Immunotoxicology Specialty Section Newsletter



2003 - 2004 Executive Committee

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The Immunotoxicology Specialty Section Newsletter is published 3 times/year (May, August and November). If you would like to share a book review, meeting report, interesting web site or any other item of interest with members of the Specialty Section, please send it to us by the middle of the month preceding the planned publication date. All comments on, or suggestions for, the newsletter are welcome.

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Typesetting provided by Brenda House.

President's Message

Thomas Kawabata

Hope everyone had an enjoyable and relaxing holiday. In this issue of the newsletter, we have included the mission statement and goals of the ISS that was developed with input from the past ISS presidents and the ISS Executive Committee. Please carefully review the goals and send me your comments. The goals will be continually revised and reprioritized as needed in the future. We plan to develop committees to address each of these goals. This is your chance to volunteer for specific committee and task. Please send me a message if you are interested in helping out and/or leading the effort for one of the goals.

I have also included the results of the survey of the ISS Business meeting and Newsletter. We were very happy to see that we had 70 members responded. In general, most members were satisfied with the meeting and the Newsletter. However, there was concern that the committee reports and awards section of the meeting was getting too long. Therefore, the Executive Committee has decided to keep this section of the meeting to a 30 min maximum. Most of the meeting will be focused on the social mixer. For our next ISS business meeting, we would also like to increase interaction between members from different groups, especially discussions between the students, postdoc and new investigators with the more established folks. I think most people are in agreement that this should be a key component of the business meeting. The Executive Committee is trying to think of new and fun ways to enhance this interaction.

Look forward to seeing you in Baltimore.

Thanks,

Tom

IMPORTANT DEADLINE

Best Submission by a Student or by a Post-doc

February 6, 2004

Immunotoxicology Specialty Section Society of Toxicology

Mission Statement Ensure the stability and growth of high quality immunotoxicology research and training

Goals / Action Items

Top 4 Priorities

- 1 Continue to provide immunotoxicology-related symposia, CE courses, workshops and roundtables at the SOT meetings
 - Organize a Long-Term Program Planning subcommittee that will:
 - Plan programs for the next five years based on current needs and previous programs
 - Ensure diverse programs (basic mechanistic research, methods development and validation, risk assessment) with representation from various groups (academia, government, industry)
 - Development of joint support for symposia / conferences with other societies Make recommendations to the Program Committee for the upcoming SOT meeting. Identify key area or topics and potential chairpersons.
- 2 Increased participation of members in ISS activities
 - Provide opportunities for members that involve specific goals and tasks
 - Identify and recruitment of young investigators and post docs for committees
- 3 Provide career development opportunities for ISS students and postdoctoral fellows
 - Career planning workshops / conference calls for students and postdocs
 - Continue dinners with "Experts" in immunotoxicology
 - Prepare a list of students and postdocs so that they can be made aware of upcoming career opportunities
- 4 Ensure adequate funding of immunotoxicology research and training
 - Provide input to the NIH to insure appropriate review and funding of immunotoxicology proposal
 - Development of a subcommittee to address the specific issues with the reorganization of the NIH study sections
 - Make sure that the significance of immunotoxicology research to public health issues are known by funding organizations / institutions
 - Track funding in immunotox and subfields of immunotox from different organizations
 - Development of a "white paper" on key data gaps and research needs in immunotoxicology
 - Track the number of students and postdocs being trained and monitor their career path to insure an adequate number of people with the proper training

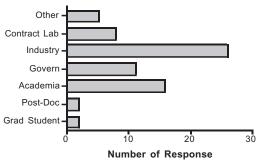
Other Key Goals

- 1 Enhanced interaction between immunotoxicologists working in academia, government and industry to make each other aware of key issues and needs / data gaps
 - Develop symposia or activities that enhance this exchange of information.
- 2 Efficient and extensive communication of immunotox information to ISS members
 - Continue to provide quality and timely newsletters
 - Development of teleconference seminars for special topics
 - Periodic surveys to the ISS
- 3 Exchange of educational materials and training between ISS members
 - Sharing of lecture materials
 - Specific training in the area of regulatory and risk assessment for chemicals and drugs (eg. traveling lecture series)

Results of Member Survey

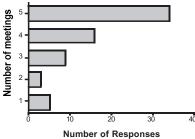
Note: Names of 5 Members Who Completed the Survey Will be Drawn in Baltimore to Receive a Gift Basket (you must be present to win)

(1) What is your current position?

