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NEWSPPOINT

Developing a new drug for Alzheimer's and Parkinson's patients



[Professor Neville Vassallo](http://www.um.edu.mt/profile/nevillevassallo) (<http://www.um.edu.mt/profile/nevillevassallo>) and his research team at the Department of Physiology & Biochemistry and the Centre for Molecular Medicine & Biobanking are collaborating with major international research groups to discover new effective treatments for brain neurodegenerative disorders like Alzheimer's and Parkinson's diseases.

A study co-authored by Prof. Neville Vassallo and two doctoral graduates, Dr Angelique Camilleri and [Dr Mario Caruana](#), together with scientists at the Ludwig-Maximilians-University of Munich, the German Centre for Neurodegenerative Diseases in Bonn, the Max Planck Institute for Biophysical Chemistry in Göttingen, and the University of California San Diego, among others, was published in the EMBO Molecular Medicine journal. This prestigious medical journal ranks 5th out of 168 journals on molecular medicine.

Various studies have linked both Alzheimer's and Parkinson's diseases to the build-up and deposition of specific proteins in the brain. The toxic protein clumps extensively damage nerve cells and cause symptoms like dementia in Alzheimer's disease, or difficulty in movement in Parkinson's disease. In the paper the researchers show that a potentially new medicine called 'anle138b' improved memory function in a mouse model of Alzheimer pathology. Significantly, the team at the University of Malta demonstrated that the anle138b compound prevented mitochondrial damage and rescued brain cells from dying. Taken together, the data suggests that therapeutic effects can be expected to be achieved in Alzheimer patients with oral administration of anle138b. Previous research has shown that anle138b also holds promise for treatment of Parkinson's disease patients.

Although the results are encouraging, the researchers emphasise that the drug's effectiveness still has to be demonstrated in humans. Currently, toxicology studies are being performed to eventually move towards a first-in-human study.

[Link to download study publication](http://embomolmed.embopress.org/content/early/2017/12/04/emmm.201707825.figures-only) (<http://embomolmed.embopress.org/content/early/2017/12/04/emmm.201707825.figures-only>)