



**RAFT is an independent charity working to prevent and improve the treatment of major traumas such as burns and wounds and cancers of the skin through advances in medical research and reconstructive plastic surgery.**



Registered Charity No: 299811

# INTERIM REPORT 2008-2009

## Message from RAFT's CEO

The challenges we faced in 2008 and are going to face in 2009 are common to everyone right now. Although we are fortunate to have low overheads and our reserves invested safely, we are not immune to the rise in the cost of living. Increased prices mean that we need more money just to carry out our current projects.



We understand that everyone is feeling the effects of the credit crunch. However, whilst the stock markets and currency markets may fluctuate wildly, some things stay constant: people are still suffering major accidents, young children are still the main victims of serious burns and skin cancer is the fastest growing cancer in the under 45s. Sadly, at some point in your lives, someone you know may be in need of our research. Thanks to generous support and donations, we have been able to get one step closer to making a major difference to the lives of these victims.

As we did not produce an annual review last year, we thought you would appreciate an interim report to update you.

In 2008, RAFT appointed a new Chairman, who I know will carry on the tradition of providing wise support and leadership to RAFT. The Earl Howe has been a Trustee of RAFT for a number of years and, as Opposition Spokesman in the House of Lords on Health and Social Services, brings to RAFT a deep understanding of the issues around moving research from the bench to the patient, in an ever more complex regulatory environment.

After RAFT's major review in 2007, one of the key decisions was to appoint a Research Advisory Committee. I am happy to report this is now in place and its role is to monitor the quality of RAFT's research on behalf of our Trustees.

We believe that our research can change lives for the better but we need your help. Please support RAFT and be a part of restoring lives for all victims of burns, skin cancer and major injuries.

With best wishes

A handwritten signature in black ink, which appears to read 'Leonor Stjepic'.

Leonor Stjepic  
Chief Executive

## **About RAFT**

RAFT was set up in 1988 by four consultant plastic surgeons based at Mount Vernon Hospital. Their aim was to set up a charity which would support reconstructive plastic surgery and burn injury treatment. As well as wanting to provide an environment where research could be carried out, they wanted to create an environment where surgeons and scientists could work together to bring rapid advances to patient care.

RAFT is an independent medical research charity, working to prevent, and improve the treatment of, major skin traumas such as burns, wounds and cancers. Burns, accidents, and disfiguring illnesses like skin cancer can devastate lives. Our aim is to provide practical and affordable solutions to the problems facing hundreds of thousands of people worldwide.

## **RAFT's Vision for the Future**

Last year we celebrated our 20th anniversary, and we decided to use this opportunity to look at what RAFT should be trying to achieve in the next 20 years. Trustees and staff have worked together to come up with a vision for the future of RAFT. This was not a paper exercise; the vision is very much a working document, which will be used to guide RAFT's research activities in the future. It will also define, how we carry out research, what we will aspire to achieve and how RAFT will be run.

RAFT's aspiration is to be recognised worldwide for the excellence of its translational research and, most importantly, for the impact this research will have on improving the lives of those who suffer from major skin health traumas, whether as a result of an accident or disease.

RAFT will:

- Make a real impact on traumas of the skin.
- Deliver value for money.
- Concentrate on translational research; with only occasional 'blue-sky' projects.
- Always seek to establish an end point to research on a project by project basis.
- Work collaboratively with other national and international organisations.
- Work closely with clinicians and others dealing directly with patients.
- Encourage the training and development of its staff and collaborators.

# Club M

RAFT is committed to the values of:

- Excellence in all it does
  - A learning organisation; where excellence is a continuously evolving process.
  - Collaboration.
  - Business efficiency.
  - Flexibility.
  - Independence.
- 

Our **Club M** was officially launched in April 2003 at a luncheon at the House of Lords, kindly hosted by Lord & Lady Ashcroft.

The aim of the club is to bring together key supporters who take a special interest in RAFT's vital research to improve patient care.

The funds generated (both received and pledged) enable RAFT to plan ahead safe in the knowledge that this group of donors are taking a special interest in the research and supporting RAFT into the future.

