



MARS Group: Health-related water microbiology. Horizontal Gene Transfer Laboratory

Web group MARS

<http://www.ub.edu/mars/web/en/main-team-of-MARS>

Group Members

Dentro de los miembros del grupo MARS, actualmente algunos están más involucrados en la red Fagoma, entre los que destacan

Maite Muniesa
Lorena Rodríguez
Pablo Quirós
Daniel Torivio
Pedro Blanco
Eli Ballesté
Clara Gómez
Sara Morales

Recent articles (last 5 years)

- Toribio-Avedillo D, Blanch AR, Muniesa M, Rodríguez-Rubio L. Bacteriophages as Fecal Pollution Indicators. *Viruses*. 2021 13(6):1089
- Węgrzyn G, Muniesa M. Editorial: Shiga Toxin-Converting Bacteriophages. *Front Microbiol*. 2021;12:680816.
- Blanco-Picazo P, Roscales G, Toribio-Avedillo D, Gómez-Gómez C, Avila C, Ballesté E, Muniesa M, Rodríguez-Rubio L. Antibiotic Resistance Genes in Phage Particles from Antarctic and Mediterranean Seawater Ecosystems. *Microorganisms*. 2020;8(9):1293.
- Toribio-Avedillo D, Martín-Díaz J, Blanco-Picazo P, Blanch AR, Muniesa M. F-specific coliphage detection by the Bluephage method. *Water Res*. 2020;184:116215.
- Blanco-Picazo P, Fernández-Orth D, Brown-Jaque M, Miró E, Espinal P, Rodríguez-Rubio L, Muniesa M, Navarro F. Unravelling the consequences of the bacteriophages in human samples. *Sci Rep*. 2020;10(1):6737
- Gómez-Gómez C, Blanco-Picazo P, Brown-Jaque M, Quirós P, Rodríguez-Rubio L, Cerdà-Cuellar M, Muniesa M. Infectious phage particles packaging antibiotic resistance genes found in meat products and chicken feces. *Sci Rep*. 2019;9(1):13281.
- Brown-Jaque M, Rodriguez Oyarzun L, Cornejo-Sánchez T, Martín-Gómez MT, Gartner S, de Gracia J, Rovira S, Alvarez A, Jofre J, González-López JJ, Muniesa M. Detection of Bacteriophage Particles Containing Antibiotic Resistance Genes in the Sputum of Cystic Fibrosis Patients. *Front Microbiol*. 2018;9:856.
- Larrañaga O, Brown-Jaque M, Quirós P, Gómez-Gómez C, Blanch AR, Rodríguez-Rubio L, Muniesa M. Phage particles harboring antibiotic resistance genes in fresh-cut vegetables and agricultural soil. *Environ Int*. 2018 ;115:133-141
- Brown-Jaque M, Calero-Cáceres W, Espinal P, Rodríguez-Navarro J, Miró E, González-López JJ, Cornejo T, Hurtado JC, Navarro F, Muniesa M. Antibiotic resistance genes in phage particles isolated from human faeces and induced from clinical bacterial isolates. *Int J Antimicrob Agents*. 2018;51(3):434-442.
- Muniesa M, Ballesté E, Imamovic L, Pascual-Benito M, Toribio-Avedillo D, Lucena F, Blanch AR, Jofre J. Bluephage: A rapid method for the detection of somatic coliphages used as indicators of fecal pollution in water. *Water Res*. 2018 ;128:10-19
- Quirós P, Muniesa M. Contribution of cropland to the spread of Shiga toxin phages and the emergence of new Shiga toxin-producing strains. *Sci Rep*. 2017;7(1):7796.
- García-Aljaro C, Ballesté E, Muniesa M. Beyond the canonical strategies of horizontal gene transfer in prokaryotes. *Curr Opin Microbiol*. 2017;38:95-105.
- Navarro F, Muniesa M. Phages in the Human Body. *Front Microbiol*. 2017; 8:566.
- Calero-Cáceres W, Méndez J, Martín-Díaz J, Muniesa M. The occurrence of antibiotic resistance genes in a Mediterranean river and their persistence in the riverbed sediment. *Environ Pollut*. 2017;223:384-394.

Quirós P, Brown-Jaque M, Muniesa M. Spread of bacterial genomes in packaged particles. *Future Microbiol.* 2016;11(2):171-3.

Imamovic L, Ballesté E, Martínez-Castillo A, García-Aljaro C, Muniesa M. Heterogeneity in phage induction enables the survival of the lysogenic population. *Environ Microbiol.* 2016;18(3):957-69.

Doctoral Thesis (last 5 years)

2021- Desarrollo de métodos rápidos para la detección de bacteriófagos como indicadores de contaminación fecal Daniel Toribio Avedillo

2018- Bacteriófagos en el cuerpo humano Maryury Andrea Brown Jaque

2018. Los bacteriófagos como elementos de transmisión genética horizontal de resistencias a antibióticos y toxinas Stx Pablo Quirós Fernández

2016- Evaluación de reservorios ambientales de partículas fágicas portadoras de genes de resistencia a antibióticos William Calero Cáceres