volume 14 supplement 1 SEPTEMBER 1994
ISSN 0197-8357

Journal of INTERFERON RESEARCH

The 1994 ISICR meeting on the interferon system

1994 Annual Meeting of the ISICR

Hotel Marriott
Budapest, Hungary
October 2–7, 1994

Mary Ann Liebert, Inc. publishers

Instructions for Authors

Address manuscripts to Dr. Philip I. Marcus, Editor-in-Chief, JOURNAL OF INTERFERON RESEARCH, Department of Molecular and Cell Biology, The University of Connecticut, 75 North Eagleville Road, Storrs, Connecticut 06269-3044 U.S.A. Manuscripts should be submitted in triplicate (an original plus two copies). The review process may be expedited by submitting the names of five potential reviewers. To help defray the cost of printing, the publisher will request that page charges, currently $50 per printed page, be paid by all authors who have funds available from research grants or from their institutions. These payments are not a prerequisite for the publication of any article.

STATEMENT OF PURPOSE AND POLICY

The JOURNAL OF INTERFERON RESEARCH publishes original papers in the field of interferon research. As indicated by the broad scope of interests represented by the editorial board, the JOURNAL OF INTERFERON RESEARCH will consider papers covering all aspects of interferon research ranging from the molecular biology of interferons and the interferon system to its use in the clinic.

The JOURNAL OF INTERFERON RESEARCH only publishes reports of original research that have not appeared in any other primary publication.

FULL AND SHORT COMMUNICATION

The Journal will publish full and short communications. Full communications should be presented in the format described below. The Short Communication should present observations that do not require a full-length text. Section headings should not be used in the body of a Short Communication. Both the text and the number of figures and tables should be kept to a minimum. Reference citations should be identical to those of full papers. Short communications undergo the same review process as full communications.

PREPARATION OF MANUSCRIPT

Type manuscript double-spaced on regular typewriter paper (not erasable bond). Leave ample margins on both sides, top, and bottom (1½ inches). Submit the original and two copies, including illustrations and tables.

On the first page, give the title of the article, name(s) of author(s), the source of work or study, and a running title of about 45 characters. On the second page, supply an abstract of no more than 200 words stating the aims, results, and conclusions drawn from the study. Papers should follow the format of: abstract, introduction, materials and methods, results, discussion, acknowledgments, references. References require full titles and complete pagination. Number pages consecutively and type author's last name on each page. At the end of the article, give the name and complete address to which reprint requests should be directed. Please follow the protocol described herein to avoid delay in publication. Consult a recent issue of the Journal for the exact format.

TABLES AND ILLUSTRATIONS

Type each table with its caption on a separate sheet of paper. Use arabic numerals to number tables. Remember, each table must stand alone, i.e., contain all necessary information in the caption, and the table itself must be understood independently of the text. Information that appears in the text should not be repeated in tables, and tables should not contain data that can be given in the text in one or two sentences.

Original pen drawings and charts (drawn and lettered only in India ink), glossy photostats of drawings or graphs, and original glossy photographs for all halftone illustrations should be supplied with the original manuscript. (Photocopies cannot be used for reproduction.) All illustrations should be identified on the back and bear the author's name. The top of the illustration should be indicated. A legend should be supplied for each illustration, and all legends numbered consecutively and typed (double-spaced) on a separate sheet. Illustrations will not be returned, unless so requested.

REFERENCES

These should conform to the style of the *Chemical Abstracts List of Periodicals*, latest edition. Complete paper titles must be included in journal citations. Each reference must be cited in the text and listed by a superscript number in parentheses in the order in which it appears in the text. References must be typed double-spaced. When data from an unpublished source are given, supply complete information, e.g., researcher's name and location. If work is in press, give journal in which it is to be published.

PERMISSIONS

The author must obtain permission whenever it is required in conjunction with the reproduction of material such as figures and tables from copyrighted material. Written permission must be obtained from the *publisher* (not the author or editor) of the journal or book concerned. The publication from which the figure or table is taken must be included in the reference list. All permissions listings must be shown in the manuscript—they cannot be entered on proofs. Written permission must be obtained from the author of any unpublished material cited from other laboratories, and should accompany the manuscript.

REPRINTS

Reprints may be ordered by using the special reprint order form that will accompany the proofs. Reprints ordered after the issue is printed will be charged at a substantially higher rate.

The JOURNAL OF INTERFERON RESEARCH is published bimonthly by Mary Ann Liebert, Inc., publishers, 1651 Third Avenue, New York, NY 10128, (212) 289-2300.

