

News release
Tuesday 18 November 2014

Fight for Sight and Birdshot Uveitis Society partner to fund clinical research

Birdshot uveitis – also known as Birdshot – is a rare, potentially blinding condition that’s hard to treat. However, three teams of researchers are trying to change that with new projects. They’ve each been awarded a Fight for Sight-Birdshot Uveitis Society Small Grant Award to help gather some initial data on how to spot the earliest signs of Birdshot and improve treatment monitoring.

Birdshot affects the choroid – a layer of blood vessels that supply the photoreceptor cells that sense light and send visual signals from the eye to the brain. Inflammation in the rear part of the choroid means that the photoreceptors don’t get the oxygen or nutrition they need to function normally. This can cause significant sight loss and may mean long term treatment with steroids and drugs to suppress the immune system.

But even with treatment, Birdshot is highly variable and it is peculiarly hard to predict whether it will get better, worse, stop or start up again. There is no diagnostic test, and clinical signs and symptoms don’t give a reliable picture of how severe the underlying disease has become or of whether or not to treat.

At King’s College London, Dr Omar Mahroo and co-investigators Professors Miles Stanford and Christopher Hammond will test a portable device that records electrical activity from the eye (an electroretinogram or ERG) to find out whether it can reliably monitor Birdshot’s progress. ERG recordings could pick up early disease activity, help guide treatment decisions and monitor the response to treatment.

Meanwhile, Mr Mark Westcott at the UCL Institute of Ophthalmology and co-investigators at Moorfields Eye Hospital, Ms Angela Rees and Mr Carlos Pavesio will try to identify which clinical signs that appear early on in the condition are good predictors of a poor prognosis later on. The team will look back at and use statistical analysis to compare the medical records of their large group of Birdshot patients who have attended the clinic for over 5 years.

Research has shown that statistical analysis of the particular proteins on white blood cells can distinguish between healthy eyes and those with inflammatory eye disease. It can even distinguish between different inflammatory eye conditions. So, in a third co-funded study, Dr Graham Wallace and co-investigator Dr John Curnow at the University of Birmingham will use this method to develop a diagnostic test for Birdshot. This test could lead to earlier detection of Birdshot.

“We know that questions about detecting inflammatory eye disease earlier and on predicting how severe symptoms will become are important priorities for research as identified by the Sight Loss and Vision Priority Setting Partnership,”

said Dr Dolores Conroy, Director of Research at Fight for Sight. “I am delighted to see Fight for Sight team up with Birdshot Uveitis Society again this year to fund this important research”.

Annie Folkard, one of the founders of the Birdshot Uveitis Society, said: “It is so encouraging to see another three lines of Birdshot research going ahead. Our fundraising for Birdshot research really is beginning to make a difference. Results from these types of investigations will slowly but surely improve Birdshot diagnosis, its treatments and its outcomes.”

Dr Mahroo, Academic Clinical Lecturer in Ophthalmology, King’s College London, said: “Given the relatively low cost of the portable electroretinogram device, findings from our study have the potential to improve current patient care in many eye departments, and also to provide important reliability and control data to facilitate objective monitoring of the effects of future novel therapies under development.”

Mr Westcott, Consultant Ophthalmologist and Senior Lecturer at the Institute of Ophthalmology, said: “Data from our study will enable clinicians to inform patients of their likely disease course, based upon initial presenting factors and features. The results will help researchers design and power appropriate randomised controlled treatment trials in the future.”

Dr Wallace, Senior Lecturer in the Academic Unit of Ophthalmology at the University of Birmingham, said: “It is difficult for clinicians to confirm Birdshot unless they are an expert in the disease. Being able to run a simple test, which is available in every clinical immunology laboratory in the UK, would lead to earlier diagnosis of the condition. This is important to the patient’s wellbeing and will allow clinicians to introduce the appropriate treatment much earlier with the aim of controlling the disease more effectively.”

- ends -

Fast facts

- Birdshot uveitis is also sometimes known as Birdshot Chorioretinopathy
- Patients are usually otherwise healthy men or women in the 3rd to 7th decade of age
- Birdshot is thought to be an autoimmune disease, meaning that the immune system behaves abnormally and attacks its own body
- Symptoms of Birdshot include floaters, blurred vision and seeing flashing lights. Sight loss is gradual and painless.

About Fight for Sight

Fight for Sight is the leading UK charity dedicated to funding pioneering research to prevent sight loss and treat eye disease. We fund research at leading universities and hospitals throughout the UK. Major achievements include:

- establishing the UK Corneal Transplant Service enabling over 52,000 corneal transplants to take place
- funding the research leading to the world’s first clinical trial for choroideremia

- bringing hope to children with inherited eye disease by co-funding the team responsible for the world's first gene therapy clinical trial

Our current research programme is focusing on preventing and treating age-related macular degeneration, diabetic retinopathy, glaucoma, cataract and corneal disease. We are also funding research into the causes of childhood blindness and a large number of rare eye diseases.

For more information or images please contact:

Ade Deane-Pratt, Research Communications Officer, Fight for Sight. T: 020 7264 3906. E: ade@fightforsight.org.uk

W: www.fightforsight.org.uk

Twitter: @fightforsightUK

Facebook: <https://www.facebook.com/fightforsightuk>

About Birdshot Uveitis Society

Birdshot Uveitis Society offers support, advice and information for people affected with the potentially blinding rare eye condition of Birdshot Uveitis. In order to help improve education, treatments and diagnosis, we have:

- organised Birdshot Days involving both patients and professionals to provide support and education
- collaborated with the leading eyesight research charity Fight for Sight
- established a National Birdshot Research Network involving leading UK uveitis specialists and researchers
- established a specialist Birdshot database and bioresource centre, providing a cornerstone for future Birdshot research

For more information about Birdshot please contact: Annie Folkard – birdshot patient and one of the founders of, Birdshot Uveitis Society on 07720 894 450 annie@birdshot.org.uk