raft

HIGHLIGHTS

2009/10

Military need propels RAFT

Why research makes grown men cry

3 countries, 3 cities
– all in a day's race for RAFT

New Chairman for RAFT

Following the General Election in May 2010, RAFT's Chairman – The Earl Howe – was appointed Parliamentary Under Secretary of State to the Department of Health. This new role made it impossible for him to continue as RAFT's Chairman.

Lord Howe was an inspiration to us all – both Trustees and staff. His unstinting enthusiasm for RAFT's work and calm leadership was a great source of strength for RAFT in difficult economic times. His warmth, encouragement and support will be greatly missed.

Francis says "It is always difficult to step into a new role and particularly when following someone who has been such a long standing supporter of RAFT and an exceptional Chairman. I am also conscious that I have become Chairman at a time when the country is going through economic difficulties which will inevitably have an impact on RAFT.

"However, I am confident that RAFT can thrive even in such times. This is because we are entering a very exciting time in RAFT's history. Our Smart Matrix™ project (to reinstate skin post trauma) will soon be ready for its first clinical trial and we are starting a new project which will make a huge difference to those who sadly have lost limbs. These projects have the potential to affect millions of lives.

"As the new Chairman I will make every effort to ensure that RAFT delivers its vision for excellence and getting results to patients. I am a firm believer in collaborations so I am delighted that in this year we have started new partnerships with the Duke of Edinburgh's Awards, the Lindsay Leg Club Foundation and the Douglas Bader Foundation. This is in addition to the other collaborations with companies, hospitals and universities that you will be able to read about in this report.

"We hope steadily but surely to continue increasing RAFT's ability to perform top quality research, delivering results to patients, supported by increased fundraising. So I am particularly grateful to all the volunteers and interns who give their time freely to RAFT and without whom none of this would be possible.

"So thank you for your support which is allowing RAFT to change even more lives".

FRANCIS GUGEN
Chairman

Personal thanks from Leonor

The last 12 months have been quite a year for RAFT. In the space of one year we have said goodbye to some dear friends, welcomed new people, started a new project, moved closer to getting our research into patients, entered the social media age... I feel as if I haven't stopped since the beginning of the year!

You will be able to read about all of these in this report. In the next few pages we will also outline how your donations have enabled us to achieve a great deal. We will also tell you about some of our future plans which – we believe – will make a big difference to people who have suffered major traumatic injuries.

As you read this, please do keep in mind that it is only through your support that we are able to carry out all this work. Like many charities - and like many of you - we are finding the current economic climate worrying. Income is down and we know that this may continue in the following year. That's why your donations are so important to us and why your support means so much.On our part, we are always working harder and harder to ensure that we get the most from the donations you give us. All the staff (or 'RAFTers' as we call ourselves) feel a real obligation to you to make certain that your money is spent wisely and as much as possible goes towards the main purpose of RAFT – finding practical, cost effective solutions to the sort of problems any of us may suffer from now or in the future. That's why we don't mind working additional unpaid hours and why all the RAFTers – regardless of their job title – can be found helping out at events, fundraising, etc.

On your part, I hope you will continue to help us help others. You are a part of our team too and we need your support. Please consider giving us a donation towards our work. Without you there would be no RAFT, no research and no RAFT success stories.

LEONOR STJEPIC
Chief Executive

Yazan Al Ajam MB ChB MRCS
Research Surgeon - Prosthetics Project

Keith Blackwood BSc MSc
Post-doctoral Research Scientist - Artificial Skin

Dr Sophie Dann BSc (Hons) MB BCh MRCS (Eng)
Surgical Research Fellow - Artificial Skin - studying for MD

Nimesha Patel BSc (Hons)
Research & Laboratory Assistant - Artificial Skin

Nick Kassouf BSc MSc PhD
Post Doctoral Research Scientist - Skin Cancer (funded by Cancer Research UK)

Vaibhav Sharma MSc
Temporary Research Assistant - Artificial Skin

Amir Taheri BENG (Biomedical Engineering)
Research Assistant - Artificial Skin

Dr Raina Zarb-Adami MD MRCS
Surgical Research Fellow - Artificial Skin - studying for PhD

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Aneeta Patel *Team Secretary*

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RAFT Highlights

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Editor

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Dr Julian Dye working on the new robotic arm, which will allow Smart Matrix™ to be made automatically.

Smart Matrix™ getting closer to clinical trial

RAFT's artificial skin project, the Smart Matrix™, is getting closer to the day when clinical trials will start, thanks to research advancements being made this year.

Smart Matrix™ has the potential to become a new standard-of-care in the treatment of a variety of full thickness skin wounds. These include combat injuries, burn wounds and chronic wounds such as from diabetic ulcers and pressure sores.

Currently there is no effective and robust product on the market like this, forcing surgeons to rely on either the patient's own skin to make a graft – autografting - or the skin from a cadaver - allografting. However, there are major problems with both of these procedures.

If a patient is severely wounded or burned, there might not be skin available for a graft. Along with the pain and suffering this procedure causes patients, the quality of the regenerated skin following autografting is usually poor.

In the case of donor skin, this is a temporary measure at best since the body will always reject donor skin. In addition, availability is limited and the product carries risks of disease transmission.

Current artificial products are costly and, surgeons tell us, are not as effective as they require.

Enter Smart Matrix™. In future, when a surgeon needs artificial skin, all they will have to do is to open a freeze-dried package of Smart Matrix™, soak it in a saline solution and it will be ready for use in minutes.

Much like how a scaffold supports the work around a home's roof repair, Smart Matrix™ also provides a scaffold, giving the body something to regenerate new skin around. When placed on a wound bed, it attracts cells into the matrix and promotes the growth of blood capillaries which is critical for the wound healing process. The scaffold is completely reabsorbed by the body within three weeks, by which time wound healing should have occurred.

Some of the achievements we've made at RAFT in the past year with Smart Matrix™ include:

- Gained statistical evidence for accelerated and potentially improved wound healing of the Smart Matrix™ compared to commercial standard. Importantly, we have found blood vessel formation occurs within the scaffold very rapidly and extensively.

- Discovered how to further accelerate wound healing by optimal physical structure and porosity of the Smart Matrix™.
- Achieved a material which supports a single-stage integration with a split thickness skin graft, regenerating the full thickness of skin in one week. This is important because if this can be achieved clinically, it will reduce the number of surgical operations patients need to undergo.

Automation to the rescue

One of the problems creating Smart Matrix™ scaffoldings is that it is now done by hand, which means that no matter how optimised the manufacturing process is each scaffold is not 100 percent like another. RAFT realises that it is important for the long term to have a method of manufacturing the Smart Matrix™ reliably and consistently. This must all happen in a special sterile 'clean room' facility and every step of the process must be recorded accurately.

