

# ACPSEM NZ Branch Newsletter

December 2010



*Hooning through Fiordland*

*Photo : Fiona Bignell*

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**ACPSEM**

Australasian College of Physical Scientists & Engineers in Medicine

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Maniototo Scene  
(photo:Fiona Bignell)

## *From the Chair*

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The past month has been dominated for me by the ACPSEM conferences. Firstly there was the Branch meeting in Dunedin, then EPSM-ABEC in Melbourne. I left the Branch meeting in Dunedin reassured that the Branch is a

strong and vibrant presence in this community in New Zealand. There were excellent research presentations, reports from the coalface, and workshops with healthy discussion. This spectrum of activities makes for a well rounded meeting. The conference was notable for the friendly informal discussions – somehow the group size just seems to suit this. Congratulations to Matthew, Giles and the rest of the Dunedin team for putting together a great meeting.

EPSM-ABEC in Melbourne also featured quite a few New Zealand delegates – although only a few made both due to the close timing. New Zealand registrars James Talbot and Alicia Cavan took out first and second prizes in the best registrar presentation awards, which is promising for the future (*don't speak too soon, Richard –*

*see Aisling Haughey's piece later in the Newsletter! – Ed).*

At the Council meeting prior to EPSM-ABEC it was confirmed that the ESTRO Endorsed Radiobiology Course will be running in Christchurch next year – 30 October start. This is running under a three way agreement between ACPSEM, RANZCR and NZIMRT which is a great sign of cooperation for the future. More information will come in the new year or you will be able to get details from [nzraddio2011.org](http://nzraddio2011.org).

Other local events for next year will be EPSM-ABEC in Darwin in August, and the Branch meeting in Palmerston North on a date to be selected by Keith Croft.

My tenure as Branch Chair comes to an end in a couple of weeks. I'd like to thank those who have helped me over the past couple of years. John Turner has been Secretary from before my time, but is passing this job to Mark Holmes (back again) from the end of the year. Mark Dirkson continues on as Treasurer, while Juergen Meyer will be taking over as Branch Chair and Blair Steer will be the incoming Vice Chair.

Best wishes to you all.

*Richard Dove*

*Chair NZ Branch, Christchurch Hospital*

## *Exam Congratulations*

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Congratulations to the following NZ Branch members who have recently been awarded ACPSEM accreditation.

### *In Radiotherapy Equipment Commissioning and Quality Assurance:*

Mr Koki Mugabe of the Dept. of Medical Physics, Waikato Hospital

Mr Guy Godwin of the Auckland Radiation Oncology

### *In Radiation Oncology Medical Physics:*

Mr Jonathan Griffin of the Dept. Oncology and Haematology, Dunedin Hospital

### *In Radiological Physics:*

Mr Andrew Blair, of the Dept. Medical Physics & Bioengineering, Christchurch Hospital

## Go Team Physics!



Firstly I'd like to introduce a new face at Waikato. Ajeet Mishra joined us from Delhi in November. Welcome to the team, Ajeet! We are now fully staffed apart from a chief

physicist. The closing date has now closed for applications so hopefully there will be interviews soon for that post.

It's been all go on the work front since the last update. Our EX machine was retrofitted with a new E-arm and silicon imaging panel and was commissioned and returned to clinical use last week. The iX was then retrofitted with Rapid Arc capability, however we don't plan to go clinical with RapidArc until our Trilogy has been fully commissioned. I did send a letter to Santa but it seems we haven't been good enough to get a flash new Arc check for Christmas, in fact even the bucket of coal may not fit in the budget so we are going to plan B – looking for a leprechaun! Failing that, I visited a centre in Sydney where they have been just been using EBT2 for Rapid Arc commissioning and patient specific QA so we may be getting some in house phantoms made up to go that route.

In Treatment Planning AAA is now in clinical use. Meanwhile we are preparing ourselves for a busy start to 2011. The CD replacement project begins immediately after Christmas. The new Trilogy will have all the bells and whistles including OBI and Rapid Arc. This is also our TBI and TSET bunker so we will have lots to re-commission. Once this is completed we will be upgrading our brachytherapy unit to a GammaMed plus and we are starting to make plans to move to Eclipse V.10 after that.

Conferences! We've all been travelling. I attended the EPSM in Melbourne. It was a good conference and New Zealand was well represented. However, they didn't manage to beat Christchurch' record for highest attendances, much to the disappointment of the ozzies!

By the way if anyone is thinking of crossing the ditch be warned...it is too hot, too expensive, there are too many people and the wildlife keeps trying to kill you! You're much better off in New Zealand.

Koki is in Vegas again this week doing an advanced Eclipse administration course, (I'm starting to suspect he has a mistress there).

Siobhan attended the ESTRO course on Physics for clinical RT and then shot home for a visit. Puleng picked up some Italian in Milan at the ESTRO IGRT course and Mahesh went to Beijing for the ESTRO course on advanced technologies. He picked up lots of useful information considering he bunked a day to visit the great wall. Manu presented some of our AAA work in Dunedin.

On the training front congratulations to Mahesh and Manu who sat and passed the ARECQA written paper. I'll give myself a pat on the back too for passing the TEAP written paper. Now we all have the practical to look forward to in the new year.

The physics team have been getting active. The whole team entered the Hamilton Round the Bridges event which is a 12km run/walk, including Ajeet who arrived just one week before. We had our team physics T-shirts made up with the Compton scattering diagram on the back – but we didn't quite reach light speed. This photo was taken at the end – not too bad at least we're still smiling! There were some sore bodies on Monday morning, the walkers seemed to suffer

worse than the runners – some training next time guys!!

