THE HOUSING AND HANDLING OF MARMOSES AND TAMARINS INFECTED WITH AIDS AND OTHER RETROVIRUSES

LYNN FRANCIS, R.T. MOORE, R.T. RAYMOND, A. BASKERVILLE

1. INTRODUCTION

In the search for suitable animal models for AIDS and other retrovirus infections it was proposed to infect the common marmoset, Callithrix jacchus, and the cotton-topped tamarin, Saguinus oedipus, with the viruses HIV-1, HIV-2, HTLV-1 and HTLV-2. To comply with the Guidelines issued in the United Kingdom by the Advisory Committee on Dangerous Pathogens the work has to be undertaken at Animal Containment Level 3 (Health and Safety Executive, 1984; 1986). Scratches or bites from animals inoculated with AIDS and similar viruses must be regarded as a potential hazard to staff and the normal method of handling these animals was considered unacceptable. Normally, they would be caught by putting a leather-gloved hand into the cage and holding the animal around the shoulders. To avoid handling the animal in this manner a cage was designed to minimise risks from bites and scratches, and to enable the animal to be trapped safely in a nest box with a crush-back facility.

2. MATERIALS AND METHODS

Three points were considered when designing the cage:

a) The animal must be contained so that both normal husbandry and experimental manipulations can be safely carried out.

b) The cage environment must be optimal for the animal, within the above safety limitations.

c) The cage must be readily dismantled for cleaning in the animal room rather than by using a central cage washing facility.

Modifications to an existing design of marmoset cage (Modular Systems and Developments Limited, Woolwich, United Kingdom) carried out in collaboration with this company enabled these criteria to be met. The cage body is constructed of 16SWG anodised aluminium with internal dimensions 500mm wide x 500mm deep x 750mm high (Fig. 1.). The 14SWG stainless steel mesh used for the front, roof and floor is 25mm x 13mm, which is too small for an adult marmoset or tamarin to put its hand through. The front section is removable, being suspended on two lift-off type hinges, and securely locked with a square key. A label holder, 50mm x 60mm, is welded to the back plate for the door lock. The vertical sliding door, 150mm x 300mm high is fastened by means of a dog-clip. The dirt tray (16SWG anodised aluminium) slides into runners formed from the extended body of the cage so that the cage components form an integral unit. Both the mesh floor and dirt tray are held in place by a swivel clip which locates in a slot in the rim of the tray. Either the grid or the tray may be removed without risk of the animal escaping. Two hardwood perches, 25mm diameter, are slotted into brackets on the cage sides and held by a locating pin fixed through the perch.

Food dishes placed on the grid are frequently pushed to the back of the
FIGURE 1. The cage with nest box in position.

FIGURE 2. Insertion or removal of food hopper.