In this issue: Letter from Linda Pilarski, Pres.CSI/SCI Student Award Winners Book Reviews Upcoming Meetings



BULLETIN

CANADIAN SOCIETY FOR IMMUNOLOGY

SOCIETE CANADIENNE D'IMMUNOLOGIE

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Have you forgotten to pay your 1994-95 dues ?

A number of individuals on the CSI membership list have not yet paid their annual CSI dues. Are you one of them? Until I looked I didn't realize that I was one of those people. Being a CSI member offers you a number of benefits such as a

Being a CSI member offers you a Bulletins, listing in the CSI great Spring Meeting, informative CSI Bulletins, listing in the CSI Directory and preferred subscription rates with some publishers. We want new members but we don't want to lose any of our current

members. I am in the process of producing a new CSI directory for the fall of this year. Only fully paid up members will be continue to receive CSI communications and the Directory. Don't let us lose you. If you have not paid your dues yet or if I have missed invoicing you please send your cheque along with the information requested below before August 1! The current CSI rates are Full Member: \$94.10 and Student Member: \$35.68.

Make cheques payable to the Canadian Society for Immunology.

Name:			
Address:			
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Phone:			
<u>E-mail:</u>			
Research 1	Interests	(up to 4	4 topics for entry in the CSI directory)
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Mail to: Dr. J. Wilkins RDU Research Laboratory RR014 800 Sherbrook St. Winnipeg, Mb R3A 1M4

P.S. If you don't need this form please pass it on to any "Lost" CSI Members who wish to be added to our mailing list!

A letter from the President:

It is a difficult period for immunologists and scientists in general, as the granting agencies are faced with increased numbers of high quality proposals at the same time as they must cope with a decreasing quantity of funds to allocate for research. University budgets are also decreasing. putting more pressure on our scarce grant funds for administrative costs such as phones, etc. As the membership is aware, CSI council voted to rescind their letter of withdrawal from the Canadian Federation of Biological Sciences (CFBS). In large part, this decision was based on the energetic science policy efforts being mounted by CFBS. A new science policy officer. Dr. Paul Hough, has been employed and his contacts in the Ministry of Science and Technology are providing us with a means to discuss and provide input to government policy decisions that affect all of us. CFBS Executive Council, on which I sit as President of CSI, is in close contact with Dr. Hough via regular E-mail, and our input is being requested on issues as they arise. In order for this to be maximally effective, there needs to be a mechanism for me to consult as widely as possible with the CSI membership. I am thus asking members who want to be part of the consultative process to let me know via E-mail. I can then forward information and requests for opinions to you and hopefully receive comments from you in return. This process will only work effectively if as many as possible of our membership participate. Perceptions of a problem will necessarily vary in different locations. My e-mail address is:

lpilarsk@gpu.srv.ualberta.ca

I am optimistic about the lobby process now occurring as it stresses regular interactions between Dr. Hough and the CFBS Executive. We are kept well informed about issues being discussed by Drs. Gerard and Manley, who are key participants from Government. While we may not, and probably will not be able to increase the funds allocated to medical research, we can influence the way the available pot of money is allocated. Even more important, we can/must increase the awareness of the members of Government about medical research and encourage a positive attitude to research as a fundamental and central contributor to our national well being, in terms of health and economics. I feel it is extremely important that we are aware of the issues facing us and the potential ways to minimize the impact of funding cuts to MRC and elsewhere. I need to know how you feel about what is happening, whether it is fair and equitable, and what you think may/should be done.

Best Wishes,

Linda M. Pilarski President of CSI/SCI

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1995 Spring Meeting: Poster Award Winners

Thirty students submitted abstracts and prepared posters for the Student Poster Award competition. The posters were judged by a panel of CSI members from all over the country. Vice President Linda Pilarski (University of Alberta) chaired the committee of Elyse Bisonnette (University of Alberta), Jayne Danska (University of Toronto), Tim Lee (Dalhousie) and Hermann Ziltner (University of B.C.). The poster submissions and the student presenters were of a very high quality. It is clear that we, as immunologists, are very lucky to attract such outstanding students to our discipline. After some difficult decisions, the final winners were as follows:

First Prize: Becton Dickinson Award

Nathalie Racette (Supervisor: Martin Olivier, Université Laval, QB)

Alteration of tyrosine phosphorylation dependent pathway in Leishmania donovani infected murine macrophage.

