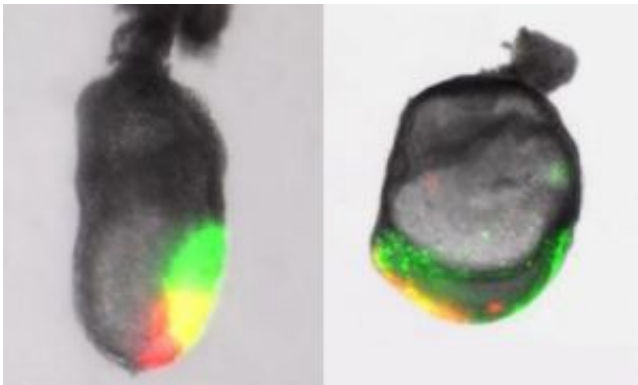


Explorer completes the map... for the body's blueprint

September 25 2007



The cells have been colored with different dyes to follow their movement as the embryo develops. Credit: Photo by Heidi Bildsoe

An Australian researcher has completed some pioneering work which is the cellular equivalent of the human genome project.

Professor Patrick Tam's 27-year exploration has mapped the movement of cells and tissues in developing mammalian embryos. It reveals how cells direct themselves to form specific parts of the body.

He was (yesterday) awarded recognition at a national conference attended by leading biologists.

Professor Tam, of the Children's Medical Research Institute, was awarded the Presidents' Medal of the Australia and New Zealand Society

for Cell and Developmental Biology at the Combio '07 conference in Darling Harbour, Sydney.

He told the delegates how his team's studies on mice embryos, showing the movement of cells in the early stages of embryonic development, has been exciting at every new discovery point.

'This work shows the precursors of different body parts and organs - where they are in the embryo and how they assemble into the final body plan. This 'fate map' will be used as a reference tool by scientists around the world to investigate developmental problems such as neurological defects or head, face and eye malformations,' Professor Tam said.

Just how and when cells and tissue 'know' where they are to go at critical stages – one goes that way to become the spine, another this way to become the nose – is recognised as a major step in cell and developmental biology.

In receiving his medal, Professor Tam joins earlier recipients including Professors Don Metcalf, John Kerr, Adrienne Clark, Peter Koopman and David Vaux.

'Patrick Tam richly embodies the traditions of this award,' said the Society's president, Associate Professor Alpha Yap. 'From the elegance and insight of his outstanding research, to his tireless efforts in peer review work and mentorship in our scientific community, he has been a model to us all.'

Professor Tam's research on how tissues follow a pattern in the early embryo provide fundamental insights into tissue organisation - for both good health and disease.

Source: Research Australia

Citation: Explorer completes the map... for the body's blueprint (2007, September 25) retrieved 17 April 2024 from <https://phys.org/news/2007-09-explorer-body-blueprint.html>

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