

## Kanigel's visit marks Ramanujan's 125th

The 125th birth anniversary of the Indian mathematical genius, Srinivasa Ramanujan, falls on 22 December 2012. A year ahead of the quasi centennial of Ramanujan, Robert Kanigel, the author of the widely-read biography of Ramanujan – *The Man Who Knew Infinity* – was invited to India. During his visit, Kanigel delivered popular talks in Mumbai, Bangalore, Hyderabad, Chennai and Delhi, and conducted a science writing workshop for active science journalists of the country.

On 26 December 2011 at the inaugural function of the year-long celebrations of Ramanujan's 125th, the Prime Minister of India, Manmohan Singh, declared 2012 as the National Mathematical Year and 22 December as the National Mathematics Day. On the occasion, Kanigel was felicitated. *The Hindu* newspaper has given wide coverage to the event in the form of a supplement on mathematics 'Ramanujan@125 – A celebration of mathematics', featuring articles on Ramanujan, and on education and career in mathematics.

The science writing workshop commenced with the remarks of P. Balaram, who shared his experience of writing fortnightly Editorial columns in *Current Science*. He expressed some of his concerns about science writing and reporting in the country and said, 'It would be much more helpful if writers knew how to be more concise.' Giving examples of researchers who popularized science, like Carl Sagan and Stephen Gould, Balaram lamented that the form of popular science writing that these scientists ventured into has not been seen in India thus far.

During the workshop Kanigel said that he did not start as a 'science' writer, and in some ways he does not view himself as a science writer, even though the largest proportion of his work would probably come under the same heading. Kanigel likes delving into big subjects and has never taken to blogging, or much of news writing. In the workshop session on 'story ideas for writers', Kanigel talked about counter-trend topics that journalists can write about. He gave some examples of how he chose not to write on the most popular topic of the time, but on 'conventional' topics that are readable. Kanigel suggested that

strong background work on a story idea helps a journalist sell it to the editor. An even more important aspect before convincing the editor is to ask yourself if you are prepared to work on the idea.

K. S. Jayaraman, a veteran science journalist of India, who now contributes to *Nature*, said that most of the story ideas come from the surroundings and by talking to people, rather than conferences or publications. He believes that the advent of technology (particularly internet) has diminished the thrill of science reporting; now the stories are received in the mail inbox and journalists need not chase them. Considering the state of access to scientific information in the country, Jayaraman expressed strong views on creating a Media Resource Centre of science experts who are available to talk to the press. Kanigel agreed that such an organization in India would do more good than harm, but the primary responsibility on reported facts must lie with the reporters and not with this organization.

On the issue of showing a draft of the story to the scientists Kanigel responded, 'Scientists routinely say that they only want to check the facts to make sure that the facts are scientifically correct, but

there is a tremendous temptation to start altering what the writer has written. So it is not a good idea to give the manuscript to the scientists.' Pallava Bagla, who works for *Science* and NDTV, holds a different stance; he plays back the entire story to the sources.

While the conventional view is that journalists must be unbiased and non-opinionated in their reporting, *Frontline* and *The Hindu* reporter, R. Ramachandran, held a conviction that journalists must express their opinions and weigh an argument, rather than report an equal number of comments from both sides of the argument. Ramachandran also advised the young science journalists to pick up the ethos of a laboratory they visit, rather than being obsessed about writing a story after every such visit.

Kanigel also indulged in discussing the perils of popularization, which include making dumb mistakes, misinforming the readers, making things simplistic in the process of simplifying and reporting only what makes a scientist content with the story. 'There is inherent distortion in making a scientific paper into a science story; skeptics of science have a good reason to be skeptic because it is

### Facing writer's block? Kanigel suggests a remedy...

'I have an antidote for writer's block. I think many people suffer from writer's block because they have excessively high standards for themselves. They feel that every sentence that they write, every paragraph that they write, have to be perfect before they go on to the next, and that has a way of shutting you down sometimes, because you are placing pressure on yourself. My solution is to have low enough standards for myself in my initial writing, that I permit myself almost anything. I just need to get out the ideas, to start building the scenes, to start telling the stories, and to not hold myself to particular high standards. And then through an intuitive process again and again and again working through that initial bare draft I make something good out of it. But I don't hold myself down at the very beginning. That keeps me up.'