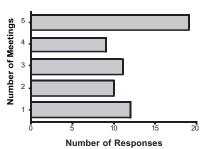


(2) How many SOT Annual Meetings

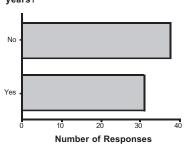
have you attended over the past 5



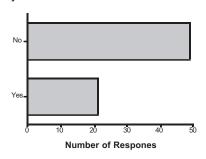
(3) How many ISS business meetings have you attended over the past 5 years?



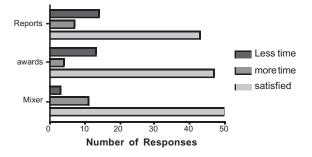
(4) Have you ever submitted a program proposal for the SOT Annual Meeting over the past 10 years?



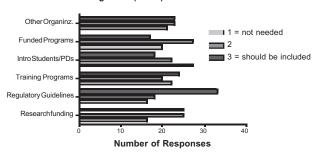
(5) Have you ever served on an ISS program committee over the past 10 years?



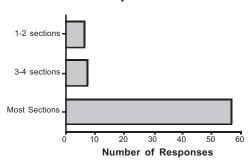
6)Time devoted to different parts of the ISS Business Meeting



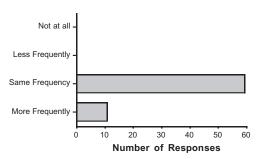
(7) Additional presentations could be added to the program, rate the following ideas (1 to 3)



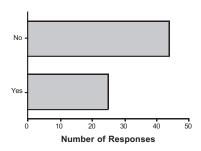
(8) How many section of the ISS Newsletter do you read?



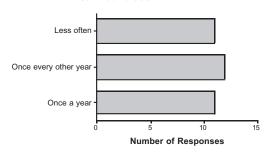
(9) How often would you like to receive the ISS Newsletter?



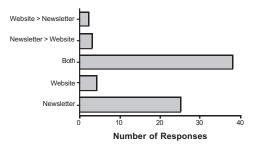
(10) Would you like to write articles of special interest to the immunotox community?



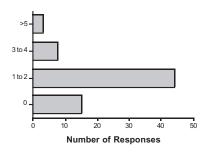
(11) If you are willing to contribute an article, how often would you submit an article ?



(12) Would you rather have most of the information regarding the ISS communictated to you via the:



(13) How many times have you visited the ISS Website over the past year?



Regulatory Committee Report

Submitted by Ken Hastings

ICH

At the Sixth International Conference on Harmonisation of Technical Requirements for Registration of Pharmaceuticals for Human Use (ICH-6), which was held November 12 – 15 in Osaka, Japan, the decision was made to accept Immunotoxicity Testing as a topic (S8 using the ICH system for identifying topics). This was the result of several years of hard work and lobbying by several people involved in drug development and regulation and represents a real milestone for the science of Immunotoxicology. Two people in particular deserve credit: Kazuichi Nakamura of Shionogi Pharmaceuticals (Japan) and Jan-Willem van der Laan of the Dutch National Institute of Public Health and the Environment (RIVM). For those of you who might be unfamiliar with ICH, this is an ongoing effort to harmonize regulatory requirements for drug development and marketing in three regions: the United States, the European Union, and Japan. Other regulatory authorities are also involved (e.g. WHO, Canada). The process itself is divided into 5 steps, with the intention of producing a guidance acceptable to all parties. With the acceptance of Immunotoxicity Testing as a topic, the next step is to write a draft guidance (referred to as "Step 2") for comment. According to the current plan accepted by the ICH Steering Committee, this document should be finished by November, 2004.

There are four key issues to be resolved:

- (1) the necessity [for] immune function testing on a routine-basis versus a cause for concern basis;
- (2) defining cause for concern;

- (3) appropriate conduct of immune function assays; and
- (4) timing of conduct of the immune function assays with respect to clinical studies.