Mary Ann Liebert, Inc. publishers

PW11-8 THE TIME OF $CD4^+$ T CELLS-DEPENDENT PROTECTION IN MICE INFECTED WITH TAENIA TAENIAEFORMIS (CESTODA)
K. Ishiwata, M. Asano, M. Kohanawa, T. Minagawa, Y. Sato, M. Kamiya, A. Nakane
Department of Microbiology, School of Medicine; Department of Parasitology, Faculty of Veterinary Medicine, Hokkaido University, Sapporo, Japan; Department of Microbiology, School of Medicine, Hirosaki University, Hirosaki, Japan

PW11-9 EFFECTS OF DIETARY SUPPLEMENTS ON IFN PRODUCING CAPACITY IN HUMANS
A. Kishi, K. Uno, Y. Matsubara, A. Osato, T. Kishida
Institut Pasteur de Kyoto, Kyoto, Japan

PW11-10 AGE-RELATED CHANGES IN NKC, ADCC AND INTERFERONS
K. Chadha, I. Stadler, M.P.N. Nair, D. Feinblatt
Roswell Park Cancer Institute, Buffalo General Hospital, Buffalo, NY, USA

PW11-11 PROTEIN KINASE C IN INTERFERON-GAMMA SIGNAL TRANSDUCTION
V. Aas, P. Torjesen, J.G. Iversen, H.B. Bernestad
Institute of Basic Medical Science, Department of Physiology, University of Oslo, Oslo, Norway; Hormone Laboratory, Aker Hospital, Oslo, Norway

PW11-12 CONCERTED ACTION ON THE ANTIGENICITY OF RECOMBINANT DNA DERIVED PHARMACEUTICALS
H. Schellekens, P. Von Wussow
Delft, The Netherlands; Hanover, Germany

PW11-13 $CD3^+$/TCR-GAMMA-DELTA$^+$ CELLS AND IFN-GAMMA PRODUCING CELLS EXIST RESIDENTLY IN CNS TISSUE
K. Masashi, A. Misako, I. Kenji, M. Tomonori
Department of Microbiology, Hokkaido University School of Medicine, Sapporo, Japan

PW11-14 PRODUCTION AND ACTION OF IL-10 IN PITUITARY CELLS
P.L. Rady, P. Cadet, S.K. Tyring, E.M. Smith, T.K. Hughes
Departments of Microbiology and Immunology, and Psychiatry and Behavioral Sciences, The University of Texas Medical Branch, Galveston, TX, USA

PW11-15 EFFECTS OF LHRH AND TRH ON INTERFERON GAMMA PRODUCTION *IN VIVO* AND *IN VITRO*
M. Muscettola, V. De Leo, G. Grasso
Institutes of General Physiology, Obstetrics and Gynecology, and Human Anatomy, Siena, Italy

PW11-16 IMPAIRED PHAGOCYTOSIS AND PROMOTED BACTERIAL GROWTH TRANSFERRED BY MEDIATORS OF LYMPHOCYTES INFECTED BY ADENOVIRUSES AND HSV-1
J. Ongrádi, J. Farkas, K. Sallay, G. Varnai, G. Kulcsar, I. Nasz
Institute of Microbiology and Clinical Oral Surgery, Semmelweis University of Medicine, Dental Surgery, Municipal Police Headquarters, Budapest, Hungary

PW11-9

EFFECTS OF DIETARY SUPPLEMENTS ON IFN PRODUCING CAPACITY IN HUMANS

Atsuko KISHI, Kazuko UNO, Yuiko MATSUBARA,
Akira OSATO and Tsunataro KISHIDA
Institut Pasteur de Kyoto

We studied the effects of oral administration for one month of dietary supplements such as *Labre, Bio-normalizer* and *Spirulina A* on IFN producing capacity of the whole blood of human individuals. *Labre* is a newly isolated Lactobacillus brevis subsp. coagulans from *suguki* pickles. *Bio-normalizer* is a health food product of the fermentation of herbal plants. *Spirulina A* consists mainly of Spirulina alga. IFN-α producing capacity was determined by bioassay and IFN-γ producing capacity by time-resolved immunofluoroassay. The increased levels of IFN-α and IFN-γ production were observed in the *Labre* group and in the *Bio-normalizer* group, respectively, but no change of IFN production was seen in the Spirulina group. IFN-α and IFN-γ producing capacities are considered to be useful parameters of immunological functions.Therefore, it is suggested that the enhancement of these immunological functions improves the general condition and the quality of life of patients with impaired immune competence without any side effects.

PW11-10

AGE-RELATED CHANGES IN NKC, ADCC AND INTERFERONS.

