

Rosetrees Trust



helping humanity
through medical research

life changing discoveries

“Rosetrees’ approach to medical research is unique. By focusing on fundamental and cutting edge projects, they are contributing to the discovery of vital and revolutionary treatments.”

Prof. Lord Darzi of Denham, KBE, FMedSci, Hon FREng
Professor of Surgery and Head of Department,
Imperial College London,
Hon Consultant Surgeon, Imperial College London,
NHS Trust and The Royal Marsden NHS Trust



RANKIN PHOTOGRAPHY

Rosetrees, in consultation with its expert advisers, has evaluated some of today’s most important medical projects and then contributed millions of pounds.

You are invited to co-donate with Rosetrees to medical research with potential for life saving discoveries. In the past this has been as ground breaking as penicillin and keyhole surgery.

Future advances may be even more exciting.

Prospects for major advances and helping humanity in a very real and positive way have never been brighter.

“We are in the most exciting time ever in medical research and Rosetrees Trust has selected projects of the highest quality, important to human health, where significant gains are attainable and their contribution has been invaluable.”

Prof. Ed Byrne
Dean, Medical School, University College London

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the joy of succeeding

Medical research is moving forward at a fast pace and much success has been recorded in exciting areas like Tissue Engineering, which may one day enable our worn body parts to be replaced from our own cells.

Rosetrees has supported research, such as Professor Raisman's mentioned below, on regenerating nerves which may one day enable the paralysed to walk again. Outstanding research is making possible what was once thought impossible.



Research Project Neurology

Rosetrees supports the work of Prof. Geoffrey Raisman at the Institute of Neurology who is using stem cells to regenerate nerves in the shoulder, so that lost hand movements are regained. He has also successfully shown that nerves taken

from the nasal lining, the olfactory cells, can be implanted in damaged spinal nerves in rats.

These cells can regrow to restore function to the animals and the research is now ready for human trials. This should help the more complex research relating to reconnecting nerves in

the spinal system which may enable the paralysed to walk again one day. Olfactory cells may also help repair damaged optic nerves and loss of speech or movement, following strokes.

the excitement of progress

One of the factors limiting medical research is lack of funds. There are more world class research projects needing support than funds available.

Leading professors lose valuable research time seeking funds and if they are not successful their highly trained researchers may have to leave the medical field. Rosetrees is committed to helping. If other Trusts, Corporations and individuals want to share the purpose and excitement of supporting medical research their help will lead to new levels of discovery.

20 years supporting medical research has given Rosetrees the knowledge to source the best research, monitor its progress and obtain peer review. This experience is available to co-donors, without any charge so that 100% donated goes to medical research.



Research Project Fibrosis and Scleroderma

Rosetrees Trust has provided vital funding to Profs. Dame Carol Black and David Abraham at the Royal Free Hospital to progress their research on scleroderma, which is a progressive disease where skin and connective

tissues harden. As well as the external skin, scleroderma affects the covering of internal organs like the lungs and the blood vessels. At present there is no cure for the disease and it affects 25,000-30,000 people in the UK.

The research has identified proteins which are over-

active in the process of repair and wound healing and has successfully used an inhibitor to delay the process. They have found that a drug used in Leukaemia called Gleevec is effective. The pilot trial for this has been so successful that an international multi-centre trial costing £4 million is now taking place.



FRANKIN PHOTOGRAPHY

the dedication to deliver

“Nat and Teresa Rosenbaum founded Rosetrees Trust in 1987 to mark their Golden Anniversary. Their aim was to share their good fortune by supporting the best in medical research, applying their entrepreneurial approach to enhance the progress of medical research, supporting some of the most critical illnesses of our time.

As the second and third generation we have the will, desire and determination to carry Rosetrees’ work forward.”