The decision was made not to include such issues as drug hypersensitivity or immunogenicity, either because there was no perceived need for harmonization, no adequately evaluated animal methods, or (in the case of immunogenicity of biologic pharmaceuticals) the topic was covered in previous ICH guidance (in this case, S6). Tom Kawabata served as the chair of the Osaka discussions and deserves kudos for keeping us on task and producing a useful concept paper. Kazuichi Nakamura will serve as the rapporteur for Step 2, and Jan-Willem van der Laan for Steps 3 - 5. As part of the process, an Expert Working Group (EWG) was established, and the following are members (including Drs. Nakamura and van der Laan): Steven Spanhaak and Jenny Sims (representing EFPIA), Ken Hastings (representing USFDA), Tom Kawabata and Stephen Durham (representing PhRMA), Jun-ichi Sawada, Hirofumi Kusunoki, and Osamu Fueki (representing Japan MHLW), Naohisa Tsutsui and Shigeru Hisada (representing JPMA) and Tibor Matula (representing Health Canada). As the process moves forward, I will report progress in the newsletter.

Financial Report

The latest financial report for the **Immunotoxicology Specialty Section** follows. This report does not reflect dues or registration income for 2004. Thus, we finished the year \$3590.00 in the black. This is similar to our financial status at this time in recent years.

> Report submitted by Steve Pruett, Secretary/Treasurer.

Immunotoxicology Section July 2002 - June 2003

| Ordinary Income/Expense | |
|------------------------------|-------|
| Income | |
| Contributions | - |
| Dues - '03 | - |
| Student Dues - '03 | - |
| Grants - Food Safety | - |
| Grants - Mechanisms | - |
| Misc. Income | - |
| Registrat'n | - |
| Interest | 171 |
| Total Income | 171 |
| Expense | |
| Awards - Sections | _ |
| Plaques | - |
| Ballot | - |
| Exec. Mtgs. | - |
| Miscellaneous | - |
| Newsletter | 100 |
| Reception | - |
| Steno/Clerical | 87 |
| Symposia | - |
| Web Development | - |
| Total Expense | 187 |
| Excess (Deficiency) of | (16) |
| Revenue over Expenses | |
| Net Assets Beginning of Year | 3,606 |
| Transfers from General Fund | |
| Net Assets Beginning of Year | 3,606 |
| After Transfers | |
| Net Assets End of Year | 3,590 |

Immunotoxicology Specialty Section

Student Representative Report

Submitted by Beatrice Seguin

Dear fellow immunotoxicology students and post-docs,

I would like to introduce myself as your new Immunotoxicology Specialty Section (ISS) student representative. I am a Ph.D. student in Jack Uetrecht's laboratory at the University of Toronto where we are currently studying the mechanism of idiosyncratic drug reactions. I look forward to planning special events throughout the year and welcome any requests, comments or concerns you want to share with ISS students.

As you know the annual SOT meeting is coming up in March and we are excited to announce 2 special ISS-

SOT student events. An ISS student and post-doc mixer will take place on Monday March 22nd at 6:30 PM after the SOT career workshop. It will be at the Wharf Rat Brewery with the reservation under Beatrice. We would also like you to know that this year, we are planning an ISS mentor-student dinner. This will allow you to spend an evening with a mentor in immunotoxicology (industry or academia) and ask questions about their careers and get some advice for your own career path. This dinner will take place after the ISS specialty reception on Wednesday March 24th at 7:30 PM. I will be posting the location of these two events on our ISS website and if you are interested in attending one or both events, please contact me at beatrice.seguin@utoronto.ca before March 1st, 2004.

Separate from SOT special events being offered this year are a series of teleconference calls that will be hosted by mentors in our field. Students and post-docs will be able to dial-in (for free) to these teleconferences and ask questions to our guest speaker. Please look for a schedule of these teleconferences along with the guest speakers on our website.

Lastly, I want to remind you that the Immunotoxicology Specialty Section receives payments for each student and post-doc who joins a Specialty Section. We encourage you to become a student member of SOT and the ISS specialty section since this allows you to be on a roster that colleagues in immunotoxicology have access to. An ISS membership can keep you connected with fellow members and serve as a great networking opportunity.



Awards for Best Submission by a Graduate Student and Best Submission by a Post-doc

Graduate Students and Post-docs please remember that you can't win an award for the "Best Submission by a Student or by a Post-doc" if you don't submit your work for review by the ISS Awards committee. You are required to submit a complete written version (including all graphs and tables) of an Immunotoxicology presentation to be made at the SOT, 2004 annual meeting. This presentation must be accompanied by a Letter

of Nomination from the your mentor. Electronic submissions are strongly encouraged. No manuscripts will be accepted. Winners will receive a plaque and cash award. The deadline for submission is **February 6, 2004**. Nominations should be submitted via email to bpl@wsu.edu.

