 (2013).
66. Di Luccia, B., Manzo, N., Baccigalupi, L., Calabрò, V., Crescenzi, E., **Ricca, E.**, Pollice, A. "*Lactobacillus gasseri* SF1183 affects intestinal epithelial cell survival and growth". *PLoS ONE* **8**(7): e69102. doi:10.1371/journal.pone.0069102 (2013).
67. Iстicato, R., Sirec, T., Giglio, R., Baccigalupi, L., Rusciano, G., Pesce, G., Zito, G., Sasso, A., De Felice, M., **Ricca, E.** "Flexibility of the programme of spore coat formation in *Bacillus subtilis*: bypass of CotE requirement by over-production of CotH". *PLoS ONE* **8**(9): e74949. doi:10.1371/journal.pone.0074949 (2013).
68. Iстicato, R., Sirec, T., Treppiccione, L., Maurano, F., De Felice, M., Rossi, M., **Ricca, E.** "Non-recombinant display of the B subunit of the heat labile toxin of *Escherichia coli* on wild type and mutant spores of *Bacillus subtilis*" *Microbial Cell Factories* **12**:98 (2013).
69. Pesce, G., Rusciano, G., Sirec, T., Iстicato, R., Sasso, A., and **Ricca, E.** "Surface charge and hydrodynamic coefficient measurements of *Bacillus subtilis* spore by optical tweezers" *Colloids and Surfaces B: Biointerfaces* **116C**:568-575 (2014).
70. Hinc, K., Stasiлojd, M., Piаtek, I., Peszyoska-Sularz, G., Iстicato, R., **Ricca, E.**, Obuchowski, M. and Iwanicki, A. "Mucosal adjuvant activity of IL-2 presenting spores of *Bacillus subtilis* in a murine model of *Helicobacter pylori* vaccination". *PLoS ONE* **9**(4):e95187 (2014).

71. Valdez, A., Yepiz, G., **Ricca, E.**, Olmos-Soto, J. "First *Litopenaeus vannamei* WSSV 100% oral vaccination protection using CotC::Vp26 fusion protein displayed on *Bacillus subtilis* spores surface". *J. Appl. Microbiol.* 117:347-57 (2014).
72. Saggese, A., Scamardella, V., Sirec, T., Cangiano, G., Iстicato, R., Pane, F., Amoresano, A., **Ricca, E.**, Baccigalupi, L. "Antagonistic role of CotG and CotH on spore germination and coat formation in *Bacillus subtilis*". *PLoS One.* 9(8):e104900 (2014).
73. **Ricca, E.**, Baccigalupi, L., Cangiano, G., De Felice, M., Iстicato, R. "Mucosal vaccine delivery by non-recombinant spores of *Bacillus subtilis*" *Microb. Cell Fact.* 13(1):115. (2014).
74. Sirec, T., Cangiano, G., Baccigalupi, L., **Ricca, E.**, Iстicato, R. "Human intestinal isolates of *Bacillus subtilis*: characterization of the spore surface and use as display systems". *FEMS Microbiol Lett.* 358:194-201 (2014)
75. Cutting, S.M., **Ricca, E.** "Bacterial spore-formers: friends and foes" *FEMS Microbiol Lett.* 358:107-109 (2014).
76. Iстicato, R., **Ricca, E.** "Spore surface display". *Microbiol Spectrum* 2(4):TBS-0011-2012. doi:10.1128/microbiolspec.TBS-0011-2012. (2014).
77. Cangiano, G., Sirec, T., Panarella, C., Iстicato, R., Baccigalupi, L., De Felice, M., **Ricca, E.** "The *sps* gene products affect germination, hydrophobicity and protein adsorption of *Bacillus subtilis* spores". *Appl. Environ. Microbiol.* 80: 7293-7302 (2014).