All **Club M** members are kept informed of our progress and achievements; have special advance notice of any RAFT events and are invited to a special **Club M** event each year. We meet at special locations and so far have held events at:-

- The House of Lords
- 10 Downing Street
- Spencer House
- Swiss Re London Headquarters at 30 St Mary Axe
- National Grid Headquarters at Grand Buildings, London
- Somerset House
- Hunterian Museum at Royal College of Surgeon of England

This year we are giving our **Club M** friends the opportunity to make a special visit to RAFT. A very good club atmosphere has been established and we now have over one hundred special and loyal members.

If you would like to join **Club M**, we are a diverse and interesting group from all walks of life including fashion, finance, industry and media. If you are interested, please call Leonor Stjepic, Chief Executive on 01923 835815 or email [charity@raft.ac.uk](mailto:charity@raft.ac.uk).



Medical research work is expensive and we have to plan for tomorrow. RAFT fundraises for every £1 it spends and also has the difficult task of competing with the more well known charities for its vital funding.

RAFT is always looking at different ideas to raise both funds and profile. Our staff are so dedicated to the vital research work that is conducted here that they have all been busy thinking of innovative ways in which they can help.

This year is no exception - the staff at RAFT have lots planned for 2009. Not only competing in events on land, we cover expeditions in the air and on water too!

**Jack Penn**, a student at Southampton University is taking part in the Paris Marathon on 5th April 2009. Jack spent his summer working at RAFT, gaining valuable research experience. He has decided to run for RAFT having seen first hand what we do here.

RAFT's Fundraising Officer, **Veronica** together with sister, **Amy Pearce** and **Mark Bonshek** are taking part in the BUPA Great Manchester Run on Sunday 17th May 2009.



RAFT's Team Secretary, **Laura Ripley** is taking to the skies once more! This year she is planning a solo skydive after loving her tandem jump last year.

**Felicity Edwards**, Research Assistant at RAFT will be using her swimming skills to compete in this years Great North Swim. This proves to be a difficult 1-mile open water race on the shores of Windermere in September.



As always we have dedicated supporters who will be running this years Flora London Marathon in aid of RAFT. Our grateful thanks for all their hard work training and in raising much needed funds for our vital research.

We would also like to take this opportunity to thank our supporters who give up their valuable time to assist RAFT by volunteering for us. Your help really does mean a lot to us all.

# Skin Cancer Research



Photograph courtesy of Philipp Greenspun (philip.greenspun.com)

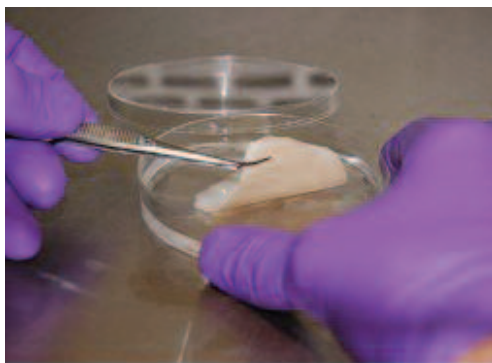
The incidence of skin cancer has increased alarmingly in the last century making it one of the most commonly occurring cancers today. The numbers are currently rising faster than any other form of cancer with more than 67,000 new cases per annum in the UK alone. One of the most aggressive forms of skin cancer is malignant melanoma and is unfortunately resistant to the usual anticancer treatments of chemotherapy or radiotherapy. Each day, 5 patients die in the UK from malignant melanoma.

RAFT's research aims to identify how we can protect ourselves from skin cancer. Although sunscreens protect well against UVB light (the rays that cause burning and redness denoted by the SPF factor on the bottle), they do not protect against the UVA rays – the cause of sun-ageing and now thought to contribute toward melanoma.

Related work has been aimed at developing an effective technique for measuring the true protection offered against damage from harmful free radicals produced by the action of sunlight on skin. The technique of Electron Spin Resonance Spectroscopy (ESR) is now an established technique to measure the free radical damage in skin and the effectiveness of sunscreens in protecting against this damage. RAFT is unique worldwide in its use of this technique to study the free radical reactions, which take place in skin in response to sunlight. This work will also guide the development of the next generation of sunscreens.

The use of a very well known antioxidant vitamin C, at much higher levels than it is normally found in the body obtained by intravenous injection, appears to be more toxic to cancer cells than normal cells cultured in the laboratory. This property may be shared by other antioxidants at high dose.

