

Aspirin breakthrough

Trinity scientists retain the power of humble pill while getting rid of the side effects

By **Leah McDonald**

IT'S the world's most commonly prescribed medicine.

But now scientists are in the process of developing a new type of aspirin which prevents the unpleasant side effects associated with the drug.

Solvotrin Therapeutics, a Dublin-based pharmaceutical firm, is in the initial stages of creating a form of aspirin to limit nausea and the risk of stomach ulcers for patients who take it regularly.

Aspirin is used to treat mild pain and reduce fever. It is also prescribed for the treatment and prevention of heart attacks, stroke and angina.

However, for those who take the drug regularly, it can cause stomach irritation and bleeding, which can lead to long-term problems such as ulcers.

John Gilmer, a scientist based at Trinity College, has teamed up with Solvotrin to develop the drug in what is already being hailed as a major medical breakthrough.

Dr Gilmer explained that adverse side effects are caused when aspirin is dissolved into the bloodstream. Previous attempts to prevent this such as coating the aspirin to slow down the speed at which it dissolves or by buffering the capsule to counteract its acidity, have been largely ineffective.

However, Dr Gilmer has been working on a molecule that deactivates aspirin until it enters the bloodstream, protecting the stomach and small intestine.

He said: "This is a major advance in treating heart disease with aspirin.

'We are the first to develop a platform that protects the gastrointestinal tract from aspirin as it passes into the bloodstream.'

Dr Gilmer has been researching the drug since the late 1990s and developed the molecule in 2001 at his laboratory in Trinity. It is hoped it can enter human clinical trials

towards the end of the year.

Working in collaboration with Professor Marek Radomski, an expert in platelet technology, Dr Gilmer has also patented 38 compounds on 'superaspirins' to prevent cancer and address arthritic conditions. However, the initial focus will be on the treatment of heart conditions.

Around two million prescriptions are issued for aspirin every year.

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POWER PILL

ASPIRIN has been called the most useful drug known to man.

Its development stems back to 400 BC when Greek physician Hippocrates used the bark and leaves of the willow tree to treat pain and fever.

The drug's modern form came about in 1828 when German scientist Joseph Buckner isolated crystals in willow bark.

After the First World War as part of war reparations, the German chemical firm Farbenfabriken Bayer was forced to give up Aspirin as a registered trademark.

In the 1970s, a researcher, John Vane, won the Nobel prize for discovering the drug could be used to stop blood clotting.



Plan: Marek Radomski