6

NIH-IRG Restructure

I would like to inform our membership about an issue that could adversely affect the immunotoxicology community. The Division of Research Grants (DRG) at the National Institutes of Health (NIH) has restructured study sections with the goal of modernizing the structure of initial review groups (IRGs, also called Study Sections) to allow more effective review of topics and methods that have changed substantially since the original review group structure was established. Although input from the scientific community was sought during this process and I know for certain that many immunotoxicologists (including me, and the ALTX 4 study section as a group) have responded, this input seems to have been mostly ignored. Following a brief transition period, during which immunotoxicology grant application will apparently be reviewed by a toxicology oriented study section (called XNDA), the plan is to move immunotoxicology applications to immunology study sections.

As an investigator who has seen the review process from both sides and who has worked on a toxicology study section with a reviewer who was a "pure immunologist" (one with no toxicology background), I think this process will be disastrous. Inevitably this truly imminent immunologist reviewed the immunology and based his scoring on it and largely ignored the toxicology. Thus, he was generally out of sync with other reviewers who took both into consideration. I should

emphasize that the other reviewers (who also had some toxicology background) were not giving immunotoxicology grants a free ride with regard to immunology issues. I cannot recall a single occasion when the pure immunologist identified a serious problem with the immunological aspects of an application that was not also identified by an immunotoxicologist. A major factor in the IRG's decision-making process is the interest level (enthusiasm) of the reviewer for the general topic of the application. Most members of the immunology study sections focus on basic mechanisms of immunity or naturally occurring immune diseases. They primarily publish in the Journal of Immunology. This reflects the topics about which they are likely to have a high level of enthusiasm. How many immunotoxicology papers are published in a typical issue of the Journal of Immunology (I would guess that the average would be 0.1 paper per issue)?

Many of our members may not see much reason for concern about this issue, because the majority do not rely directly on NIH funding. However, almost all graduate students and many postdocs (and their mentors, of course) in immunotoxicology depend on NIH funding. Thus, a significant decrease in such funding for immunotoxicology could have long-lasting negative effects resulting from a failure to attract top students into an area in which prospects for funding are bleak.

My suggestion to address this problem is that the DRG permanently assign immunotoxicology grants to the XNDA study section and that appropriate reviewers should be on this panel to handle immunotoxicology. As an alternate proposal, one of the immunology study sections should be selected as the primary review group for immunotoxicology, and it should include a substantial number of immunotoxicologists (at least 4). I would suggest that we route this recommendation through NIEHS (the National Institute of Environmental Health Sciences. the Institute that funds most immunotoxicology applications), because the program staff there may want to endorse it. In any case, they should be informed.

To address this issue Tom Kawabata (the President of the Immunotoxicology Specialty Section) has requested the immediate formation of an ad hoc committee: "NIH Immunotoxicology Funding Committee". Steve Pruett (spruet@LSUHSC.edu) will chair this committee and will be the contact person for anyone with suggestions on this matter. The first goal of this committee will be to prepare a letter to the DRG reflecting the legitimate concerns of the immnotoxicology community. This letter will be finalized and sent to the DRG by February 1, 2004. Additional strategy will be developed by the committee to further insure that the potential impact of the currently proposed plans by the DRG and the ISS proposal are clearly understood by key people at the NIH.

Submitted by Steve Pruett

CALL FOR PAPERS

New Taylor and Francis Journal for 2004



Please submit papers to:

Mitchell D. Cohen, PhD Editor-in-Chief, Journal of Immunotoxicology New York University School of Medicine Nelson Institute School of Medicine 57 Old Forge Road, Tuxedo, NY 10987 USA cohenm@env.med.nyu.edu

Associate Editors

Donald E. Gardner, PhD/ATS Fellow, Inhalation Toxicology Associates

Kenneth L. Hastings, Dr.P.H./DABT, Center for Drug Evaluation and Research, U.S. Food and Drug

Robert V. House, PhD, Dynport Vaccine Company LLC

Robert W. Luebke, PhD, National Health and Environmental Effects Research Laboratory , U.S. Environmental Protection Agency

Jean F. Regal, PhD, Department of Pharmacology, University of Minnesota

Kazuichi Nakamura, DVM, PhD, Shionogi & Co., Ltd., Japan.

