Stem Cells for Lung Disease – Hope or Hype?
A/Prof Daniel Chambers, Queensland Lung Transplant Service, The Prince Charles Hospital, Brisbane

Stem cell therapy is often seen as the next miraculous breakthrough treatment delivered by medical science. But where does the truth lie?

Cells – the building blocks of life

Large organisms like us consist of billions of cells of many different types or ‘lineages’. These ‘lineage committed’ cells are the ones which allow our organs to function normally, but the trade off to becoming a specialised, lineage committed cell is that the cell’s ability to readily reproduce is lost. This is where stem cells come in – they can both produce more stem cells (a process called ‘self-renewal’) and a large number of lineage committed cells. While self-renewal is a must for a stem-cell, the scope for lineage differentiation is what defines the stem cell – embryonic stem cells can become any type of lineage committed cell, while so-called ‘adult’ stem cells are more restricted.

Given this background one can immediately sense that stem cells are going to be important not only during development, but also in the ageing process. This is true - it is likely that many of the features of normal ageing (e.g. grey hair) are a result of exhaustion of adult stem cell pools, as are many of the ‘diseases of ageing’. It is also why the field of stem cell therapy is often referred to as regenerative medicine. You may ask – ‘Why do we age?’ and ‘Is ageing necessary?’ – both fascinating questions, but beyond this article’s reach – I urge you to read Thomas Kirkwood’s work.

Hype

So what about stem cells and the lung? The very real ethical issues associated with using embryonic stem cells for research and eventually to treat disease have abated now that similar cells can be manufactured from adult cells (so called ‘induced pluripotent stem cells’ or iPS cells). However, both iPS and embryonic stem cells are a long way from being able to be used to treat human disease because they have an inherent risk of becoming cancerous. It is much more likely that the real breakthroughs are going to come from discovering how the ‘adult’ stem cells, which we all have, ensure continuous organ regeneration throughout life, and how we can manipulate them to maintain health.

Hope

Adult stem cells are the source of the new cells which keep our organs functioning throughout a lifetime filled with potential threats. For example, a nasty bout of influenza or exposure to toxins will kill some or many of the epithelial cells which line the lung, but local stem cells will repair the damage. But what if these stem cells get exhausted after too many such episodes? Recent evidence suggests that depletion of these cells or loss of their ability to self renew after a lifetime of injury causes chronic lung diseases like idiopathic pulmonary fibrosis (IPF). IPF is a fatal disease whose incidence is increasing by 5% per year as our population ages. IPF now kills over 1000 Australians annually, more than double the number who die from asthma.

But how will studying adult stem cells help people with IPF and other chronic lung diseases? Groundbreaking work done in mice by Dr Jonathan Macquarier and Prof Ivan Bertoncello at the University of Melbourne has identified the master cells which control lung epithelial repair. Together with them we are now working out which cells do the same job in humans (see Figure). Incredibly, it may be that another adult stem cell found in the lung – called a mesenchymal stem cell (MSC) – is able to literally ‘recharge’ the flat batteries in the epithelial stem cell pool by donating some of its own ‘batteries’ – its mitochondria. These observations have challenged much of what we thought we knew about lung repair and have led my team to conduct a first-in-man trial of MSC therapy in IPF to determine whether this kind of treatment is feasible.

Lung, heal thyself

So we don’t need to completely reinvent the wheel. Mother Nature already has amazing mechanisms in place to ensure that organs can heal themselves. All we need to do is develop a thorough understanding of this healing process and coax it along in the right direction. In future, developing a thorough understanding of how the body heals itself will lead to the development of new treatments – some of them probably cellular (‘stem cell therapies’), some drug based. So, sure there’s a lot of hype, but there truly is hope as well.
It was July 2011 when I was just embarking on my well-planned and well-earned retirement at the age of 56 that I received the unlooked for bad news from my GP. He told me that I had Idiopathic Pulmonary Fibrosis (IPF) and that the outlook was not good unless I was lucky enough to be given a lung transplant. I was in shock – I had been a non-smoker and hadn’t worked in the asbestos industry. The specialists said that the disease was “idiopathic” – of no known cause, but also unfortunately, with no known cure. My options were simple: die, or go down the transplant path. I chose the latter, which may have been stating the obvious, but choosing to have a transplant does not necessarily lead to being given one, or even being put on the waiting list.