Second Prize: Cedarlane Award

Nancy Berg (Supervisor: Hanne Ostergaard, University of Alberta)

ICAM-1 and anti-CD3 must be co-localized for optimal stimulation of CTL degranulation.

Third Prize: Serotec Award

Frieda Chen (Supervisor: Robert Painter, University of Toronto)

Studies on the interaction between C1q and IgM using domain-shuffled hybrid IgM/IgG antibodies.

Fourth Prize: Serotec Award

Beverley Rider (Supervisor: Bhagi Singh, University of Western Ontario)

Immune responses to murine self apolipoprotein E peptides naturally presented by class II MHC.

Fifth Prize: Serotec Award

Krikor Kichian (Supervisor: Wayne Lapp, McGill University)

Downregulation of p40 peptide of IL-12 coincides with IFN- γ upregulation in lymphoid organs during immunosuppressive stages of acute graft-versus-host disease.

Application for CSI/ SCI Membership

Students

Students may apply at anytime by sending a single copy of their application signed by two supporting members of the CSI. This should be accompanied by a letter from their supervisor indicating that they are enroled as a student in a University program. Payment of membership dues, \$35.68, should accompany the application. All cheques should be made out to the Canadian Society for Immunology.

Full Members

Applications for full membership are considered twice a year (March 1 and November 1). All applications should be signed by two CSI members in good standing and accompanied by a current C.V. An original plus 11 copies of the complete application and appendices should be received by the secretary treasurer one month before the application deadlines.

MAIL to Dr. J. Wilkins, RDU Research Laboratory, RR014 800

Sherbrook St., Winnipeg MB R3A 1M4

Application for FULL____ or STUDENT____ membership (check one)

Name:

Address:

Phone: FAX:

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E-mail:

Research Interests (up to 4 topics for entry in the CSI directory)

Supporting CSI Members

Name: (please print) 1)

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Signature: Signature: 1) .

2)

Upcoming Meetings

Two in country meetings of possible interest to the membership were announced:

International Workshop on Lymphokines and Cytokines Banff Springs Hotel October 1-5, 1994 Dr. Jack Gauldie, McMaster Uuniversity, for more Contact information

Biology of Allergens and Atopic Immune Responses March 1-6, 1995 Contact Dr. Alec Sehon, University of Manitoba, for more information

Secretary Treasurers Report

Membership

A motion for acceptance of new applicants for admission to the CSI (appendices A and B) was approved. (J. Gauldie seconded K. Singhal) The total paid membership of the CSI is 210 at this time.

Financial Report

Auditors reports were presented for the periods ending May 1993 and the new financial year end December 31, 1993.

A motion to reappoint the firm Chambers Fraser and Co. as auditors for 1994 was approved. (J. Wilkins seconded J. Schrader).

The proposed budget for 1994 was approved as presented. (as appended)

CSI Investment Portfolio

The value of the original \$200,000 investment as approved last year by council was \$222,277 as of January 1994. On the advice of Richardson Greenshield some monies were redistributed from the Fidelity Far East Fund to the Fidelity European and Fidelity Latin American Funds.

There was some discussion from the floor as to need for a more active professional administration of the CSI investments, as the current investment portfolio was felt to be less likely to offer as strong returns in the upcoming year. The possibility of reinvesting the monies in an asset allocation fund was also proposed.

President Lapp indicated that the present investment strategy was within the guidelines approved by the membership last year. He suggested that the next meeting would provide a better period of

Book Reviews

Mechanisms of Immune Regulation Richard D. Granstein, Volume Editor. Vol. 58 of Chemical Immunology, Copyright 1994 by S. Karger AG, Basel, Switzerland, pp 338 hard cover, US\$229, ISBN 3-8055-5786-8

Reviewed by Peter Bretscher, Dept. Microbiology, University of Saskatchewan

This book contains twelve chapters, all by different groups of authors, divided into two six-chapter subsections, entitled Mechanisms of Regulation and Topics of Clinical Interest. A compendium of articles, such as constitute this book, can be very valuable when the whole is more significant than the sum of the parts. Such an achievement is unlikely to be achieved casually, and most likely requires insight, breadth of knowledge and much effort on the part of the editor. In addition, an editor is competing in a real sense with the Editorial Committee for the *Annual Review of Immunology*. Unless the editor's choice of contributors leads to an interesting slant on some aspects of the subject, different from that available in the more prominent *Annual Review* and similar publications, the book will not be worthy of special attention.