Richard Ross, son
Steve Rosenbaum, grandson



Research Project Tissue Engineering

In 1998, following my heart and lung transplant, I wanted to benefit the subject of my ordeal by researching Tissue Engineering and Regenerative Medicine. Larry Hench, Professor of Material Sciences and I linked forces at

Imperial College London to investigate how cells, especially stem cells, attach, grow and differentiate into bone or lung. This resulted in many 'first of its kind' publications which influenced the direction of this exciting new area of research. Cells and stem cells will lead to major progress in the repair of

damaged hearts, lungs, cartilage and bone. We were funded by Government bodies like MRC, but fortunately also by Rosetrees and I could not be more grateful for their unfailing faith in us, with continuous and ever increasing support.

Prof. Dame Julia Polak
Imperial College



RANKIN PHOTOGRAPHY



changing lives

“ My mother suffered from Alzheimer’s Disease. Her doctors told me that diagnostic testing and research into drugs will slow down and fight the illness, so that people will be able to live their life in their own home (rather than a care home) and lead full and productive lives.”

Françoise Calef,
Alzheimer sufferer’s daughter



Research Project Alzheimer’s Disease Diagnostic Test

Prof. Simon Lovestone at the Institute of Psychiatry is one of the UK’s leading researchers into Alzheimer’s Disease. He has successfully identified two markers that could be the basis of a blood test to diagnose

Alzheimer’s Disease. At present A.D. is diagnosed by cognitive tests which while able to show a decline in cognitive skills, which indicate dementia in general, cannot give a definitive diagnosis of A.D. in particular. Taking medication earlier would prevent or delay many people suffering the illness. Prof. Lovestone

is now seeking to find markers that can be used to measure the disease’s progression.

Rosetrees currently supports 12 projects throughout the UK related to Alzheimer’s Disease including a study into the beneficial effects of fish oils on delaying and reducing the effects of the disease.

PROJECTS SUPPORTED BY ROSETREES TRUST

A BRIEF SUMMARY OF THE FOLLOWING RESEARCH PROJECTS

1 ALZHEIMER'S DISEASE AND DEMENTIA

12 projects studying diagnostic markers, brain imaging, proteins, drug development and improved treatments.

1.1 Alzheimer's Research Trust

- Simon Lovestone has successfully identified two markers to diagnose Alzheimer's Disease.
- Prof. Lovestone and Prof. Withers into links between Alzheimer's Disease and defective insulin action. This could lead to a therapy for Alzheimer's Disease.
- Prof. Rossor at the Institute of Neurology to improve diagnosis of Frontal Temporal Dementia using neuro-imaging combined with clinical studies.
- Prof. Harwood at Cardiff University to establish benefits of fatty acids as treatment to delay onset of Alzheimer's Disease.
- Prof. Brooks at Hammersmith Hospital into imaging as a means of predicting which people with Mild Cognitive Impairment will go on to develop Alzheimer's Disease.
- Dr. Crutch at the Institute of Neurology to identify problems of intermittent information retrieval resulting from brain damage following stroke or dementia and to test possible therapies.
- Prof. O'Brien at Newcastle into the use of high resolution MRI to differentiate Alzheimer's disease and Lewy Body Dementia.

1.2 Alzheimer's Society

- Dr. Mudher at Southampton University using the fruit fly as a model to study how changes in levels of TAU protein affect brain cells and to test how drug intervention can modify the outcome.
- Prof. Allsop at Lancaster

to study possible longer lasting effects of ACE inhibitor drugs in improving cognitive ability in Alzheimer's Disease.

- An evaluation of the therapies to reduce cerebral emboli in dementia by Prof. Burns at Manchester.

1.3 Hebrew University

Prof. Soreq to develop a diagnostic marker and test a new therapy for Alzheimer's Disease.

1.4 Project through Action Medical Research to find new therapies for Huntington's Disease.

2 BRAIN RESEARCH

Six projects including brain tumours, stroke and brain control of movement.

2.1 Institute of Neurology

- Dr. Warr is investigating why some tumour cells become resistant to drugs because of genetic defects.
- A Royal College of Surgeons Fellowship to trial a new approach to treating brain tumours.
- Study of Microbleeds in the brain following blood thinning treatment for stroke.
- New therapy for Motor Neurone Disease under Dr. Linda Greensmith.