Fast forward: I was extremely fortunate to receive a double lung transplant at The Prince Charles Hospital in Brisbane and two weeks later, I walked unaided out of the hospital. But how do I explain life after my double lung transplant? Words like wonderful, inspiring and amazing do not do justice to the euphoria of simply being alive. The sadness in the eyes of my wife has gone. She no longer has to stand by helplessly watching my decline. Gone is the time when family and friends looked away when I erupted into uncontrolled coughing fits. My grandchildren don’t run away any more. I can even play golf with my wife when I’m not riding my Harley or walking as far as time would allow. Today, I’m back swimming 700 metres, completely. I eventually started regaining weight. I had drifted back to Cairns, to our lush green garden centre. It was July 2011 when I was just embarking on my well-earned retirement at the age of 56 that I received the unlooked for bad news from my GP. He told me that I had Idiopathic Pulmonary Fibrosis (IPF) and that the outlook was not good unless I was lucky enough to be given a lung transplant. I was in shock – I had been a non-smoker and hadn’t worked in the asbestos industry. The specialists said that the disease was “idiopathic” – of no known cause, but also unfortunately, with no known cure. My options were simple: die, or go down the transplant path. I chose the latter, which may have been stating the obvious, but choosing to have a transplant does not necessarily lead to being given one, or even being put on the waiting list.

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Those who exercise under the guidance and support of Jane O’Brien know she isn’t your regular Lungs in Action instructor. Like all of our instructors, Jane completed the comprehensive specially designed Lungs in Action training program. However, when Jane leads her class in Melbourne’s north eastern suburb of Templestowe, she is able to bring a personal experience to the class that you cannot find within a training manual or text book.

Jane has bronchiectasis, a lung condition which involves the destruction of the airways’ inner lining and the widening of the breathing tubes. Not caused by cigarette smoke, bronchiectasis is the result of chronic infection of the airways, generally thought to be from bacteria.

Like all chronic lung conditions, having a comprehensive self-management routine is an important part of slowing disease progression and increasing quality of life. Through a specific daily routine, Jane has been able to manage her condition, and ensure it does not stop her doing all the things she loves, like exercise instruction. Combining exercise, chest clearance, a pharmaceutical plan, healthy eating, adequate sleep and relaxation on a daily basis, Jane is able to maintain her health. She became a Lungs in Action instructor because she wanted to use her personal experience to encourage others to see the value of regular exercise in the management of lung disease. Jane feels she can relate to the physical and mental rollercoaster experienced by Lungs in Action participants.

Jane previously worked as an exercise scientist and is now focused on furthering her knowledge in the field of chronic lung disease. She believes that the Lungs in Action training course helped her to build on her existing knowledge and says the most enjoyable part of being an instructor is the ability to watch the positive impact that regular exercise can have on a person’s health, wellbeing and quality of life. Jane now runs a weekly Lungs in Action class at the Bulleen Templestowe Community House in Templestowe, Victoria.

If you have a chronic lung condition such as COPD, bronchiectasis or interstitial lung disease, maintaining an exercise regime can have a positive impact on your health and help you manage your condition more successfully.

Lungs in Action is a maintenance exercise program for people with stable chronic lung conditions or stable chronic heart failure (NYHA Class II and III) who have completed pulmonary and/or heart failure rehabilitation. It is a great way to maintain the gains obtained in rehabilitation within a safe and supportive community setting whilst providing that important social contact.

For information on Jane’s class, or your nearest location visit www.lungsinaction.com.au or call our Information and Support Centre free call on 1800 654 301.