78. Rusciano, G., Zito, G., Iстicato, R., Sirec, T., **Ricca, E.**, Bailo, E., Sasso, A. "Nanoscale chemical imaging of *Bacillus subtilis* spores by combining Tip-Enhanced Scattering and advanced statistical tools. *ACS Nano* 8(12):12300-9 (2014).
79. Ghaedmohammadi, S., Rigi, G., Zadmard R., **Ricca, E.**, Ahmadian, G. "Immobilization of bioactive Protein A from *Staphylococcus aureus* (SpA) on the surface of *Bacillus subtilis* spores". *Mol Biotechnol.* DOI 10.1007/s12033-015-9868-z (2015).
80. Bonavita, R., Iстicato, R., Maurano, F., **Ricca, E.**, Rossi, M. "Mucosal immunity induced by gliadin-presenting spores of *Bacillus subtilis* in HLA-DQ8-transgenic mice". *Immunol. Letters* 165:84–89 (2015).
81. Di Luccia, B., Crescenzo, R., Mazzoli, A., Cigliano, L., Venditti, P., Walser, J.C., Widmer, A., Baccigalupi, L., **Ricca, E.**, Iossa, S. "Rescue of fructose-induced metabolic syndrome by antibiotics or fecal transplantation in a rat model of obesity". *PLoS One* 10(8):e0134893. doi: 10.1371/journal.pone.0134893 (2015).
82. Iстicato R, Sirec T, Vecchione S, Crispino A, Saggese A, Baccigalupi L, Notomista E, Driks A, **Ricca E.** "The Direct Interaction between Two Morphogenetic Proteins Is Essential for Spore Coat Formation in *Bacillus subtilis*". *PLoS One.* 10(10):e0141040 (2015).
83. Di Luccia B, Riccio A, Vanacore A, Baccigalupi L, Molinaro A, **Ricca E.** "Matrix Production, Pigment Synthesis, and Sporulation in a Marine Isolated Strain of *Bacillus pumilus*" *Mar Drugs.* 13(10):6472-88 (2015).
84. Saggese, A., Iстicato, R., Cangiano, G., **Ricca, E.**, Baccigalupi L. "CotG-like modular proteins are common among spore-forming *Bacilli*". *J. Bacteriol.* 198:1513-1520 (2016).
85. Di Luccia, B., D'Apuzzo, E., Varriale, F., Baccigalupi, L., **Ricca, E.**, Pollice, A. "*Bacillus megaterium* SF185 induces stress pathways and affects the cell cycle distribution of human intestinal epithelial cells". *Benef Microbes.* 7(4):609-20. doi: 10.3920/BM2016.0020 (2016).
86. Donadio, G., Lanzilli, M., Sirec, T., **Ricca, E.**, Iстicato, R. "Localization of a red fluorescence protein adsorbed on wild type and mutant spores of *Bacillus subtilis*". *Microb. Cell Fact.* 15(1):153. doi: 10.1186/s12934-016-0551-2. (2016)
87. Donadio, G., Di Martino, R., Oliva, R., Petraccone, L., Del Vecchio, P., Di Luccia, B., **Ricca, E.**, Iстicato., R., Di Donato, A., Notomista, E. "A new peptide-based fluorescent probe selective for zinc (II) and copper (II)". *J. Mater. Chem. B* 4:6979-6988 (2016).
88. Lanzilli, M., Donadio, G., Addevico, R., Saggese, A., Cangiano, G., Baccigalupi, L., Christie, G., **Ricca, E.**, Iстicato, R. "The exosporium of *Bacillus megaterium* QM B1551 is permeable to the Red Fluorescence Protein of the coral *Discosoma sp.*" *Front. Microbiology* 7:1572 (2016).
89. Crescenzo, R., Mazzoli, A., Cancelliere, R., Bucci, A., Naclerio, G., Baccigalupi, L., Cutting, S.M., **Ricca, E.**, Iossa, S. "Beneficial effects of carotenoid-producing cells of *Bacillus indicus* HU16 in a rat model of diet-induced metabolic syndrome" *Beneficial Microbes (in press)* (2017)