

# 10 Medical Breakthroughs

With new treatments, drugs and technology, 2009 has been a year of innovation

By Damayanti Datta

**N**obody knows if innovation is infectious, or can be learnt. But the year 2009 saw a wave of creative, inspired approaches from the nation's medical fraternity. No, not big bang innovations, but more the Tata Nano variety. With government expenditure on health as a percentage of total health expenditure at 17.9 per cent, one hardly expects the Indian state to play a major role. Nor so much the booming drug companies, who spend 12 to 15 per cent of their outlays on research and 30 per cent on marketing. The true leaders of innovation this year have been the nation's surgeons. Technology has been their driving force, minimally invasive the gold standard and precision the mantra. And armed with new machines and new skills, surgeons have accessed parts of a patient's body as never before, used tools and techniques in a whole new way, changed how some types of surgery are performed, hastened the healing process for many and practically created new milestones for the range of patients they can help. "Modern surgery might not yet feature Star Trek-ian techniques and equipment, but in some regards, they are on their way," says Dr Naresh Trehan, the cardiologist who pioneered robotic surgery of the heart in the country. But that's not all. From discovering new drugs and genes, new business models, new use of technology to designing hospital furniture keeping the Indian reality in mind—simple innovations have been the flavour of the season. "The knowledge economy is an innovation economy," they say. Our doctors and researchers this year have certainly provided a roadmap for turning new ideas into long-term successes.

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**6** Sing a different tune

iPhone used to stave off blindness

Who would have thought that the pricey Apple iPhone could help India's rural masses? But doctors at the Narayana Nethralaya Postgraduate Institute of Ophthalmology, Bangalore, are doing precisely that to diagnose vision loss in infants from remote areas. Over 8 per cent of India's 27 million infants each year weigh less than 2 kg and run the risk of Retinopathy of Prematurity. So long just a handful of city doctors had the know-how. Now with the iPhone and a software developed by the i2i TeleSolutions, the good doctors are busy saving lives across the country.