Self Management

The aim of Lung Foundation Australia’s Chronic Lung Disease Self-Management project is to educate, assist and support patients with the management of chronic lung disease, specifically to improve patient knowledge about their condition, facilitate and support better self-management, reduce isolation and provide access to health professionals who have expert knowledge on lung conditions. The project is currently focusing on the development of 10 short evidence-based DVDs on self-management focused topics and we aim to launch these in September this year. The topics have now been finalised and are as follows:

1. Managing Your Lung Condition;
2. How Do My Lungs Work?;
3. Managing Your Breathlessness;
4. Managing Your Treatment Options;
5. Questions I Can Ask My Health Professional;
6. Who Is My Health Care Team?;
7. Managing My Fatigue and Energy Conservation;
8. Tips for Looking After Myself and My Condition;
9. Benefits of Exercise Programs and Ongoing Support;
10. Supportive Care and End-Of Life Issues.

Lung Foundation Australia’s Chronic Lung Disease Self-Management project is supported by funding from the Australian Government under the Chronic Disease Prevention and Service Improvement Fund. For more information on this initiative, please contact Melissa Ram, Project Manager, Self-Management and Palliative Care, Lung Foundation Australia on 07 3251 3646 or email melissar@lungfoundation.com.au.

New Patient Support Groups

Lung Foundation Australia is pleased to announce the recent establishment of the Tamworth Windjammers in New South Wales. The Group meets on the third Thursday of every month at West Tamworth Bowling Club at 10.00am for a meeting and morning tea. New members are welcome and for further information, please call Bob Forrester on 02 6769 5933 or contact Val Davies-Hull on 02 6760 3703 or hullo@optusnet.com.au.

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COPD National Patient Taskforce Report
Megan Rushton, Taskforce Chair

Since taking over the position of COPD Taskforce Chair from Bryan Clift, who did a fabulous job of keeping our Taskforce on track in achieving our goals, I can see that our main aim of raising community awareness of chronic obstructive pulmonary disease (COPD) will continue to be our biggest challenge this year and beyond. Nonetheless, we remain committed to supporting patients and carers in all aspects of COPD. To that end, this year we have altered our focus from a wide range of issues to a few select, identified issues, so that we can be more effective in reaching our goals. We have also committed to support other Lung Foundation Australia programs by providing feedback, input and support into the various projects being run. In particular, we are actively involved in the Palliative and Supportive Care and the Chronic Lung Disease Self-Management projects. We have also been looking into the possibility of harnessing the ‘people power’ of a large Australian charitable group to spread our awareness message on COPD to the wider community – including more remote areas in Australia.

Our focus on the ongoing issue of power failures and its impact on those relying on electrically driven lifesaving equipment has produced some interesting responses from the various Health and Energy Ministers in each State and Territory of Australia we approached. We are now considering the various responses received with a view to determining how we should proceed in respect of this issue. I take this opportunity of thanking Taskforce representative, Bruce Miller who took the lead in driving this initiative for us.

We would like to recruit some new members to the Taskforce, particularly in Victoria, Tasmania, South Australia and the Northern Territory. If you are interested in joining the taskforce, please contact Karen Wright on 1800 654 301 or email projects@lungfoundation.com.au.

Finally, with autumn now upon us, I urge you to speak with your doctor about flu shots as the media is already predicting a nasty flu season this year.

Until next time, stay well and stay safe.

Editor’s Note: In the November 2012 issue of LungNet News, we reported that Bryan Clift had retired as Chair of the Taskforce. Since then, Bryan has made the decision to also retire as the South Australian Taskforce representative and Lung Foundation Australia again sincerely thanks him for all his input over the last five years.

Farewell to Lung Foundation Friends
Barry James Payne
16 May 1937 to 27 December 2012

Barry and his wife Joan joined the Bundaberg and District Lung Support Group Inc. in April 2000. They quickly became very interested in the running of the group and soon became active Committee members. Barry took over the reins as Chairman in February 2001 following the ill health of the original Chairman, the late Ross Robinson and during this time, he worked tirelessly for the Group. He played an important role in organising the annual Cent Sale which proved extremely profitable and also visited schools trying to get the message over to the pupils about the dangers of smoking. Barry had COPD and though his own health was failing, he kept up his interest in the Lung Support Group despite being unable to attend meetings. Following the purchase of a mobility scooter, he was able to once again attend the meetings and enjoyed catching up with his many friends. Barry will always be remembered with great fondness by the Group and will be sorely missed.

