Research

(a) Completed

1. Pathology of virus-associated tumours in the African catfish (*Clarias gariepinus*) (See publication No. 1).
2. Pathology of bacterial diseases of the African catfish (*Clarias gariepinus*) (See publication No. 4)
3. Pathology of *Aeromonas hydrophila* and *Pseudomonas aeruginosa* in experimentally infected African catfish (*Clarias gariepinus* Burchell, 1822) (See thesis)

(b) In progress

1. Ultrastructural pathology associated with *Pseudomonas aeruginosa* and *Aeromonas hydrophila* in experimentally infected African catfish (*Clarias gariepinus* Burchell, 1822)

Synopsis: Clinically healthy *C. gariepinus* were acclimatised and experimentally challenged by intraperitoneal injection with suspensions of *P. aeruginosa* and *A. hydrophila*, alongside saline-injected controls. Fish were humanely sampled and tissues (liver, kidney, spleen, brain, eye, gonads) were immediately excised and fixed in cacodylate-buffered glutaraldehyde for ultrastructural preservation. Standard TEM processing will follow, comprising post-fixation in osmium tetroxide, dehydration through a graded ethanol series, infiltration and embedding in resin, ultrathin sectioning, and double staining with uranyl acetate and lead citrate. Sections will be examined and photographed under a transmission electron microscope, with representative micrographs used to document cellular and subcellular pathology in each organ for both bacterial challenge groups.

(c) Thesis: Pathology of *Aeromonas hydrophila* and *Pseudomonas aeruginosa* in experimentally infected African catfish (*Clarias gariepinus*. Burchell, 1822)