OIUF THE OCULAR IMMUNOLOGY AND UVEITIS FOUNDATION

Dedicated to Eye Disease Cure and Education

Laboratory Research: An Introduction

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The major goal of our research has been to provide a resource for allowing physicians to stretch and grow to maximum potentials as providers of health care for patients with blinding ocular inflammatory diseases. That statement will undoubtedly sound surprising, since the most logical assumption would be that the laboratories exist primarily for the Program's research or primarily for patient care functions. These latter two roles of the laboratories are extremely important; but it is the transforming training function of this valuable resource that is its main raison d'etre. We believe, based on personal experience and years of observation, that the physician who must struggle at the bench with a basic research problem, frustrated by the inevitable disappointments, problem-solving, and prevailing in the end, looks at patients with difficult, puzzling problems differently than does a physician who has never had such an experience. Therefore, the laboratory experience on the Immunology Service is, we believe, essential to the development of the modern ocular immunologist. Each Fellow is required to successfully complete both a clinical and a basic research project in order to be considered to have successfully completed the Fellowship training.

Laboratory projects currently in progress include:

1. Cloning the gene for the target antigen for ocular cicatricial pemphigoid.
2. Evaluating the mechanism of action of a new immunomodulatory drug extracted from a Chinese herbal remedy.
3. Refining the stringency for diagnostic PCR conditions
4. Evaluating the efficacy of certain flavenoids for treatingocular inflammation.
5. Studying the Fas-Fas ligand system influence on the outcomeof herpes simplex keratitis.
6. Studying the immunopathogenesis of the ocular lesions in graft-versus-host disease
7. Studying the immunogenetics of susceptibility to necrotizingscleritis in patients with rheumatoid arthritis.
8. Studying the role of immune complexes and adhesion molecules in the pathogenesis of scleritis.
9. Studying a model of ocular allergy in Il-4 transgenic mice
10. Studying mast cell subsets in patients with ocular allergy
11. Studying the role of alternatively spliced forms of fibronectin in scar formation following eximer laser keratectomy.
12. Studying the contribution of autoimmunity to corneal