An Australian First – Asbestos Related Disease Nurses’ Education Program

Lung Foundation Australia and Comcare Australia have agreed to partner in the development of an Education Program for nurses who care for patients with an asbestos-related disease, in particular, mesothelioma. Lung Foundation Australia Nurse Educator, Judy Rafferty, will lead this project and has spent years caring for mesothelioma patients and their families. “I’m very passionate and enthusiastic about making a difference for patients and I am sure that our patients and carers will benefit from the outcomes of this project,” Judy said.

Alarming, Australia has the highest incidence of mesothelioma per capita in the world. In fact, National Health and Medical Research Council (NHMRC) reports have estimated that more than 25,000 Australians will die from mesothelioma over the next 40 years. Judy is currently writing online modules for the National Asbestos-Related Disease Nurses’ Program and is committed to delivering a robust and professionally sound program containing best practice initiatives. A project Advisory Committee has been established and will support Judy’s work over the next few months to completion of the final product in December 2013. Once completed, the Nurses’ Education Program will seek accreditation status from the Australian College of Nursing.

In April, Expressions of Interest for the pilot Nurses’ Education Program were distributed to the current nursing workforce (including via the Australia and New Zealand Lung Cancer Nurses Forum membership) to gain a nurse representative from each State in Australia and include rural/remote and Indigenous representation. For more information, please email Judy Rafferty at judyr@lungfoundation.com.au.
Dear Readers,

Greetings from the CEO’s desk and welcome to the Autumn edition of LungNet News.

Staff News
On 12 March, Lung Foundation Australia was delighted to appoint Felicity Ivers to the new position of Senior Manager, Lung Health National Program. Felicity brings with her over ten years local and international experience in the Government, not-for-profit, charity and community services sectors and she is a valuable addition to the team.

Lung Foundation Australia Annual General Meeting
At the Annual General Meeting of Lung Foundation Australia held in Darwin on Friday 22 March, three new Board Directors were elected. We are pleased to welcome Dr David Michail, Sydney; Professor Peter Frith, Adelaide and Mr David Hayne, Melbourne to their new positions. The addition of Dr Michail and Professor Frith will strengthen the clinical skill base of the Board and, together with the inclusion of Mr Hayne as a consumer representative, will ensure an even stronger voice for all Australians burdened by poor lung health.

The Australian Lung Foundation 2012 Annual Report was presented to members at the Annual General Meeting and is now available for download from the Lung Foundation website at http://www.lungfoundation.com.au/about-the-foundation/annual-reports/

Update from TSANZ Annual Scientific Meeting
At the recent Thoracic Society of Australia and New Zealand (TSANZ) Annual Scientific Meeting held in Darwin in March, Lung Foundation Australia Board Chairman, Associate Professor David Serisier presented a record number of Research Awards. These included the following two new Awards: the Lizotte Family Research Award for Interstitial Pulmonary Fibrosis Research and the Australian Cochrane Airways Group Network Scholarship.

Lung Foundation Australia’s immediate past President Dr Bob Edwards has been awarded the Inaugural TSANZ Fellowship in recognition of his outstanding contribution and commitment to improving respiratory health in Australia and New Zealand. I am sure you will agree Bob is a deserving recipient of this important award.

Entertainment Books
The 2013/14 Entertainment Book has now been launched and the Lung Foundation is pleased to be selling it as a fundraiser. To buy one, please visit https://www.entretenmentbook.com.au/orderbooks/2277g7. The Entertainment Book is filled with hundreds of valuable 2-for-1 deals and 50% off offers from many of the best restaurants, attractions, hotels and much more!

