

Help us make a difference



Keep covered up and avoid getting burnt. Courtesy of Philip Greenspun www.philipgreenspun.com

You may have seen in the press over the summer months reports highlighting the definitive link between the use of sunbeds and skin cancer. Using these machines is now considered as dangerous as tobacco and asbestos, yet there is little regulation in place and a recent newspaper investigation showed it is not always adhered to by some tanning shops. A number of high-street tanning salons have coin-operated machines that are left unsupervised and these machines are sometimes being accessed by children as

young as nine years old. There are many stories of teenagers spending their lunch breaks topping up their tans with little realisation of the damage they are inflicting on their skin.

Thanks to your support RAFT has been working for over ten years on the causes of skin cancer and current protection available. Our work has further contributed to the understanding of the link between UV radiation and skin damage. Melanoma, an aggressive form of skin cancer is the most common cancer in young adults (aged 15 – 34) in the UK. Sunbeds have the capacity to emit very high levels of UV, many times stronger than the midday summer sun in most countries. Using sunbeds before the age of 35 years increases the risk of melanoma by 75%.

One of our research aims is to provide the public with well-researched facts, educating them on the dangers, and allowing people to make their own choices about their sunbathing and tanning habits.

As you know, RAFT is an independent charity and we rely heavily on charitable donations to fund our research. We need to raise half a million a year to continue our vital work into Skin Cancer.

If all our supporters donated £3 a month we would raise £432,000 in a year! Would you consider supporting our research and donating £3 a month helping us to provide a solution?

Facebook



RAFT is now on Facebook! Why not become a fan of RAFT and keep up to date with our latest news? You will also be helping us to spread the word to lots more people about RAFT's fantastic research into Skin Cancer and our Artificial Skin work.

We link to articles that you may find of interest and keep you updated with all the latest news in the fundraising department and our latest research news. You can also get involved and tell us your fundraising stories, and comment on articles. This is a great simple way of getting involved!

Staff Profile

Name:

Amir Taheri

Job Role:

Research Assistant for the Artificial Skin (Smart Matrix) Project

When did you start working at RAFT?

April 2008

What made you want to work in Medical Research?

I have been interested in science and the medical field since I was a child. Working in this area gives me the opportunity to improve my knowledge and skills in a subject of great interest to me.

Undertaking this work enables me to learn more about the importance of medical research, understanding what patients' needs are, and the best way my skills can help these patients.

What can your day involve?

Every day is different; I have a varied job role. I could be making scaffolds for the



Smart Matrix, analysing results using a variety of different methods, undertaking research relating to our work, contributing to papers, carrying out essential testing of laboratory equipment. I also use my interest and knowledge in computers for when we have an IT emergency!!

RAFT – Winners of the Health Investor Third Sector of 2009 Award

We were delighted to be pronounced winners of the Third Sector category at the Health Investor Awards 2009 on 3 June 2009.

The awards were to promote excellence, innovation and outstanding achievement in healthcare, so we were absolutely thrilled to be recognised at accomplishing these categories.

Leonor Stjepic, our CEO was delighted to accept this award and it is a real testament to the excellent work we are carrying out here at RAFT.

Judges included; Patricia Hewitt - Former Health Secretary, Kevin Barron – Chairman



Leonor Stjepic receiving the Health Investor award

HoC Select Committee on Health and Bob Ricketts – Department of Health. HealthInvestor is a magazine and is considered the UK healthcare industry's most respected source of information.

Fake Bake Community Fundraising



Layla Jones hosting her Fake Bake Cocktail Party

Stacy Brook and Layla Jones, working with Fake Bake at Home have recently hosted two superb fundraising events in aid of RAFT's Skin Cancer Research.

Layla Jones from Leeds, West Yorkshire held a fundraising evening in aid of RAFT on 4th August 2009 at Chilli White. This event started

with a complimentary cocktail, followed by demonstrations of the Fake Bake tanning product, and ended with a raffle raising an amazing £300 - which is brilliant! This funding will be so valuable to RAFT's Skin Cancer Appeal, we thank Layla for her hard work and determination to raise these funds for us.

With the success of one Fake Bake event, Stacy Brook from Lancashire also had a Fake Bake tanning demonstration evening scheduled on 6th August 2009 at Fusion Room in Preston. Once again another enjoyable and successful evening was had, raising a staggering £800 for RAFT! Congratulations Stacy for your organisation and effort throughout.

Thank you both for your excellent fundraising events.

Skin Cancer Research



We suggest applying two layers of sunscreen prior to sun exposure.

THE FACTS ...

The incidence of skin cancer, linked to ultraviolet light in sunlight, continues to rise and in the UK population melanoma has quadrupled since 1975. There are more than 67,000 new cases of skin cancer every year in the UK alone and the figures are rising faster than for any other form of cancer. Non-melanoma skin cancer is the most common cancer in the UK, and melanoma is one of the few cancers to affect young adults being the most common cancer in young people (aged 15 – 34 years). Over 1,800 people die from melanoma each year, that is 5 people every single day. Melanoma is the most difficult cancer to treat, being resistant to radio- & chemotherapy and prevention remains a public health priority in reducing its incidence.

RAFT'S RESEARCH ...

Protection

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 and indicated by the SPF factor on the bottle. They do not protect against the whole range of UVA rays and no sunscreen protects against visible light – the cause of sun-ageing and now thought to contribute toward melanoma. We have developed an effective and efficient method to measure the true protection offered against the sun's harmful rays.

How sunscreens are used is vital. Our unique research on how rubbing in sunscreen decreases its efficacy has been incorporated into official advice given by CRUK and on the advice given by some manufacturers. We have shown that, if rubbed in in one layer, the sunscreens provide no protection.

