IMMUNIZATION AND ADJUVANT USE

Background: Improper or unnecessary use of adjuvants, particularly Freund's, may cause excessive inflammation, granulomas or necrosis in laboratory animals.

Policy: Administration of adjuvants must be described in the OHSU Animal Usage and Administrative Review Form and approved by the Institutional Animal Care and Use Committee (IACUC) well in advance of administration.

Complete and Incomplete Adjuvant: Whenever possible, Freund's Complete adjuvant should be avoided. If Complete Freund's adjuvant is required, it should only be used for the initiation immunogenic dose.

Dose and Route of Administration: Adjuvant injections should be divided into fractions of less than 0.1 ml per injection site for rabbits and less than 0.05 ml per site for mice. Whenever possible, injections should be subcutaneous. Alternate routes or dosages must be justified, except for intraperitoneal injections in mice, where up to 0.5 ml is acceptable.

Antigen processing: Residual acrylamide from gels can cause additional pain. For this reason, antigen elution is strongly recommended. Injection sites and inoculums should be as clean as possible to avoid infection and counterproductive inflammation.

Required monitoring: All animals should be checked the day after inoculation for adverse reactions. If Freund's or acrylamide adjuvants are used, the sites of injection must be monitored for severe inflammation or large granuloma formation. If associated pain or distress is severe, consultation with the Department of Comparative Medicine (DCM) veterinarians is required. Analgesics or other treatments, including euthanasia, may be required.