That's about all for now, merry Christmas everybody and a happy new year!



*The Waikato Medical Physics Hamilton Round the Bridge Run/walk/crawl team. Left to right: Siobhan Manning, Aisling Haughey, Mahesh Chandroth, Manu Thomas, Koki Mugabe, Puleng Moleme and Thulani Nyathi*

*Aisling Haughey*

### *News from Christchurch*

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The past few months in Christchurch has obviously been dominated by the earthquake of 4 September although it seems an age ago for most people now. As I noted in my presentation in Dunedin, our department, health service and staff came through remarkably well. The resilience of our infrastructure and people is reassuring.

With the local conference season in full swing many staff attended either NZPEM in Dunedin or EPSM-ABEC in Melbourne. A lucky few got to go to both and, in the case registrars, attend workshops preceding both.

Since the last newsletter we have commissioned our second new linac of the year with the first patients treated in late November. We now have the

luxury of a spare linac (for physics use!) for the next few months before that one gets decommissioned in March. The Oncology team has warmly welcomed Gemma Block from the UK to our international gathering of physicists. Gemma was able to briefly join us at EPSM care of a family wedding in Melbourne that weekend (small world!).

The bioengineering group has recently completed a pamphlet describing their services – this should be pictured elsewhere in the newsletter. The skills in this group are a rarity in New Zealand DHBs now so it is important to make the best use of them. There

seems to be some growth in sales to other DHBs of some of the innovative devices the group has designed. Their services are available for hire for deserving causes.

Andrew Blair will unfortunately be departing for Brisbane in a month as he has completed his Radiology registrar programme and needed a real job. Hopefully we can find a way of employing him back in New Zealand before he gets too comfortable with the Queensland climate. We have benefitted significantly from Andrew's presence in the department over the past four years and wish him well.

*Richard Dove*

### *News from Wellington*

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That's one small step for a man, one giant leap for the Wellington Blood & Cancer Centre! New Zealand, RapidArc has landed in Wellington!

As I write this newsletter Wellington's first prostate RapidArc patient is being treated on our Varian Clinac iX Linear Accelerator. As mentioned in previous newsletters, staff across all disciplines have worked relentlessly over the last 12 months to get the program up and running. We originally had hoped to treat our first RapidArc patient at the end of September but the go-live start date was put back a few months while we worked through a few last technical issues.

Now that the initial hurdle has been jumped, and without taking a breather, we're looking to roll this out further for head & neck treatments. We believe that now the RapidArc program is up and running other treatment sites should be easier to develop as we build experience upon the already developed platform.

To add to our armament in the battle against cancer we have recently acquired a new Xstrahl (formerly Gulmay) 100 superficial unit supplied

by Alphatech Systems Ltd, New Zealand. Blair Steer along with David Jolly and our brand new registrar Jethro Donaldson have been putting in the long hours to commission this new



Blair and Jethro, in team uniform, commissioning the new Xstrahl 100.

## Christchurch Bioengineering Group's new pamphlet (1)

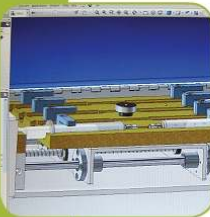
### An Innovative Solution

The Christchurch Hospital Endocrinology Lab had a requirement to mix two liquids together to form an emulsion. Working together with the Endocrinology team we designed and built a cost effective solution to meet their needs.



#### Hand mixing

The old method was to transfer the liquid, backwards and forwards by hand, between two syringes. This process took about 20 minutes and resulted in sore fingers for the unlucky person doing the mixing.



#### CAD design

Presented with the problem, the Bioengineering Group came up with a design for a reciprocating pump to perform the operation and which could mix four batches of emulsion simultaneously – a major time saver. Mechanical design was initially completed on computer using CAD tools, then was fabricated once it was ascertained it met the design specifications.



#### Finished product

The pump is controlled by microprocessor, with custom designed software. All facets of the project from initial concept design though to manufacture and final testing were completed using the expertise of the Bioengineering Group.



### Quality



ISO9001 (Quality Management Standard) and ISO13485 (Quality Management Standard for Medical Devices) accredited

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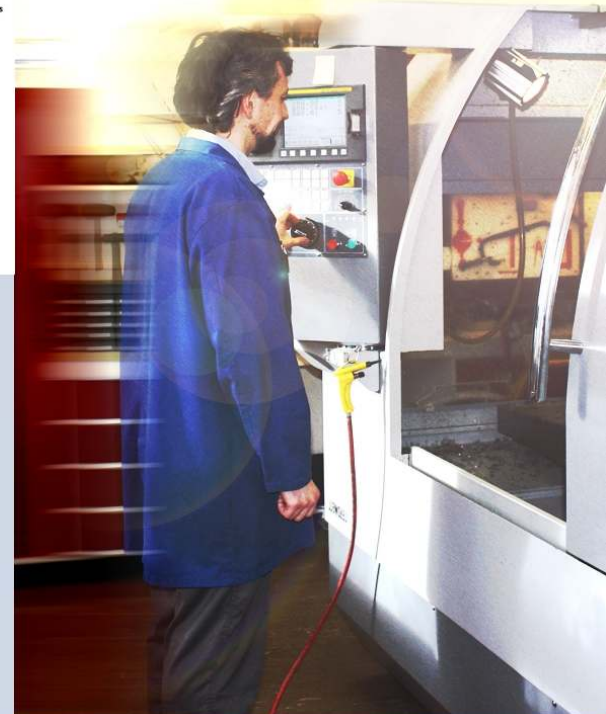
### Canterbury

District Health Board  
Te Pōari Hauora o Waitaha



# BIOENGINEERING GROUP

Medical Physics and Bioengineering



ENGINEERING  
INNOVATIVE SOLUTIONS  
IN HEALTH



piece of artillery. We hope to have the new superficial unit ready to go by Christmas so we can finally move on from our long serving Pantak superficial unit.

