

## Producción científica derivada de las tesis defendidas en el programa de Doctorado en Microbiología Ambiental y Biomédica

| Año de defensa | Doctorando/a  | Título de la tesis                                                                                            |
|----------------|---------------|---------------------------------------------------------------------------------------------------------------|
| 2017           | Mohammad Qadi | Identification of <i>P. aeruginosa</i> binding molecules for complement component C3 and surfactant protein A |

### Contribuciones científicas derivadas:

1. Qadi, Mohammad; López-Causapé, Carla; Izquierdo-Rabassa, Sofia; Mateu Borràs, Margalida; Goldberg, Joanna B.; Oliver, Antonio; Albertí, Sebastián (2016). «Surfactant protein A recognizes outer membrane protein OprH on *Pseudomonas aeruginosa* isolates from individuals with chronic infection». *Journal of Infectious Diseases*, 214: 1449-145, doi: 10.1093/infdis/jiw387.
2. Qadi, Mohammad; Izquierdo-Rabassa, Sofia; Mateu Borràs, Margalida; Domènech-Sánchez, Antonio; Juan, Carlos; Goldberg, Joanna B.; Hancock, Robert E. W.; Albertí, Sebastián (2017). «Sensing  $Mg^{2+}$  contributes to the resistance of *Pseudomonas aeruginosa* to complement-mediated opsonophagocytosis». *Environmental Microbiology*, 19: 4278-4286, doi: 10.1111/1462-2920.13889.

| Año de defensa | Doctorando/a                   | Título de la tesis                                                                                 |
|----------------|--------------------------------|----------------------------------------------------------------------------------------------------|
| 2018           | Catalina María Alejandro-Marín | Catabolismo y tolerancia a hidrocarburos en el linaje <i>Roseobacter</i> . Aproximación multiómica |

### Contribuciones científicas derivadas:

1. Alejandro-Marín, Catalina María; Bosch, Rafael; Nogales, Balbina (2014). «Comparative genomics of the protocatechuate branch of the beta-ketoadipate pathway in the *Roseobacter* lineage». *Marine Genomics*, 17: 25-33, doi:10.1016/j.margen.2014.05.008.

| Año de defensa | Doctorando/a        | Título de la tesis                                                                                               |
|----------------|---------------------|------------------------------------------------------------------------------------------------------------------|
| 2018           | Daniel Jaén-Luchoro | Implicaciones ecológicas y clínicas del análisis comparativo de genomas de micobacterias ambientales y patógenas |

#### Contribuciones científicas derivadas:

1. Jaén-Luchoro, Daniel; Seguí, Carolina; Aliaga-Lozano, Francisco; Salvà-Serra, Francisco; Busquets, Antonio; Gomila, Margarita; Ramírez, Antonio; Ruiz, Mikel; Moore, Edward R. B.; Lalucat, Jorge; Bennàsar-Figueras, Antoni (2016). «Complete genome sequence of the Mycobacterium immunogenum Type Strain CCUG 47286». *Microbiology Resources Announcements*, 4: e00401-16, doi. 10.1128/genomeA.00401-16.
2. Jaén-Luchoro, Daniel; Salvà-Serra, Francisco; Aliaga-Lozano, Francisco; Seguí, Carolina; Busquets, Antonio; Ramírez, Antonio; Ruiz, Mikel; Gomila, Margarita; Lalucat, Jorge; Bennàsar-Figueras, Antoni (2016). «Complete genome sequence of Mycobacterium chelonae Type Strain CCUG 47445, a rapidly growing species of nontuberculous mycobacteria». *Microbiology Resources Announcements*, 4:e00550-16.10.1128/genomeA.00550-16.
3. Jaén-Luchoro, Daniel; Aliaga-Lozano, Francisco; Gomila, Rosa Maria; Gomila, Margarita; Salvà-Serra, Francisco; Lalucat, Jorge; Bennàsar-Figueras, Antoni (2017). «First insights into a type II toxin-antitoxin system from the clinical isolate Mycobacterium sp MHSD3, similar to epsilon/zeta systems». *PLoS One*, 12: e0189459, doi: 10.1371/journal.pone.0189459.