To come up with a solution to this problem, RAFT has teamed together with the Ideas Studio, an engineering company which specialises in the design of medical machinery.

RAFT and the Ideas Studio have together designed a processing work station with a robot at its heart, which will perform the functions it normally takes two laboratory staff here at RAFT to complete.

To make a one batch of Smart Matrix™ the robot will be continuously busy for 12 hours, rather than it currently taking over 48 hours for our scientists to complete manually.
RAFT believes that robotic technology will give us the flexibility, reliability, efficiency and documentation that we require, without the labour intensity it presently requires from our laboratory staff, meaning that they are able to push ahead with other vital experiments.
Although it will take time to optimise the workings of the robot, this project has already helped to accelerate the complicated task of bringing the Smart Matrix™ to the patient's bedside.

Research Assistant Vaibhav Sharma mixing a solution that will be used in making Smart Matrix™.

My job at RAFT has allowed me to fulfil my ambition to work as a research scientist on a problem which stands to give a real humanitarian benefit.

Although it is generally true that experimental research delves into the unknown, for me the difference at RAFT is the imperative of finding practical solutions to pressing problems of real patients. The combination of intellectual stimulus and focus with the practical facilities of a well managed cell biology laboratory allows me to experiment with germinal ideas around the topic of wound healing.

Having realised and then developed my understanding of the actual clinical problems arising from skin loss wounds, I was able to devise an experimental approach to find a practical solution. Starting off with first a sandwich student and a surgical research fellow, I have built up a great research team, as the Smart Matrix™ solution has evolved from idea through proof of concept to firm pre-clinical efficacy.

All along this journey, the collaborative approach at RAFT that manifests daily in different ways is not only invaluable but also something I cherish and appreciate. On one level, working closely as a team on the research, publicising & fundraising activities, is stimulating. Another way is in collaborative relationships, between scientific and clinical disciplines, with academics, lawyers, business people all for a common goal, and across nations, is both exciting and educative. But it is the relationships with people who are touched in some way by the problems we are trying to solve, which is hugely valuable and inspiring.

And, right now, there is still so much to do to take the Smart Matrix™ through the pathway from the laboratory to make a real difference to patients. JULIAN DYE

I have been working at RAFT for 14 years. I like working here because of its friendly atmosphere and small size. For most of my time I have been a Research Assistant working on a range of projects including melanoma and vascular biology. Since April 2010, I have performed the extra role of Assistant Laboratory Manager as well as that of Research Assistant. This role has given me more responsibilities, allowing me to be more involved in the running of the laboratories. I work on the Smart Matrix™ project; my part in the research is to maintain cell lines needed for experiments. Working at RAFT is very fulfilling for me because the work I do today will ultimately help patients in the future. I enjoy feeling a valued member of a team both within my project area and with RAFT as a whole.

NIMESHA PATEL

Flow cytometer will measure millions of cells

RAFT's new flow cytometer has tremendous potential for helping in cell research. Our researchers are very excited to have a state-of-the-art bench top multichannel flow cytometer kindly donated by The Wolfson Foundation. This instrument is a core facility workhorse for cell research with enormous potential.

The machine itself is an extremely sophisticated design. It measures fluoresence of individual cells in samples containing many thousands or millions of cells. This generates very reliable data about the population of cells in that sample.

Modern flow cytometers are able to analyse several thousand particles every second, in "real time," and can actively separate and isolate particles having specified properties. A flow cytometer is similar to a microscope except that instead of producing an image of the cell, flow cytometry offers "high-throughput" (for a large number of cells) automated quantification of set parameters.

There are a variety of tasks we intend to do with the instrument. The most simple is to count how many cells in a sample are alive, dying or dead, which is an important routine job. We can measure how many cells could make blood capillaries, have wound healing potential or scarring potential.

Also we can measure cell responses to particular stimuli, and characterise cells grown in a particular type of skin scaffold. Our researchers can also measure the proportion of cells which are being stressed by free radical and the extent of the damage.

UVA rays threat to skin

The RAFT team has been continuing its testing of the ability of sunscreens to protect against protein radical damage to the skin.

Our skin is made up of two main layers – the dermis and epidermis. The dermis is the inner layer of skin that contains nerve fibres, fat cells, blood vessels, sweat and oil glands, and hair follicles. The epidermis is the tough outer layer.

We have identified another three ways of measuring true skin damage to our skin layers. During the past year we have shown that, if UVA rays are allowed to penetrate the skin, they can damage the main structure of the skin's foundations.

RAFT is also investigating whether such damage can be further associated skin cancer.

We now plan to investigate two further types of damage – damage to the skin's DNA and lipids (fats) as there is evidence that such damage is also linked to skin cancer. If we can understand what happens to the body's DNA when it is damaged by UVA light, then we have a better chance of preventing and treating skin cancer.

In this project, which is part-funded by CRUK, RAFT's Dr Rachel Haywood and her team are investigating the role of UVA light in the development of skin cancer and the processes that occur in skin cells when exposed to such light.

RAFT skin cancer researcher driven by unknown

One of RAFT's skin cancer team members, Dr Nick Kassouf, says although science was always his favourite subject in secondary school, he was always in awe of the subject as it was so varied and held so many unanswered questions.

"I nevertheless followed my GCSEs with science A Levels and found I loved biology and the intricate workings of the cell. Such a small but complicated bundle of complex molecules interacting with one another to form a near perfect living structure fascinated me and so I went onto to study Physiology and Pharmacology at university," says Nick.

"This degree involved studying the workings of the body and how both medical and abused drugs interact with the body's cells in a positive (beneficial effects to reduce symptoms of disease) and negative (side-effects) way.

"Soon I found that I loved working in a research laboratory and carrying out experiments with tissue and cells, whereby we discovered the behaviour of heart cells and also what particular conditions trigger heart attacks.

"I was encouraged to go on to do a PhD and investigated the characteristics of cancer cells and why they can evade the immune system's ability to target them and stop it from eradicating cancer cells before they form malignant tumours. I thoroughly enjoyed the challenge of a PhD, the hard work, logical thinking and knowledge that eventually research scientist's findings will make a difference to the treatment of life-threatening diseases, such as cancer and heart disease."

What I do at RAFT

"At RAFT I work as a postdoctoral (post-PhD) researcher in the field of skin cancer research and prevention. I work alongside my boss, Dr Rachel Haywood, into discovering why normal skin cells – melanocytes - when subjected to harmful sun rays known as UVA and UVB, can lead to these cells being damaged in different compartments of the cell.

"Our aims are to determine how this damage can lead normal cells to transform into malignant melanoma cells, which can ultimately lead to patients dying if not detected early enough.

