# The 2011 Einstein Lecture
# Powerful Medicine: Einstein would be proud!

**Supported by the Australian College of Educators**

**Presented by the Australian Institute of Physics (NSW) and the Powerhouse Museum as part of the Ultimo Science Festival 2011**

Set apart from all other species, humans have an enormous capacity to learn. Progress in medical science has been a journey of learning by dedicated scientists. We now have some amazing medical tools that allow diagnosticians to “see” what is happening inside our bodies without making a single mark. Many of these modern technologies employ the understandings given to us by Einstein. As a pacifist, there is no doubt that Einstein would be pleased his ideas have been put to good medical uses.

Through an interactive range of demonstrations, this lecture will trace the path of electron discovery and of its antimatter equivalent, the positron. An explanation of how $E = mc^2$ leads to the production of gamma rays during electron – positron annihilation, will identify how Einstein’s work has led to the powerful medicine of positron emission tomography (PET).

## Presenter: Dr Stephen Fogwill

Dr Fogwill is currently head of science at Tomaree High School. He has been teaching science for over 30 years and has a keen interest in helping students learn with understanding. In his PhD research, his HSC chemistry and physics students developed and refined their own analogies for many of the difficult concepts in their courses. Dr Fogwill presents lectures in regional NSW areas to help students prepare for their HSC Physics examination and runs workshops with talented primary students. He has three adult children; is a baseball coach and a surf life saver. He enjoys snow skiing, golf, archery, off road adventures and playing guitar.


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Date: **Monday 22 August 2011**
Time: **6.00 pm for 6.30 pm start**
Venue: **Powerhouse Museum**
Cost: **Free (incl. museum entry)**

**Online bookings essential at**
**http://from.ph/28v**

**For more information please contact:**

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