

in a Heartbeat...

Issue 11

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From the Director's Desk

Welcome to the latest edition of *In a Heartbeat*. In this issue you'll read about more of the important research you've helped to make happen in recent months.

You'll also meet another member of the team, Associate Professor Gilles Lambert, a Research Fellow in the Institute's Lipid Research Group. And there's a delicious new recipe from *Heart Food – the Healthy Heart Cookbook*.

I hope you enjoy your newsletter. We look forward to bringing you more news in future editions of *In a Heartbeat*.



Professor Philip Barter
MBBS, PhD, FRACP
Director
The Heart Research Institute

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MEET the Team...

Associate Professor Gilles Lambert

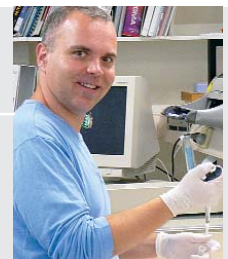
completed his PhD in Physiopathology at the University of Paris in 1998 and gained the position of Post-Doctoral fellow at the Molecular Disease Branch of the National Institute of Health (USA). In 2002 he returned to France, taking up a professorial position at the University of Nantes.

From 2002 to 2006, A/Prof Lambert undertook a project into a newly discovered gene called PCSK9, which mutates in a rare form of familial hyper-cholesterolemia – a hereditary condition where blood cholesterol levels are abnormally high. The sheer quality of his work recently won him the Ross Hohnen Young Achiever Award for the best paper by a Post-doctoral Scientist.

After meeting both Professor Philip Barter and Professor Kerry-Anne Rye (The Heart Research Institute's Director and Associate Director) at the 2005 Atherosclerosis Society meeting in France, A/Prof Lambert decided to join the Institute's Lipid Research Group as a Research Fellow.

A/Prof Lambert is currently studying how PCSK9 inhibits the liver receptor that is responsible for removing LDL (bad cholesterol) from circulation. He will investigate if high PCSK9 levels are detrimental in patients with genetically reduced LDL receptor function and work out the molecular mechanisms by which PCSK9 interacts with the receptor. This study is necessary to understand if drugs that inhibit PCSK9 will diminish the risk of developing heart disease in patients who do not respond well to existing treatments.

Over the last five years A/Prof Lambert has delivered top quality written and oral presentations, highlighting key aspects of his research achievements at several international scientific meetings and has had over 30 peer-reviewed articles published.



research Highlights

The Gene Regulation Group has made an important discovery – testosterone treatment leads to increased calcification of blood vessels. A greater understanding of the pathways through which testosterone regulates this calcification may help to ensure the safety of currently used hormone replacement therapies.

The Angiogenesis Research Group has found that the complex Thioredoxin system is strongly implicated in abnormalities of new blood vessel growth in some people with diabetes. This finding is particularly exciting as it suggests that targeting this system will lead to new therapies designed to treat some of the more serious complications of diabetes.

The Free Radical Research Group has shown that oxidation of amino acids by free radicals results in the formation of additional reactive molecules called peroxides that can make the damaged blood vessels even worse. This finding has major implications in strategies designed to prevent atherosclerosis.



Lentil & Curry with fish*



Ingredients

- 600g/1lb 5oz boneless white fish, cut into large cubes
- 2 tablespoons peanut oil
- 6 cups (500g/1lb 2oz) cauliflower florets
- 2 medium red capsicums, sliced
- 4 medium brown onions, chopped
- 1 cup (185g/6½ oz) red lentils, rinsed
- 2 teaspoons turmeric
- 1 teaspoon medium chilli powder
- 2 cups (500ml/17fl oz) salt-reduced vegetable stock
- 8 small plain pappadums
- 200g/7oz low fat plain yoghurt, lightly beaten
- 1 tablespoon garam masala
- ½ cup coriander leaves, tightly packed
- ⅓ cup (60g/2¼ oz) slivered almonds, toasted

*** Ingredient option**

- Instead of fish make it with:
- **Hard tofu** - cubed
 - **Chicken breast** - thinly sliced
 - **Lean lamb** - thinly sliced

Makes 4 serves.
Each serve contains
5½ serves of vegetables.

Per serve:
2546 kilojoules (609 calories)
57g protein
23g total fat (4g saturated fat)
44g total carbohydrate
(3 exchanges)
15g fibre
665mg sodium

Directions

1. Heat the oil in a large saucepan over a medium-low heat. Add the cauliflower, sliced capsicum and onion and cook for 10 minutes, stirring frequently.
2. Reduce the heat to low and stir in the lentils, turmeric, chilli powder and stock. Cover and cook for 20 minutes, stirring occasionally.
3. Add the fish, cover and cook for 3-5 minutes or until the fish is opaque and flakes easily when tested with a fork. Meanwhile, microwave the pappadums following the packet directions.
4. Add the yoghurt and garam masala to the curry and gently stir until hot. Stir in the coriander.
5. Serve sprinkled with almonds and the pappadums.



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If you are interested in attending one of our **FREE** Director's Talk & Tour of The Heart Research Institute (including a light lunch) please call (02) 9241 4300 or e-mail events@hri.org.au

With Heartfelt Thanks For Your Support

Winter Workouts

Guy Leech's

Fitness Forum



There are many misconceptions regarding good health, weight loss and getting fit. With the correct information and real commitment, I firmly believe Aussies can begin to reduce the obesity crisis. Answers to two questions I get asked all the time may help you to achieve your fitness goals.

1 "I want to get rid of my bulging stomach (below the belly button)/my big thighs/my 'tuckshop arms' or my growing butt before the weather warms up again. What's the best way to go about it?"

It's a misconception that by exercising muscles in a certain area of your body, you will automatically lose weight in that area. For example, sit-ups to lose stomach flab, squats for the thighs and push-ups for floppy arms will all strengthen the muscles in these areas, but not get rid of the fat surrounding those muscles. **Fat comes off as your body chooses... not you.** And that process can only begin if you're burning off more than you're eating.

'Burn off' is best achieved by exercising so hard that you lose your breath for short periods of time... not the whole time you're exercising, but frequently. So if you're a walker, include hills or periods of very fast walking during the workout... same for joggers and cyclists. Author of *Shortcuts to Big Weight Loss* Chris Freytag says: "Even though 'spot reducing' doesn't work, 'spot sculpting' can. If we focus on specific muscle groups when training, the difference will be noticeable when our overall body fat reduces."

2 "I eat all the right foods and exercise frequently, but I'm not losing any more weight. How come?"

The answer can be found by taking a close look at the way you're eating and the way you're exercising. Most people simply don't know enough about either. What exactly are you putting in your mouth? Do your exercise sessions include little challenges or spurts of greater intensity? A 40-minute walk along the coast or around the park most days will only go so far towards removing decades of stubborn fat. We need to change our exercise routines every 4-6 weeks. Personally, I live by the F.I.T.T. Principle:

- Frequency** – Change how often you exercise. Vary 3 long sessions, with 5 short ones the following week.
- Intensity** – Challenge yourself by introducing 'effort spurts' into your workouts
- Time** – Modify the duration of your routines – e.g. 3 x 10 minute sessions one day... 1 x 30 minutes the next
- Type** – Change what you do – gym one day, a floor routine at home the next, then walking, etc.

For more information go to www.guyleech.com

Guy Leech



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