The team is also investigating why some people are more susceptible to skin cancer than others.



A sheet of prototype 'Smart Matrix' with a soft plastic backing layer attached, ready for pre-clinical testing.

RAFT is working hard to improve current material available to surgeons for lifesaving work to rebuild skin after burns, trauma or surgery or indeed chronic wounds. We all heal less well with age and relatively minor injuries can develop into chronic ulcers which become life-threatening.

When a burn or chronic wound severely damages skin, the body can never regenerate full thickness skin. Traditionally, medical intervention involved grafting skin from other parts of the body to treat the burn or wound. Often, a burn may be so severe that surgeons cannot carry out a conventional skin graft because there is not enough undamaged skin on which to anchor the graft. For some patients conventional grafts also come with the risk of simply creating a new wound site elsewhere on the body that cannot heal completely. This is most problematic in elderly patients with pressure sores and people with diabetic or other chronic ulcers.

RAFT's aim has been to produce a biologically compatible skin in the laboratory that can be used on any individual. We are close to achieving this aim having developed a 'Smart Matrix' synthetic skin scaffold which encourages rapid ingrowth of blood vessels – speed is a critical factor in effective treatment.

Our goal is to create an 'off-the-shelf' synthetic skin scaffold for full thickness skin-loss reconstruction – we are aiming for a material which is not only effective but also practical and affordable for today's world. We have started pre-clinical studies of a prototype which shows real promise.

# Anti-Scarring



This child has pathological scarring leading to contractures and will have to endure many operations to release scar tissue to enable him to lift his chin from his chest.

Scars are not just “skin deep”, they affect both function as well as appearance. They are for life and currently there are no reliable effective treatments to offer scarred patients. The inelastic nature of the scar tissue together with its tendency to contract can severely limit movement of the site affected resulting in disability and, in children, growth retardation.

Every 90 seconds someone in the UK is burned or scalded in an accident at home. Around 112,000 patients are treated in hospital for burns every year. 60% of these are children under 12 years of age. The number of burn victims worldwide can only be guessed at particularly in developing nations.

RAFT is currently investigating why tissue like the gum heals without scarring, whereas tissue such as the skin can form abnormally excessive scars. RAFT’s team is trying to assess what causes the different scarring response between tissues and indeed different individuals. We then hope to harness this knowledge to reduce scarring in other areas of the body.

One avenue of research has produced very exciting results. We have identified a potential way of alleviating scarring using insulin.



A typical form of common pathological scar known as a keloid.



**Name:** Dr Kerstin Rolfe

**Job Role:** Group Leader, Skin Regeneration

**What made you want to work in Medical Research?**

I began my career as a Nurse. Experiencing first hand what the effects of Burns and Cancers can have on patients, I wanted to help them by ensuring they had better care in the long term.

**When did you start working at RAFT?**

October 2001 as a Research Assistant.

**What are your current aims?**

At RAFT I am trying to prevent (in an ideal world) all forms of scarring or at least reduce it significantly.

I have recently been awarded my LLM in Medical Law & Ethics which I studied by distance learning.

**What has been your biggest achievement?**

Having my work at RAFT recognised by being made Editor in Chief of the Journal, Bone & Tissue Regeneration Insights in July 2008 and being invited to join the editorial board of Cell & Tissue Transplantation. My work at RAFT has produced a number of papers which has not only increased our understanding of scarring & regeneration but has also highlighted some novel targets which may help reduce or even prevent scarring in the future.

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**The Alan Gaynor Memorial RAFT Charity Shoot**

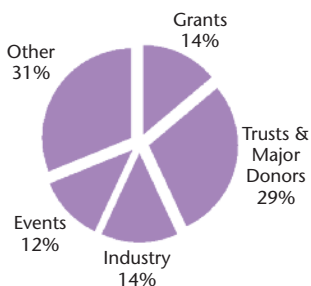


Our annual Clay Pigeon Shoot will be held in memory of Alan Gaynor, a much-loved supporter, on 10th June 2009 at Holland & Holland's shooting in ground in Northwood.