Joseph G. Vos, DVM, PhD, National Institute of Public Health and the Environment (RIVM), the Netherlands

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The Journal of Immunotoxicology is a peer-reviewed journal that will provide a needed singular forum for the international community of immunotoxicologists, immunologists, and toxicologists working in academia, government, consulting, and industry to both publish their original research and be made aware of the research findings of their colleagues in a timely manner. Research from many subdisciplines will be presented in the journal, including the areas of molecular, developmental, pulmonary, regulatory, nutritional, mechanistic, wildlife, and environmental immunotoxicology, immunology, and toxicology. Original research articles as well as timely comprehensive reviews will be published.

The first issue of Journal of Immunotoxicology will appear March 2004 and will include the following articles:

- "Ultraviolet Light and Resistance to Infectious Diseases" Annemarie Sleliffers, Johan Garssen, Joseph G. Vos. and Henk van Loveren
- "Suppression of Immune Function and Susceptibility to Infections in Humans: Association of Immune Function with Clinical Disease* - Bob Luebke, Christine Parks, and Mike Luster
- "Immunologic Effector Mechanisms in Animal Models of Occupational Asthma" Jean F. Regal
- *Pulmonary Immunotoxicology of Select Metals: Aluminum, Arsenic, Cadmium, Chromium, Copper, Manganese, Nickel, Vanadium, and Zinc' - Mitchell D. Cohen.

To Order---

Journal of Immunotoxicology

Quarterly, Volume 1 (2004) Print ISSN: 1547-691x Online ISSN: 1547-6901

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*Institutional and SOT subscriptions include free online: monesis

Contact:

Taylor & Francis

Attn: Joel Bryan 325 Chestnut Street Philadelphia, PA 19106 Tel: (215) 625-8900 ext. 228 Fax: (215) 625-2940

E-mail: joel.bryan@taylorandfrancis.com







POSTDOCTORAL POSITION

Nat'l Health & Environmental Effects Res. Lab., Office of R&D, U.S. Environmental Protection Agency, Research Triangle Park, NC 3-yr Term appt -GS9-GS13 (\$38,588 -\$72,746) depending on experience & qualifications

Application deadline 2/29/04.

Must be a U.S. citizen or permanent resident.

To study food allergy using laboratory rodents. Research may develop along a variety of lines including explorations of the mechanisms underlying the development of oral tolerance, genetic susceptibility, adjuvant effect, etc.

For more details see:

http://www.epa.gov/nheerl/postdocs/ (Experimental Toxicology Division 06/05/01-35) or contact MaryJane Selgrade selgrade.maryjane@epa.gov

Key Words: allergy, immunology, toxicology, hypersensitivity, biotechnology, genetically modified food

SCIENTIST

The Immunotoxicology group within Drug Safety Evaluation at Bristol-Myers Squibb Co. in East Syracuse, New York is seeking an independently-thinking, highly motivated scientist with significant mechanistic and investigative experience in the assessment of alterations in immune status and function. Placement will be commensurate with the level of experience, but the ideal candidate will have a Ph.D. or its equivalent and considerable research background in immunology and/or immunotoxicology and immunopharmacology. This candidate's primary focus will be on the evaluation of the potential immunotoxicologic effects of drug candidates on innate and cellular immune functions through the development, optimization, and validation of novel in vivo, ex vivo, and in vitro assays in multiple species. Additional responsibilities may include the design, performance, and interpretation of issue-driven mechanistic studies of organ-specific immunotoxicologic effects. Significant and broad technical expertise in areas such as flow cytometry (and FACS), cellbased immune assays, new technologies, etc. is considered essential.

Please submit letters of interest as well as academic credentials, relevant scientific publications and laboratory/research experience, and contact information for supporting references via e-mail, fax, or US mail to:

Dr. Helen G. Haggerty
Immunotoxicology
Department of Toxcicology
Drug Safety Evaluation
Pharmaceutical Research Institute
Bristol-Myers Squibb Co.
6000 Thompson Road, Mailstop J-4
East Syracuse, NY 13057

Fax- 315-432-2295

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Recent Immunotoxicology Publications

Compiled by Helen Ratajczak

ANYTIME you have a new publication to report, please send it to hratajcaz@rdg.boehringer-ingelheim.com It will be included in the next newsletter.

ASTHMA, ALLERGY AND HYPERSENSITIVITY

Card, JW, Racz WJ, Brien JF, Margolin SB, Massey TE. Differential effects of pirfenidone on acute pulmonary injury and ensuing fibrosis in the hamster model of amiodarone-induced pulmonary toxicity. Tox Sc 75:169-180, 2003.