2.2 Hebrew University

- Prof. Eilon Vaadia is developing computer programmes that will allow brain control of arm movement following injury.
- Dr. Prut is studying the interaction between the brain and spinal cord in controlling movement.

3 CANCER

Research is supported into all the most common types of cancer including breast, lung, pancreas, gullet, ovarian, prostate, spinal cord, skin, leukaemia, paediatric, as well as general research into genes,

blood vessel control and targeted therapies.

3.1 Royal Free Cancer Research Trust

Prof. Richard Begent has developed a new cancer treatment called ADEPT. This method gives precise targeting of tumours for treatment without damaging surrounding normal cells. It is now proposed to carry out a multi-centre trial.

3.2 Kings College London

Prof. Farzaneh is a leading researcher into immune gene therapy of cancer. Our initial support for his work has led to substantial Department of Health funding for a three centre clinical trial which is showing encouraging results in treating different types of solid tumours safely.

3.3 Prostate Cancer

Prostate Cancer is now the most common form of cancer in men, with 22,000 new cases and over 10,000 deaths each year in the UK.

- Prostate Cancer Research Centre UCL A long term research project under Prof. John Masters to find molecular markers to distinguish the aggressive form of the disease. The present PSA test gives no indication of how quickly the cancer will develop and it is estimated that less than 30% of men benefit from surgery.
- Institute of Cancer Research (ICR) The ICR funds Prof. Cooper's cancer research and concentrates on the genetic aspects of cancer. They are using analysis to identify the genes, so that the faulty mutations can be removed or modified by this therapy. A specific gene has been identified. It will also lead to a new diagnostic test.

3.4 University College Hospital

a) Lung Cancer Early Detection
A 5 year research project under Dr George aiming to

conclude with two year clinical trials to develop sensitive methods of detecting early lung cancer and pre-malignant growths before they develop into full blown cancer. Early treatment would be much more effective and offer far better chances of cure. The results have been very encouraging and led to a £1million grant to pay for a multi centre clinical trial.

3.5 Ovarian Cancer

- To identify early markers of ovarian cancer at UCL under Prof. Jacobs.
- Imperial College Hammersmith Hospital into gene therapy.

3.6 Breast Cancer

Research through the Breast Cancer Campaign under Dr. Holen at Sheffield to investigate the effects of combined drug treatments. The laboratory results have shown greatly increased effect to be followed by patient clinical trials.

3.7 Barts Hospital

Pancreatic cancer research under Prof. Lemoine.

3.8 Hebrew University Jerusalem

- Research by Prof. Howard Cedar into the processes by which genes involved in cancer are switched on or off. This should lead to improved diagnosis and point to new therapy targets.
- Prof. Keshet to control blood vessel growth in tumours, also with relevance to heart disease.
- Prof. Mandelboim into the role of natural killer cells in cancer and in pregnancy.

3.9 Melanoma

Research into skin cancer studying how antibodies can provoke an immune response which will destroy the cancer.

3.10 Leukaemia

- Leukaemia Research Fund, Sheffield to improve bone marrow transplant outcome.
- Kings College into

targeted killing of cancer cells by Prof. Tavassoli.

3.11 Residual Cancer

Prof. Partridge into improved methods of detecting residual cancer following treatment.

3.12 Bone Cancer

Prof. Flannagan into new therapies for Spinal Cord Cancer at the National Orthopaedic Hospital, Stanmore.

3.13 Childhood Cancer

Prof. Rahman is identifying genes that increase the risk of childhood Cancers at the Institute of Cancer Research.

3.14 Gullet Cancer

Royal College of Surgeons Fellowship at Leeds to predict response to chemotherapy.

4 CORONARY AND LUNG DISEASE

4.1 Study of Atrial Fibrillation

Following Cardiac surgery at St. George's University of London.

4.2 University of Southampton

The role of inflammation in blood vessels on the formation of clots.