"In addition, I also present my work to members of the public and potential donors at RAFT both experimentally and also in visual presentations. I also present my work to national and international conferences to other research scientists such as myself in order to share the findings of all research groups in order to facilitate the translation of our work into real treatments in the near future."

What I think of working at RAFT

"Since the first day of working at RAFT I noticed how great a working environment is in this small but expanding research charity.

"My work is always in the public domain, is exciting and novel, I have a great boss who is very knowledgeable on her subject and allows me some experimental freedom which can always lead to exciting new results.

"Also, RAFT is relatively unique in that research scientists, administration staff and fundraising staff all work in the same building, harmoniously, effectively and to the benefit of all. The morale of everybody here is high as we all share the same work ethos, are hard-working and work well together. But most importantly we are very friendly group of people and this makes coming into work a real pleasure."

Leg ulcer charity partners with RAFT

RAFT announces that it has formed a charity partnership with the Lindsay Leg Club Foundation, a charity which empowers patients to become stakeholders in their own leg ulcer treatment.

The Lindsay Leg Club Foundation was set up in 1995 by Ellie Lindsay, a district nurse in Suffolk, who realised that social factors and isolation could significantly affect leg ulcer patients' response to treatment.

Ellie introduced the concept of community-based leg ulcer care, which has grown into a network of evidence-based leg ulcer clinics, known as Leg Clubs. Leg Clubs provide community-based treatment, health promotion, education and ongoing care for people of all ages who are experiencing leg-related problems.

The Leg Club Model was conceived as a unique partnership between the district nursing team and the local community, in which patients are encouraged to become stakeholders in their own treatment. Leg Clubs aim to provide leg ulcer management in a social environment, where patients (members) are treated collectively and the emphasis is on social interaction, participation, empathy and peer support where positive health beliefs are promoted. The Model impacts positively on healing and recurrence rates and helps isolated older people reintegrate into their communities.

RAFT and the Lindsay Leg Club Foundation share the same aim – to provide a better quality of life for patients with leg ulcers. RAFT's surgeons and scientists are hoping to take its Smart Matrix™ artificial skin scaffold to patient trial, for a 'clean' wound, by the end of 2011. The team is also working to adapt the current model in order that it may be used to treat chronic wounds, such as leg ulcers. Speed is of the essence as any open wound is highly susceptible to infection, which creates further problems.

Recently the Lindsay Leg Club Foundation invited RAFT to its 10th Annual Conference, held in Worcester. RAFT's fundraisers Amanda Bailey and Laura Ripley represented RAFT at the conference and said they found it both fascinating and extremely informative. According to Amanda, the two gained a true understanding of the complexities of wounds, such as ulcers, both from the patients' and nursing perspectives. This has confirmed the urgent need to get the Smart Matrix™ to patients in the quickest possible time.

RAFT is thrilled to have formed two charity partnerships this year. Patient need has always been, and will always be, crucial when selecting our research projects. Working with other Charities allows us to improve our understanding of the complexities of traumas to the skin, both from the patient and Healthcare point of view. Together we hope to get improved treatment to patients in the quickest possible time.

AMANDA BAILEY

Want to reduce your tax burden?

From 6 April 2010 anyone earning over £150,000 p.a. will be subject to a new tax rate of 50 per cent. If you are affected by this new tax rate, or pay tax at the higher rate, you could reduce your tax liability by giving a donation to RAFT.

If you pay tax at the higher rate, you can claim back the difference between the higher rate of tax (40 or 50% as appropriate) and the basic rate of tax (20%) on the total value of the donation.

For example: If you give a donation of £80, then RAFT can claim back gift aid of £23. Your donation will be grossed up to £100 and you can claim additional relief of £30. Thus a £80 donation will cost you £50 and RAFT will receive £103.

By giving a donation, not only will you be reducing your tax liability but you will be helping RAFT carry out pioneering research that will change the lives of tens of thousands of people.

Mr Norbert Kang, (Consultant Plastic Surgeon & Research Advisory Committee member) of RAFT says: "If I could say to you that in 10 or 20 years time that we have done all the research that is necessary to be able to come up with a brilliant skin substitute with no scarring, and anyone who burns themselves or injures themselves need never worry about having a surgeon put his knife into them, I will have done my job well - we will all have done our jobs well!"

For further details on our how you can make a donation to RAFT please contact Amanda or Christine at 01923 844 588/371.

Fellowship raises over half million

A big thank you to Patricia Gaynor, the family and all the supporters of The Alan Gaynor Research Fellowship which has raised well over half a million pounds since it was set up following Alan Gaynor's tragic death following a burns accident in 2001.

The Fellowship Fund continues to grow and raises funds at RAFT's Annual Clay Pigeon Shoot now held in memory of Alan. It is a marvellous way to remember him as he always supported the event and enjoyed competing in the shooting competition with his friends and colleagues.

"My late husband, Alan, would be proud that the Fellowship, set up in his memory by the family in 2002 has raised well over half a million pounds. The Fund has supported many Surgical Research Fellows giving essential clinical input to the success of the Smart Matrix™ and I hope this will continue. 2011 will be quite a milestone as it is the 10th anniversary and I am immensely grateful to everyone who has contributed to the Fund."

Patricia Gaynor, RAFT Patron

Patron Patricia Gaynor

Funds from the Fellowship are expended on the work into wound healing carried out by Dr Julian Dye and his team. Julian says "Having the support of the Gaynor Family means so much to the Smart Matrix™ team and without their continuing commitment, we would not have achieved all that we have. Patricia and her family and friends are great ambassadors for RAFT, spreading the word about the Smart Matrix™ and how it will transform the lives of patients suffering chronic wounds. We really do value our special relationship.".

Why not join us at the charity shoot on Wednesday 8th June next year at Holland & Holland? It's a fun day and caters for all shooting abilities. After a morning shooting, we have a superb lunch with fine wines followed by prize giving. Contact Christine Miles on 01923 844371 or email her at miles@raft.ac.uk if you are interested in coming along.

Foundation to support RAFT with artificial limb project

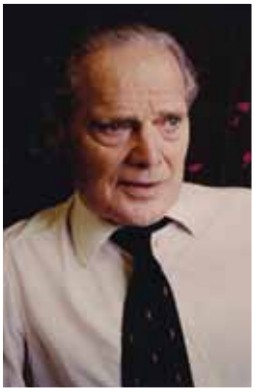
The Douglas Bader Foundation has kindly made a contribution towards RAFT's 'bionic limb' project as it forms a charity partnership with RAFT.

Currently, patients with upper limb amputations are usually fitted with an artificial (prosthesis) limb which is attached to the body using a socket, straps and harness. However, most patients experience pain, chaffing and skin ulcer problems with their prosthesis and nearly all stop using the artificial limb within two years.