Tuffy’s Trek
Due to the devastating floods in Tuffy’s (Peter Tuffield) home town, Bundaberg, plans for the Kokoda Track challenge have been deferred. Local businesses and the community have been severely affected by the floods and this has impacted on their ability to support the Trek. However, Tuffy’s great mate, Shane Talbot is coordinating a small group to undertake the trek from 6-15 September 2013, including our very own Chris Emery (Director of Operations). If you are keen to help Chris’ fundraising efforts, please visit the Everyday Hero website http://www.everydayhero.com.au/charity/view?charity=771 or call Lung Foundation Australia on 07 3251 3600.

Future Fund
Our joint campaigning efforts to eliminate investments in tobacco companies by the Future Fund finally were successful in March when Mr David Gonski announced that the Fund would be tobacco-free.

Breath of Life Music Festival
The 2013 Breath of Life Music Festival held on 10 March in Launceston, Tasmania was another successful event for the Lung Foundation with over 10,000 people attending. We especially thank all our hard working volunteers who braved the 30+ degree temperatures to help us sell water bottles, lanyards, badges and pins at the Lung Foundation stall.

Please Support Our 2013 Tax Appeal
You will find enclosed with this edition of LungNet News, details of our Annual Tax Appeal. As many readers will know, the Lung Foundation does not receive direct funding from governments for our core operations and we rely on donations for much of the work we do. Our 2012 audited accounts reveal that a very low 8% of our total expenditure is applied to administration costs, meaning that the substantial proportion of the donations we receive is applied to our work to ensure lung health is a priority for all in Australia.

National Volunteer Week
National Volunteer Week 2013 takes place from 13-19 May and this year’s theme is “Thanks a million”. Lung Foundation Australia takes this opportunity to thank all our wonderful volunteers who assist us in a variety of tasks throughout the year. Whilst we are fortunate to be supported by thousands of volunteers, we make particular mention of the following: our dedicated Information and Support Centre volunteer, the members of our newsletter volunteer team, Patient Support Group Committee members and helpers, COPD Patient Taskforce members, the health professionals who contribute their clinical expertise via our Committees and Consultative Groups and willingly present at our Lung Health Education Days, as well as those who assist with our events throughout the year.

Yours Aye

Diary Dates 2013

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The Ask the Health Professional section has been introduced to give you the opportunity to post a question to our expert panel. We have identified a panel of willing health professionals to help us and we will publish two to three of your questions and the answers from the relevant panel member in each issue. We invite you to submit your question to us, preferably by emailing newsletter@lungfoundation.com.au or post it to Lung Foundation Australia, PO Box 1939, Milton, Qld, 4064 and we will do our best to include it.

In this issue, our first question about CO₂ retention has been answered by Lung Foundation Australia Chairman, Associate Professor David Serisier, Director of Respiratory Medicine, Mater Adult Hospital, Brisbane. The second question about lung improvement/rejuvenation after stopping smoking has been answered by Associate Professor Ian Yang, Thoracic Physician, The Prince Charles Hospital/Head of the Northside Clinical School, The University of Queensland, Brisbane.

I am a CO₂ retainer. Can you explain what this means and what effect this can have on me?

Should I be concerned if my oxygen saturation is high e.g. at 98% and I am on home oxygen?

What flow rate is safe for me?

(The following information will be applicable to many ‘CO₂ retainer’, but not all – it is important that you discuss your own health situation with your lung specialist.)

Carbon dioxide (CO₂) is a ‘waste gas’ that is continuously generated within the body and is removed mainly by being breathed out (through the lungs). Small increases in CO₂ levels in the blood are unlikely to cause significant consequences. However, having very high levels of CO₂ in the blood can cause drowsiness and even unconsciousness and death.

The importance of the information that you are a ‘CO₂ retainer’ is primarily that it indicates that you have significant abnormalities in the way that your brain’s breathing centre controls your breathing – in most cases, this is due to having very severe obstructive lung disease (e.g. severe COPD).

Your brain’s breathing centre controls your breathing in response to many factors. Oxygen and CO₂ levels are only two of these. However, CO₂ levels in particular usually have a very strong effect on the breathing centre. Being a CO₂ retainer tells us that your brain’s breathing centre no longer responds to CO₂ as strongly as is normal, and the reason for this in most cases is because the breathing centre realises that your lung disease is so severe that it must allow your CO₂ levels to be slightly higher than is normal. The breathing centre will instead rely more upon your oxygen levels to control breathing.