4.3 Royal Brompton Hospital

The use of imaging to detect heart muscle disease.

4.4 University College London

- The role of blood clotting factors in scarring lung disease and injury by Dr. Rachel Chambers.
- New treatments to protect the heart following a heart attack by Prof. MacAllister.
- To develop an improved vaccine for pneumonia.
- Antibody therapy for blood clots and thrombosis with Prof. Isenberg.
- Dr. Hingorani is using genetic analysis as a

prevention of heart attack risk.

- Dr. Lambiasi is developing genetic screening to identify risk of sudden arrhythmic death in young healthy people.
- Dr. Lee is developing a new therapy to treat pleurisy and pneumonia.

4.5 Children's Heart Disorders

- New imaging techniques to detect heart defects in children at St Thomas' Hospital.
- Trial of paediatric heart pump at Oxford.

5 DIGESTIVE AND URINARY DISORDERS

Eight projects, including Crohn's Disease, kidney disorders.

5.1 Digestive Disorders Foundation

Prof. Aziz at the Royal London Hospital is continuing a long term project on how the brain processes pain signals in digestive disorders.

5.2 Study of E-Coli and food poisoning at the Hebrew University.

5.3 Prof. Ciclitira is studying Coeliac Disease at Kings College London.

5.4 Crohn's Disease & Ulcerative Colitis

- Dr. Taylor at UCL into the use of ultrasound to predict response to drug treatment.
- The Sanger Institute Cambridge to identify genetic cause of Ulcerative Colitis as part of a Wellcome Trust genetic study.

5.5 Kidney Research UK

- Study of genes responsible for kidney scarring at Kings College London.
- Investigation of kidney stone function at Newcastle University.

6 EYE DISEASE AND HEARING DISORDERS

6.1 Institute of Ophthalmology (UCL)

- Prof. John Greenwood is leading research into treatment for inflammatory eye disease linked to a clinical trial for MS.
- Prof. Greenwood is also developing retinal cell transplantation as a method of treating macular degeneration.
- Prof. Jeffrey is studying the effect of statin drugs in treating Macular Degeneration.

6.2 Research into a genetic cause of glaucoma by Dr. Child at St. George's London.

6.3 Deafness UK

Prof. Forge at UCL is studying how to repair damaged hair cells and prevent further loss of cells and so stop hearing loss.

7 IMMUNOLOGY AND TRANSPLANTATION

7.1 Liver Disease

Prof. John Fabre at Kings College London is developing techniques to deliver modified genes to treat genetic liver diseases initially, but with potential for other genetic disorders.

7.2 Diabetes

- Prof. Peakman is studying the auto-immune process in Type 1 Diabetes at Guys Hospital.
- Prof. Naor at the Hebrew University is testing a novel approach.

7.3 Immune Deficiency

(a) Immune gene therapy to treat children with leukaemia and to prevent infections following use of immuno suppressive drugs.

(b) Regulation of antibody production at the Hebrew University.

7.4 Benefits of treatment for MRSA based on maggot secretions at Swansea through Action

Medical Research.

7.5 Royal College of Surgeons Fellowship

under Lord Darzi into treatment to prevent Sepsis following major surgery.

8 MATERNITY AND CHILDREN

8.1 Birth Problems

- Severe allergic shock in sudden infant death at Southampton University.
- Bacterial infection in the womb and foetal inflammation at the institute of Child Health UCL.

8.2 Asthma

- Trial of the efficacy of steroid treatment for young children with viral wheeze at Leicester.
- Inflammation and lung function in young children with recurrent wheeze at Great Ormond Street Hospital.

8.3 Meningitis

- Trial at Southampton University and St. Mary's Hospital London into Corticosteroid treatment for children with severe septicaemia.
- Institute of Child Health, UCL through Meningitis UK to assess the effectiveness of a new vaccine.

8.4 Anna Freud Centre

- Trial of psychotherapy for better adherence to treatment regimes by children with renal failure has successfully improved attitude, enabling treatment benefits to be made and kidney transplants performed.