RAFT, however, is working on a technique which will hopefully change that. The prosthesis will be attached directly to the skeleton via an implant. Electrodes will be placed inside the limb to control movement, with the sensors directed by the patient, much like how nerves normally control muscle and limb movement. This will allow patients to perform actions requiring finer muscle control such as putting a key into a lock and turning it.

The Douglas Bader Foundation exists to advance and promote the physical, mental and spiritual welfare of persons who are without one or more limbs, or otherwise physically disabled. It was formed in honour of Sir Douglas Bader in 1982 by family and friends – many of whom had flown side by side with him during the Second World War.

Sir Douglas was commissioned as an officer in the Royal Air Force in 1930, but after only 18 months he crashed his aeroplane and became a double amputee. As a consequence of the accident he was discharged from the RAF. However, after the outbreak of WWII Sir Douglas was able to rejoin the RAF as a pilot where he served with distinction.



David Bickers (Chairman and Founder Trustee) and Keith Delderfield (Director of Operations) visited RAFT in September to hear about the new RAFT 'Bionic Limb' project. As a result, the Foundation has kindly agreed to make a contribution towards the project. Keith said: "If Sir Douglas Bader was here today, he would wholeheartedly support this project."

RAFT is truly grateful for this support and looks forward to working with the Douglas Bader Foundation in the future for the benefit of patients.

STOP PRESS ...

RAFT and The Douglas Bader Foundation are in the early stages of planning their first joint venture. 'The Fiery 3 Challenge' will take place 22-27 September 2011. Keep an eye on the website for further details www.raft.ac.uk

RAFT is very lucky to have the support of all our generous donors many of whom are really keen to do all that they can to help RAFT's research have a real tangible impact on people's lives. Their continuing generosity and commitment play an important role in supporting and promoting RAFT's vital research. These special friends have helped us achieve all that we have and promise to continue their support so that we can achieve our aims.

CHRISTINE MILES

Warning: uncertain road ahead!

Why research is never straight forward

We have all seen the classic movie *African Queen*. In one of the most dramatic parts of the film, Humphrey Bogart tries to manually pull his small tramp steamer through the reed-choked delta of the Ulanga River, all the while completely lost in his attempt to reach a nearby lake. Shaking with fever and covered with mud and blood-sucking leeches, Bogart is pulled back into the boat by Katharine Hepburn to wait an uncertain fate.

If only research was just as easy.

RAFT Research Advisory Committee member Mr Norbert V Kang lets out a loud sigh when asked if most people understand what goes into a research project.

"No," he says laughing, "that's the simple answer. Probably the biggest thing that most people don't realise that the journey from A to Z, the start of the project to the end, is never in a straight line.

"From the Wright Brothers' first flight at Kitty Hawk to a Boeing 747 today, just think how many attempts never made it off the ground. But if people didn't try, if they weren't afraid of failure, if they didn't push the envelope, aviation would never have made it to where it is today.

For Norbert, the work at RAFT is no different; the courage and determination not to restrict vision with guaranteed success.

"Completed, successful research that RAFT has conducted is making a difference in my patients' lives right now at my work at the Royal Free Hospital in London. That's the end result of the work RAFT does."

For example, during the last 40 years, the standard way to treat severe cases of rheumatoid arthritis in hands has been to replace the knuckles with plastic prosthesis. However, RAFT developed a way to encourage new growth of blood vessels into the affected areas of the hand, bringing in oxygen to the deformed parts of the hand, and eliminating the need for prosthesis.

"Much of the research that RAFT conducts involves plastic surgery. The big grant-giving organisations won't fund this research due to the perceived notion that plastic surgery is used for movie star nip-and-tuck work," says Norbert. "However, the majority of all plastic surgery conducted in the NHS involves reconstructive surgery for the mainstream public."

At the end of the day, Norbert says that why RAFT consistently gets work done in areas that wouldn't get funding and is why the "big boys" won't try to come up with something like Smart Matrix™, RAFT's artificial skin project – making donations even more important.

RAFT's Group Leader Dr Julian Dye is working to develop an artificial skin material that will not only treat the wound in the short-term but also allow more extensive wounds to be treated than ever before.

Julian and his team's approach will maximise the body's innate healing potential. They have produced a prototype skin 'scaffold' that when placed on the wound, allows a functioning network of blood vessels to grow within it very rapidly, thus reconstructing the dermis.

This will address a major clinical disadvantage of previous types of skin scaffold, by increasing the chances of a graft "taking" before infection has a chance to set in and cause the material to fail. Moreover, it leads to the growth of the essential dermis layer; and may encourage healing without causing excessive scar tissue to form. Ultimately, this second-generation artificial dermis aims to support skin grafting to allow surgeons to reconstruct a more normal skin structure.

"Smart Matrix™ is a good example of how long research takes, especially when you're heading off into uncharted waters," says Norbert. "I started working at RAFT in 1995 and already the idea – and the need – for what has become Smart Matrix™ was being discussed. Of course, that doesn't really explain why it has taken so long so let me explain. "

According to Norbert, when any research takes place – especially which will be applied to humans – work must be meticulous and evidenced-based. It's just not enough to have a theory; the proof has to be there as well if you want the government to even consider approving it for human use.

"For something as complex as Smart Matrix™, just to get to this stage has taken years of research," he says. "Because we're doing something so new and innovative, not all our lines of research have paid off, but if we hadn't gone up these paths, we wouldn't be where we are today. In hindsight, yes you can look back and say 'this is the way we should have gone', but at the time it's a path that needed to be explored."

The tough thing, says Norbert, is realising that you have gone up a dead-end, which is not always obvious. "The clever thing is how do you realise when you've reached at dead-end? You don't!"

To avoid wasting donors' funds, Norbert says that there is a system of checks and balances at RAFT, which exams short, medium and long term goals of a project.

"Some years back, RAFT had nine projects on the go at one time, this was too many," he says. "Now it has just three main projects - skin cancer, Smart Matrix™ and a prosthesis interface – which have been picked very carefully. Surgeons come up with a need, and RAFT researchers see what they can do."

When discussing the epitome of a researcher, Norbert likes talking about and quoting American inventor Thomas Edison, especially in regards to Edison inventing the first cheap indoor light bulb.

The sticking point was in the filament of the bulb which had to burn – without burning out. Edison tested thousands and thousands of other materials to use for the filament, ranging from platinum to bamboo to the human hair, before he finally achieved success.

He later said in regards to the search: "I have not failed. I've just found 10,000 ways that won't work."

That, says Norbert, is what research is all about. "You have to have some failures to have some successes, it's always that way."