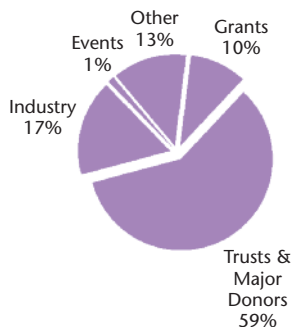
All funds raised on the day go towards our vital research working to prevent and improve the treatment of patients suffering from severe burns and traumas of the skin. This will be RAFT's 12th shoot and we look forward to having a relaxing and fun day whilst at the same time raising funds to support this exciting work.

# Income and Expenditure 2008-09

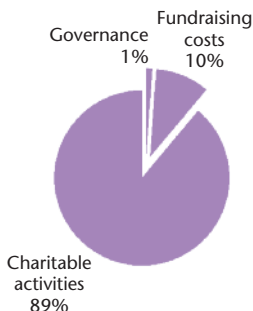
**Income for Financial Year Ending June 2008**  
**£917,585**



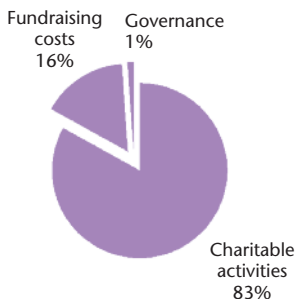
**Income for the First Half of Financial Year 2009**  
**Beginning July 2009 - December 2009**  
**£471,000**



**Expenditure at RAFT Financial Year**  
**Ending June 2008**



**Expenditure at RAFT First Half of**  
**Financial Year 2009**  
**Beginning July 2009 - December 2009**



The above information details where RAFT's income is obtained and how this income is expended on our research and administration costs.

The figures shown for income and expenditure for 2009 only detail the first six months of this financial year.

Our fundraising costs have been slightly higher during the first half of Financial Year 2009 due to an increase in fundraising hours.

Our full audited accounts are available on our website in pdf format.

# I wish to make a gift to help RAFT's vital work

Name: .....

Home address: .....

..... Postcode: .....

Contact tel. no: ..... Email: .....

Please pay RAFT £3  £5  £10  Other..... I wish to pay monthly.

I wish to make my donation on the 3rd  10th  25th  day of the month.

I would like my first donation to be made during the month of .....

I would prefer to give a One-off Gift of £ .....

We always like to thank our supporters for their generosity, if you would prefer not to receive a thank you please tick

*giftaid it*

Remember for every £1 you give, RAFT can claim back 25p (as at 6 April 08) from the taxman at no cost to yourself.

I want RAFT to treat all donations I have made for this tax year, the six years prior to the year of this declaration and all donations I make from the date of this declaration, until I notify you otherwise, as Gift Aid donations\*

Please tick this box if you do not pay UK income tax.

\* I understand that I must pay an amount of Income Tax/Capital Gains Tax at least equal to the amount RAFT reclaims on my donation in the appropriate tax year.

Instruction to your Bank or Building Society to pay by Standing Order

To (name of bank): .....

At (your bank's full address): .....

..... Postcode: .....

Name(s) of Account Holder(s): .....

Your Bank Sort Code: ..... / ..... /..... Account No: .....

Please pay RAFT Standing Orders from the account detailed on this instruction.

Signature: ..... Date: .....

## RAFT's Bank Details

Barclays Bank Plc (Ruislip Branch) 54 High Street, Ruislip, Middlesex, HA4 7AT

Account No: 10745804 Sort Code: 20-73-53

PLEASE RETURN THIS FORM TO RAFT, THE LEOPOLD MULLER BUILDING, MOUNT VERNON HOSPITAL, NORTHWOOD, MIDDLESEX, HA6 2RN

We would like to keep you in touch with RAFT's work (and the activities of our trading subsidiary, RAFT Enterprises Limited) to help us achieve our charitable objectives and to keep you informed about events and services. RAFT will not disclose your personal details to a third party although information will be shared between RAFT and RAFT Enterprises Limited, both of whom will be processing the information held on you. If you would prefer not to receive this information, please tick this box.



Registered Charity No: 299811

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The Duchess of Kent GCVO

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### Chief Executive

Leonor Stjepic MBA FCMi FRSA

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Dr Veronique Bataille MD PhD FRCP  
Dr Steve Cook BSc PhD  
Mr Baljit Dheansa MB.BS FRCS MSc FRCS (Plast)  
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