9 MULTIPLE SCLEROSIS

An auto-immune disease where the body's immune system is mistakenly activated to attack the myelin protecting nerve cells.

9.1 MS Society

- Mechanisms responsible for nerve cell damage in

MS at Bristol.

- Changes in brain plasticity in MS at Oxford.
- Clinical trial of drug that protects nerve fibres from damage at UCL.

9.2 Study of how the brain's own immune cells damage the cells protecting nerves in MS by Dr. Pocock at the Institute of Neurology.

10 PARKINSON'S DISEASE

A neuro-degenerative disease localised in the brain leading to progressive loss of muscle control.

10.1 Hebrew University Jerusalem

- Prof. Hermona Soreq into risk factors for Parkinson's Disease, especially pesticides exposure.
- Dr. Sharon into the role of fatty acids in Parkinson's Disease.

10.2 Institute of Neurology

Equipment grant to Prof. Hariz for his work on Deep Brain Stimulation to treat Parkinson's Disease.

10.3 Parkinson's Disease Society

- Study of Dopamine producing nerve cells by Prof. Bolam at Oxford.
- Study of how Dyskinesias arise following treatment by Prof. Dunnett at Cardiff.
- How Deep Brain Stimulation affects speech by Dr. Limousin at the National Hospital.
- Genetic risk factors for Parkinson's Disease under Prof. Chinnery at Newcastle.

11 RHEUMATOLOGY AND TISSUE DISORDERS

11.1 Arthritis

A crippling, painful, inflammatory disease in which cartilage in joints is destroyed.

a) Research projects funded through the Arthritis Research Campaign:

- Genetic basis of juvenile arthritis at UCL.
- Benefits of special insoles to treat pain in hypermobile joints.
- Study of a newly discovered protein to protect cartilage in osteoarthritis.
- Mechanisms of inflammatory pain in arthritis at Kings College London.
- Inhibitors of destructive proteins in osteoarthritis at the Kennedy Institute, London.
- To identify predictors of disease progression in Juvenile Arthritis at UCL.
- Oxford University

- Follow on project by Prof. Athanasou researching mechanisms of joint destruction in osteoarthritis.
- To develop an assay of early osteoarthritis of the hip by Prof. Carr.

11.2 Scleroderma

A rheumatic disease in which skin hardens which can affect all internal organs as well as external skin. Prof. Carol Black and David Abraham's research at the Royal Free Hospital into the genes and proteins responsible for this connective tissue disease. The research has successfully found that a drug used to treat cancer prevents the growth of scar tissue and has led to a major trial in seven international centres, costing £4million.

11.3 Skin Disorders

- RAFT Research at Mount Vernon Hospital to investigate ways to improve blood vessel growth in new skin to improve treatment of wounds caused by severe burns, injury or deep ulcers.
- Eczema research by Dr. Rustin at the Royal Free Hospital into causes of skin inflammation in atopic eczema.
- EB. EB is a blistering disfiguring skin condition resulting in wounds that do not heal. Research through

DEBRA at Dundee University has identified a molecule missing in EB patients that helps wound healing and could be the basis for a treatment.

11.4 Tendon Injury or Disease

- Enzymes responsible for tendon disease at University of East Anglia.
- RAFT laboratories into synthetic material for tendon repair.
- Research Fellowship through British Orthopaedic Association comparing techniques for achilles tendon repair.

11.5 Bones

- Action Medical Research
- The use of bone cement for spinal fractures in osteoporosis.
- New techniques to improve bone imaging
- Arthritis Research Campaign.
- The biological effects of a new form of joint replacement.
- Better cementing in hip and knee replacements.

12 TISSUE ENGINEERING AND REGENERATIVE MEDICINE

We have supported cutting edge research into use of stem cells to grow human tissue to repair diseased or worn out body parts since 1998. Success will transform progress in replacing worn body parts naturally.

