

Sydney University Nutrition Research Foundation

Annual Report 2004-2005

Objectives

- to foster and support research in human nutrition
- to strengthen links with industry and the health sectors
- to provide a forum for the exchange of research findings
- to aid research scholars working in the field of human nutrition

Council Members

Chairman: Emeritus Professor A Stewart Truswell AO

Deputy Chairman: Mr Bill Shrapnel

Director: Professor Ian Caterson

Honorary Governors: Mrs Beth Boden
Mr Eric Bond MBE
Professor Jennie Brand-Miller
Dr John Christian AO
Ms Margaret Fulton OAM
Professor Peter Sainsbury
Ms Catherine Saxelby

Liaison Officer:

Corporate Governors: Abbott Australasia Pty Ltd
Australian Sugar Industry
Dairy Australia
DSM Nutrition Products
George Weston Foods
Goodman Fielder Ltd
Kellogg Australia Pty Ltd
Masterfoods (Australia & New Zealand)
McDonalds Australia Ltd
Meat and Livestock Australia
National Foods Limited
Nestle Australia Limited
Unilever Australia Ltd
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President's Report 2005

*Stewart Truswell AO, Emeritus Professor
MB ChB MD Cape Town DSc FRCP FPHM FRACP*

I have been participating in the thorough revision and extension of the NH&MRC's recommended dietary intakes (RDIs). The present set date from 1991 and it took the committee (which I chaired) 8 years to produce RDIs for 19 nutrients plus energy, starting from scratch.

This time the numbers for what used to be called nutrient requirements has been changed to Nutrient Reference Values (NRVs) in line with North America (Dietary Reference Intakes) and the UK (Dietary Reference Values). This time our reference numbers for nutrients are for Australia and New Zealand and scientists from New Zealand participated actively on the main working party (12 persons, chairman Dr K Baghurst) and among the 35 expert reviews, all from our two countries.

This time the output is an RDI (or equivalent) and also an upper intake limit. The possibility of undesirable effects starts above this intake. This time the committee has produced reference values for dietary energy, for macronutrients (protein fats, carbohydrates, fibre, water) for 14 vitamins (now including choline) and 14 inorganic nutrients (now including fluoride), making a total of 34 nutrients.

This time the committee's terms of reference asked us to "base the review on a consideration of the processes and recommendations of the recent revision of the United States/Canadian, Dietary Reference Intakes, taking into account any unique aspects of the populations in Australia and New Zealand including environmental, geographical, physiological, ethnic and cultural factors of both countries." The committee was also asked to consider scientific evidence appearing since the North American reviews as well as recent recommendations from the UK, FAO/WHO and European Union countries.

This time the main recommendation number for a nutrient is either the RDI, based on the EAR (estimated average requirement) or, for nutrients where there is scarcity of experimental data it is an AI (acceptable intake). These technical terms can be confusing. Perhaps for consumers they should all be called RDI's (which is what they are).

The report is at present out for public consultation and comments will be reconsidered by the committee in May 2005. While it is possible that one or two of the numbers could be adjusted at that late stage, the present position is that many of our Nutrient Reference Value numbers will change to some extent. First there are 9 new micronutrients added to the set, secondly the age groups are different from 1991 (now in line with North America), thirdly there are small changes in the numbers for many of the previously recommended nutrients and noteworthy changes for folate (doubled), vitamin D (not previously in the main list), iodine (increased for females), sodium (down) and selenium (down).

Of all the revisions those most likely to affect practical nutrition are the new numbers for folate (up) and sodium (down) and the realisation that we cannot take vitamin D for granted in Australia and New Zealand.

The challenge to produce these new NRVs stimulated a remarkable cooperative effort by 47 nutrition scientists – the list of committee members and reviewers reads like a Who's Who of Australasian nutrition. Coordination and chairmanship was a large task. The NH&MRC provided less (wo) manpower this time but emails were central to the process. Dr Katrine Baghurst, the chairperson, carried a heavy burden and has nearly finished her major task.

Director's Report

Ian Caterson, Professor
MMBS BSc(Med) PhD FRACP, Boden Professor of Human Nutrition
Co-director NSW Centre for Public Health Nutrition

This year has been successful and busy. The Human Nutrition Unit has had a successful year generally and this has been due, in no small part, to the help that SUNRF and the Governors give which enables us to support research, to provide teaching and to have much more flexibility in what we can do and when. In the School of which we are part, the HNU is able to do more and provides more, than any other discipline. The Foundation makes this possible and it is my firm belief that other disciplines must look to establishing their own Foundations.

Council Matters

As usual there have been some changes to the representatives of our corporate Governors. We wish to express our thanks to Dr Orin Chisholm, Mr Dan Southee, Dr Jenny Robertson, Ms Veronique Droulez, Ms Janine Cornel, Mr Peter Liu, Mr Richard Tupper and Dr Diane Volker who have retired and we welcome Ms Jeanette Fielding (*Wyeth Nutrition Aust.*), Mr Harold Todd (*Nestle Aust.*), Ms Andrea Mortenson (*Meat and Livestock Aust.*), Ms Anita Lawrence (*Dairy Aust.*), Ms Judith Buckingham (*DSM Nutrition Products*), Ms Kathy Usic and Mr Suresh Gulati (both of *Goodman Fielder*) who have joined the Council. The current list of Governors and Council members is given elsewhere in this report. Council gives us a different view of matters of nutritional interest and importance, and we get lots of guidance and the benefit from their wide experience. We have tried to have a presentation of aspects of research being done in the HNU at each Council meeting and these appear both to be of interest and of use to Council members.