| Año de defensa | Doctorando/a        | Título de la tesis                                                                                                                                                                                             |
|----------------|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2018           | Carla López-Causapé | Clonal epidemiology and antimicrobial resistance in <i>Pseudomonas aeruginosa</i> chronic respiratory infections: interpatient transmission and resistome evolution of an international cystic fibrosis clone. |

## Contribuciones científicas derivadas:

1. López-Causapé, Carla; Rojo-Molinero, Estrella; Macià, Maria D.; Oliver, Antonio (2015). «The problems of antibiotic resistance in cystic fibrosis and solutions». *Expert Review of Respiratory Medicine*, 9: 73-88, doi: 10.1586/17476348.2015.995640.
2. Cabot, Gabriel; López-Causapé, Carla; Ocampo-Sosa, Alain A.; Sommer, Lea M.; Ángeles Domínguez, Maria; Zamorano, Laura; Juan, Carlos; Tubau, Fe; Rodríguez, Cristina; Moyà, Bartolomé; Pena, Carmen; Martínez-Martínez, Luis; Plesiat, Patrick; Oliver, Antonio; Spanish Network for Research in Infectious Diseases (2016). «Deciphering the resistome of the widespread *Pseudomonas aeruginosa* Sequence Type 175 international high-risk clone through whole-genome sequencing». *Antimicrobial Agents and Chemotherapy*, 60: 7415-7423, doi: 10.1128/AAC.01720-16.
3. del Barrio-Tofino, Ester; López-Causapé, Carla; Cabot, Gabriel; Rivera, Alba; Benito, Natividad; Segura, Concepción; Milagro Montero, Maria; Sorli, Luisa; Tubau, Fe; Gómez-Zorrilla, Silvia; Tormo, Nuria; Dura-Navarro, Raquel; Viedma, Esther; Resino-Foz, Elena; Fernández-Martínez, Marta; González-Rico, Claudia; Alejo-Cancho, Izaskun; Antonio Martínez, José; Labayru-Echeverría, Cristina; Duenas, Carlos; Ayestarán, Ignacio; Zamorano, Laura; Martínez-Martínez, Luis; Pablo Horcajada, Juan; Oliver, Antonio (2017). «Genomics and susceptibility profiles of extensively drug-resistant *Pseudomonas aeruginosa* isolates from Spain». *Antimicrobial Agents and Chemotherapy*, 61: e01589-17, doi: 10.1128/AAC.01589-17.
4. López-Causapé, Carla; Sommer, Lea Mette; Cabot, Gabriel; Rubio, Rosa; Ocampo-Sosa, Alain A.; Johansen, Helle Krogh; Figuerola, Joan; Cantón, Rafael; Kidd, Timothy J.; Molin, Soeren; Oliver, Antonio (2017). «Evolution of the *Pseudomonas aeruginosa* mutational resistome in an international cystic fibrosis clone». *Scientific Reports*, 7: 5555, 10.1038/s41598-017-05621-5.
5. López-Causapé, Carla; de Dios-Caballero, Juan; Cobo, Marta; Escribano, Amparo; Asensio, Òscar; Oliver, Antonio; del Campo, Rosa; Canton, Rafael (2017). «Antibiotic resistance and population structure of cystic fibrosis *Pseudomonas aeruginosa* isolates from a Spanish multi-centre study». *International Journal of Antimicrobial Agents*, 50: 334-341, doi: 10.1016/j.ijantimicag.2017.03.034.
6. López-Causapé, Carla; Oliver, Antonio (2017). «Insights into the evolution of the mutational resistome of *Pseudomonas aeruginosa* in cystic fibrosis». *Future Microbiology*, 12: 1445-1448, doi: 10.2217/fmb-2017-0197.
7. López-Causapé, Carla; Cabot, Gabriel; del Barrio-Tofino, Ester; Oliver, Antonio (2018). «The versatile mutational resistome of *Pseudomonas aeruginosa*». *Frontiers in Microbiology*, 6: 685, doi: 10.3389/fmicb.2018.00685.

