

# LICENSING OPPORTUNITIES

with Ulster University



## Novel inhibitor of the NLRP3 Inflammasome as a Therapeutic

**Ulster University is looking for partners to progress an exciting new technology.**

Researchers from the Centre for Personalised Medicine have developed a novel inhibitor to the NLRP3 Inflammasome and have demonstrated efficacy for inhibiting inflammation. The NLRP3 Inflammasome target is implicated in various highly prevalent and morbid conditions and this novel inhibitor has multiple applications.



### THE PROBLEM

Inflammation is a primary contributing factor involved in multiple chronic diseases.

Overall, the estimated prevalence of chronic inflammatory disease in Western society (approx. 1.8 billion) is 5 to 7 percent. Additionally, patients with a chronic inflammatory disease are at greater risk for developing other inflammatory related conditions.

There is a clear need to address the chronic inflammation that contributes to various disease morbidities and mortalities. These co-morbidities and multi-morbidities are highly prevalent and coupled with an ageing population that is living longer, this 'inflammaging' not only affects the individuals themselves but can also impose an extensive burden on society in particular our healthcare systems (given that age is also a risk factor for inflammation).

A protein called the NLRP3 inflammasome is well known to be involved in orchestrating chronic inflammation in many degenerative and infectious diseases such as Cardiovascular Disease, Diabetes, Neurological Disease eg. Alzheimer's, Arthritic conditions, Inflammatory Eye conditions (including AMD and Glaucoma) and even Depression.



## THE TECHNOLOGY

Ulster researchers have developed the first biological therapy to target NLRP3. The design of the inhibitor offers many advantages over potential competitor products. Results to date have demonstrated that the inhibitor can inhibit inflammation in laboratory models, including:

- The dose response of the inhibitor
- The mechanism of action of the inhibitor
- Specificity and sensitivity of the inhibitor
- Potency of the inhibitor as compared to a potential competitor product in inhibiting inflammation.

The therapy exhibits superior anti-inflammatory activity in proof of concept studies.

This exciting preliminary data package paves the way for in vivo demonstration of activity and efficacy and examining the pharmacokinetic/pharmacodynamic profile, as well as the longer-term, disease modifying benefits of treatment in a range of animal models to prove (possibly multiple) applications of the inhibitor.

## THE OPPORTUNITY

Further long-term studies using the NLRP3 inhibitor in preclinical models of various disease are required to assess the scientific basis, therapeutic usefulness and disease modifying actions of this promising novel therapeutic.

We can offer you **exclusive licensing** to enhance your existing intellectual property pipeline and ensure competitive positioning of this emerging technology. In addition, Ulster University experts along with the inventors of this technology are available to assist in its successful commercialisation.

**If you would like to collaborate with us and progress this technology, please get in touch using the contact details below.**

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