MR NORBERT V KANG MD MB.BS FRCS(Eng) FRCS(Plast)

Norbert is a Consultant Plastic and Hand Surgeon who is part of a team of three hand surgeons based at the Royal Free Hospital in Hampstead. He is a former research fellow at RAFT (1995 to 1997) where he carried out research to identify an antibody for use in the detection and treatment of melanoma skin cancer. In 1998, he was awarded an MD from the University of London for this work.Following his time at RAFT, he trained in plastic surgery in London from 1998 to 2002. Norbert is interested in all aspects of hand surgery but has particular research interests in rheumatoid arthritis and prosthetic reconstruction of the upper limb after traumatic injury.

What is plastic surgery?

Plastic surgery is a medical specialty concerned with the correction or restoration of form and function. It has nothing to do with commercial synthetic polymer plastic, although the word 'plastic' - deriving from the Greek plastikos meaning to mold or to shape – is shared by both.

Reconstructive plastic surgery is performed to correct functional impairments caused by burns; traumatic injuries, such as with combat injuries; congenital abnormalities, such as cleft palates or cleft lips; developmental abnormalities; infection and disease; and cancer or tumors. Reconstructive plastic surgery is usually performed to improve function, but it may be done to approximate a normal appearance.

Thomas Edison's quotes to inspire any researcher:

"Genius is 1% inspiration and 99% perspiration."

"Just because something doesn't do what you planned it to do doesn't mean it's useless."

"Many of life's failures are people who did not realize how close they were to success when they gave up."

"Nearly every person who develops an idea works it up to the point where it looks impossible, and then he gets discouraged. That's not the place to become discouraged."

"Our greatest weakness lies in giving up. The most certain way to succeed is always to try just one more time."

"The value of an idea lies in the using of it".

Injured heroes backed by RAFT

RAFT prides itself on carrying out research that meets real clinical needs, writes Chief Executive Leonor Stjepic. While the majority of these needs are outlined by the many plastic surgeons and medics who work with us - and who have been past RAFT Surgical Research Fellows - there are times when a need is so great that we feel we must do something.

Like many of you, we have been touched and concerned about the young men and women who come back injured from conflict zones. Given our expertise in wound healing research, we feel that RAFT can make a difference.

Having proved that the Smart Matrix™ works in acute experimental wounds, the next stage is to progress the research to enable the Smart Matrix™ to be used in acute and traumatic wounds, like those suffered by servicemen. Because of the morbidity and mortality associated with these wounds, and the lifelong scarring, any improvement in skin reconstruction technology could make a significant impact on the clinical treatment of such wounds and improve recovery, rehabilitation and perhaps even survival rates.

All of us have heard of injured soldiers returning from active service having had limbs amputated after being wounded. The courage of men like Royal Marines Ben McBean (double amputee) and Mark Ormrod (triple amputee) have touched and inspired many, including us at RAFT. With them in mind, and the many others who have sustained similar injuries, RAFT has started a new project which we hope will improve the lives of all those men and women who have lost limbs.

When a limb – such as an arm - is amputated, the simplest form of reconstruction is an artificial (prosthetic) limb. The prosthesis is usually attached to the body using a socket, straps and harness. However, it is very difficult to secure prosthesis in this way, and most patients experience additional problems including; chaffing, ulcers and pain - both in the socket and under the straps.

In arms, wrist rotation is also a problem.

As a result, actual use of the prosthesis is poor and up to 80% of patients stop using their prosthesis within two years of issue.

Existing designs of prosthetic limbs are controlled using a cable and harness system or myoelectric electrodes. Myoelectric electrodes are wires which can be stuck onto the skin surface of the amputation stump. These detect electrical signals in the remaining muscles of the amputation stump which can then be used to control electric motors in the prosthesis.

Unfortunately, skin surface electrodes are unreliable, falling off or moving, and non-intuitive. For example, with existing designs, an amputee wanting to make his/her hand open and close on a myoelectric prosthesis, must actually think "bend or straighten elbow" to make this happen. It would be much more useful to have a system in which the patient thinks "hand open or close" and have this translated directly into the same movement in the prosthetic limb.

There are two ways in which RAFT will work to provide a better artificial limb:

1. Direct attachment of the prosthesis to the bone in the amputation stump avoids the problems associated with straps and harnesses. RAFT will be using an innovative implant which will allow a prosthesis to be attached directly to the human skeleton.

2. RAFT will investigate the use of electrodes placed directly in or on the surface of muscles in the limb. We want to find a way of passing the wires from the electrodes through the special implant secured to the skeleton which will act as a conduit between the inside and the outside of the body allowing the wires to come through the skin without fear of infection or breakage.

If RAFT succeeds, what difference will it make?

We hope that, if successful, our research will allow a prosthetic limb to work in a more intuitive way like a human limb, be more comfortable to wear and be easier to put on and take off.

New patrons for RAFT

EMERITUS PROFESSOR JAMES RYAN

"Having spent more than 40 years in the Royal Army Medical Corps and 35 years as a practicing military and trauma surgeon I have a deep understanding of the consequences of war injury and in particular, the life long disfigurement and suffering that may follow. Injury on the battlefield is so often devastating and mutilating. RAFT with its pioneering research programmes is there to help the wounded and that is why I am proud to be a Patron."

Emeritus Professor James Ryan OStJ, MCh, FRCS

LT COL STEVEN JEFFERY

We are delighted to announce that Lt Col Steven Jeffery has agreed to become a Patron of RAFT. Lt Col Steven Jeffery belongs to Royal Army Medical Corps and is a Burns & Consultant Plastic Surgeon at Selly Oak Hospital where he treats injured military personnel returning from Afghanistan.

Lt Col Jeffery told the BBC that medical staff are now dealing with wounds not seen before in other conflicts, because patients with similar injuries would simply have died on the battlefield just five or 10 years ago. However, he warns that is also creating a need for lifelong medical care for many of the most severely-injured.

"They will develop problems throughout their lives, and we know that if you have an amputation and walk on a prosthesis you do develop problems further up the chain, so these guys will have to continue being looked after in some way for the rest of their lives."

We are pleased to have his support and expertise, and to be building a strong relationship between Selly Oak Hospital and the development of RAFT's Smart Matrix™ project.

Lt Col Steven Jeffery BSc, MB, ChB, FRCS, FRCS (Plast)

At the heart of the action

RAFT's research labs considered 'top'

When you read Dr Raina Zarb Adami's long CV, you realise the 29-year-old over-achiever could have probably gone anywhere to do research work.

So why did she pick RAFT?

"That answer is easy," fires off the Maltese-native, listing her reasons. "A. There is a lot of prestige working at RAFT. B. Everyone in the restorative plastic surgery world knows who RAFT is; it is considered one of the world's leading research centres. And C; at RAFT they push us to grow, they want us to be brilliant."