Isa Hopwood who has been secretary of SUNRF for many years and the backbone of its work, has retired. I wish to thank her officially and formally for all she has done, her suggestions and ideas, and the way she always helped and got everything done. I would like to suggest that the Council consider appointing her a Life Governor. With the change in the administrative staff in the School, Jenny Woodward and Louise McLoughlin have taken up the task of secretarial support to SUNRF, we welcome them, their ideas and help.

This year, rather than have an extensive annual report, we have decided to have this shortened version and to produce 2 newsletters. Again this is a trial and we would be grateful for feedback on its success or otherwise.

Symposia

As last year, we have had "mini-symposia" rather than full-day meetings. These appear to have been successful and in 2004 we held two such meetings on 22 April following the Annual General Meeting and on 12 November. The April meeting looked at – "Diet and Disease – mantra for the common man" presented by Professor Phil James of London and "Will we ever get it right? – diet for a new millennium" presented by Professor Gary Wittert of Adelaide. The meeting in November considered "Childhood Obesity: A Psychological View" given by Dr Andrew Hill, University of Leeds, UK and "Factors affecting children's selection of foods" given by Rebecca Boustead, Kellogg (Aust) Pty Ltd. These were well attended. We have decided to keep the format for this year and already a team (Stewart Truswell, Bill Shrapnell and Abdullah Omari) are working on the first "Vitamin D Bones and Beyond" to be held in July and a second symposium for November entitled "Lifestyle, Diet and Cancer". We are also helping the organization for the 10th International Congress on Obesity to be held in Sydney next year.

Research

This has been a good year for research. The full list of publications will be made available in the School's research report. Jennie Brand Miller, Tim Gill and Stewart Truswell continue to be

asked to speak at national and international organizations on their work, as do I. The Centre for Public Health Nutrition continues to be productive and has been funded for this year. It and the Centre for Overweight and Obesity have been located in the Medical Foundation Building as part of a University initiative to establish the "Prevention Centres" as a centre of excellence. This has been successful, I think as the centres involved are productive and have already outgrown the space occupied. We have supported a new group, the "Obesity in Asia Collaboration" and already have publications from this work with the George Institute and the International Obesity Task Force as well as the International Diabetes Institute in Melbourne.

SUGiRS income totalled \$1.2 million last year, an increase of 20% over 2003. Around 40% is local testing, 60% comes from overseas companies. We tested over 400 separate foods and conducted ~5000 separate tests. We had a change of business manager in September 2004 - Dr Susanna Holt was replaced by Fiona Atkinson and there are now 7 people employed. Associate Professor Gareth Denyer has computerised the GI testing and created a database for research purposes. The demand for GI testing is such that a second laboratory is being seriously considered in collaboration with GI Limited, the non-profit company that administers the international GI Symbol Program.

A number of our students have been awarded their PhDs including Mike Trenell, Joanne Napoli, Ananda Chandrasekera, Leyla Aouad, Bronwen Dalziel and Joanna Price. We have 2 new PhD students, Abdullah Omari (who gained an NHMRC public health studentship) and Mushim Karim.

The SUNRF grants for 2005 have been awarded to:

a) Dale Hancock	Transcriptional Regulation in Adipose tissue"	\$10,000
b) Arthur Conigrave	Amino acid sensing by the calcium-sensing receptor: Advanced cellular and in vivo analysis"	\$ 7,500
c) Kim Bell-Anderson	Effect of leptin on mitofusin 2 gene expression"	\$ 5,000
d) Samir Samman	The effect of meat on nutritional status in the elderly" in addition to the \$7500 held from last year	\$ 6,000
e) Abdullah Omari/Ian Caterson	Obesity & the Metabolic Syndrome in Asia"	\$12,500

Staff

This year Dianne Volker has left and we wish her well. We welcome Beth Rohrlach as a Lecturer who will co-ordinate the teaching in Year 4 of the undergraduate course. Kim Bell-Anderson has returned from maternity leave and we farewelled Kirsty Mehalski who filled in whilst Kim was on leave. The staff still are under very great pressure for the amount of teaching that is needed in the undergraduate and Masters courses. I thank them all for their effort, professionalism and dedication.

Visitors

Late last year we had a visitor from the UK, Dr Elizabeth Evans, a nutritionist who has a great deal of experience in working with lay organizations. She spent some time with the clinical staff at Metabolism Obesity Services and was able to establish a database of her work with Slimming Clubs UK which will be a source of many publications. We hope this year to have a couple of visitors. Invitations have been extended to Prof Stephan Jacob of the Albert Schweitzer Institute who has an interest in the Metabolic Syndrome and Professor Mike Cawthorn of the University of Buckingham who has an interest in obesity and in particular in animal models of obesity.

This year has been very busy. We need to plan to expand the HNU and its work and with SUNRF's help we can do this. I hope to have some plans for discussion later this year. Thank you for your help and support, we look forward to working more closely and effectively together and to expand what we do with your help.

Academic Staff

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Co-Director, NSW Centre for Public Health
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Associate Professor
Head, Human Nutrition

Associate Professor Gareth Denyer

MA DPhil *Oxf*
Associate Professor

Kim Bell-Anderson

BSc PhD NSW
Lecturer

Sue Amanatidis

BSc DipNutrDiet, APD
Lecturer
Program Manager, Community Nutrition
Service, CSAHS

Beth Rohrlach

BSc DipNutrDiet, APD
Dietitian - Clinical Educator 2004

PhD Students

Leyla Aouad BSc (Hons) SUNRF
Supported

Nagendran Balasundram BAppSc

Alan Barclay BSc DipNutrDiet

Ananda Chandrasekara BSc (Agric)
MPhil (Food Sci) Sri Lanka

Bronwen Dalziel BSci (Hons)

Scott Dickson BSc (Hons)

Janet Franklin BMedSc MNutrDiet

Alison Gosby BSc MNutrSc

Margaret Nicholson

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Tim Gill

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