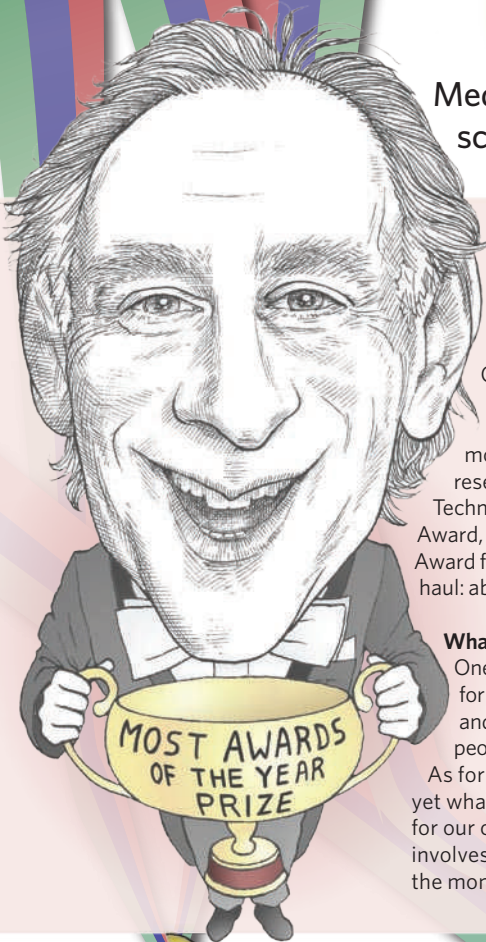


PRIZEWINNERS OF THE YEAR

Medals, cash and fame rained down on the heads of prominent scientists in 2008. **Ashley Yeager** rounds up some of them.



ROBERT LANGER: BRINGING HOME THE MEDALS

Chemical and biomedical engineer Robert Langer, of the Massachusetts Institute of Technology in Cambridge, racked up more major science prizes than any other researcher this year — the Millennium Technology Prize and the Max Planck Research Award, along with a share of the Prince of Asturias Award for Technical and Scientific Research. Total haul: about US\$2 million.

What will you do with the money you've won?

One of the awards, the Max Planck, can be used for unrestricted research. I plan to do materials and nanotechnology research, in part with people from Germany.

As for the rest, my wife and I haven't figured out yet what we will use it for. We will probably use it for our children's education. Another top priority involves science education. We might use some of the money to help improve science education at

the high-school or college level.

What is your recipe for success?

To the extent that I've been successful in research, it may be because I've often tried to do high-risk projects. When I was done with my PhD in chemical engineering in 1974, my colleagues were all going into petroleum engineering and chemical engineering. I decided to work in a surgery lab, the lab of Judah Folkman at the Children's Hospital Boston and at Harvard Medical School. It's like Robert Frost's *The Road Not Taken*. I didn't take the road most chemical engineers took.

Ever thought about going back to petrochemicals?

Never. I struggled hard to learn the biology I needed. I never thought about other areas of chemical engineering. All I thought about was that I wanted to make a difference in people's lives, whether it was through education or health.

ILLUSTRATIONS: J. H. VAN DIJENDONCK



BEATRIZ BARBUY: RISING STAR

Brazilian astrophysicist Beatriz Barbuy won one of the two Trieste Science Prizes given out this year by TWAS, the academy of sciences for the developing world. Barbuy, of the University of São Paulo, was honoured for her work on the evolution of the chemical composition of stars and the formation of the Milky Way.

How important is it to have a prize that recognizes researchers from developing countries?

It is indeed very important. There is a group of people like me who devote a lot of effort to doing good work, and we have been fighting for better infrastructure. This recognition will help going ahead with having

better conditions for doing astronomy in Brazil.

How did you react when you learned you had won?

I knew that I was submitted as a candidate, but I was surprised with being chosen. This is my first prize.

How do you think astronomy can grow in Brazil?

We really need better observing conditions. The way to go with the expensive instruments nowadays clearly is through consortia involving other countries.



SUMIO IIJIMA: BIG PRIZES FOR SMALL WORK

Sumio Iijima, a physicist at Japan's Meijo University who is widely credited as the discoverer of carbon nanotubes, has racked up numerous awards. In 2008, among other prizes, he won the the inaugural Kavli Prize in Nanoscience and shared the Prince of Asturias Award for Technical and Scientific Research.

What does winning the inaugural Kavli Prize mean to you?

I feel a kind of responsibility; I have to behave well as a recipient since people may pay me special attention.

How does it feel to win two major prizes?

I am extremely happy and glad to

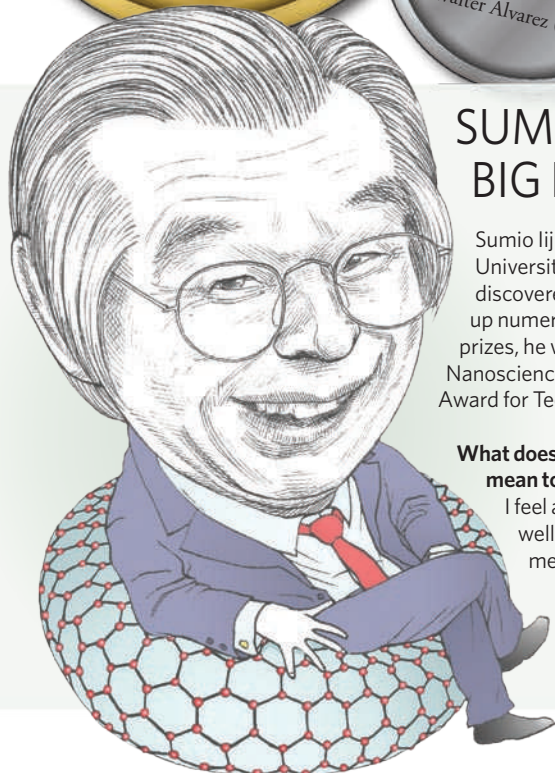
have these opportunities in a single year. Only one thing that I am not satisfied with is that both awards have not been known much in Japanese society.

What will you do with the money?

I will keep it for myself and my family. Partly because I don't have a good pension programme. However, according to Japanese tax law, nearly one-third of it will be taken as tax. It is too bad!

What advice do you have for other researchers hoping to be as successful as you?

My suggestion is you should do what you think best. You should believe in yourself. If you are an experimentalist, you should train yourself as the best technician in your field. I like the word challenge.



For more stories from some of the prizewinners, see <http://tinyurl.com/5o9g3m>.