The problem with this situation is that if your oxygen levels become too high (for example, due to receiving too much oxygen), your breathing centre will reduce your breathing levels even though your CO₂ levels might be increasing. This is not a problem for your oxygen levels (which are fine when you are breathing lots of oxygen) but is a big problem for your CO₂ levels, which will rise if your breathing centre drops your breathing levels. This can result in your CO₂ levels rising enough to cause coma or even death.

It is relatively simple to avoid this problem, simply avoid high-flow oxygen. The idea of oxygen therapy generally is to increase your oxygen level so that your oxygen saturations are approximately 95%, say between 88% and 94%, and as long as your saturations are not higher than this, your breathing centre will not reduce your breathing. Even if your oxygen level is higher than this, provided you are only receiving a small amount of oxygen (1 to 2 litres of oxygen per minute through nasal prongs) then it is highly unlikely that the breathing centre will reduce your breathing.

If your oxygen levels are high on only a small amount of oxygen (e.g. 98% saturations while taking only 2 litres of oxygen per minute by nasal prongs) this might suggest that you don’t really need oxygen therapy and you should check this situation with your lung specialist.

It is important that you never increase your oxygen flow rates at home without your lung specialist informing you that it is OK to do so. It is also important that if you are collected by ambulance in an emergency, that you are able to let them know that you are a ‘CO₂ retainer’ so that you are not given high flow oxygen in the ambulance.

After stopping smoking, do your lungs rejuvenate?

Not entirely, so avoiding smoking is important.

Do your lungs improve after you stop smoking?

Yes, there are major benefits from avoiding smoking.

These are important questions that we are frequently asked in the clinic. There is no doubt that quitting smoking (and better still, avoiding smoking) has major benefits for your health. Not only does smoking affect your heart, lungs and other body organs over time, even one cigarette causes harm. Avoiding smoke is important for everyone.

Lung Damage

Inhaling cigarette smoke and other air pollutants has damaging effects on the lungs. Thousands of harmful chemicals in cigarette smoke reach the airways (bronchi, or breathing tubes) and air sacs of the lungs (alveoli). See Figure below.

Breathing tubes (bronchioles)

Branch of bronchial artery

Capillary network around alveoli

Branch of pulmonary artery

Air sacs (alveoli)

The Bronchi

Effects on the Lungs

As outlined in the US Surgeon-General’s 2010 report: http://www.surgeongeneral.gov/library/reports/tobaccosmoke/report-index.html, contact of smoke with the lungs has a negative impact on:

• the lining of the airways (bronchi), leading to damage to this protective barrier
• the protective function of the cilia, which are the hair-like structures that move to transport mucus upwards out of the lungs
• inflammatory and immune cells, which infiltrate into the airways from the lung tissue and blood to try to clear the smoke particles, but may cause lung damage and breakdown
• chemical stress from excessive oxidants from smoke.

Smoking leads to persistent changes in the lung, which can result in the development of chronic obstructive pulmonary disease (COPD, including emphysema and chronic bronchitis), asthma, lung cancer and diseases in other organs of the body. Some of these changes in the lungs remain permanent, and can’t be easily repaired by the body.

Effects on Life Expectancy

Results from the recent US National Health Interview Survey of people aged 25 to 79 showed that life expectancy is reduced, on average, by more than 10 years in people who are current smokers, as compared with those who have never smoked.

continued page 7...
**Good News about Improving Health**

Fortunately, improvements in health and the reduction in the risk of illness can occur quickly after clearing the airways of smoke. The health benefits of quitting have been summarised on the Australian Government’s QuitNow website: http://www.quitnow.gov.au/internet/quitnow/publishing.nsf/Content/benefits-of-quitting

**Benefits of Quitting**

For the airways and lungs, the benefits are:

- After 12 hours, almost all of the nicotine is out of the body
- After 24 hours, the level of carbon monoxide in the blood has fallen
- After 5 days, most nicotine by-products have disappeared
- Within days, your sense of taste and smell improves
- Within two months, your lungs will no longer be producing extra phlegm caused by smoking
- Stopping smoking reduces the development and progression of lung diseases such as COPD
- After ten years of stopping, your risk of lung cancer is less than half that of a continuing smoker and continues to decline (provided the disease is not already present).

