In this issue

Ensuring safe blood

'Donate blood and save a life' proclaim the posters. Nevertheless, blood banks are in news these days more for the lives they put in peril than for those they save. Last year, there were newspaper reports that a reputed blood bank in Bombay supplied to several leading hospitals in the city, at least fifteen bags of blood contaminated with human immunodeficiency virus (HIV) or hepatitis B virus. This was followed by the scandal in a children's hospital in the same city, where 45 of the 64 children with thalassemia, who had blood transfusions regularly, tested positive for HIV. Contaminated blood and blood products are causing alarm the world over. In the United States, it was estimated in 1987 that 9500 of 15,500 haemophiliacs had become infected and another nearly 12,000 people had acquired HIV infection from transfusion. Public outcry against such episodes was manifest at its extreme in France, when a former Prime Minister and his two cabinet colleagues were 'put under examination' for their alleged involvement in a spate of transfusion-related infections during the period they were in power.

Negligent practices and unsatisfactory safety procedures threaten to denigrate a scientific discipline nurtured over a century. 'Blood banking' has progressed to the science of 'Transfusion Medicine' in steps. In 1901 Karl Landsteiner described the major blood groups and showed the way for selective blood transfusion. Later, techniques were identified to test the compatibility of donor blood with the recepient's. Thus, a number of deaths due to blood incompatibility could be averted. Discovery of soft plastic containers and methods for preservation ensured long-term storage of blood and its components. Today virtually every branch of medicine makes use of the advances in transfusion practice.

The scientific basis of Transfusion Medicine and requirements for effective practice of blood banking are outlined by Jaisy Mathai and Raman Kutty (**page 352**). They highlight ways for optimal utilization of a unit of blood and also draw attention to the dismal scene in blood transfusion services in India.

C. C. Kartha

Taxodioxylon gypsaceum

In the article '*Taxodioxylon gypsaceum* and its botanical affinities', van der Burgh and J. J. F. Meijer describe the variations encountered in the xylotomy of different specimens of this taxon (**page 373**). The authors have rightly highlighted the importance of proper evaluation of the variation in the wood structure of fossil taxa. They have convincingly shown that *Taxodioxylon gypsaceum* is a heterogeneous complex of at least three botanical species and it is not possible to reconstruct anything concerning the vegetation on the basis of wood alone.

C. G. K. Ramanujam

Hydrothermal activity in the Andaman Sea

P. S. Rao and his colleagues at the National Institute of Oceanography, Goa, looking for new sources of sulphide minerals come out with good news for this country. Using the sophisticated methodology of submarine surveys, including multi-beam bathymetric scanning, they discovered deposits of metal sulphides in the making in volcanic vents in a submarine rift 2000–4100 m deep in the Andaman Sea (**page 379**). They found that the sea floor behind the arc of islands, which opened about 12 million years ago, continues to spread out at the rate of 3.72 cm per year. The marine Andaman province is thus in a great geodynamic flux.

K. S. Valdiya

Killari earthquake

The 1993 Latur earthquake was a shattering experience. Several thousand people lost their lives; and for many lakhs there were untold miseries. It demolished the myth that the Peninsular India is a tectonically stable and seismically quiet shield. C. P. Rajendran and his colleagues (**page 385**) describe a number of structural deformation and geomorphic features that indicate that the belt of 1993 rupture has been rocked by earthquakes in the distant past – the region is prone to seismic events of long recurrence interval. This fact underlines the strong need for looking at the hundreds of faults cutting the shield for their activeness. Active faults are seismogenic.

K. S. Valdiya