The Preface is a brief page, and explains the purpose of the volume as being to "present the current understanding of physiologic mechanisms of immune regulation along with the impact of this knowledge on selected clinical questions." The implication to my mind is that the first section on Mechanisms should provide the context for the second section on Topics of Clinical Interest. However, there is barely any cross reference, even when this would be appropriate, giving the impression that most of these articles were written as independent contributions, without cross-talk.

Some chapters in the first section are reasonable summaries of the state of the field (M.S. Vacchio and J.D. Ashwell on "T Cell Tolerance," D.W. Scott and colleagues on "Pathways and Regulation of B-cell Responsiveness and Tolerance", K.M. Gilbert on "T Cell Clonal Anergy," E.R. Feydyl and colleagues on "Regulation of B Cell Tolerance and Triggering by Immune Complexes"), though they do not overall provide different perspectives from those in articles in the *Annual Review of Immunology*. Personally, I learnt some things from these articles, but was not struck by any new and very significant knowledge or insights.

However, two articles in this first section were different. B.R. Ksander and J.W. Streilin's "Regulation of the Immune Response within Privileged Sites" was particularly well written. Their viewpoint was never lost by describing insignificant details, and has not been overpresented elsewhere. It also has the virtue of being somewhat provocative in a reasonable way. Personally, I do not agree with their view that tumours are in effect privileged sites, thus ensuring their lack of rejection despite bearing tumour-specific antigens. Their view is difficult to reconcile with the existence of effective concomitant immunity, and the regulation of its generation, particularly as analysed by R.J. North and his colleagues. Nevertheless, I particularly enjoyed this chapter. The last chapter in this section, by D.R. Webb and colleagues, is entitled "Suppressor Cells and Immunity." It gives a considered, historical account of this subject, covering such difficult topics

as the nature of the IJ antigen, and what is known/not known about the nature of the antigen recognition structures on different kinds of suppressor T cells. Much old work dating from the 70s on suppressor T cells is ignored and, by implication, denied validity in most modern descriptions of immune regulation. I believe this wholesale scepticism of past work is to the detriment of the field. This chapter makes the case against scepticism in a reasonable manner, I hope that younger members of the immunological community who have not heard of IJ will read this article. The observations on IJ are still paradoxical and hence have the potential for being a focus of progress. As the great physicist Niels Bohr once said, "Now that we have a paradox, we are really getting somewhere." My main reservation concerning this chapter is that too little consideration is given to the physiological significance of suppressor T cells. Such a consideration is not only valuable in itself but can provide a basis for classifying suppressor T cells into different functional types.

