

First name/ Surname	Alessandra Carattoli
Position held 1997-2011	Senior Scientist permanent position at Istituto Superiore di Sanità, dep. Infectious, Parasitic and Immune-Mediated Diseases
Position held 2011-today	Research Director permanent position at Istituto Superiore di Sanità, dep. Infectious, Parasitic and Immune-Mediated Diseases
Title of qualification awarded	B.Sc in Biology, University of Rome PhD in Molecular and Cellular Biology. Ph.D dissertation “Molecular characterization of light-regulated genes in <i>Neurospora crassa</i> ”.
Index	<p>Authored 130 peer-reviewed papers (source Google Scholar, Feb 2016) Total citations 8987 Official H-index 51 In the Highly Cited Researchers list 2015 by ISI-Thompson Reuters http://hcr.stateofinnovation.thomsonreuters.com/</p>
Awards	<p>2011- International Conference on Antimicrobial Agents and Chemotherapy (ICAAC) Program Committee Award for outstanding abstract presentation in the area of Resistance: Mechanisms and Consequences, 51th ICAAC Chicago, USA</p> <p>2013- ICAAC Program Committee Award for outstanding abstract presentation in the area of Resistance: Mechanisms and Consequences, 53th ICAAC Denver, USA</p>
Relevant Publications	<ol style="list-style-type: none"> Villa L, Feudi C, Fortini D, García-Fernández A, Carattoli A. Genomics of KPC-producing <i>Klebsiella pneumoniae</i> sequence type 512 clone highlights the role of RamR and ribosomal S10 protein mutations in conferring tigecycline resistance. <i>Antimicrob Agents Chemother.</i> 2014;58(3):1707-12 Carattoli A, Zankari E, García-Fernández A, Voldby Larsen M, Lund O, Villa L, Møller Aarestrup F, Hasman H. In silico detection and typing of plasmids using PlasmidFinder and plasmid multilocus sequence typing. <i>Antimicrob Agents Chemother.</i> 2014 Jul;58(7):3895-903. Carattoli A. Resistance plasmid families in Enterobacteriaceae. <i>Antimicrob Agents Chemother.</i> 2009 Jun;53(6):2227-38 Iacono M, Villa L, Fortini D, Bordoni R, Imperi F, Bonnal RJ, Sicheritz-Ponten T, De Bellis G, Visca P, Cassone A, Carattoli A. Whole-genome pyrosequencing of an epidemic multidrug-resistant <i>Acinetobacter baumannii</i> strain belonging to the European clone II group. <i>Antimicrob Agents Chemother.</i> 2008 Jul;52(7):2616-25. Carattoli A., F. Tosini , W.P. Giles, M.E. Rupp, S.H. Hinrichs, F.J. Angulo, T.J. Barrett and P.D. Fey. 2002. Characterization of plasmids carrying CMY-2 from expanded-spectrum cephalosporin-resistant <i>Salmonella</i> isolated in the United States between 1996 and 1998. <i>Antimicrob Agents Chemother</i> 46: 1269-1272 Carattoli A, Bertini A, Villa L, Falbo V, Hopkins KL, Threlfall EJ. 2005. Identification of plasmids by PCR-based replicon typing. <i>J Microbiol Methods.</i> 63 (3) 219 -228. Carattoli A., F. Tosini, P. Visca. 1998. Multi-drug resistant <i>Salmonella enterica</i> serotype Typhimurium infections. <i>New Engl. J. Med. Letter.</i> 339:921-922. Carattoli, A., E. Kato, M. Rodriguez Franco, WD Stuart & G. Macino. 1995. “ A chimeric light regulated aminoacid transport system allows the isolation of blue light regulator (blr) mutants of <i>Neurospora crassa</i>”. <i>Proc. Natl. Acad. Sci. USA</i> 92: 6612-6616

Inventions

- 2005: PCR-Based Replicon Typing (PBRT). Method invented for rapid identification of plasmids (Carattoli et al. 2005 JMM 63:219-28 - 1188 citations Google scholar Feb 2016).
- 2008: Plasmid Multi Locus Sequence Typing (pMLST). Method invented for plasmid typing. Dr. Carattoli is curator of the pMLST web-site <http://pubmlst.org/plasmid/> hosted by the University of Oxford, UK
- 2010: PBRT-KIT launched on the market, produced by DIATHEVA S.r.l. Fano, IT
- 2013 Plasmid Finder Database: a friendly-used database invented for in silico detection of plasmid content in bacterial raw genome data. Dr. Carattoli is curator of the *PlasmidFinder* web-site at the Center for Genomic Epidemiology, DTU, Denmark.

Current Projects

- *Genomics and metagenomics for control of infectious diseases sustained by bacteria*
- *Molecular diagnostics for rapid bacterial identification and typing. Major interest in tracing plasmids conferring antimicrobial resistance in clinically relevant bacteria*
- *Molecular diagnostics for rapid detection of bacteria potentially used as bioterroristic agents*
- *Construction and implementation of databases for the analysis of bacterial genome sequences to identify: resistance genes, plasmids, mobile genetic elements*
- *Monitoring and epidemiology of antimicrobial resistance exchanges among bacteria from animals, food and humans*