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RAS MUTATIONS
Developmental disorders and tumorigenesis
The aetiology of prostate cancer
The role of inflammation

► COVER: 'Reprogramming metastatic melanoma cells with embryonic microenvironments'. The cover was suggested by P. Kulcsa and L.-M. Postovit, designed and modified by Manuel Enriquez Ramirez, inspired by the Review on p246.



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This is the centennial year of the American Association of Cancer Research (AACR). Inaugurated in 1907 by seven scientists with an interest in the then emerging field of cancer research, we suspect that they would be surprised and proud to see how the AACR has grown over the past 100 years.

Many important discoveries have been made during this time, such as the identification in 1960 of the Philadelphia chromosome in chronic myeloid leukaemia, the first cancer later shown to have a specific, disease-associated chromosomal translocation. For many years it has been accepted that such translocations are primarily found in haematological cancers, but as Felix Mitelman and colleagues discuss on page 233, chromosomal translocations might also prove to be clinically significant in solid tumours.

Although anniversaries are good for marking what we have achieved, they are also an opportunity to look to the future. What do we still need to understand about this complex disease? Certainly we need to know more about tumour metastasis, currently the major reason for cancer mortality. Mary Hendrix and colleagues, on page 246, address the similarities between metastatic melanoma cells and cellular plasticity during embryogenesis, in an attempt to comprehend the origins of the metastatic cell.

However, early diagnosis still gives the best chance for effectively treating cancer, and for that we need clinically proven biomarkers for disease occurrence and recurrence, a theme taken up by Carolina Hinestrosa and colleagues on page 309. Their article highlights another important step forward for cancer research — one of inclusion. Cancer patients, survivors and advocates now have input into every aspect of research, and this combined with industry, academia and government funding should move us all closer to more effective cancer treatments.

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