



## We are the Autism Research Trust

We are delighted to introduce you to the Autism Research Trust (ART) and welcome you to our very first newsletter. It has been a busy year for the Trust and along with setting up the charity we have also managed to raise over £68,000!

The ART was founded to support researchers in the field of autism to accelerate the pace of autism research and to complement governmental funding with philanthropic funding. In the UK, individual donations towards research into autism spectrum conditions are approximately £22 per child, compared to £3,000 per child for childhood cancers. We hope to change the way research is funded for the better – and with your support we can.

The Autism Research Centre is at the cutting edge of autism research. Under the leadership of Professor Simon Baron-Cohen, the team aims to further develop our understanding of the causes of autism and to evaluate treatments and interventions to ensure that people affected by autism receive the best possible support. We will ensure that there are funds available to support this important research.

## Help make a difference

### GET ACTIVE

Take part in an event and raise money through sponsorship. You could run, cycle, swim or take on a skydiving challenge. Get in touch with us on [sam@autismresearchtrust.co.uk](mailto:sam@autismresearchtrust.co.uk) to find out what's on in your area.

### GIVE a GIFT

Your generosity could make it possible for us to develop new and validated interventions which could make a difference to people's lives. A one-off or monthly donation will help us to support this vital research. You can do this easily via our [JustGiving](#) page.

Giving in tribute to a loved one or friend is a wonderful way to remember them. To find out more about this and about leaving a gift in your will, please send an email to [sam@autismresearchtrust.co.uk](mailto:sam@autismresearchtrust.co.uk).

Donate now and make a difference via [www.justgiving.com/autismresearchtrust](http://www.justgiving.com/autismresearchtrust)

# Be inspired

## Rupert & Fanny's Big Bike Trip – South Africa to Hong Kong

To date, Fang Yi and Rupert have now ridden more than 21,000kms across the African continent in conditions ranging from the bushlands of Zambia, Tanzania and Botswana, hard rocky deserts in Kenya, 4,000 + metre plateaus and rain storms in Ethiopia, scorching hot deserts in Sudan, gravel roads in Namibia, blinding sand storms in Egypt and sliding about in mud in the Masai Mara.

We are thrilled that they are undertaking this epic adventure in aid of the ART and wish them the best of luck as they continue their journey.

If you want to find out more about their incredible challenge you can visit their JustGiving page [here](#).



# Key areas funded

## Genetics

Genes need to be understood in terms of how they shape brain development and styles of thinking, perception and behaviour. The ART will fund state of the art technologies to answer these questions.

## Screening & Diagnosis

Early detection of autism and Asperger syndrome are a vital step towards early intervention and therefore improved prognosis. The ART will fund research into detection of toddlers, pre-schoolers, children, adolescents, and adults with autism spectrum conditions.

## Intervention

It is vital that treatments and interventions are evaluated by research. Everyone affected by autism needs to know that interventions are safe and beneficial. Evaluations are an important part of ART's funding.

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# Examples of research we are fundraising for

## UNBLOCKING BARRIERS TO EMPLOYMENT IN ADULTS WITH ASPERGER SYNDROME (AS)

This project aims to find out why approximately 90% of adults with AS are unemployed and what factors would lead to a reduction in this level of unemployment. This has implications for the well-being of adults with AS as employment is known to be good for mental health (Royal College of Psychiatrists, 2008), and also has implications for the wealth of the nation, since employment not only leads to income for the individual but potentially income generation for society. Furthermore, under-representation of individuals with AS also suggests that UK employers are not benefiting from the skills and talents which adults with AS can offer in the workplace.

## CAN "AUTISM RED FLAGS" (SHORT QUESTIONNAIRES) HELP GP'S TO MAKE QUICKER AND MORE ACCURATE REFERRALS FOR A DIAGNOSIS OF POSSIBLE AUTISM?

This research will evaluate the implementation of 4 brief 'screeners' for autism (one for toddlers, children, adolescents, and adults) which have already been shown to be validated, reliable, sensitive and specific. These are short (10 item) versions of established screening measures aimed at helping primary care professionals to make quick decisions in real clinic time about whether or not to refer an individual to a specialist service for ASC. The main benefit will be to shift the GP decision making away from being slow and uncertain towards being rapid and much more certain, using evidence-based instruments.

## WHY IS AUTISM MORE COMMON IN MALES?

This project will test sex linked hormones such as testosterone, to see if levels of this and its precursor hormone (androstenedione) are elevated in autism. Testosterone is a key hormone that shapes brain development in both non-human animals and in humans, before birth. Previous research in the Autism Research Centre found elevation of androstenedione in adults with Asperger syndrome, but we don't know if this difference also exists in children on the autistic spectrum, or in those with learning difficulties, or how specific the finding is to autism. Nor do we know if these sex-linked hormones are atypical in first degree relatives of people with autism (their siblings or parents). This project has the potential to explain why males may be more prone to developing autism (since in general males produce at least twice as much testosterone as females).

## SEQUENCING CANDIDATE GENES RELATED TO SEX STEROIDS AND NEURAL GROWTH IN AUTISM AND ASPERGER SYNDROME

This project aims to identify promising candidate genes for autism by deep sequencing five of them. Most large-scale genetic studies have primarily investigated the lower-functioning end. In this study the sample DNA will be selected from those with a diagnosis of Asperger Syndrome as this increases the power to detect genes underlying autistic traits, independent of genes underlying learning difficulties or language delays. The Autism Research Centre have already identified candidate genes that regulate neural growth and sex hormones as being associated with autistic traits, and this study will provide fine mapping of these genes to identify the precise genetic changes associated with a diagnosis.

## Get in touch

If you have any ideas for fundraising you would like to do, or if you would like to become more involved with the ART, we would love to hear from you. You can get in touch with us by:

Email: [sam@autismresearchtrust.co.uk](mailto:sam@autismresearchtrust.co.uk)

Post: The Autism Research Trust, c/o Sylvie Nunn, 19 – 21 Cookridge Street, Leeds, LS2 3AG

Website: [www.autismresearchtrust.org](http://www.autismresearchtrust.org)

The ART specifically raises funds for research. For specialist support please contact the National Autistic Society on their free telephone helpline 0808 800 4104



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