In terms of staffing there haven't been any major changes to our team profile with the exception as mentioned of Jethro Donaldson, who is the latest registrar to be inducted into the expansive world of medical physics. Jethro has just completed the MSc course work at the University of Canterbury and will soon commence his master's thesis. In January we'll have Ihab Ramadaan joining the team as well so we'll have a full compliment

due for submission in March and then he will have two years to run out to the completion of the TEAP training program.

Over the last few months there have been a number of conference attendances to note. Firstly, back in August I attended The 6th International Conference on 3D Radiation Dosimetry (formerly DOSGEL) in Hilton Head Island in South Carolina, USA. Polymer gel dosimetry was the topic of my Ph.D thesis so this conference was of great interest to me and it was also of great interest to see where the world is at with 3D dosimetry techniques. Today



*Hilton Head Island, South Carolina - venue for the 6<sup>th</sup> International conference on 3D Dosimetry*

of registrars. Hopefully our oldest registrar Jared Steel can complete the registrar training early next year since he has only to complete the practical and oral exam to finish the TEAP training. Go Jared! David has nearly completed his master thesis which is

we live in a world where 3D and 4D dosimetry techniques are needed now more than ever with the ever increasing treatment complexities. While polymer gel dosimetry has certainly made a number of advances since I completed my thesis back in

2005, especially in the field of optical CT evaluation techniques, sadly routine clinical applications are still lacking. And there doesn't seem to be another 3D or 4D dosimeter yet as capable as polymer gel dosimetry to take centre stage.

Well ok, maybe the venue wasn't held right on the sun drenched beaches of South Carolina but it was certainly a treat to be on a resort island, especially after my last conference posting, which was deep in the back blocks of Eastern Europe in late November!

The conference did pop up some interesting surprises particularly in the form of hungry snarling alligators and Fiona Bignell (*err – which was the most scary? – Ed*). It was quite a surprise to travel all that way to find the island heavily populated with alligators and another conference attendee from New Zealand!

Colin Rooney recently attended the International Symposium on Standards, Applications and Quality Assurance in Medical Radiation Dosimetry in Vienna, Austria. It was hosted in the fantastic IAEA building in Vienna and was attended by over 550 people from 75 countries. The symposium raised interesting topics on the subjects of reference dosimetry, small field dosimetry and the importance of auditing all our clinical beams.

Wellington had 4 representatives at the recent New Zealand Branch meeting in Dunedin, where all reported that this was an interesting and enjoyable conference. Thanks to the Dunedin team for organising and hosting this meeting.

This week we have 4 representatives at the EPSM meeting in Melbourne, with David Jolly delivering a treatment planning bouncer from the Great Southern Stand end of the MCG while



*The Vienna International Centre (VIC), in Austria where Colin attended the International Symposium on Standards, Applications and Quality Assurance in Medical Radiation Dosimetry. Photo credit: Colin Rooney*

Jared Steel steps up and cracks an ArcCheck presentation through the covers. We eagerly await to find out how our boys performed against our Australian counterparts!

During the month of November some of the guys in the physics team had a bit of fun and grew themselves a mo. We entered a team in the Movember challenge and managed to raise a couple of hundred dollars for the Movember cause. While it was all a bit of fun, I for one certainly couldn't wait

cycle challenge which I competed in at the end of November!

2010 has been a year of great change for the WBCC with software upgrades, the new brachytherapy suite, a new superficial unit and the implementation of RapidArc. More changes are planned for 2011, with a new linac on the horizon to replace our aging LA2, cone beam CT and more clinical developments for RapidArc and brachytherapy. We can only hope that this will mean much greater outcomes



*The Physics mo-bro's with Tony (top left), Colin (bottom left), Karsten (top right) and Jared.*

to shave off my mo, because not only did I think it made me look rather dodgy and potentially seedy, I'm sure it was slowing me down on the bike! I wanted to be as aerodynamic as possible for the great annual Taupo

for the cancer sufferers of our community.

Well that's it from Wellington for this newsletter and for 2010! We wish you all a Merry Christmas and Happy New Year!

