



REUTERS/Michaela Rehle

Ocularist Gerhard Greiner holds a glass eye over a bunsen burner at his medical equipment shop in Munich on 11 December 2012. Greiner produces bespoke blown-glass human eye prostheses, taking about an hour to craft each one, with constant reference to the patient for the right colour and for detailed drawing of the blood vessels. An individually tailored glass eye prosthesis like this costs about €350 (A\$438).

From the NHMRC

NHMRC support for research programs, scholarships and innovation

National Health and Medical Research Council (NHMRC) grants totalling \$127.9 million were announced on 18 December 2012 by the federal Minister for Health, Tanya Plibersek. Thirteen program grants, 14 development grants and 123 scholarships were included, bringing the total number of NHMRC grants from the 2012 funding round to 1319 (and total cost to \$831.8 million).

The new NHMRC program grants (totalling \$110 million) will support teams of outstanding researchers with major, single quantum funding. Awarded predominantly on the basis of achievements in research and translation over the previous 5 years, these grants allow the successful applicants to target and hone their research as it evolves over the next 5 years. The new program grants will support research in the areas of cancer and cardiovascular disease prevention and treatment, HIV, effective systems of health care, disability

and motor impairment, poisoning policy and treatment, drug targets, computational capability for “omics”, and autoimmune and lymphatic diseases.

NHMRC postgraduate scholarships will support researchers who would not usually qualify for an Australian Government postgraduate award, particularly people returning to research from other careers, and health professionals without undergraduate or honours-level research experience.

New development grants valued at \$7.4 million will support research towards “proof of principle” of ideas emerging from NHMRC or other funded discovery research — that is, the first research steps towards commercial products, processes, techniques or procedures. A recent review of the NHMRC’s development grant scheme showed that more than half of 40 grants selected for study supported discoveries that had



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doi: 10.5694/mja12.11837

progressed to possible commercial development, and six had led to a product entering the market or awaiting regulatory approval (<http://www.nhmrc.gov.au/media/releases/2012/improved-patient-outcomes-innovative-research>).

Details of the December funding announcement and statistics, as well as previous announcements in 2012 that included 731 new project grants, can be found on the NHMRC website (<http://www.nhmrc.gov.au/grants>). Information about all funding by the NHMRC, including funding for the National Health Priority Areas, can be found at <http://www.nhmrc.gov.au/grants/research-funding-statistics-and-data>.

On behalf of the NHMRC, we thank the thousands of Australian and international health and medical researchers who provided peer review of other researchers’ applications throughout 2012.

Menorrhagia best managed with intrauterine levonorgestrel

Levonorgestrel delivered via an intrauterine system is more effective than usual medical therapy in improving quality of life for women with menorrhagia, UK researchers say. They randomly assigned 571 women with menorrhagia to a levonorgestrel intrauterine system (levonorgestrel-IUS) or to usual medical therapy (tranexamic acid, mefenamic acid, combined oral oestrogen–progestogen, or oral or depot progestogens alone), with women in the levonorgestrel-IUS group reporting significantly greater improvements in quality-of-life measures such as in family life and daily routine. An accompanying editorial said the study supported approval of levonorgestrel-IUS as a first-line therapy for menorrhagia. In Australia, the levonorgestrel-IUS is available on the Pharmaceutical Benefits Scheme as a restricted benefit for idiopathic menorrhagia where oral treatments are ineffective or contraindicated.

N Engl J Med 2013; 10 January (online)
doi: 10.1056/NEJMoal204724
doi: 10.1056/NEJMe1214191

Infertility rates unchanged

Global infertility rates have overall remained static over the past 20 years, according to researchers who estimate that 48.5 million couples were infertile in 2010 after trying to conceive for 5 years. The researchers analysed 277 demographic and reproductive health surveys in 190 countries and territories and found that rates of infertility in 2010 were similar to those in 1990, independent of population growth and declines in the preferred number of children. In 2010, 1.9% (95% CI, 1.7%–2.2%) of women aged 20–44 years who were seeking to have a child were unable to have a first live birth, and 10.5% (9.5%–11.7%) of women who had had at least one child were unable to have another child. Primary infertility was higher among women aged 20–24 than among older women, but the prevalence of secondary infertility “increased sharply with age” from 2.6% (95% CI, 2.3%–3.0%) in women aged 20–24 years to 27.1% (95% CI, 24.7%–29.9%) in women aged 40–44 years.

PLOS Medicine 2012; 18 December (online)
doi: 10.1371/journal.pmed.1001356

From the MJA archives

MJA 1951; 28 July (edited extract)

Enuresis and toilet training

Of the 73 children in our study, 43 were toilet trained with impatience, often verging on cruelty; 26 have enuresis. Among the remaining 30 children who were trained without coercion, three have enuresis. There is therefore a definite association between enuresis and a rigid toilet training. Enuresis cannot be regarded as a single phenomenon. In the past, we have tended to look on it as an annoying symptom for



which the remedy is a drug, a diet or a psychological tour de force. On the contrary, enuresis has its roots in the total personality of the child, and this includes the whole attitude of the parent to the child from the moment that breastfeeding and toilet training commence.

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Olympians stay the distance

An Olympic medal may be more than just a ticket to fame and glory — it may also be a key to a longer life, according to research published in the *BMJ*. A retrospective cohort study of more than 15 000 Olympic medallists from nine countries found that 8% more people among the athletes survived over 30 years compared to matched controls in the general population (relative conditional survival, 1.08; 95% CI, 1.07–1.10). This translated into medallists living an average of 2.8 years longer than controls. A smaller retrospective cohort analysis of almost 9900 athletes published in the same issue found that former Olympians who had participated in sports with high cardiovascular intensity (hazard ratio [HR], 1.05; 95% CI, 0.89–1.25) such as cycling were not likely to live any longer than those who had participated in low-intensity sports such as golf. However, athletes who had engaged in high physical contact sports had a higher risk of mortality than other Olympians (HR, 1.13; 95% CI, 1.06–1.21). An accompanying editorial said the survival advantages of Olympians were open to anyone who engaged in the recommended 150 minutes of moderate-to-vigorous intensity physical activity a week. However, they noted that, compared to successes in tobacco control, efforts to boost physical activity had been a “public health failure”. “Inactivity contributes to more than five million deaths a year, more than obesity”, they said.

BMJ 2012; 13 December (online)
doi: 10.1136/bmj.e8308
doi: 10.1136/bmj.e7456
doi: 10.1136/bmj.e8338

Colour confusion hinders drug persistence

Variations in the colour of bioequivalent tablets significantly increases the risk of interruptions in medication use, say US researchers. The case–control study of more than 60 000 patients taking antiepileptic drugs found that changes in the colour of their medications increased the risk of a patient interrupting their medication use (odds ratio, 1.27; 95% CI, 1.04–1.55), which was defined as a failure to fill a new prescription for the drug within 5 days of completing their current supply. “Taking steps to permit (or even require) similarity in pill appearance among bioequivalent brand-name and generic drugs may offer another way to achieve better patient adherence to essential medication regimens”, they said.

Arch Intern Med 2012; 31 December (online)
doi: 10.1001/2013.jamainternmed.997