

The technical and secretarial assistance of Mr M. J. L. Rae, Mr T. Pogmore, and Mrs L. Richardson is gratefully acknowledged.

#### Reference

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## Letter to the Editor

### Immunoperoxidase method for detection of immunoglobulins

The immunoperoxidase method for the detection of immunoglobulins is a lengthy procedure and often involves a trypsin incubation stage.

In our experience, sections—particularly from skin biopsies—often lift or are lost altogether. Adhesives such as albumin, chrome alum, and amylopectin have been tried without success, and Romac C33<sup>1</sup> is no longer available. However, Cow Gum, a rubber solution (Li-Lo Ltd, Woking, Surrey, but also available from most stationers) when diluted with a little petroleum ether, smeared onto slides, and allowed to dry is a completely effective adhesive. Sections are then floated onto the prepared slides and incubated at 37°C overnight.

The adhesive is clear, does not affect immunoperoxidase reactions, and is sufficiently insoluble in xylene for the sections to be brought to water and finally counterstained in the usual way.

The non-wettable surface of the Cow Gum smear is an advantage in that it limits spreading of the reagents by increasing the angle of contact so that smaller volumes may be used and the risk of the section drying out is reduced.

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<sup>1</sup> Maxwell A, Ritchie J S D. A comparison of adhesives usable in the cold for the preparation of cryostat sections. *Stain Technol* 1971;**46**:167-169.

## Book reviews

**IARC Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans.** Volume 19. Some Monomers, Plastics and Synthetic Elastomers, and Acrolein. (Pp. 513; Sw.fr. 60.) Lyon: WHO. 1979.

The industrial production of various monomers and synthetic polymers has grown spectacularly in the last 30 years, but our knowledge of the potential hazards of these ubiquitous and often valuable materials has not developed in a commensurate fashion. Certain acute toxic effects in man have been known for some time in relation to materials such as styrene, acrolein, monomeric vinyl chloride, and the thermodegradation products of polytetrafluoroethylene. Most of the synthetic polymers were regarded as biologically inert until the first experiments were made showing that various plastics, implanted subcutaneously or intraperitoneally into animals, induced local sarcomas. The pathogenesis of such tumours is still obscure and 'solid-state carcinogenesis' remains difficult to reconcile with current genotoxic or epigenetic theories of tumour development. The literature contains isolated case reports of local sarcomas in patients with certain surgical implants but the carcinogenic risks of such materials appear so far to be extremely low. The situation changed abruptly in 1974 when the first human cases of hepatic angiosarcoma were described in workers exposed occupationally to vinyl chloride monomer, and at least 70 examples have now been reported. These are small numbers, but the widescale use of monomeric vinyl chloride and its polymers, and related

substances, makes the latest of the IARC monographs particularly timely.

Monomeric vinyl chloride, reviewed by IARC in 1974, is assessed again and its potent carcinogenicity is established beyond doubt. Considerable suspicion now falls on acrylonitrile and, to a lesser extent, on chloroprene and vinyl bromide. The latest monograph follows the same expanded format as the last few volumes in the series, with sections on mutagenicity and teratogenicity and, where appropriate, on intermediate metabolism. This latest volume provides a useful introduction to the clinical and experimental toxicology of a complex and still ill-understood group of substances in very wide daily use.

R. L. CARTER

**Experimental Haematology Today.** Edited by S. J. Baum and G. D. Ledney. (Pp. xvi + 256; illustrated; DM 68, US\$34.) Berlin: Springer-Verlag. 1978.

This volume is a presentation in book form of papers read at the Sixth Annual Meeting of the International Society for Experimental Haematology held in Basle, Switzerland in 1977. It is not a complete document of the meeting but rather a synthesis of the major contributions. The editors are to be congratulated on achieving a cohesive, well laid-out book within a year of the original meeting.

There are six sections to the book, covering a spectrum from fundamental experimental work to clinical bone marrow transplantation. It includes papers on the abrogation of graft rejection in dogs, and an interesting paper on anti-tumour effects of syngeneic marrow