(Adapted from the Benefits of Quitting page of the QuitNow website)

So, whilst the lungs may not completely rejuvenate if permanent damage has been done, there are many benefits from quitting smoking, although it is even better to avoid smoking (and ensure that your family, friends and workmates don’t smoke either).


For support to quit smoking, call Quitline on 13 78 48.

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**Australian Idiopathic Pulmonary Fibrosis (IPF) Registry**

Sacha Macansh, Project Manager, Australian IPF Registry, Lung Foundation Australia

An update of the Australian Idiopathic Pulmonary Fibrosis (IPF) Registry was recently presented at the Thoracic Society of Australia and New Zealand annual scientific meeting. The Registry now has more than 195 participants.

The data presented included the first 189 Registry participants across Australia. 143 (75.7%) had already completed their first questionnaire. On average these participants are 70.4 years old and 24 (65.6%) of them were men. Their physicians had also completed surveys for 95 of these participants and had identified recent respiratory tests so we were able to present initial baseline data, which the researchers in the audience found very interesting. Presenting this information demonstrates how valuable the Registry will be to researchers, it will help us better understand this complex disease.

Health care providers may like to read the abstract for this work in the online publication of Respirology (2013) 18 (Suppl. 2), 38-85. http://onlineibrary.wiley.com/doi/10.1111/resp.12046/pdf.

The Registry abstract is P135 on page 72. Please note that the abstract data was from the Registry in October 2012. You may also be interested in abstract P134 on page 71 that presents a survey on the management of IPF in Australia.

The Registry aims to enroll all Australians with IPF so that the information collected can help researchers to learn more about this serious disorder. If you have Idiopathic Pulmonary Fibrosis please ask your Respiratory physician about the Registry during your next visit. Health care providers please contact the Coordinator in your State to inform them of your IPF patients who are interested in joining the Registry.

For more information please call Sacha Macansh on 02 9515 3996 or email ipf@lungfoundation.com.au.

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**Pulmonary Rehabilitation Training Online**

Emma Gainer, Program Manager, Pulmonary Rehabilitation and Lungs In Action, Lung Foundation Australia

Lung Foundation Australia is currently working on Pulmonary Rehabilitation Online, an interactive online training program to enable healthcare professionals to increase their skills and confidence in the delivery of evidence-based pulmonary rehabilitation, regardless of where they live in Australia. Developed in consultation with a national clinical advisory panel comprised of pulmonary rehabilitation specialists, key milestones were met during the first few months of 2013 with the online platform developed in March and the pilot program commencing in April in metropolitan, regional and remote sites. To find out more about Pulmonary Rehabilitation Training Online, please visit our website or email emma@lungfoundation.com.au.
**The Kylie Johnston Lung Cancer Network (KJLCN) Update**

*Kerrie Callaghan, Project Manager KJLCN - Lung Cancer, Lung Foundation Australia*

KJLCN Supporter Shaves Her Head in Support of Lung Cancer

In March, one of our wonderful supporters, Kerrie Schwetz, of Edgeworth New South Wales, shaved her head in memory of her beautiful Aunt “Rel” (Nerelle) who passed away in 2012 after a two year battle with lung cancer. Kerrie's fundraising event took place at the local RSL where she received an extremely supportive response from both patrons and RSL staff. On the day, two RSL staff members also joined in and agreed to have their heads shaved for donations. In addition, Kerrie's mother-in-law volunteered to shave her head for a donation of $200 (an amount which was raised in only a couple of minutes!). To date, almost $2,800 has been raised through the event and her online campaign on the My Cause website. Lung Foundation Australia encourages you to support Kerrie's efforts by making a donation on her My Cause page www.mycause.com.au/page/inmemoryofnerellecollins. Your donation is tax deductible and a receipt will be emailed to you.