*Anthony Venning*

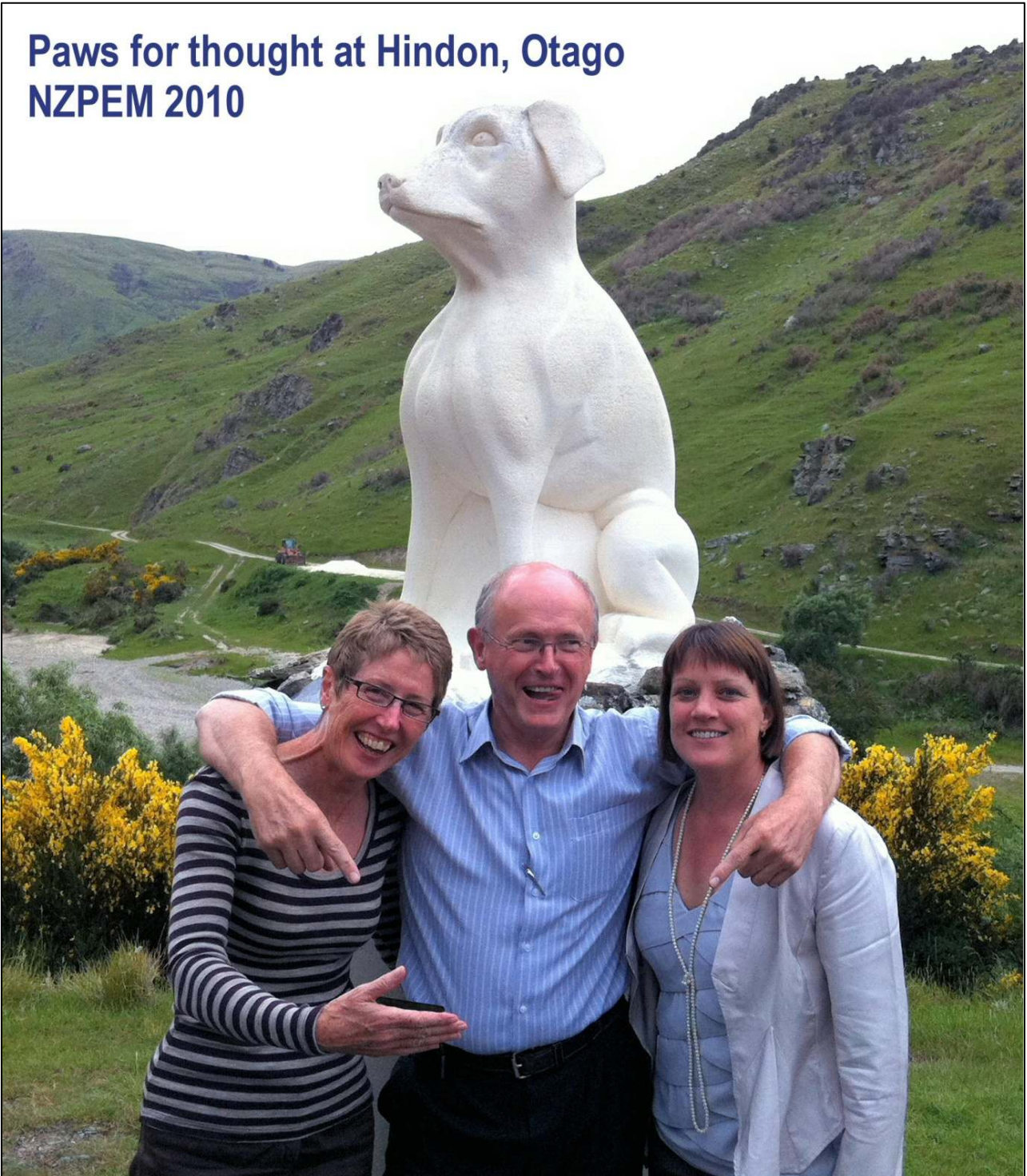
### *News from Dunedin*

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Well the conference has come and gone, and many thanks to all those of you who came and participated and made it a success. I didn't see much of the proceedings myself due a technical

problem cropping up with our treatment planning system, but I heard the quality of the presentations was extremely high and so on behalf of the organising committee I'd like to send an extra vote

## Paws for thought at Hindon, Otago NZPEM 2010



Isla Nixon (Chief Physicist, Auckland Hospital) and George Coalter (Medical Physics Consultant) are delighted with a demonstration of CMS Direct Access by Diana Mannering.

Sue the Collie also approves.



of thanks to all the presenters who without whom, of course, we wouldn't have had a conference. And we also mustn't forget the sponsors, whose kind generosity contributed greatly to the quality of the conference and so a big thank you to them too. We especially hope the delegates enjoyed the conference dinner, held in a rather unusual way this year with the train trip through the Taieri gorge to Middlemarch. We were lucky with the weather and the scenery was fantastic, but with the time required for the journey both ways and for the meal, however, it did make for a rather late return to Dunedin railway station.

As for news from our department, our iX and EX linacs have recently had software and hardware upgrades to make them VMAT compatible and commissioning work should be starting on this in the New Year. This work will

be complicated by the fact that Mosaik and Xio will also need to be upgraded to make the whole system VMAT compliant. Monte Carlo IMRT commissioning work is also ongoing and nearing completion. On the conference and meetings side of things, Jonathan Griffin and Mark Holmes travelled to Wollongong in September to attend the excellent 4<sup>th</sup> *Summer School on Solid State Dosimetry* and Jonathan stayed on an extra week for the accompanying 16<sup>th</sup> *International Conference on Solid State Dosimetry* held in Sydney. The Summer School covered many more aspects of radiation dosimetry than its title *Solid State* would suggest, and I would greatly recommend this School to Medical Physicists and registrars looking for an alternative to a conference for keeping up with their professional development.

**Mark Holmes**

### ***News from Auckland***

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Well I feel a distinct sense of deja-vu because since my last story writing for you all in April I am actually going to repeat a couple of things that I said back then! I am actually going to repeat a couple of things I said..... oh sorry, see what I mean?!...