Then the surgeon's allegro-speed voice slows down for just the tiniest of moments. "For me, just to have one paper published with RAFT would be a major accomplishment."

Since starting at RAFT six months ago as a Surgical Research Fellow, Raina has been working closely with Dr Julian Dye and the Smart Matrix™ artificial skin project. When the project is finished – and she believes the light can now be seen at the end of the tunnel – it will make a huge difference in the lives of people who are suffering from burns and chronic wounds.

"I think what I bring into this specific project and to RAFT is, because of my medical work background, I can 'translate' the work from the research bench to the patient's bed. I know what the surgeon and the patient are looking for."

This is something that RAFT Chief Executive Leonor Stjepic agrees with entirely.

"Besides working at RAFT, which is her fulltime job, she also has a clinic in Knightsbridge. What she does outside of RAFT gives her a bigger picture; it brings in the perspective of the end-user which is vital for us."

Raina was already living in the UK and working as a plastic surgery registrar when a surgeon approached her and said that she should look into RAFT. Going to the RAFT website, she saw an advertised position and applied for it. As she says, the selection process was "tough".

"It is difficult for a doctor to work at RAFT; there is a lot of competition."

According to Leonor, RAFT is constantly approached by people interested in research positions. But after a short-listed process, Raina was called in for a three-hour interview.

"It's not enough to be bright to work at RAFT; you have to understand the whole charity ethos. We were impressed that she had done medical volunteer work in Calcutta and does continuing volunteer work in Nepal with an Australian plastic surgery team, working with patients with severe burn complications. It struck us right away that she was incredibly committed," says Leonor.

"I wasn't part of the initial interviewing process, but I saw Raina when she first arrived at RAFT and was waiting downstairs by

the entrance. A delivery man came to the door and she took the package, welcoming the person in a very lovely way. She seemed to be very polite and sure of herself, understanding fully the team idea."

Part of the 'team idea' is to be involved in fund raising which for Raina takes place outside of RAFT office hours. In November she organised a pub quiz night in South Kensington. Raina and her older brother – who wrote a PhD in astrophysics at Cambridge and is now at Oxford – are now in training to run the London Marathon to raise money and awareness of RAFT.

On her desk at her clinic Aesthetic Virtue there is an almost full RAFT donation jar. "Pick it up," she says, "its heavy. No one comes in here without putting something in." Along with this, a percentage of the profits of the clinic goes to RAFT.

Her average day at RAFT begins around 7am. Although you would think that the majority of the time a research scientist would be spent with bubbling beakers and test tubes, Raina says a good portion of her day is spent writing papers and reading what other scientists have accomplished.

It is pointless to reinvent the wheel so when new ideas are being thought out, Raina needs to troll through published works to see if anyone has done something similar to see if it worked – or didn't. Part of the research process, too, is presenting findings at conferences where scientists will debate RAFT's works.

"I admit it, I am a driven person and people told me I would become bored with the slower pace of research," she says. "For the first month I thought so too, but then I began to understand the process and why it takes so long."

Lunch time is special for her at RAFT because the entire RAFT staff crowds into the lunch room to do a crossword puzzle and to talk.

"In some facilities there is no mixing of staff, but at RAFT it is completely different. This is good because those involved in fund raising can know what we're doing and vice-versa. There is a good exchange of ideas."

After finishing at RAFT around 3:30 in the afternoon, she drives back to London so she can be at Aesthetic Virtue at around 5:30 where she works until 9pm, with a full day at the clinic on Saturday. On Sundays it's behind the scenes work for her parent company The Academy of Aesthetic Excellence which provides training to other medical professionals in aesthetic medicine.

"A course, I'm young so I like to go out as well in the evening. I am very fortunate that I only need between four and five hours of sleep a night." Oh, and somewhere in between all of this she is writing a novel and working on a PhD.

When asked if she thinks of herself as exceptional, she laughs. "My brother has a PhD in astrophysics – which he got at 25 - my father was a Rhodes Scholar at Oxford doing a PhD in inorganic chemistry and my mother is the head of BUPA in Malta. They're a hard act to follow!"

Our woman of the future

Raina Zarb-Adami is finishing out 2010 in style by being crowned winner in the category 'Professions', for the Women of the Future Awards.

The Awards, held in November, were created to unearth and recognise the stars of tomorrow across diverse industries, to celebrate high achieving women under 35, inspirational in their professions.

Britain is rapidly developing, and young women are at the front of changing Britain. Raina was nominated for the Professions category along with four other women. She attended the awards with RAFT's CEO Leonor, and was crowned winner of Professions Woman of the Future. Over 500 people came together at the London Marriott Grosvenor Square in celebration of the awards.

Among the list of VIPs were deputy prime minister Nick Clegg, TV presenter Dawn Porter and Awards' patrons Cherie Blair and Her Highness Princess Badiya bint El Hassan of Jordan.

"I was so nervous before the awards ceremony. To take my mind of things I concentrated on training for my upcoming marathon and sorted out my dress and hair I didn't want to jinx myself by preparing a speech either," says Raina. "I shared a table with Leonor, my family and friends who were all so supportive and were convinced I was going to win. I am completely overwhelmed as winning the award is a huge honour."

At RAFT we are all extremely pleased for Raina. It is fantastic to recognise and celebrate the achievements of young women and we are so proud of her achievement.

Charlotte goes all out for RAFT

The thought alone is enough to make most of us fall back on the couch in utter exhaustion - a three-city, three-country, one-day triathlon, complete with an early morning swim in a cold, brown, grotty Paris canal.

But 23-year-old Charlotte Stovell did it all to raise money for her favourite charity - RAFT.

Earlier in the year while Charlotte was looking for tickets to come back to England from Paris where she was working, she noticed an advert on the Eurostar website for a triathlon that was to be held in September. The race would consist of a 1.5km swim in Paris at 7am, a 40km bicycle race in Brussels in late morning, and then a 10km run in London during late afternoon.

Having already taken part in a couple of 10km running events and wanting to try something different, she decided she had to give it a shot.

The good thing about the event was Eurostar was picking up the tab for almost all of it so all money Charlotte raised would go to RAFT; the bad thing was, there was only a select number of these places - 20 per country – were available to people not connected to Eurostar or already members of a triathlon society.

Once she was geared up to the idea of doing it, Charlotte researched charities to find one with a personal connection. "It was during this process that I discovered RAFT and knew instantly that I wanted to raise money for them."

The first 50 people were to be selected by a public vote; then these would go through to a judge panel that chose the final 20. Charlotte says she "campaigned like crazy" and got into the final 50 and then in late June discovered she had been selected for the final Eurostar TriCityAthlon team.

