PROPOSED IMMUNOLOGY INTEGRATED REVIEW GROUP

SUMMARY OF PUBLIC COMMENTS

INTRODUCTION

The Immunology (IMM) Study Section Boundaries Team met April 3 - 5, 2002, to design the study sections of the proposed IMM Integrated Review Group (IRG 10) and to draft proposed guidelines. These guidelines were made available for public comment on the Center for Scientific Review (CSR) Web site for a 12-week period that ended in August 2002. CSR also received letters concerning aspects of the reorganization of this IRG, and feedback from those letters is included in this summary.

GENERAL SUPPORT AND CONCERNS

- Comments supported the proposed reorganization of immunology study sections, e.g., "I strongly support the new proposed structure of the Immunology Integrated Review Group and its six study sections. In particular, I think that it will lead to more comprehensive evaluation, and thus, improved science…" "I believe that the spirit, intent, and indeed will of all concerned in the NIH peer-review process and its revision are highly laudable. The devil will be in the details…" "The greater mixing of molecular studies with cellular studies seems advantageous."
- Although the proposal is to cluster clinical applications primarily in two study sections, some held that a separate clinical study section would be more appropriate. The American College of Allergy, Asthma, and Immunology and the American Academy of Allergy, Asthma, and Immunology point out that previous studies indicate that the proportion of clinical applications in a study section should be about 30% of the total to ensure fair review. In addition, the proposed clinical study sections, Hypersensitivity, Autoimmune and Immune-mediated Diseases (HAI) and Transplantation, Tolerance and Tumor Immunology (TTT), may not be appropriate for all translational and clinical immunology applications.
- Some members of the American Autoimmune and Related Diseases Association questioned whether combining of allergy and autoimmune diseases in one study section would have a negative impact on autoimmune research due to insufficient interest and suggested that combining autoimmune diseases with tolerance issues.
- Members of the Society on Neuro Immune Pharmacology suggest a review home in IMM for basic immunology studies linked to substance abuse.
- Although different views about handling transplantation applications exist, general consensus was that distribution of transplantation applications to organ or disease-based IRGs would provide unfavorable review. Some agree that clustering of transplantation applications with autoimmune disease and tumor immunology would be better. Others believe that combining transplantation immunology with surgery is justified and would provide better review in context, especially for applications concerned with immunosuppressive agents and histocompatibility antigens, issues that go beyond tolerance. The American Society of Transplantation and the American Society of Transplant Surgeons support formation of two transplantation study sections, one in IMM and one in Surgical Sciences, Biomedical Imaging, and Bioengineering.
- The proposed guidelines may not provide for adequate review of all vaccine applications. Innate and acquired immune responses cover an enormous range of applications that is too extensive for a single study section or IRG. [Both the IMM and Infectious Diseases and Microbiology (IDM) SSB Teams recommended study sections for such applications, Immunity and Host Defense (IHD) in IMM and Vaccine Development and Immunology of Infectious Diseases (VDI) in IDM.] Applications concerned with tropical medicine and vaccine development often are more problem driven than hypothesis driven and may be disadvantaged when reviewed by an IMM study section. [At the moment, three CSR

review loci for vaccine applications are proposed, one in IMM, one in IDM, and another in AIDS and Related Research. While IMM is focused on preclinical efforts, the AIDS study section covers the full spectrum from preclinical to clinical aspects, with some focus on AIDS vaccines.] A general view seemed to be that more than one study section should review vaccine applications and that the AIDS vaccine study section should continue.

- New study section guidelines may work better if applicants are encouraged to direct their applications to appropriate study sections. Self-selection or self-referral could foster efficiency and increased satisfaction with the peer review system. [Goals in the reorganization effort are increased awareness of how peer review works and increased use of self-referral.]
- The proposal for IMM may not sufficiently address the unfriendly attitude that some of the current immunology study sections have toward technology-driven applications.
- The guidelines do not adequately cover xeniobiotics and immunotoxicology. These topics should not be marginalized [The Digestive Sciences Team did recommend a Xenobiotic and Nutrient Disposition and Action study section, as well as a Immunology, Microbiology, and Inflammation study section.]
- The American Dental Education Association (ADEA) notes that oral immunology is not specifically covered by the proposed IMM study sections. [In the Musculoskeletal, Oral and Skin Sciences IRG, the proposed guidelines for the Oral, Dental, and Craniofacial Sciences study section include "...study of the role of inflammation and the immune system in oral diseases processes and prevention, etiology and agents involved in caries, periodontal diseases..."]
- In many cases, studies of events leading to autoimmunity are appropriately reviewed by an IMM study section. In some cases, studies of specific organs may concern unique developments requiring knowledge of that organ and thus review by an organ-based study section. For example, studies of fibrosis of renal interstitium resulting in development of proteinuria and renal tubular cell injury might best be reviewed in a Renal and Urological Sciences.
- The Gerontological Society of America, the American Geriatrics Society, the American Federation for Aging Research, the Ellison Medical Foundation, and others strongly recommend that applications dealing with immunology and aging be assigned to the Biology of Development and Aging IRG as a perception is that age-related studies of immune responses have been disadvantaged by review in IMM study sections.

