

INDIA'S HOT YOUNG MINDS

As economic gloom gathers over India, politicians squabble and we figure out how to tackle terror, a beacon of light: India's brightest young scientists. Using material as diverse as the sun, the sea and lizards' tails, they stand on the cutting edge of discovery.
PAGES 10 & 11

Tails he wins

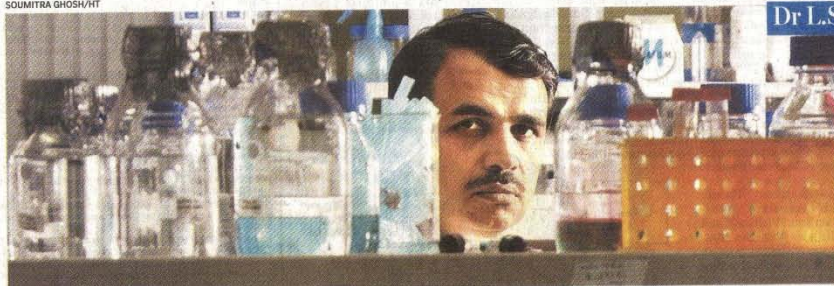
HAVE YOU ever wondered why a lizard's tail grows back perfectly, how a fly grows its wings or why your arms are almost exactly the same size and shape despite having developed independently?

These are questions that have intrigued Dr L.S. Shashidhara; the answers could hold the secret to preventing and treating cancer, which is caused by rogue cells that multiply without reason. His 15 years of studying why a fruit fly grows wings address the very fundamentals of human life.



Dr Shashidhara says that it was his long discussions with his father on the seminal work of English scientist Charles Darwin that first got him interested in evolution. The inquiring young mind,

SOUMITRA GHOSH/HT



thus nurtured in the village of Lingadahalli in Karnataka, went on to win a scholarship to Cambridge University, then returned to his motherland and began his groundbreaking cell research.

Today Dr Shashidhara is an expert on living cells. Since fruit flies and humans have thousands of genes in common, he has broken down the genetic make-up of these flies to establish how and why their cells grow or get de-

formed. This work has significantly increased our understanding of cancer.

"Our work using an insect model was used successfully to develop and test cancer drugs in 2001," he informs. "The treatment of deformed cells is the same in a fly and in a human."

"Pure science is about gaining a deeper understanding of life," says the 45-year-old. "And trying to understand nature is itself a moti-

vating factor. I find the manner in which cells work and organise themselves just so exciting. It has given me an insight into how life evolves. That is the philosophical side. On the practical side, my work can help the understanding of how a disease begins."

Dr Shashidhara, who is also "deeply interested in teaching", has recently set up the biology department at the Indian Institute of Science Education and Research,

Pune, which "aims to integrate undergraduate teaching with high quality research".

A self-confessed workaholic, Dr Shashidhara says he has to make a conscious effort to drag himself away from the lab to spend time with his family ("It's important to do that"). "I enjoy my work 24x7," he says. "I get immersed in it, go into virtual hiding and work day and night. The excitement of a new discovery drives me on."

Dr L.S. Shashidhara, 45

group leader, Centre for Cellular & Molecular Biology, Hyderabad; professor, Indian Institute of Science Education and Research, Pune

WHAT'S COOL ABOUT HIS WORK

By working out how a lizard grows its tail back perfectly or why a fly grows wings, he has done his bit in the quest for the holy grail: finding a cure for cancer

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