8. López-Causapé, Carla; Rubio, Rosa; Cabot, Gabriel; Oliver, Antonio (2018). «Evolution of the *Pseudomonas aeruginosa* aminoglycoside mutational resistance in vitro and in the cystic fibrosis setting». *Antimicrobial Agents and Chemotherapy*, 62: e02583-17, doi: 10.1128/AAC.02583-17.

| Año de defensa | Doctorando/a          | Título de la tesis                                                                                                         |
|----------------|-----------------------|----------------------------------------------------------------------------------------------------------------------------|
| 2019           | Marcelo Pérez-Gallego | Conexión entre metabolismo del peptidoglicano, resistencia a beta-lactámicos y virulencia en <i>Pseudomonas aeruginosa</i> |

#### Contribuciones científicas derivadas:

- Pérez-Gallego, Marcelo; Torrens, Gabriel; Castillo-Vera, Jane; Moyà, Bartolomé; Zamorano, Laura; Cabot, Gabriel; Hultenby, Kjell; Albertí, Sebastián; Mellroth, Peter; Henriques-Normark, Birgitta; Normark, Staffan; Oliver, Antonio; Juan, Carlos (2016). «Impact of AmpC derepression on fitness and virulence: the mechanism or the pathway?». *mBio*, 7: e01783-16, doi: 10.1128/mBio.01783-16.
- Torrens, Gabriel; Pérez-Gallego, Marcelo; Moyà, Bartolomé; Munar-Bestard, Marta; Zamorano, Laura; Cabot, Gabriel; Blázquez, Jesús; Ayala, Juan A.; Oliver, Antonio; Juan, Carlos (2017). «Targeting the permeability barrier and peptidoglycan recycling pathways to disarm *Pseudomonas aeruginosa* against the innate immune system». *PLOS One*, 12: e0181932, doi:10.1371/journal.pone.0181932.

| Año de defensa | Doctorando/a               | Título de la tesis                                                                                                     |
|----------------|----------------------------|------------------------------------------------------------------------------------------------------------------------|
| 2019           | Bartomeu Antoni Viver Pizà | Taxa novelty, resistance and resilience of halophilic microbial communities of solar salterns to environmental changes |

#### Contribuciones científicas derivadas:

- Viver, Tomeu; Cifuentes, Ana; Díaz, Sara; Rodríguez-Valdecantos, Gustavo; González, Bernardo; Antón, Josefa; Rosselló-Mora, Ramon (2015). «Diversity of extremely halophilic cultivable prokaryotes in Mediterranean, Atlantic and Pacific solar

salterns: Evidence that unexplored sites constitute sources of cultivable novelty.» *Systematic and Applied Microbiology*, 38: 266-275, doi: 10.1016/j.syapm.2015.02.002.

2. Viver, Tomeu; Orellana, Luis H.; Hatt, Janet K.; Urdiain, Mercedes; Díaz, Sara; Richter, Michael; Antón, Josefa; Avian, Massimo; Amann, Rudolf; Konstantinidis, Konstantinos T.; Rosselló-Mora, Ramon (2017). «The low diverse gastric microbiome of the jellyfish *Cotylorhiza tuberculata* is dominated by four novel taxa». *Environmental Microbiology*, 19: 3039-3058, doi: 10.1111/1462-2920.13763.

3. Viver, Tomeu; Orellana, Luis; González-Torres, Pedro; Díaz, Sara; Urdiain, Mercedes; Eugenia Farias, Maria; Benes, Vladimir; Kaempfer, Peter; Shahinpei, Azadeh; Amoozegar, Mohammad Ali; Amann, Rudolf; Antón, Josefa; Konstantinidis, Konstantinos T.; Rosselló-Mora, Ramon (2018). «Genomic comparison between members of the *Salinibacteraceae* family, and description of a new species of *Salinibacter* (*Salinibacter altiplanensis* sp nov.) isolated from high altitude hypersaline environments of the Argentinian Altiplano». *Systematic and Applied Microbiology*, 41: 198-212, doi: 10.1016/j.syapm.2017.12.004.