12.1 Imperial College

We supported the Tissue Engineering & Regenerative Medicine Centre (TERM) under Professor Dame Julia Polak from its very beginning to the point where clinical applications are now expected in the very near future. The TERM unit was closed on Dame Julia's retirement and we now support four successor groups.

a) Lung Cells

Dr. Anne Bishop has established a centre at the Hammersmith Campus

continuing the work being done on lung cells to treat lung diseases.

b) Stem Cell Production

Prof. Dame Julia Polak is now working with Dr. Sakis Mantalaris at South Kensington in the Chemical Engineering Division where they are creating a bioreactor that will produce purified cells in quantities needed for clinical use.

c) *Biomaterials*
Prof. Molly Stevens is researching the creation of new materials on which stem cells can be seeded and implanted in the body.

d) *Heart Cells*
Prof. Sian Harding is researching the use of heart cells grown from stem cells to repair damaged heart muscle and test drugs.

12.2 Prof. Richard Oreffo

is studying how cartilage cells can be obtained from bone marrow cells and human cartilage at Southampton University.

12.3 Prof. Archer

is studying ways of improving cartilage tissue engineering at Cardiff University.

12.4 Manchester University

- Dr. Judith Hoyland is studying the Tissue Engineering of spinal discs.
- Prof. Giorgio Terenghi is studying the use of stem cells to repair damaged peripheral nerves.

12.5 Prof. Geoffrey Raisman

at the Institute of Neurology UCL is studying the use of stem cells for repair of damaged spinal nerves and for glaucoma, which one day may enable paralysed people to walk again.

12.6 Prof. Benvenisty

at the Hebrew University is studying how stem cells can be used for the study of human genetic disorders.

ROSETREES' OBJECTIVES

Rosetrees has five prime objectives in supporting the best in medical research

- Seed corn funding for outstanding research – Rosetrees has gifted £600,000 to 17 projects, which has been instrumental in leading to major grants of over £17 million
- Encouraging outstanding young researchers with the potential to become professors and leaders in their field
- Diagnostic testing or testing of existing drugs for additional benefits to help or cure illnesses for relatively little cost
- Helping clinicians test bright ideas arising out of their everyday work to improve procedures and treatments
- Rosetrees Trust wants to make its expertise available to co-donors (at no cost) so that a far greater sum of money is available for cutting edge medical research of the highest quality, to enlarge and expedite medical progress and cure or alleviate illnesses.

“Rosetrees’ donations have made a tremendous difference, helping us to develop vaccines against solid tumours and for immune gene therapy for specific leukaemias; this has enabled us to obtain millions of pounds of grants for clinical trials.”

Prof. Farzin Farzaneh D.Phil.FRCPath
Department of Haematological Medicine, King's College

YOUR OBJECTIVE

To help humanity by contributing to what is probably the greatest gift to mankind – better health, longer good quality life, freedom from pain and suffering and the ultimate – actually saving life.

Your donation to this life changing work will be exciting, interesting and totally fulfilling. Rosetrees will do all the day to day work, without cost to you, the partner and co-donor. Your involvement can be as much or as little as you choose, in which ever of the many areas of research that Rosetrees supports. Everything you gift will go to medical research and will benefit humanity – what could be more worthwhile?

National charities give away other people’s money, incurring considerable expenses. Rosetrees is giving away hard earned family money and cares passionately that it should only go to support the highest quality medical research.

If you co-donate with Rosetrees you will share its expertise gained over nearly a quarter of a century at nil cost to yourself and enjoy a rare opportunity to make a major difference to society, not only in the UK, but to mankind all over the world.

Please contact Richard Ross, Chief Executive at richard@rosetreestrust.co.uk or telephone 020 8952 1414

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“Rosetrees’ significant support for surgical research is helping to advance understanding of disease and injury which will lead to tangible improvements in patient care and equip future generations of young surgeons with skills, knowledge and expertise.”

Mr John Black

President, The Royal College of Surgeons of England

Rosetrees Trust

helping humanity through medical research

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