The second section does not attempt to cover all topics of clinical interest. Nevertheless, it seems surprising that some areas that are currently particularly active are virtually ignored. These include allergies, immune responses against tumours and those against infectious agents. The last chapter of the clinical section, by M.I. Perez and R.L. Edelson, on "Regulation of Immunity by Ultraviolet Radiation and Photosensitised Reactions" seems to be too much a catalogue of observations to contribute to general understanding. The related chapter by S. Grabbe and R.D. Granstein, "Mechanisms of Ultraviolet Radiation Carcinogenesis" presents a much more digestible story, and confers quite a bit of material on the effects of UV radiation on the immune system, a surprise given the title. A chapter by Weiner and his colleagues, "Oral Tolerance: A Biologically Relevant Pathway to Generate Peripheral Tolerance against External and Self Antigens," summarizes their important work as an approach to preventing/treating some autoimmune diseases. Antigenic exposure through the gut, and antigen exposure following the deposition of antigen in a privileged site, can both lead to antigen-specific systemically unresponsive states, a parallel not brought out in either this or Streilein's article on privileged sites. "Mechanisms of Tolerance to Allografts" by R.S. Lee and H. Auchinloss is a reasonable account of rather well-known ground, whilst the short chapter "T Cell Tolerance: Models for Clinical Application to Allergy and Autoimmunity" by V.C. Schad is focussed on the potential use of peptides, given without adjuvant, to induce anergy in T cells. This article does not offer new ideas or new information from the author. Of the 64 references cited, I could find only one with which the author was associated. Very promising studies on "vaccination" against allergy were not mentioned. Finally, the chapter "Towards T cell Vaccination in Rheumatoid Arthritis" by J.M. van Laar, A.M.M. Miltenberg, F.C. Breedveld, I.R. Cohen and R.R.P. Vries describes the authors' mouse studies using T cells to vaccinate against various autoimmune diseases. In addition, the application of their strategy in clinical trials to alleviating rheumatoid arthritis is outlined, even though such a strategy appears not to have been successfully tested in an animal model of arthritis.

In summary, some of the articles in this book are interesting, stimulating and worthwhile, but the different chapters generally do not connect with one another. No contribution in the first section deals centrally with the regulation controlling the class of immunity induced by antigen, though this is likely to be relevant to several of the Topics of Clinical Interest. Perhaps libraries can be encouraged to buy this volume, so the immunological community can have access to the more interesting articles.

IMMUNOCHEMISTRY

Edited by Carel J. van Oss and Marc H.V. van Regenmortel. Marcel Dekker Inc. New York. NY. 1994 U.S.\$195.00

Reviewed by Arnold Froese, Dept of Immunology, Univ. of Manitoba

The publication of a book devoted entirely to immunochemistry is a relatively rare event in immunology. Perhaps, this explains why the editors, as outlined in the preface, have targeted this volume for a broad readership. This aim is apparent upon a cursory inspection: This book contains 40 multi-authored chapters and covers over 1000 pages. The chapters have been grouped under four main headings: 1. Immunoglobulins and other recognition molecules. 2. Antigens and haptens. 3. Antigen-antibody interactions. 4. Regulation of the immune response.

This publication does not represent the proceedings of a conference or symposium and, as a consequence, most chapters are review-style articles and do not just contain the authors' most recent research data. The cut-off year for literature cited is 1992, a situation which seems to be normal for publications of this type.

The major thrust of the content is along the lines of classical immunochemistry in that three-quarters of the chapters are devoted to antibodies, antigens and their interactions. The choice of individual topics for a book with such a broad mandate is naturally somewhat subjective. In their desire to serve a multidisciplinary clientele, the editors have largely selected appropriate subjects. However, as an immunologist, I am missing such topics as the immunoglobulin supergene family, the B-cell receptor, adhesion molecules and some information on transmembrane signalling, although some reference to the latter topic is made in a chapter on immunosuppressants. Gene organization is discussed in some detail for T-cell receptors and to a lesser extent for immunoglobulins; the latter when dealing with recombinant antibodies. In the chapter on the major histocompatibility complex the emphasis is, for the most part, on class II molecules and their interaction with peptides. The subject of antigens is obviously a vast one, and the choices made by the editors and the authors should satisfy the majority of readers who are interested in a general overview on different kinds of antigens and who are not looking for detailed information on a particular antigen molecule. The chapters on the cytokines produced by T-cells and macrophages also contain some information on the relevant receptors.

The contributors to the volume have produced a very "reader-friendly" book. The majority of articles have a good introduction and the information presented is at a level which should, as the editors suggest, appeal to biomedical scientists with varied backgrounds. The relatively large number of chapters dealing with various ways of studying different types of antigen-antibody interactions do not present detailed methodology, but quite appropriately, deal with underlying principles and alternate approaches which can be used. The book should be regarded as a reference publication. It would not be suitable as a textbook for an introductory course in immunology nor for an advanced course in immunochemistry; the spectrum of

subjects covered is simply too broad. However, individual articles could be selected as reference material for either type of course. The detail and depth of presentation may not be sufficient for some topics covered in advanced courses. However, the extensive bibliographies associated with most articles should direct the reader to the required information.

