

New anti-inflammatory molecules from cell wall products obtained from intracellular bacterial pathogens

CSIC and Universidad Autónoma de Madrid (UAM) have characterized new structures in the peptidoglycan of pathogenic bacteria like *Salmonella* isolated from the intracellular niche of mammalian cells. Some of the structural differences that have been characterized attain for modifications in the D-Ala residue of stem peptides that affect their inflammatory potential.

Industrial partners from the ophthalmic or pharmaceutical industry are being sought to collaborate through a patent licence agreement.

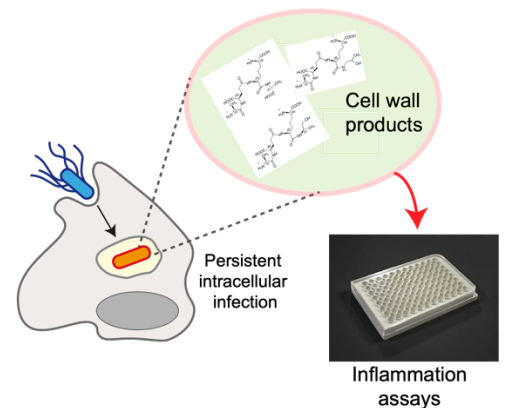
An offer for Patent Licensing

New peptides induce an inflammatory response

These new peptides structures, in the configuration found in the peptidoglycan of intracellular *Salmonella*, have not been reported before for any bacteria growing in laboratory media.

Tests involving the monitoring of NF- κ B activity in reporter cell lines demonstrate that these modified peptides have distinct capacity to induce an inflammatory response.

The invention also relates to its synthesis procedure and to the use of the mentioned peptides for the treatment of inflammatory diseases.



Isolation of new peptides from peptidoglycan of intracellular bacteria to be tested for new anti-inflammatory properties

Main innovations and advantages

- A protocol has been designed to chemically synthesize in vitro the modified peptide as the one that *Salmonella* synthesizes inside the mammalian cell.
- The modified peptides can be exploited as new anti-inflammatory molecules in standard and ad-hoc designed reporter assays.
- The structure of the modified peptide can also be used as template and tailored to enhance anti-inflammatory potential.

Patent Status

PCT patent application filed

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