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Welcome to the Winter/Spring Edition of QSkin News. In this edition we bring updates on the study, as well as some information on changes to sunscreen regulation in Australia and interesting new research findings related to sunscreen use.

We also wish to sincerely thank all QSkin participants who have completed the diet survey. If you have not yet received your invitation to complete the diet survey, please be assured that an email will arrive shortly. We are extremely grateful for your ongoing support of the study.

David Whiteman and Catherine Olsen
Principal Investigators of QSkin

Study progress

After extensive piloting of the diet survey, we began to email invitations to QSkin study participants on 12 August. We plan to send email invitations to QSkin participants in the next few months. If you have any questions about the survey please contact the study team by phone or email— we are more than happy to assist with any queries.



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QSkin sub-studies

QSkin smartphone study

We have had an excellent response to our invitation to take part in the smartphone study being conducted by Associate Professor Monika Janda from the Queensland University of Technology (QUT). This sub-study aims to assess whether new technology – a mobile “dermatoscope” as pictured here – can help with early detection of melanoma.

Dr Janda would like to thank all QSkin participants who have kindly agreed to take part in the study.



Queensland basal cell carcinoma (BCC) study

A number of QSkin participants have also recently taken part in the Queensland BCC study which aims to compare the genetic and environmental risk factors for basal cell carcinomas arising on different parts of the body.

PhD student Dr Mohammad Khaled is particularly interested in why some people get BCCs on parts of their body that are not routinely exposed to the sun, while others only get BCCs on places like their face. Mohammad would like to extend his thanks to all of you for your invaluable contribution to the study.

QSkin extended: the genetics of skin cancer

As mentioned in the last newsletter, we have now submitted a funding application for a new project to gather genetic information. If successful, we will invite each QSkin participant to provide a saliva sample. These samples will contain all of the genetic materials necessary for us to see how genes vary for different people, and how they might be related to risk of skin cancer. We should know by the end of November whether our application has been successful.



The QSkin Team (clockwise from bottom left): David Whiteman, Catherine Olsen, Rebekah Cicero, Barbara Ranieri, Lea Jackman, Kyoko Miura.

Study reveals links between red hair and melanoma

QIMR Berghofer scientists have shown the gene responsible for red hair leaves a person up to 100 times more susceptible to the worst form of skin cancer, melanoma. It was always known that fair-skinned redheads are at greater risk of melanoma; now, researchers believe they have discovered why. A particular gene mutation that colours hair red leaves DNA in skin cells more prone to damage by sunlight. Study leader Dr Wenyi Wei, from Harvard Medical School in Boston, said the study showed at a molecular level why redheads were more likely to get melanomas.



The QIMR Berghofer Medical Research Institute and Royal Brisbane and Women's Hospital (RBWH) have initiated the first “The Weekend to End Women's Cancers” to support research and treatment of women's cancers. Funds raised by the 2013 initiative will power a joint effort by QIMR Berghofer and RBWH to combine life-saving research programs and clinical trials at QIMR Berghofer with vital treatment, care and survivorship programs at RBWH in Queensland. The Weekend will be a two-day, 60km walk through Brisbane.

QIMR is now QIMR Berghofer Medical Research Institute



QIMR Berghofer
Medical Research Institute

The Queensland Institute of Medical Research has had a name change. The Institute is now known as the **QIMR Berghofer**

Medical Research Institute. This change reflects a remarkable gift from Australia's leading philanthropist, Toowoomba businessman, **Clive Berghofer**, who has donated a further \$50.1 million dollars to the Institute. This is a huge vote of confidence in the quality of the work underway at QIMR Berghofer.



QSkin findings

Skin cancer prevention and screening practices in QSkin participants

QSkin Investigators Catherine Olsen and David Whiteman recently conducted an analysis to explore the skin cancer prevention and screening behaviours of QSkin participants. They looked at two groups of people enrolled in QSkin: those who reported having had a prior skin lesion burnt or cut out (Group One, 23,807 people) and those who did not (Group Two, 14,827 people).

Group One participants were much more likely than Group Two participants to have had their skin checked by a doctor in the past three years (85% vs 52%). They were also more likely to use sunscreen regularly (45% vs 38%) and wear a hat regularly (71% vs 59%). Within each group, those with fair skin were the most likely to use sunscreen and wear hats.

In both groups, people with a family history of melanoma were more likely to have their skin checked than those without a family history.



Predicting future risk of skin cancer

One of the main aims of QSkin is to develop tools to help doctors and patients predict their risk of developing melanoma and other skin cancers. While it is early days, we have found that we can predict whether or not a person will develop a skin cancer in the next 12 months with about 70% accuracy. Clearly, more work is needed to refine these tools, but these early analyses are very promising and will form the basis for more powerful research to be conducted in the coming years.

Numbers of skin cancers in QSkin participants

In a previous newsletter, we introduced QSkin PhD student Dr Padmini Subramaniam. Padmini is counting the number of skin cancers that have occurred among the 37,223 people enrolled in QSkin.

By linking our dataset with Medicare, we have found that 3,381 QSkin participants (9.1%) were treated for 6,742 separate skin cancers in the first year of the study. Approximately 3.5% of participants had more than one skin cancer. The rate of skin cancer was 50% higher in men than in women.

Padmini will present these findings at the Annual Scientific Meeting of the Australasian Epidemiological Association to be held in Brisbane in October this year.



New sunscreen regulations for Australia

The labelling and sale of sunscreen is regulated by the Therapeutic Goods Administration (TGA). In June 2012, a new sunscreen standard came into force. These new standards give consumers more information when choosing sunscreens, and include changes to labelling.

The most noticeable change for consumers is the raising of the maximum SPF level to 50+. Previously, sunscreen manufacturers were not allowed to claim an SPF greater than 30+. The new higher category enables consumers to identify sunscreens offering maximum protection. In addition, new rules apply to using the term "broad spectrum" which require manufacturers to prove high levels of protection for UVA, as well as UVB.

More information about changes to the sunscreen standard can be found here:

<http://www.tga.gov.au/industry/sunscreens-args.htm>

Sunscreen prevents ageing of the skin

A QIMR Berghofer study has revealed that using broad spectrum sunscreen every day dramatically slows down the ageing process of skin, as well as preventing skin cancer. The world-first study of 900 young and middle-aged men and women showed that those who applied sunscreen most days had no detectable ageing of the skin after four and a half years. They also had 24 per cent less skin ageing than people who used sunscreen only some of the time, if at all.

The study was led by QSkin Investigator and Queensland Australian of the Year, Professor Adèle Green, in collaboration with investigators at The University of Queensland's School of Population Health.

The research, part of Professor Green's long-running Nambour Skin Cancer Prevention Trial, involved half of the participants regularly using SPF15+ sunscreen on their face, arms and hands and the other half using sunscreen in their usual way, if at all. From each participant, a silicone impression, or mould, was taken from the back of the hand at the start and end of the trial. Using these moulds, the researchers were able to grade the change in skin texture over the four and a half years of the study.

The study is published in *Annals of Internal Medicine* and can be viewed at:

<http://annals.org/>

Feedback?

If you have any comments or updated information (e.g. change of address), please contact us:

Tel: 1800 222 600 Email: qskin@qimr.edu.au Web: www.qskin.qimr.edu.au

If you have received this newsletter by post but would rather receive it electronically, please [email us](mailto:qskin@qimr.edu.au) with your contact details.



QIMR Berghofer
Medical Research Institute

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