In summary this book should prove to be a useful reference volume in an area of immunology which does not see too many dedicated publications. It is of advantage to have all this information in a single volume, even if the purchase price is high. The latter becomes somewhat more palatable if one converts it to a per page basis.

Immunobiology: The Immune System in Health and Disease

C. A. Janeway Jr. and P. Travers Current Biology Ltd/Garland Publishing Inc. ISBN 0 8513 1691 7 (Soft cover); 0 8513 1497 3 (Hard cover) 1994, 589 pages US\$ 34 and \$60 respectively.

Reviewed by Kent HayGlass, Dept of Immunology, Univ. of Manitoba

Whether from the perspective of the neophyte or an aged Immunologist, one of the biggest attractions of our discipline is that it moves so rapidly. Much as history books in the former U.S.S.R.were, Immunology textbooks are in continual need of revision! The student studying, or the instructor lecturing, from a text just five years old is setting themselves up for serious problems.

The authors, Charlie Janeway and Paul Travers, and their publishers (Current Biology Ltd., the originators of the *Current Opinion in* ... series and *Current Biology*) have set themselves an immense task. Having prepared a comprehensive textbook of immunology, they propose to revise it every year, incorporating the advances (and retreats) of immunology in the preceding 12 months. By keeping the price very low (about C\$45 for soft cover), the publishers hope that we will keep purchasing the new editions rather than pass on copies of the old one. Given the speed at which things change in Immunology, even for courses at the introductory level, this is likely to be a successful marketing gamble. From the point of view of the user, be she instructor or student, annual re-writes of a textbook are definitely a great idea, but I must admit I am glad that it is not me who is doing it every year!

The book itself is logically organized, moving from basic concepts of self/non-self discrimination and so forth, through basic immunochemistry and genetics, to the development

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The John P. Robarts RESEARCH INSTITUTE

Autoimmunity Group

Dear Colleagues,

We invite you to attend an Immunology Symposium, organized by The John P. Robarts Research Institute in association with the University Hospital and the University of Western Ontario, to be held at the University Hospital October 22-24, 1995, in London, Ontario. The focus of the Symposium will be "Immunological Tolerance in Autoimmune Disease and Transplantation".

As part of the Symposium program, we have invited approximately twenty of the world's top autoimmune disease and transplantation scientists, and this will be a highly visible event both locally and internationally. Among the Symposium speakers, will be the recipient of the eleventh annual J. Allyn Taylor International Prize in Medicine, a prize of \$10,000 awarded annually to one or more individuals who have made significant contributions in basic or clinical research in diseases of the brain, circulation or immune system. This year's Prize will be awarded in the area of immunology for contributions to our understanding of "Immunological Tolerance: Impact on Autoimmune Disease and Transplantation". The Prize recipient will also receive a medal bearing the likeness of J. Allyn Taylor, past Chair of the Board of The John P. Robarts Research Institute, a widely respected Canadian Business leader, and a person who, throughout his lifetime, has demonstrated a deep regard and passionate involvement in health care matters in Canada.

A list of the speakers and their titles are included. Participants are expected to cover their own travel, registration and accommodation expenses. Registration costs will be \$200 for faculty and \$75 for postdoctoral fellows and students. For further details, write to Symposium Office, c/o Ms. Dianne McCormack, Continuing Education, Faculty of Medicine, The University of Western Ontario, London, Ontario, Canada N6A 5C1.

We look forward to your attendance at this exciting Symposium.

Sincerely yours,

Jery La

Terry L. Delovitch, Ph.D. Autoimmunity/Diabetes Group Sheldon H. Weinstein Scientist in Diabetes Professor of Microbiology and Immunology

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Calvin Stiller, M.D., F.R.C.P.(C) Chief, Multi-Organ Transplantation Service, UH Co-Director, Immunology, RRI

Bhagirath Singh, Ph.D. Director, Co-Director, Immunology, RRI Chairman, Department of Microbiology and Immunology

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David Grant, M.D., F.R.C.P.(C) Director, Transplantation Immunology Group, RRI Director, Transplantation Unit, UH