We have had yet another new machine installed and commissioned which has provided an identical sibling to our new machine that I told you about last time. This means we now have 2 machines with 10MV available which helps significantly for patient transfers when required. We had the Health Minister Tony Ryall come along to officially open the new linac as well as tour the department and talk to a number of the staff. Other machine antics – our now oldest machine in the department (Varian 21EX) decided to decommission its ion chamber all by itself! This resulted in it being out of action for just over a week while we had a new one delivered to us in just

about the most expensive packaging I have ever heard of – a pretty battered looking \$8000 sealed box! Although this was just a deposit to make sure the box got returned, we did discuss at length whether we should hold onto it to use as the most expensive lunch box in the world!

IMRT planning has continued to go well with numbers increasing. This has lead to a significant increase in the number of QA hours required at the end of the clinical day – we are becoming more nocturnal as time goes by. VMAT is in the latter stages of being commissioned with the future goal that our prostate planning goes that way.

On the people front, our registrar Neil Campbell has returned to us after finishing his stint in Christchurch and he will now be getting to grips with the clinical workload. Deja-vu for the third time – Deirdre is now back on board after her third maternity leave... So to



Conference Boat trip



Now which Kiwi should I eat?



Kiwis, Ozzies and Canadians

the new news... Carol Parton has joined us for a short term contract to help us with the plan checking workload. Carol has extensive RT and physics experience from the UK so we were very glad to snap her up and she is already making significant contributions to the planning side of our work.

Conference attendances have been pretty good just recently with both the NZ conference and EPSM to attend. Our registrar James Talbot did extremely well at EPSM and came back with 2 prizes for his paper 'A Method for Patient Set-up Guidance in Radiotherapy Using Augmented Reality' APESM, 32 (4), 2009. One prize was the Kenneth Clarke Journal prize for the best paper in the APESM journal, and the other one was the CMS Alphatech Innovation Award for Medical Physics. Well done James! And finally a quick report from me regarding my attendance at the 6th international conference on 3D radiation dosimetry in South Carolina in August. It was hot! Damn hot! And the conference papers were pretty good too... Since this has traditionally been the DOSGEL conference, there was still a huge raft of papers reporting the work going on internationally into

researching the use of polymer gels for 3D dosimetry. I was very keen to understand how this may become a more clinically available technique, and some commercial developments appear to be underway. As a counterbalance to the 'Gel techies' there were a number of advocates for the use of EPID for IMRT and VMAT dosimetry. A report from the Netherlands cancer institute also discussed their use of EPID for in-vivo dosimetry. Being an international conference I was pretty sure that I was going to show up and most definitely be the farthest travelled delegate... until I got to the welcome drinks to see the familiar face of Tony Venning, self confessed 'Gel techie' from Wellington! A small world indeed. I did my best to push him into the murky lakes with the alligators but for some reason this didn't work so here is the picture evidence we were both there... and survived!

And looking forward to 2011, Auckland radiation oncology has asked Santa for an HDR unit, a new kV superficial unit, and yet another Linear accelerator to replace our 21EX which is now being patched up with epoxy! Wishing you all a happy holidays from the sunny North!

***Fiona Bignell***

***UK Medical Physics in Crisis...a Cautionary Tale***

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First it was the agenda for change (AfC), a universal pay scale that

everyone in the NHS would be on, from hospital porters (orderlies) down

to Nobel Prize winners...excepting doctors and dentists and the (very) senior managers, who all managed to justify why they should not be on universal scale (haven't I heard that story before?). Anyway, after several billion person hours work across the NHS (I'm not exaggerating...the pecking order for every member of staff was fashioned locally...and often individually, especially in the technological areas) each staff group somehow managed to get its members into some semblance of order (locally), a process that has taken up to six years and is still going in many centres. Some groups went up and some went down. Two major problems are still grinding away; one is that the old relativities between different staff groups have disappeared in many centres and the second is that there is often no comparability between similar positions at different centres. For essentially the same job there can be as much as 40% difference in pay between two hospitals just a few km apart. The NHS mandarins believe that these differences will iron out in 1000 years or so...so there is no need to worry! Many medical physicists across the country ended up doing reasonably well but many did not, as old scores were settled locally and the wounds keep festering on...the result is internecine warfare in some hospital trusts and comparative calm (or at least uneasy truce) in others.

One of the results of AfC was that the job description and person specification became of paramount importance...I have seen JDs & PSs up to 25 pages (font 10) long. In medical physics staff members were encouraged to write their own (in first draft form) using national generic guidelines (relevant to the nursing profession...which is of course the largest NHS group by a country mile). In my department we have just over 100 staff doing a large range of activities, so there was a lot of work just in the one department to get the documents into comparable and

sensible form. Because salary position is determined on a points basis much of each JD & PS is barely relevant but appears simply in order to bolster one's score. Many words take on different or specialised meanings in AfC-speak, words such as advanced, specialised, widely-developed, effective, research etc etc (the word research is fascinating...in AfC-speak it appears to be a nursing term meaning "organising or arranging patients for clinical trials"...what have I been doing all my life?).

AfC was followed by Knowledge and Skills Framework (KFS...often confused with Kentucky Fried Chicken). This provided a universal framework of knowledge and skills which every health care worker needed to do his job (excluding the doctors...who presumably did not need the knowledge), again designed for the large NHS nursing group and to a somewhat lesser extent for allied health professionals. For technologists, accountants, physicists and bioengineers KFS was almost totally without relevance...but that did not worry the mandarins...it was to be a one-suit-fits-all which would help NHS Trusts to place people on the AfC ladder and would ensure we all went forward to the brave new world of box-ticking conformity.