STUDY SECTION SPECIFIC COMMENTS

Innate Immunity and Inflammation (III)

- Creation of a study section dedicated to innate immunity is long overdue, as grant applications on phagocytes (for example) are often orphans.
- Ad hoc reviewers with knowledge of specific pathogenesis should be added for review of applications on innate immunity to specific pathogens.

Immunity and Host Defense (IHD)

- The boundary defining what constitutes an emphasis on the host (IMM) and what constitutes an emphasis on the pathogen (IDM) is unclear.
- Separation of applications according to whether their focus is on the host-response or the organism/disease may be unfortunate. An understanding of the complex, intimate, and bidirectional interaction between pathogens (or commensals) and hosts is likely to come from those investigators who can successfully combine these approaches. One would hope that the opportunity to reorganize study sections would allow for a more integrated approach.

- Preclinical vaccine development is often not considered to be innovative by basic scientists and therefore discounted. Such research is nevertheless essential for the development of new vaccines that are desperately needed against a variety of infectious diseases.
- For far too long, mucosal immunity, including mucosal vaccine development, has been viewed as a minor subdiscipline, whereas in reality the immune system focuses its attention primarily on the defense of the various mucosal surfaces. One hopes that several individuals with proven expertise in this area will be recruited to serve on this study section.
- The planned scope is too broad. In covering host defense against viruses, bacteria, fungi, and protozoa, such a broad study section may be unfair to orphan microbes, and microbes for which molecular genetic techniques are only beginning to be developed, e.g., for fungi.

Cellular and Molecular Immunology (CMI) A and B

- Since these study sections deal with adaptive immunity, why not put adaptive in the title.
- Structural and biophysical sciences should not be placed within one of the cellular and molecular study sections because two structural biologists assessing technical details and translating for the rest of the study section simply does not work. One suggestion is that structural immunology be combined with applied immunology in a new study section. These two groups of investigators are natural allies.
- Technology development may be a blind spot. Such major real-world developments in the last 15 years with an immunology base as humanized antibodies, immunoadhesins, optical biosensors, molecular display methodologies and human immunoglobulin transgenic mice for antibody isolation had their founding technologies established without immunology cluster IRG involvement, mostly overseas. Relevant study sections are very academic and just not technology-friendly. This state of affairs is remarkable given that immunology is inherently applicable to real-world problems.
- A large number of applications currently reviewed by existing study sections will fall under the umbrella of "cellular and molecular immunology," those projects that do not specifically focus on a particular disease or pathogen. Will two new review groups be sufficient in size and expertise for all these applications?

Hypersensitivity, Autoimmune and Immune-mediated Diseases (HAI)

- Autoimmune research may be disadvantaged when combined with allergy according to members of the American Autoimmune and Related Diseases Association. If separate study sections are not possible, perhaps autoimmune and tolerance issues should be reviewed together.
- Members of the American College of Allergy, Asthma, and Immunology and of the American Academy of Allergy, Asthma, and Immunology question whether clinical applications will be 30% of the total as they should be to ensure fair review.
- The plan to review inflammatory bowel disease (IBD) applications that deal with immune mechanisms in the HAI study section may not be well founded. The GI community is at the forefront of IBD research and reviews IBD related applications (cf. the recently proposed Immunology, Microbiology and Inflammation (IMI) study section in the Digestive Diseases (DIG) IRG). The National Scientific Advisory Committee of the Crohn's and Colitis Foundation of America support formation of the IMI study section. Diseases like asthma, inflammatory bowel disease, and arthritis should not be viewed primarily as "immune processes" as fair evaluation requires complementary expertise that goes beyond the immunological perspective. IMM should focus on more basic immune processes.

Transplantation, Tolerance and Tumor Immunology (TTT)

- Members of the American College of Allergy, Asthma, and Immunology and of the American Academy of Allergy, Asthma, and Immunology question whether clinical applications will be 30% of the total as they should be to ensure fair review.
- The assignment of "Tolerance" with Transplantation and Tumor Immunology may be a tricky one. Considering tolerance, transplantation, and tumor immunology in one setting has advantages; however, dividing "tolerance" between TTT and the two CMI study sections may be an arbitrary task.