We want to provide the public with better protection against skin cancer. During experiments currently being undertaken at RAFT, we have identified a natural product



Look out for changes in your moles.

which, when added to sunscreens, could provide better protection against the sun's harmful rays. This work is not funded by the sunscreen industry so we need funds to prove that this will work.

Susceptibility

The team is also investigating whether certain individuals are more susceptible to damage by UVA. Part of this work is examining if the body's natural sunscreen, melanin, protects or aggravates the effects of UVA light. Although melanin works well as a sunscreen at the very high concentrations found in Afro-Caribbean skin (who have a low incidence of skin cancer), it fails when in low amounts eg. at levels found in red and blonde-haired individuals who are most susceptible to skin cancer. At low levels melanin produces free radicals (chemicals that can cause damage) when exposed to UVA, and we are aiming to understand this natural sunscreen better in different skin types. It is also evident that some individuals may lack or have imbalanced antioxidant deficiencies to protect against free radical damage that may determine an individual's propensity towards forming/developing skin cancers. Our aim is to produce a way of screening individuals so as to identify their susceptibility to skin cancer. If individuals are aware of the personal risk they can

make more informed choices.

Therapy

As well as looking into how we can protect ourselves from melanoma, RAFT is planning a new approach in its research by attempting to use a natural compound for tackling this insidious disease. Recent findings both in our laboratory and in others at the same time, have suggested that vitamin C in high doses is toxic to cancer cells but less toxic to normal cells. Vitamin C has a controversial history as a

potential cancer therapeutic agent.

Clinical trials showed that vitamin C administered orally was not effective; however, the possibility of intravenous delivery (which raises the concentrations to greater levels than the body is normally used to) was not considered at the time. We have also found that high dose vitamin C interacts with chemicals used by our immune system to attack bacteria and abnormal cells, suggesting that it might help the body attack cancer cells. Our approach at RAFT is to study how high dose vitamin C might work together with cells of the immune system to target skin cancer cells. We are the only group in the world carrying out this latter research.

If we succeed in finding a way of killing skin cancer cells, this treatment could, potentially, be used in all cancer treatments.



Research News

Skin Cancer Research

Thanks to your support we have continued looking into the damage that UVA rays do to our DNA and their relation to skin cancer. We are shortly submitting for publication critical data showing the formation of free radicals (harmful chemicals which attack our DNA) on skin during exposure to UVA. These advances contribute towards a better understanding of the processes that lead to skin damage and the development of skin cancer.

Artificial Skin

We have made exciting progress in developing the Smart Matrix replacement for lost dermis, to work out how to achieve a very rapid integration with the body, which is vital for effective clinical use. We have recently used a sophisticated laser imaging system which monitors the in-growth of new blood capillaries, showing how the Smart Matrix 'comes to life'. Our next challenge is to establish a clean-room manufacture process to produce material for patients.

Did you know?

- The skin is the body's largest organ.
- Skin acts as a protective layer, it keeps out germs, senses our environment, and regulates body temperature.
- Every square centimetre of skin has more than 200 nerve endings and almost 1.5 metres of blood vessels.
- The average adult skin weighs about 4 kilograms and laid out flat would cover an area almost as big as a single bedsheet.
- When exposed to sunlight, skin manufactures vitamin D, an essential nutrient.
- The outer layer of skin, the epidermis, is shed continuously and replaced completely over the course of a month.
- The skin protects the inner organs from the sun's harmful rays but can be permanently damaged by too much sun.
- Wearing sunscreen can help prevent sunlight from forming damaging free radicals in the skin. Sun exposure is thought to be the cause of nine of every ten cases of skin cancer.
- There are up to 5 million sweat glands in your skin.
- Each evaporating droplet of sweat can cool a litre of blood flowing through the skin by about one degree.
- Hairs, millions of them, cover the skin, but not the lips, palms of the hands or soles of the feet.
- Skin is waterproof but the outer layer can absorb water and swell up causing it to wrinkle if you spend too long in the bath. Toxic chemicals can also enter the body through the skin.

Flora London Marathon 2009

It seems a long time ago since April, when our runners braved the streets of London to take part in the Flora London marathon. But, we couldn't pass up the opportunity of giving all our fantastic runners a mention and to say a big THANK YOU!!

The weather was unusually warm for April, which made for much different running conditions compared to the wind, rain and snow they trained in!

To date our twelve runners have raised a

fantastic £24,147 in aid of our vital research. Well done!!!!

As always time flies by and next year's marathon will soon be upon us! Perhaps you entered the ballot and have received your own place? Why not run for RAFT's research? Or if you find the thought of a marathon that bit too daunting, there are plenty of other running events that take place throughout the year.

Get in touch with the Fundraising team who will be happy to help! 01923 835815

Well done to each of the following participants who all achieved fantastic times:

Kirsty Flynn

5:09:57

David Forster

4:42:36

Simon Hayes

4:07:57

Bob Jenkins

4:46:25

Robert Jenkins

4:28:28

Andrew Lowe

4:15:46

Joanne Murray-Brown

4:38:16

Angela Seymour

4:34:52

Andrew Sheppard

5:26:56

Clare Stapleton

5:09:57

Helen Waters

5:29:10

Jim Winter

4:20:30



Simon Hayes with his well deserved medal round his neck!

Support our Research Today!

I would like to support **RAFT's** research into Skin Cancer Wound Healing General (please tick)

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
(please choose a start date at least one month from now)

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.

Your details

Name:

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Your bank details

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

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– a membership organisation of the leading medical and health research charities in the UK.



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