The third development in the UK this decade was the formation of a class of people called Health Care Scientists. "Fair enough", I hear you say. But this group contains just about everyone in the NHS front line who isn't a doctor, a nurse or an allied health professional. Overall there are about 60 occupational groups under this classification ranging from those with advanced training schemes (such as our own and biochemists etc...but wait and see below) and those who have a supermarket-check-out-type background, but have done a two-week course on taking blood samples from patients (in the UK we call them by the posh-sounding title of phlebotomists). We're all scientists

now, with job descriptions and egos to match. National conferences are held at least annually, to which the NHS organisers invite representation from every group in the brotherhood...I'm not sure how presentations on solving the integro-differential form of the Boltzmann equation are received by the pundits, but everyone is supposed to be smiling in the brave new togetherood...if he were alive George Orwell would be smiling too (but perhaps a tad wryly)!

Finally (for now) someone in the DoH Chief Scientist's Office has had the bright idea that in future health care scientists would not have the current plethora of accredited MSc degrees, but would instead have a single degree, based of course on KFS concepts. This would simplify everything (in more ways than they realised). The DoH decided to call this new approach Modernising Scientific Careers (MSC), though it is popularly known by medical physicists and biochemists as Murdering Scientific Careers (MSC). I won't bore you with more details but I cannot resist repeating a tale of woe I heard from a highly respected colleague. He was

attending a meeting of leaders of current MSc courses with the MSC reps from the DoH. The latter (mainly professors of nursing and education) had just outlined the new all-singing-all-dancing MSc in Health Care Science and my colleague asked if there would be any physics topics in the course...the august professors conferred for a few moments and replied "there will be a section on fixing X-ray tubes etc". You can only imagine the look of sheer incredulity on the faces of the assembled physicists.

Finally (again) I have just learned this week that not only is there to be an MSc in Health Care Science but also, in the future, to become a medical physicist you will only need to do a BSc in (you guessed it) Health Care Science...absolutely no need at all to do a physics degree...just a waste of time...what is physics anyway?

And what has IPEM been doing about all this? Sadly, not a lot!

But it's better to laugh than to cry....Merry Christmas!!

**Alun Beddoe**

Consultant Physicist, December 2010

*Editorial Note: Alun Beddoe started work in New Zealand in 1967, then UK 1971-77, then New Zealand 1977-1988, then Australia 1988-1995, then UK from 1995 and Canada (for a few months). He decided to semi-retire towards the end of last year, having run out of countries to escape to, but still counts himself as a Kiwi.*

### ***A bright future for Medical Physics in New Zealand?***

I have just returned from the EPSM ABEC in Melbourne. Several other registrars from around New Zealand attended both the conference and the IGRT Summer School and I have returned enthusiastic about the future of medical physics in New Zealand.

Firstly I would like to congratulate James Talbot who received two awards at the conference. No mean feat since he was not presenting!

James won both awards for his paper which was submitted to the college journal including best paper in the journal in volume 32. It is a very prestigious award and if James was ever so slightly disappointed that this prestige itself was the prize, he was somewhat compensated when he won \$500 in another award for the same paper.

Congratulations also to Alicia Cavan who was highly commended for her oral presentation on 'A viscoelastic model of the correlation between respiratory lung tumour motion and an external abdominal signal' during the conference.

However, it is not for these significant achievements that I was so greatly encouraged. Rather it was the smaller glimpses of skill and pure genius that I observed in my fellow registrars that gave me great faith in the future of our profession.

For example, Jared quickly discovered he could swim three lengths of the hotel pool underwater. However I'm sure that the oxygen deprivation to his brain will have no severe lasting effects despite locking himself out of his hotel room in his undies. James, as always kept us entertained, he always manages to see the silver lining. And he's absolutely right, I mean, whatever happens- it could be worse, just imagine waking up one morning to discover your eyes have been replaced with salmon filled dumplings and you're being chased by a grizzly bear.

Not to be outdone however, my own contribution to this enlightenment was pure genius, or would have been had it worked. I attempted to tunnel through a glass door while exiting the conference one afternoon. Unfortunately, I was on the wrong arm of quantum probability which resulted in a sore head, and possibly in David having a sore stomach from laughing

so hard. Honourable mention of course must go to the man to whom much credit can be associated for this intellectual bunch. John Turner. He danced the night away in a small Greek restaurant one evening gallantly taking to the floor for a solo rendition of YMCA which surely deserves some sort of award.

Speaking of awards, the Kiwis were noticeably absent from the nominations of Best Dressed and Best Dancing at the conference dinner. David certainly should have been highly commended for best dressed, looking sharp in a fitted waistcoat, and significantly smarter than a few nights previously when he was throwing lettuce and sauces on his tee-shirt in China town. The Best Dancing category could have had several Kiwi contenders who all puffed up their chests and strutted their stuff. Even when the ozzies started some bizarre line dancing Katherine Fricker didn't bat an eyelid, she just joined in and picked it up like a natural. However, the undisputed winner for originality goes to Nanette who took us all by surprise with her breakdancing.

So, I'm sure you agree with me that the future of high quality medical physics in New Zealand will be in safe hands with our current registrars.