Now the reality of getting ready set in.

Although Eurostar was providing travel and wetsuits for the swim, Charlotte needed a bicycle and new trainers.

"All I had was a lovely – but highly impractical – vintage Dutch ladies bike complete with a wicker basket on the front."

Her godmother stepped was able to arrange the borrowing of a road bicycle and new shoes, with her parents buying her the needed clothing. In hindsight, she says that it never crossed her mind to use donations for any of this. "Where there's a will, there's a way and if you look hard enough, you'll find what you're looking for."

After swimming lessons, countless hours pounding pavement or sitting on a tiny, hard bicycle seat, Charlotte was ready for the big day.

As she began to enter the cold water at 7am, wearing for the very first time a wetsuit, one thing kept going through her mind. Because Eurostar waits for no one, a strict timetable had to be kept, with cut-off times for all events. If she faltered in any event, her race would be over.

"The swim started rather traumatically. I put myself into one of the final groups to enter the water as I heard about the scrum at the middle and front where weaker swimmers would get kicked and

swum over," she says. "However, then I realised how far I was from the start line; there was about 150 metres to swim just to get there!"

As Charlotte says, the water certainly wasn't as clean as the new pool where she had been practicing.

"It was cold, brown, you couldn't see anything with your goggles past 15cms, and there were times I felt things running through my fingers. When I emerged from the water, I actually had mud stuck to my face and that lovely canal smell stayed with me for the rest of the day."

The bicycle portion in Brussels was tough, with much more uphill than Google Map revealed, but it was during the London run where she hit the wall, battling the last 8km home.

"My family was standing in the rain watching me and they could see that I was running on nothing. I kept thinking 'why am I not running faster?' but there was nothing left in my body to give," she says. "Having RAFT, family and friends behind me, got me to the finish line. It was mental over physical in the end."

Her goal was just to finish the race and bring in at least £1,000 in donations. Charlotte surpassed herself at both; doing much better than she had hoped in the race and doubling her donations with a winning £2,015.

Above Left:
The starting gun is fired for the final part of the race, a 10K run in London.

Left::
Fundraiser Charlotte Stovell gears up for the next leg of Eurostar's TriCityAthlon.

Below:
Swimmers churn up during the 7am swim in Paris.

Why RAFT?

For most 23-year-olds, RAFT might not be the first charity that springs to mind but Charlotte has a personal reason behind her choice.

Thirteen years ago when Charlotte was nine, the fuel tank on her family's new cruise boat exploded underneath her, with the full force of the flames blowing her over the side of the boat and onto a nearby platoon.

"A visual memory I still carry with me today was looking down at my legs and seeing the huge blisters which were forming all over them," she says.

With so much chaos erupting around her – her 18-month younger brother thrown from the burning boat, her pregnant mother squeezing through a tiny window, and her father trapped inside the burning boat until rescued by Charlotte's 11-year-old brother – she hadn't noticed, too, how badly burned her elbow was as well.

"Had I landed straight into the water, perhaps the burns would not have developed so much. I was wearing highly flammable nylon sports shorts which actually melted to my legs."

Charlotte and her father were taken to Surrey Hospital, but there doctors decided her burns were so severe, they transferred her that night to the Roehampton Burn Unit to received immediate emergency skin grafts.

"It was very difficult for my parents to see me all bound up in bandages, on drips and unable to walk, but at age nine, I think you just deal with it. You don't think otherwise."

As Charlotte says, she was lucky, and thanks to surgery over the years to reduce the size of the scars, she can now wear a skirt or shorts today without too much reflection on what people are thinking.

At a recent Open Day at RAFT, Charlotte reflected on the advances the last 13-years have brought to burn wound healing.

"It actually nearly brought tears to my eyes when I heard them explaining all that they are currently doing because the research they do really makes a huge impact on other people's lives.

"It is thanks to RAFT that I have been able to have skin grafts and scar-reducing surgery which has enabled me to go out in a pair of running shorts, or a swimsuit and do a triathlon!"

Marathon runners explain why RAFT?

Somewhere in this scrum are 13 runners doing their all for RAFT.

still running strong at 74

Bob Jenkins is not 100 percent sure how many marathons he has run for RAFT. "Sixteen or 17? Hmmm, you better go with 16, I'll error on that side," he said. Either way, it's a lot of marathons.

He is the first to admit that running his first marathon for RAFT – and the first marathon he ever ran – was more of convenience than of convection.

"I taught in a special needs school and did half-marathons to inspire the pupils as to what somebody could do, but then my son got me interested in running a marathon," said Bob.

But having a desire to run the London Marathon and getting a place are two different things he discovered. After not being able to get a race number, he looked at charities which had a 'Golden Bond'. This is a scheme that was developed by the Marathon for charities and rejected runners. Under it, charities can buy guaranteed places and offer them to runners who miss out on a place in return for a commitment to raise funds for the charity.

"So, that was 16 years or so ago and I'm still running for RAFT," he said, adding that he now runs on his own place.

Bob goes door-to-door where he lives in North Uxbridge, visiting 400 houses, which he said is pretty much every house in the community. He also solicits funds at a nearby golf course.

"Everyone knows I do this so if I'm a little late in starting my fund raising, people start asking me about it."

He said he trains most of the year for the marathon, running three to four times a week, along with swimming.

How many more marathons do his legs have? He thinks that when he turns 75 it will be his last. However, when you talk to him, you get a strong feeling that it will be quite awhile before he hangs up his running shoes – stops his fund raising for RAFT.

Tough memories lead to good cause

Gary Thackham has an unusual date on his running shirt: August 1990. It's odd in the sense that you would think that this is a date he would want to forget. Still, when you hear his story it makes perfect sense and why he runs for RAFT.

In August 1990 when he was six years old, Gary was hit by a car and sustained serious head injuries. From that date and the seven years that followed, he was treated at Mount Vernon Hospital. This included four major operations.

"Without the work carried out by RAFT I wouldn't be where I am today, so I thought it was time I did something for them. The operations and treatments I had were very new at the time, so without people raising and donating money to RAFT, it would never have been possible to achieve what I have. I know that every penny I raise is going to a great cause."

wind and rain can't stop these runners

The team of Northamptonshire Fire and Rescue Service fund raisers: (left to right) Julia Partridge, Simon Bryant, Jim Dorrill, Colin Wells, Shaun Hallam, Rob Porter and Staci Leach.

Seven members of a fire and rescue service pounded the streets in a 10k charity run on a day better suited for ducks. Still, despite the wet, blustery conditions, every member of the team completed the run.

Working for Northamptonshire Fire and Rescue Service means everyone is focused on working as a team; in particular its emergency response work is dependent on everyone working together.

