

# Fish study aims to uncover novel drugs for human aggression

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An international project involving research groups from across Europe and the USA, and including the University of Leicester, is seeking to investigate the causes of aggression – and ways of controlling this behaviour.

Researchers from the University of Leicester's Department of Biology will study zebrafish to investigate pathological aggression. This will help scientists understand the function of aggression-linked genes in the brain as well as allowing better subtyping of aggression and anti-social personality types. The research will also use juvenile fish to develop novel interventions for treating aggression.

It is hoped that a greater understanding of the causes of aggression, both impulsive and instrumental, will significantly improve the lives of patients and their families by offering more individualised treatment plans.

Research lead, Dr Will Norton from the University of Leicester, explained: "We live in an increasingly violent society and we don't know why. Aggression is an extremely complex behaviour which is becoming a big societal problem. There are currently very few drugs available to treat aggression and there are often side-effects for those that exist.

"This is a really ambitious project, but I am hopeful that by looking at the areas of the brain and genes linked to this type of behaviour, we will develop a better understanding of aggression and how it responds to

existing treatments. We will be using both adult and juvenile zebrafish since they are genetic model organisms which may respond in a similar way to drugs as humans."

This research forms part of an international research programme, 'Aggressotype', which includes 23 research groups from Europe and the USA. The five-year EU-funded project will study the biological underpinnings of aggression to develop much-needed treatment strategies.

Dr Norton added: "I'm really excited about the opportunity to collaborate with a wide variety of influential scientists from across the globe as part of this research. Not enough is known about aggression and this is an area of interest which definitely needs more focus. The end goal for my individual project will be to develop new drugs effective at controlling [aggression](#) to increase the treatment options for patients."

Provided by University of Leicester

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