I'd like to thank the registrars mentioned above for allowing me to share these stories without their permission 😊

*Aisling Haughey*

*Note : Some surnames have been omitted to protect the guilty and, actually, she did get their permission to publish....Ed.*

## *Internet Technology: - An introduction to web syndication using RSS*

### **Introduction**

How do you currently find out about information on the internet: emails, websites, search results, list servers, colleagues? Web syndication is a

relatively new method of getting notification about web content out to the wider community or market place. It is a paradigm shift from manually searching for information to


automatically being told about it. Previously you'd have to search a website for content change or receive an update email about such changes. With web syndication methods such as Really Simple Syndication (RSS) or Atom, a new or changed content alert is feed to the web. By subscribing to these web feeds you can forget about checking having to check you favourite websites for updates or having your Inbox bombarded with update emails; you simple check your web feed Reader for updates. Wikipedia 'web syndication' for further details about this technology.

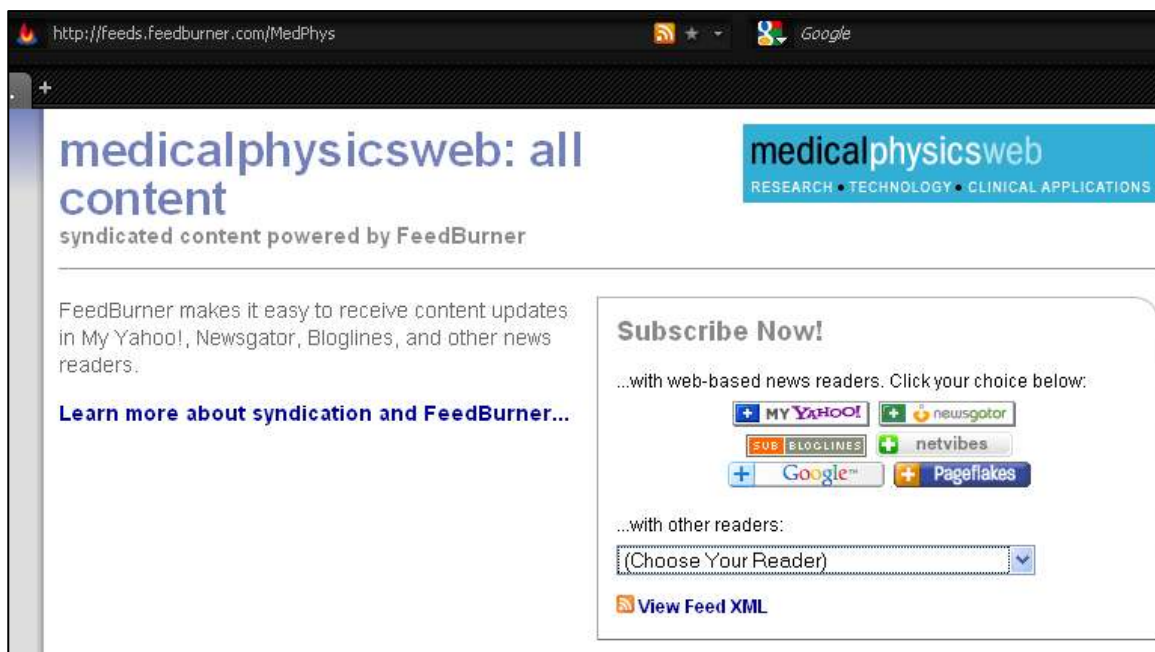
In this article I'll summarise some aspects of using RSS from a user's perspective. I'll be using a Google product as an example of an RSS reader.

### Getting started with RSS

You require an RSS Reader, aka Feed Aggregator, Feed Reader, News Reader, or simply Aggregator. There are RSS features in Internet Explorer (7+), Mozilla Firefox, and MS Outlook (2007+), but there are also dedicated RSS Readers both as web products and standalone software. Have a look at [blogspace.com/rss/readers](http://blogspace.com/rss/readers) for a latest review of some of top picks. I'm

going to demo Google's feed reader called (not surprisingly) Google Reader. If you have an existing Google account you can set-up your Google Reader in a few mouse clicks. If you don't have a Google account, it takes a little extra time to establish your free account. I'd expect that you could be up and running with RSS in less than 20 minutes.

Once you have your Reader service or software you simple subscribe to feeds. This can be done either by cut-and-pasting feed addresses, or often by clicking on feed icons on websites. For example, if you copy <http://scitation.aip.org/rss/medphys.xml> into your Reader subscription facility you will be feed the latest abstracts from the journal Medical Physics (note: RSS feeds are in XML format, so it is common to see a file called .xml). Be on the lookout for website links such as 'RSS', 'Feeds', or 'Subscribe', and the RSS/feed icon . On both Mozilla Firefox and Internet Explorer the RSS icon will glow whenever the browser detects that an RSS feed is available for the current page you are viewing. Some sites also help you out by providing quick links to common Readers. One such site is [medicalphysicsweb.com](http://medicalphysicsweb.com):



The screenshot shows a web browser window with the address bar displaying <http://feeds.feedburner.com/MedPhys>. The page content includes a header for "medicalphysicsweb: all content" with the tagline "syndicated content powered by FeedBurner". Below this, there is a paragraph explaining that FeedBurner makes it easy to receive content updates in My Yahoo!, NewsGator, Bloglines, and other news readers. A link "Learn more about syndication and FeedBurner..." is provided. A "Subscribe Now!" section offers two options: "with web-based news readers. Click your choice below:" followed by buttons for MY Y!HO!, newsgator, SUB BLOGLINES, netvibes, Google, and Pageflakes; and "with other readers:" followed by a dropdown menu labeled "(Choose Your Reader)". At the bottom of this section is a "View Feed XML" link.

