

Dr. Aragon is a biologist with extensive experience bacterial pathogenesis (Researcher ID: M-1611-2014). During her scientific career, she has studied different virulence factors of several bacterial species. She completed her PhD at the University of Navarra (Pamplona, Spain) working with virulent strains of *Brucella*, mainly *B. melitensis* and *B. abortus*, under the supervision of Dr. I. Moriyón. During her doctoral studies, she purified and characterized native polysaccharides from the surface of these virulent bacteria. Her work provided her with the opportunity to continue her scientific career at three different universities in the USA. During her term at the University of Missouri-Kansas City as a postdoctoral fellow with Dr. L. Dreyfus, she worked with the cytolethal distending toxin (CDT) of *Escherichia coli*. Later she moved to Northwestern University Medical School in Chicago. Under the guidance of Dr. N. Cianciotto in Chicago, Dr Aragon worked with *Legionella pneumophila* and defined several enzymatic activities secreted by the type II secretion system of this bacterium. At the final stage of her stay in the US, Dr Aragon joined the laboratory of Dr. E. Hansen at the University of Texas Southwestern Medical Center (Dallas), where she performed site directed mutagenesis of *Moraxella catarrhalis* adhesin UspA1 and identified essential aminoacids for its function.

Dr Aragon joined the Centre de Recerca en Sanitat Animal (CRESA), Barcelona, in 2003 and established herself as a leading scientist in the research line of respiratory bacterial infections of swine. Currently Dr Aragon is involved in the genomic and functional characterization of the swine pathogen *Haemophilus parasuis*. In the last years she has extended her research focus to unravel molecular mechanisms and components responsible for *H. parasuis* pathogenesis. Her scientific achievements are published in peer-reviewed international journals in the areas of Microbiology and Veterinary Medicine and are also divulged to clinicians and producers in technical talks. Dr Aragon's research on *H. parasuis* has produced articles in international journals, 1 book chapter in the book Diseases of swine, doctoral thesis, divulgative publications and several communications in national and international congresses. Her research is mainly funded by competitive grants from the Spanish Government. She has been the principal investigator in 4 projects on *H. parasuis*; and has collaborated in other projects since she joined CRESA. Dr. Aragon also participates in educational programs, teaching for Master students and supervising high schoolers through the Argó program (UAB). In the last 5 years she has participated in 6 research projects (in 4 of those as PI), has published 23 peer-reviewed articles (including 2 reviews), an invited editorial, one book chapter in Diseases of Swine, and she has supervised 3 PhD thesis and 7 Master thesis.

RECENT PUBLICATIONS

- Characterization of *Haemophilus parasuis* isolated from healthy pigs at weaning reveals a novel small plasmid bearing blaROB-1 and conferring resistance to β -lactams. Moleres J, Santos-López A, Lázaro I, Labairu J, Prat C, Ardanuy C, González-Zorn B, Aragón V, Garmendia J.

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- The use of genome wide association methods to investigate pathogenicity, population structure and serovar in *Haemophilus parasuis*.

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- Identification of a class B acid phosphatase in *Haemophilus parasuis*.
Manrique-Ramírez P, N Galofré-Milà, M Serrano, V. Aragon.
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- Biofilm formation by virulent and non-virulent strains of *Haemophilus parasuis*.
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- Comparison of four lung scoring systems for the assessment of the pathological outcomes derived from *Actinobacillus pleuropneumoniae* experimental infections.
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- Advances in the quest for virulence factors of *Haemophilus parasuis*.
Costa-Hurtado M, Aragon V.
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- Gene content and diversity of the loci encoding biosynthesis of capsular polysaccharides of the 15 serovar reference strains of *Haemophilus parasuis*.
Howell KJ, Weinert LA, Luan SL, Peters SE, Chaudhuri RR, Harris D, Angen O, Aragon V, Parkhill J, Langford PR, Rycroft AN, Wren BW, Tucker AW, Maskell DJ; BRaDP1T Consortium.
J Bacteriol. 2013 Sep;195(18):4264-73. doi: 10.1128/JB.00471-13.
- Structure of the capsular polysaccharides and lipopolysaccharides from *Haemophilus parasuis* strains ER-6P (serovar 15) and Nagasaki (serovar 5).
Perry MB, MacLean LL, Gottschalk M, Aragon V, Vinogradov E.
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- Changes in macrophage phenotype after infection of pigs with *Haemophilus parasuis* strains with different levels of virulence.
Costa-Hurtado M, Olvera A, Martinez-Moliner V, Galofré-Milà N, Martínez P, Dominguez J, Aragon V.
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- A curated public database for multilocus sequence typing (MLST) and analysis of *Haemophilus parasuis* based on an optimized typing scheme.

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