If you would like to run your own fundraising event to support our work, please visit the KJLCN’s website www.kjlcn.org.au, click on the Get Involved tab and then select Fundraising to view the fundraising options. Alternatively, for more information about running your own fundraising event, please contact Kerrie Callaghan on 07 3251 3641, or email kerrie@lungfoundation.com.au.

Counselling Services Available Through State Cancer Councils

Living with lung cancer can mean that, from time to time, you experience a range of emotions such as fear, anger, frustration, anxiety and sadness. If sadness or anxiety is ongoing or severe, you may wish to consider seeking professional help from a counsellor or psychologist. Calling your State Cancer Council Helpline (13 11 20) is a good starting point to access counselling services from health professionals who specialise in caring for people living with cancer. For example, Cancer Council South Australia and Cancer Council Queensland offer free counselling sessions for adults affected by cancer, their families and loved ones, either over the phone or face to face. Call 13 11 20 to find out what kind of counselling services or referrals are available in your State.

**New Resources**

**New Cough Resource for Parents**

Lung Foundation Australia's Cough in Children: Diagnosis & Assessment (CICADA) Consultative Group in partnership with Asthma Australia has developed a resource for parents titled: Understanding Cough, Wheezing and Noisy Breathing in Your Child. The brochure provides easy to understand information on the symptoms and causes, as well as suggestions on what parents should tell their doctor about their child's cough, wheezing or noisy breathing. To obtain a copy of the brochure, contact the Lung Foundation’s Information and Support Centre on 1800 654 301 or email enquiries@lungfoundation.com.au.

Mesothelioma Patient DVD

The Lung Foundation in partnership with Peter McCallum Cancer Centre and Cancer Council Victoria has produced a Mesothelioma patient DVD titled Mesothelioma: Understanding – Managing – Living. The DVD will provide patients and their families with reliable information about diagnosis, treatment options, legal considerations and a range of other topics. For a free copy of this DVD, please contact our Information and Support Centre on 1800 654 301 or email enquiries@lungfoundation.com.au.

**Registrations now open for the Inaugural Australian Rare Lung Disease Short Course – Spaces are limited – Register Now**

Lung Foundation Australia and the Thoracic Society of Australia and New Zealand (TSANZ) are proud to announce that registrations for the Inaugural Australian Rare Lung Disease Short Course 2013 to be held on Friday 9 and Saturday 10 August are now open. This joint Lung Foundation and TSANZ initiative will focus on diagnosis and therapy for interstitial and rare lung disease as well as scientific research. The exciting program will include presentations from leading Australian specialists in the treatment and study of rare lung disease, as well as an international keynote speaker, Professor Vincent Cottin from the University of Lyon in France. Due to the interesting and educational program, it is anticipated the event will attract clinicians, respiratory physicians, surgeons, advanced trainees, scientists and researchers. Numbers are strictly limited, so register early to avoid disappointment. You can download a registration form and handbook from the Lung Foundation website: www.lungfoundation.com.au

**Winter Warning**

With winter approaching, now is the time to ensure that you discuss vaccination with your treating doctor. It has recently been reported that the 2013 influenza season has the potential to be particularly severe and it is important that you are “flusmart” by getting vaccinated against the flu. Of particular concern is that the number of Australians who have already contracted influenza is almost double the number compared to this time last year. For further information about influenza, visit www.flusmart.org.au.

Pneumonia Awareness Week takes place this year from 6-12 May and Lung Foundation Australia is involved in the coordination of a public health awareness campaign to encourage Australians, particularly those in at-risk groups to speak to their doctor about ways to protect against pneumococcal pneumonia, a life-threatening lung infection. At-risk groups include those with: diabetes; chronic lung disease (e.g. asthma or chronic obstructive pulmonary disease (COPD)); chronic heart disease; chronic kidney disease; impaired immunity (e.g. HIV, cancer or asplenia: absence of normal spleen function); and tobacco smokers.