## The Google Reader interface

The Google Reader interface is simple and easy to use, although at times a little inflexible, especially if you want to categorise things that you want to file for a while. An example is shown below:

Down the left pane are your subscriptions and you can either view their content individually, as groups, or you can view 'All items'. It is best to only view new items so the list is simpler to work through. Google Reader indicates the number of

group are taken off your new items to read list. If there is something you want to keep after you have looked at it you can 'Star' the item and it will be displayed in the category of Starred items. This is about the limit of Google's current Reader. However, you can easily email items to others or at the click of a button put them on your own RSS feed so that others can see what you found interesting or useful; a kind of read and feed. You can add new subscriptions (feeds) at the press of a button. The tools for managing the subscriptions are



unread items in a group or subscription. You don't have to delete old items - Google manages them for you. In the above example, if you click on an item it displays the abstract or partial abstract from Medical Physics and the item is automatically marked as read, so it drops-off your to-read (in the default set-up it goes from bold to normal font in the current view). If you flick down the titles and see nothing you like, you can hit the 'Mark all as read' button and all the items in a

primitive but functional.

Most RSS feed providers present you with a basic item title and description, along with links to take you to their website for more information. The RSS format is reasonably open but it does restrict what content can be provided in a short feed message.

## Useful feeds

There are many useful feeds available. Most of the major journal providers

have RSS feeds for journal table of contents and abstracts. Look out for the RSS link or subscription text on websites, or the RSS/Feed icon (most common). Medical Physics, Physics in Medicine and Biology, and most of the other major medical physics and bioengineering journals have RSS feeds. Just go to the home page for the journal and subscribe to the feeds. MedicalPhysicsWeb ([medicalphysicsweb.org](http://medicalphysicsweb.org)) also has a series of custom RSS feeds for various topics.

Many of the websites for major organisations, such as the AAPM, Astro, and the IAEA ([www.iaea.org/feeds.html](http://www.iaea.org/feeds.html)), have direct feeds for website updates or are accessible indirectly via RSS feeds from Facebook walls. For example, the AAPM feed includes placement advertisements, quizzes, and notification of AAPM report releases. When RSS feeds are not available for a web site there are still some alternatives, although not as tidy or complete. The service [page2rss.com](http://page2rss.com) takes a web page address you give it and regularly watches for changes to the page and feeds you these changes. For example, rather than regularly checking the National Radiation Laboratory 'What's new' page I can ask the web service [page2rss.com](http://page2rss.com) to check it for me and to feed any updates.

The facility I have found most useful is running regular searches on abstract databases. If you are connected with a major teaching hospital you probably have access to the search services of Ovid ([www.ovid.com](http://www.ovid.com)) or Scopus ([www.scopus.com](http://www.scopus.com)), or if you don't have access to these you can use PubMed ([pubmed.gov](http://pubmed.gov)). All three of these, and many other search engines, will allow you to run searches then set them up as RSS feeds. From then on the search engine will regularly run your searches and feed you the results. No need to go back to the website and run your searches to keep up-to-date with the published

literature on a topic. Combining RSS and a citation search engine such as Scopus, you can very easily keep up-to-date with the literature that cites seminal papers in your research or work area.

Similarly, you can use Google Alerts to run Google searches and regularly feed you updates on new or changed material on your topic. All this via RSS.

### **Strengths of RSS**

I've found that web feeds are usually more efficient than email for managing information updates. You don't have to set up sophisticated filters to separate incoming information from important email communications. It is very easy to leave feeds in a Reader knowing it will be doing its stuff in the background, building an abbreviated reading list for you. It's like a fresh lease of life to your email Inbox.

The real strength of RSS is that information is coming to you in a controlled manner, and you don't have to go running regular searches on the same topic to keep up-to-date. You still fall victim to the quality of what others manually feed or what websites automatically feed, but if you choose wisely you won't feel obliged to wade through a mass of waste information. The advantage of using the RSS Reader over update email messages is that at the click of a button you can truly unsubscribe from a feed and not be stung by ongoing spam. Similarly, if the RSS feed is structured well and partitioned into multiple feeds, it is very easy to refine the updates you want to receive, and to opt-out of things that aren't of interest.

A feature of Google Reader I really like is there is a free Google Reader app for my cheap Android phone that allows me to skip through my feed items anywhere, even during less than interesting presentations (small phones are so much more discreet than laptops!). The app automatically synchronises with the online Google

Reader, marking items that have been looked at.

### **Weaknesses of RSS**

RSS is by name 'really simple syndication': don't expect too much from the web feeds. The RSS items are essentially snippets that are meant to be easy to manage, not detailed email-type messages.

Don't over subscribe to feeds – over feeding leads to bloating. It's tempting and very easy to subscribe to things that look interesting, but you don't really need. Do you really need all of the latest news feeds from TVNZ or your local newspaper? Choose RSS feeds to better manage your internet access rather than be another means of distraction.

### **Final word**

RSS and web syndication may just be transient internet technologies, but they are certainly easy to use. My advice is to use them now, but like all internet technologies, be prepared to change if something better comes along. If someone is talking to you about website design or suggestions for improving a website, suggest that they offer web feeds not just emails as a means of informing people of updates.

Be careful to choose a Reader than meets your needs. If you don't like it, export your subscriptions and import them back into another Reader. If you've found a nice web-based RSS Reader, a good alternative to Google Reader, please let me know.

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