

**PC2 (QC2) Operating Procedure for duck hepatitis B virus infected ducks**

Institute of Medical and Veterinary Science PC2 (QC2) animal house, Frome Road, Adelaide SA 5000  
AQIS QAP Premises Number #S0145  
NHMRC Project Grant “Immune therapies for chronic HBV infection”  
IMVS AEC Project 143/06; Approved 7/12/06 - 31/12/09  
University of Adelaide IBC and OGTR approval: NLRD 914/2003

CI: Dr Allison Jilbert Tel: 08-8303 5399 (BH) 08-8362 9751 (AH) 0400 88 25 40 (M)  
Fax: 08-8303 7532 Email: [allison.jilbert@adelaide.edu.au](mailto:allison.jilbert@adelaide.edu.au)  
Dr Feng Feng Tel: 08 8303 3263; Email: [feng.feng@adelaide.edu.au](mailto:feng.feng@adelaide.edu.au)  
Dr David Boyle CSIRO Livestock Industries, AAHL, Geelong VIC 3220  
Tel: 03-5227 5018; Email: [david.boyle@csiro.au](mailto:david.boyle@csiro.au)  
Animal House Supervisor: Mr Brian Lewis. Tel: 08-8222 3524; [brian.lewis@imvs.sa.gov.au](mailto:brian.lewis@imvs.sa.gov.au)  
Animal room: IMVS animal house 1-1

**Project:** The project aims to develop therapies for persistent human hepatitis B virus (HBV) infection using ducks infected with the duck hepatitis B virus (DHBV). The therapies combine treatment of ducks with antiviral drugs to inhibit viral replication followed by “prime boost” vaccination with DNA vaccines and strains of recombinant fowlpoxvirus (FPV) that express DHBV antigens. Ducks will be housed in a PC2 (QC2) animal holding room.

**Vaccination of staff:** Although the duck hepatitis B virus (DHBV) is non-infectious to humans all staff must be vaccinated with the human HBV vaccine. FPV is unable to replicate in mammalian cells and is thus non-infectious to humans.

**Clothing:** Staff must wear protective gowns and gloves. All clothing is to be used exclusively for that room. All gowns and gloves must be removed prior to leaving the room. All disposable clothing will be treated as solid waste. All washable clothing will be autoclaved prior to cleaning.

**Animals:** Day-old ducklings will be obtained from 2 interstate commercial hatcheries and will be infected with DHBV by intravenous inoculation with serum collected from DHBV-infected Australian ducks. Experiments are being conducted with a commercially available vaccine strain of FPV (FPV-M3) in addition to recombinant strains of FPV that express DHBV antigens.

**Handling:** The DHBV-infected and FPV-M3 inoculated ducks present no infection risk to staff but should be treated as infectious to other ducks and avian species. Staff should thus handle the FPV-infected ducks last thing in the day or avoid handling other ducks or avian species.

**Housing:** Ducks will be held in large metal pens or plastic tubs lined with plastic. The base of the plastic lined pens and tubs will be covered with paper pellets to adsorb liquid waste.

**Liquid waste:** Liquid waste will be kept to a minimum volume. Waste will be treated overnight with 0.5% hypochlorite then removed from the facility and disposed of into the drains.

12.5% stock solution chloride (sodium hypochlorite) - 250 ml diluted into 5 litres (0.625% chlorine)  
- 500 ml diluted into 10 litres (0.625% chlorine)

**Solid waste:** All solid waste including euthanased animals will be wrapped in plastic. Solid waste from the cages including faeces and paper pellets will be disposed of within the plastic pens or tub liners and placed and sealed in a second plastic bag. The bags will then be placed in plastic-lined yellow bins for incineration. The yellow bins will be securely sealed with electrical zip ties.

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