easy to get things wrong!... Popularizers are not just taking something away, but adding a "story", and human context to the science.' Among popular books Kanigel suggested the reading of *A Mathematician's Apology* by G. H. Hardy. Ramachandran noted that *Journey Into Light* by G. Venkataraman, has hard science (physics) published in a different font size in the book, such that even if one skips these paragraphs, the flow of the biography is well-maintained, widening the readership to both technical and general.

An interaction between a few scientists of the Indian Institute of Science and journalists was arranged during the workshop. Experts from both the research and science journalism communities expressed grievances. Scientists condemned journalists of misreporting, and journalists about timely access to information from scientists. Both the groups mutually acknowledged the need for press releases to be furnished by science and technology institutes.

The science writing workshop was organized by the Indian Academy of Sciences, National Board for Higher Mathematics, Ramanujan Mathematical Society and Center for Advancement of Public Understanding of Science and Technology, as part of the commemoration of the 125th birth anniversary of Ramanujan. The workshop was held at the Indian Academy of Sciences, Bangalore, during 29–30 December 2011, where Kanigel touched upon several aspects of writing long-form articles and book writing. The participants of the workshop were a mix of young and veteran science journalists working in newspapers, magazines, journals and television. The workshop provided the rare opportunity for young journalists to interact with the prolific (and a minuscule number of) science journalists of the country.

The science writing workshop was followed by a Public Lecture on 'Ramanujan as Everyman' by Kanigel at the Indian Institute of Science, Bangalore. In

his talk, Kanigel recalled the experience of his visit to India for researching on *The Man Who Knew Infinity*. Just when Kanigel landed in Madras, India, in November 1988 and hired an autorickshaw, good luck had him sharing the autorickshaw with the grandson of R. Narayana Iyer, who worked with Ramanujan at the Madras Port Trust! Kanigel said that this incidence left him thinking if there is some other interpretation to this.

After tracing the life of Ramanujan, Kanigel said that Ramanujan cared about others taking him seriously and respecting him. 'In this sense Ramanujan is just like us...' This is also evident in the letter he sent to Hardy after his election to the Royal Society of London. Kanigel said that Ramanujan's is not a truly happy story, but it is mostly a happy story for he found what he sought – freedom to do mathematics.

**Richa Malhotra**

## NIH Director, Francis S. Collins in India



Francis S. Collins is the Director of the National Institutes of Health (NIH), Maryland, USA. He was the leader of the Human Genome Project. Collins visited India regarding a collaborative project between India and USA on research in

diabetes. During his visit, Collins was invited to deliver the centenary lecture of the Indian Institute of Science, Bangalore on 3 December 2011. In his talk titled 'Human Genome and Beyond', Collins recalled that when the Human Genome Project was first proposed in the late 1980s, it was extremely controversial and was faced with opposition from a majority of the scientific community because it seemed totally out of reach; there were concerns that it would take the money away from other areas of research. Collins said that after a decade of the publication of the draft of the human genome, there is still a long way to turn the 3 billion letters of the genome into real knowledge.

The following is a glimpse of his interaction with the audience and the students of IISc after the talk:

*Are any major projects on global health being planned by NIH?*

We have just started the H3 project in Africa. We have lots of projects being

considered in Africa and other parts of the world; that is one of the reasons I am here in India.

*What is your opinion of science becoming more corporate and commercial?*

Well, we need the corporate sector. If you are going to develop products that the public is looking for, be they diagnostic tests or therapeutics, then that's not something academics or the universities and institutes are likely to do; carrying that all the way to the point of a product. So my sense is we have to make the most of the skills of both components of this public-private partnership; in particular, that means we need to understand each other, maybe better than has been the case. One of my goals was to try to focus on speeding up the translational process; how do we go from this deluge of basic discoveries about the molecular basis of disease to therapeutics. There are a series of steps involved. Companies look at it as too early to make invest-