

Inhalable Aerosol Light Source for Controlling Drug-Resistant Bacterial Lung Infections

Timeline | 12/2019 to 11/2023

ICIQ People | [Palomares Research Group](#)

Overall Budget | 3,493,625 €

Website | <https://light4lungs.eu>

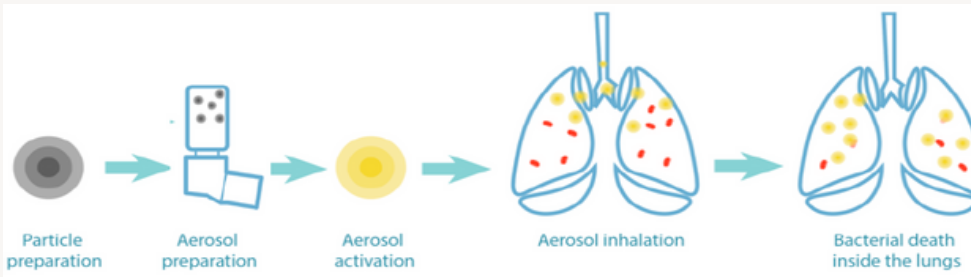
ICIQ's Budget | 372,500 €

Call | H2020-FETOPEN-2018-2019-2020-01-RIA

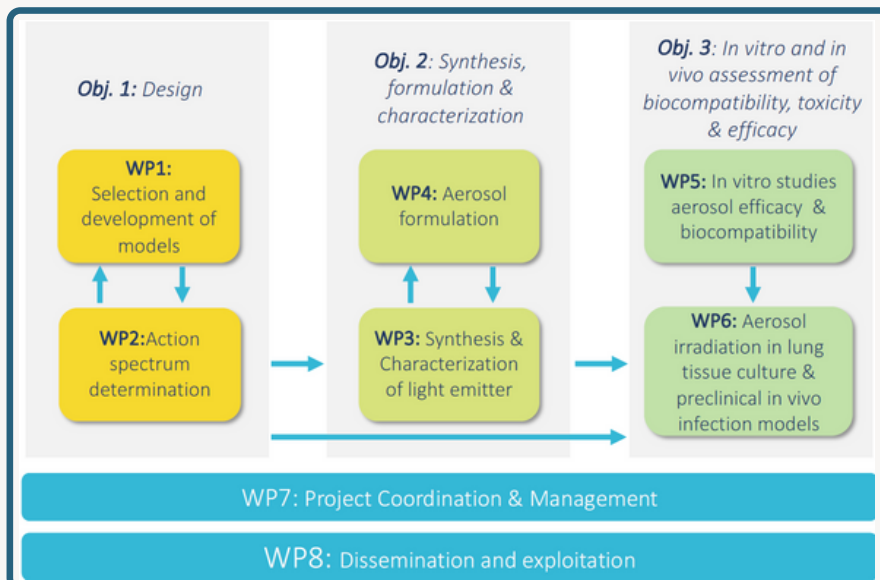
SUMMARY

The growing resistance to many antibiotics and the emergence of multidrug-resistant bacteria calls for the development of alternative antibacterial therapies. Currently, bacterial drug resistance is the leading cause of morbidity and mortality in patients with cystic fibrosis and hospital-acquired lung infections. **LIGHT4LUNGS** will develop new treatment for bacterial lung infections using inhalable light sources that excite bacterial endogenous photosensitisers (porphyrins), killing the bacteria via the photodynamic effect (local production of reactive cytotoxic oxygen). The treatment will be safe for host tissues and effective against drug-resistant pathogens. Research involves the development of inhalable luminescent particles, the method for delivery to the lungs, and evaluation of the treatment parameters in relevant clinical models.

"Light4Lungs addresses the problem of antimicrobial resistance in the treatment of chronic lung infections"



WORK PLAN



CONSORTIA



PERSONA CIENCIA EMPRESA
UNIVERSITAT RAMON LLULL

Project coordinator



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