INTRODUCTION

Zebrafish (*Brachydanio rerio*) are becoming a standard research animal for studying developmental genetics and biomedical research. They are popular because they are diploid vertebrates that are small and easy to culture. They can externally produce hundreds of embryos per spawning that are completely transparent and develop quickly.

The University of Washington Health Sciences Zebrafish Facility was started in the spring of 1996. The facility is used communally by Dr. David Raible who studies neural crest development and Dr. Rachel Wong who studies the development of neural circuitry in the visual system, both are from the Department of Biological Structure. Dr. David Kimelman who examines axis patterning, Dr. Jim Hurley and Dr. Susan Brockerhoff who both work with eye/visual abnormalities are within the Department of Biochemistry.

The fish themselves belong to the family Cyprinidae which is the largest family of fresh water fishes and the second largest family overall of all fishes containing between 2,000 – 2,600 cypriniform species. They come from tropical to sub-tropical zones of the Indo-Pacific region, mainly India.

As of September 26, 2005 to gain access to the fish facilities one has to be on a sponsoring principal investigators (PI) approved IACUC protocol, filled out the Environmental Health and Safety (EHS) form 604 medical screen, passed the U.W. Animal Use and Training test (renewable every 5 years), and have a valid U.W. photo identification card. Those that provide primary animal care also need to attend an Aquatic Animal Training class and those that need access to the quarantine laboratory G617 located in the Department of Comparative Medicine need to attend a Specific Pathogen Free Training class.

This manual is set forth as guide to procedures and methods commonly used in the facility. It is hoped that this operations manual will provide clear guidance to zebrafish staff and satellite laboratory researchers on how to safely and productively use the zebrafish facilities.

Figure 1 Left H221 laboratory, center J083b laboratory, right G617 quarantine laboratory