



nature publishing group



► **COVER:** 'The Tudors' by Vicky Summersby, inspired by the Review on p629.



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This year marks the thirtieth anniversary since embryonic stem (ES) cells were first isolated from mouse blastocysts. We celebrate this with a Poster that provides a timeline overview of the history of research on pluripotency, starting from early studies of teratocarcinomas, which preceded the isolation of mouse and human ES cells, and ending with the generation of induced pluripotent stem cells. This Poster by Peter W. Andrews and Paul J. Gokhale (<http://www.nature.com/nrm/posters/discoveringpluripotency>) was produced by *Nature Reviews Molecular Cell Biology*, with generous support from Abcam. On the same theme on page 680, Martin Evans, one of the scientists to isolate mouse ES cells in 1981, gives a personal account of the ideas that led to this milestone.

We end our tenth year of publication with the last two articles of our 10-year anniversary series. The Review by Atsushi Miyawaki (page 656) discusses advances made in the past 10 years in the development of fluorescent proteins. Some of these can be specifically activated, for example by light, and can be used to study the spatiotemporal dynamics of proteins, as well as protein–protein interactions, in live cells with unprecedented accuracy. In the Viewpoint article on page 669, nine researchers reflect on how molecular cell biology has evolved over the past 10 years. Their comments highlight the broad impact that particular insights have had, as well as key questions that need to be addressed through collaborative approaches.

Finally, we continue our Post-translational modifications series with an article by Tony Pawson and colleagues (page 629) on the Tudor domain family, members of which read arginine methylation to regulate cell behaviour. Of particular significance, Tudor proteins are thought to interact with methylated PIWI proteins to regulate the PIWI-interacting RNA pathway in the germline.

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