Dybing E, Sanner T. Risk assessment of acrylamide in foods. Tox Sc 75:7-15, 2003.

Jay A, West A, Van Winkle L S, Morin D, Fleschner CA, Forman HJ, Plopper CG. Repeated inhalation exposures to the bioactivated cytotoxicant naphthalene (NA) produce airway-specific clara cell tolerance in mice. Tox Sc 75:161-168, 2003.

Kenyon NJ, Ward RW, Last JA. Airway fibrosis in a mouse model of airway inflammation. Tox Appl Pharmacol 186:90-100, 2003.

Nemmar A, Hoylaerts MF, Hoet PHM, Vermhylen J, Nemery B. Size effect of intrtracheally instilled particles on pulmonary inflammation and vascular thrombosis. Tox Appl Pharmacol 186:38-45, 2003.

Smit JJ, Van Loveren H, Hoekstra MO, Schijf MA, Folkerts G, Nijkamp FP. Mycobacterium vaccae administration during allergen sensitization of challenge suppresses asthmatic features. Clin Exp Allergy 33:1-7, 2003.

Steerenberg PA, Janssen NAH, De Meer G, Fischer PH, Nierkens S, Van Loveren H, Opperhuizen A, Brunekreef B, Van Amsterdam JGC. Relationship between exhaled NO, respiratory symptoms, lung function, bronchial hyperresponsiveness, and blood eosinophilia in school children. Thorax 58:242-245, 2003.

Taylor MD. Roberts JR, Leonard SS, Shi X, Antonini JM. Effects of welding fumes of differing composition and solubility on free radical production and acute lung injury and inflammation in rats. Tox Sc 75:181-191, 2003.

Van Amsterdam JGC, Janssen NAH, De Meer G, Fischer PH, Nierkens S, Van Loveren H, Opperhuizen A, Steerenberg PA, Brunekreef B. The relationship between exhaled oxide and allergic sensitization in a random sample of school children. Clinical & Experimental Allergy 33:187-191, 2003.

Van Amsterdam JGC, Bischoff EWMA, De Klerk A, Verlaan APJ, Jongbloets LMN, Van Loveren H, Opperhuizen A, Zomer G, Hady M, Spieksma FTM, Dormans JAMA, Steerenberg PA. Exhaled NO level and number of eosinophils in nasal lavage as markers of pollen-induced upper and lower airway inflammation in children sensitive to grass pollen. Int Arch Occup Environ Health 76:309-312, 2003.

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AUTISM

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Gauthier J, Joober R, Mottron L, et al. Mutation screening of FOXP2 in individuals diagnosed with autistic disorder. Am J Med Genetics 118A:172-175, 2003.

Jamain S, Quach H, Betancur C et al. Mutations of the X-linked genes encoding neuroligins NLGN3 and NLGN4 are associated with autism. Nature Genet 34:27-29, 2003.

Niederhofer H,. Staffen W, Mair A. Immunoglobulins as an alternative strategy of psychopharmacological treatment of children with autistic disorder. Neuropsychopharmacol 28:1014-1015, 2003.

Oh HM, Oh JM, Choi SC, Kim SW, Han WC, Kim TH, Park DS, Jun CD. An efficient method for the rapid establishment of Epstein-Barr virus immortalization of human B lymphocytes. Cell Prolif 36:191-197, 2003.

Salmond CH, deHaan M, Friston KJ, et al. Investigating individual differences in brain abnormalities in autism. Philosoph Transact Royal Soc London – Series B: Biol Sc 358:405-413, 2003.

Tager-Flusberg H, Joseph RM. Identifying neurocognitive phenotypes in autism. Philosoph Transact Royal Soc London – Series B: Biol Sc 358:303-314, 2003.

Vourc'h P, Martin I, Marouillat S, et al. Molecular analysis of the oligodendrocyte myelin glycoprotein gene in autistic disorder. Neurosc Let 338:115-118, 2003.

Wakefield AJ. Measles, mumps, and rubella vaccinatin and autism. New Eng J Med 348:951-954; author reply 951-954, 2003.

Reviews

Chen DT, Miller FG, Rosenstein DL. Ethical aspects of research into the etiology of autism. Mental Retard Devel Disabil Res Rev 9:48-53, 2003.

CYTOKINES AND CHEMOKINES

Herzyk DJ, Bugelski PJ, Hart TK, Wier PJ. Preclinical safety of recombinant human interleukin-18. Toxicologic Pathol 31:554-561, 2003.

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