It was no surprise then, when an opportunity came for the staff to take part in a local run in support of a good cause, that there were many eager volunteers. The annual run, now in its second year, takes place through Northampton town centre streets, with experienced and inexperienced runners from all over the county and the wider area taking part.

According to the Fire Service, when an email was sent round to staff asking who was interested in taking part, there were feelings of apprehension. However, the sense of rising to the challenge won over the most hesitant of budding athletes.

Once registered, the seven runners considered which of the many worthy causes to support. With so many causes appealing for help, they said it was a difficult decision to make.

After one of the Fire Service's senior managers heard about RAFT's work – in particular the Smart Matrix™ artificial skin project for burns and wound healing - he sent to the team information about RAFT. It was decided that with the efforts of the charity being so closely aligned with the work of the Fire and Rescue Service, they considered that this was a good cause to support.

The day of the run was not ideal conditions; rain showers and a blustery wind presented a great challenge for everyone undertaking the 10 kilometre. However, strongly motivated by the pledges of money - only on completion - every member of the team successfully completed the undulating course through the town and to date have raised almost £650.

"We are extremely grateful to Laura Ripley from RAFT for all her support and encouragement in the lead up to and since the run, and we are pleased that we have been able to help a worthy charity which carries out such important work," said the Fire Service.

Baldwin Boxall Communications raise £150 at stand

RAFT was delighted to hear that Baldwin Boxall Communications managed to raise funds for the charity by using collection boxes at a recent exhibition at Earl's Court in London.

Alison Cousins of Baldwin Boxall said: "Baldwin Boxall is pleased to hand over a cheque for £150 to RAFT."

A collection box on Baldwin Boxall's stand at the recent PLASA2010 exhibition for new technology, along with a second box on the company's reception desk, enabled the donation to be made. The company's exhibition stand mimics a traditional English pub and glasses of Harvey's real ale were served to visitors, leaving many happy to oblige by putting a few coins in the RAFT collection in return.

Baldwin Boxall is a manufacturer of emergency voice communication systems, which are key to the safe evacuation of people in the event of an emergency such as a fire.

"We have been supporters of RAFT for many years and firmly believe in the wonderful work this charity does. Our connection in the fire industry makes the work RAFT do more poignant for us and we would like to say a big thank you to all those who put money into our collection boxes," says Alison.

" Community fundraising is extremely important for the development of RAFT; to be able to engage more and more people to fundraise on our behalf in innovative ways, means that we are able to continue to progress with research to improve quality of life for those affected by skin traumas.
"I am delighted that after starting at RAFT in 2007 as a Team Secretary, I am now taking on a new challenge as a Fundraiser. It is wonderful to work with people who are enthusiastic about raising money for our vital research while at the same time eager to accomplish their own personal challenges. These fantastic people soon become RAFT'ers – a real part of our RAFT family. We would love to have you join this amazing team."

LAURA RIPLEY

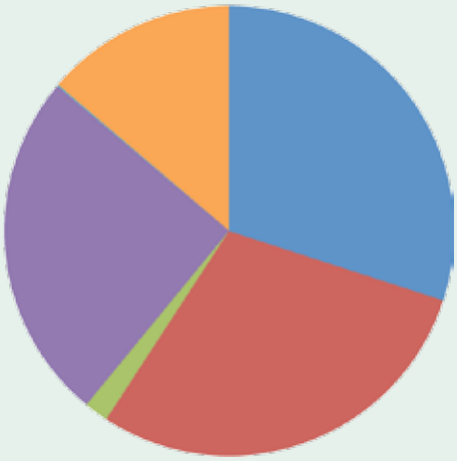
Thank you from the team

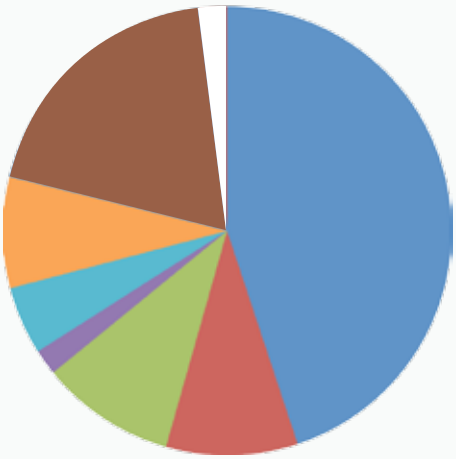
"Any organisation is only as good as the people who work there. As Chief Executive, I can honestly say that I am proud of each and every member of my staff. From the scientists to the medics to the fundraising staff – each one of them is totally dedicated to their work and is always prepared to go that extra mile."

LEONOR STJEPIC
Chief Executive

Finance

INCOME SUMMARY	FY10	EXPENDITURE SUMMARY	FY10
GRANT	256,174	CHARITABLE ACTIVITIES – SMART MATRIX™	374,694
TRUSTS & MAJOR DONORS	225,400	CHARITABLE ACTIVITIES – SKIN CANCER PREVENTION	79,172
INDUSTRY/INDUSTRIAL PARTNERS	14,863	CHARITABLE ACTIVITIES – SUN DAMAGE	81,123
EVENTS	215,489	CHARITABLE ACTIVITIES – EDUCATION	15,482
INVESTMENT INCOME	729	CHARITABLE ACTIVITIES – OTHER	40,884
OTHER DONORS	122,938	EVENT EXPENSES	66,767
		FUNDRAISING	159,133
		GOVERNANCE	17,139
TOTAL INCOME	**835,593**	**TOTAL EXPENDITURE**	**834,394**





CALLING ALL LEADERS

Skin cancer charity RAFT – DofE's newest Approved Activity Provider – will do all that we can to help your young contenders reach their award goals.

Helping RAFT can be exciting and rewarding to those young people concerned about others like themselves. Skin cancer in the UK has become the most common cancer among teenagers and young adults, with new cases rising faster than any other type of cancer. By the time today's teenagers reach 25, there is a high chance that they'll know somebody who has suffered from it.

RAFT stands for the Restoration of Appearance and Function Trust. It means that doctors see us as one of the global leaders in carrying out pioneering research into practical and affordable ways to save and repair skin.

We are working on a way of not only curing skin cancer, but preventing it from ever happening as well. However, to do this big job we need the help of your participants. In turn, we can help them earn their Duke of Edinburgh's Award.

For you leaders, RAFT's help is always just a phone call away. We're here to aid you in organising activities for your young adventurers, with a team of creative thinkers who will rise to the challenges of the DofE award. In turn, you can feel good in knowing that your participants are really making a difference in countless lives.

CONTACT CHRISTINE MILES AT **RAFT** TODAY!

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e: **dofe@raft.ac.uk**

www.raftdofe.com