K. Chadha, I. Stadler, M.P.N. Nair* and D. Feinblatt, Roswell Park Cancer Inst., *Buffalo General Hospital, Buffalo, NY USA

The immune system and its microenvironment undergoes complex changes during the aging process. In animal models, a decline in both humoral and cell mediated immunity has been documented with an increase in age. In humans, conflicting observations have been made with regard to cytotoxic potential of their lymphocytes (NKC, ADCC) during aging. Variable results have also been reported with regard to IFN production and IFN-mediated mitogen and antigen responses. In our study, we have examined the effect of age and gender upon potential of peripheral blood lymphocytes for IFN production, NKC and ADCC activities. We have observed that both NKC and ADCC activities are higher in lymphocytes from older individuals (average age, 67 years) as compared to young adults (average age, 20 years). All participants in this study were free from alcohol and substance abuse habits. With regard to gender, no significant differences were seen in NKC activity but marginally significant differences were seen for ADCC. IFNα production by peripheral blood lymphocytes was significantly greater for younger than aged individuals. Physiological significance of these observations will be discussed.

ISICR '94 Annual Meeting of the International Society for Interferon and Cytokine Research
October 2-7, 1994 · Hotel Marriott – Budapest, Hungary .

SECRETARIAT USE O
Abstract no.:
Date received:

ABSTRACT FORM

EFFECTS OF DIETARY SUPPLEMENTS ON IFN PRODUCING CAPACITY IN HUMANS

Atsuko KISHI, Kazuko UNO, Yuiko MATSUBARA,
Akira OSATO and Tsunataro KISHIDA
Institut Pasteur de Kyoto

We studied the effects of oral administration for one month of dietary supplements such as *Labre, Bio-normalizer* and *Spirulina A* on IFN producing capacity of the whole blood of human individuals. *Labre* is a newly isolated Lactobacillus brevis subsp. coagulans from *suguki* pickles. *Bio-normalizer* is a health food product of the fermentation of herbal plants. *Spirulina A* consists mainly of Spirulina alga. IFN-α producing capacity was determined by bioassay and IFN-γ producing capacity by time-resolved immunofluoroassay. The increased levels of IFN-α and IFN-γ production were observed in the *Labre* group and in the *Bio-normalizer* group, respectively, but no change of IFN production was seen in the Spirulina group. IFN-α and IFN-γ producing capacities are considered to be useful parameters of immunological functions.Therefore, it is suggested that the enhancement of these immunological functions improves the general condition and the quality of life of patients with impaired immune competence without any side effects.

APPLICANT'S NAME: K I S H I (FAMILY NAME) A T S U K O (FIRST NAME)

MAILING ADDRESS: ☐ Home ☑ Office

103-5, Monzen-cho, Tanaka, Sakyo-ku, Kyoto-city

Country: Japan Phone: 75-791-7726 Fax: 75-712-5850

PREFERENCE: ☑ Oral ☐ Poster ☐ Either

INSTRUCTIONS FOR SUBMITTING AN ABSTRACT

The book of abstracts will be prepared by direct reproduction of the abstract form. Read instructions carefully before you begin pre of the abstract. All abstracts must be submitted on an original abstract form. *PHOTOCOPIES WILL NOT BE ACCEPTED.*
All abstracts must be submitted by May 15. Abstracts must be written in English and single-spaced using black ribbon. *DO NO1 DOT-MATRIX PRINTER.* Please do not fold when form is mailed.
Abstract must fit inset area of the abstract form.

TITLE

Use a short, concise title that indicates the content of the abstract. The title must be typed in capital letters.

AUTHORS AND INSTITUTIONS

The speaker's name should be underlined. Indicate where the research was done (city, state and country). To facilitate notification c and disposition, the original and one (1) photocopy of the abstract should be mailed to:

International Society for Interferon and Cytokine Research
P.O.Box 22478
Cleveland, Ohio 44122 USA
Fax: (216) 464-3884

P.T.O

PA1

ISICR '94 Annual Meeting of the International Society for Interferon and Cytokine Research
October 2-7, 1994 Hotel Marriot – Budapest, Hungary

EFFECTS OF DIETARY SUPPLEMENTS ON IFN PRODUCING CAPACITY IN HUMANS

Atsuko KISHI, Kazuo UNO, Yukio MATUSBARA,
Akira OSATO and Tsunataro KISHIDA
Institut Pasteur de Kyoto

We studied the effects of oral administration for one month of dietary supplements such as *Labre*, *Bio-normalizer* and *Spirulina A* on IFN producing capacity of the whole blood of human individuals. *Labre* is a newly isolated Lactobacillus brevis subsp. coagulans from *suguki* pickles. *Bio-nomalizer* is a health food product of the fermentation of herbal plants. *Spirulina A* consists mainly of Spirulina alga. IFN-α producing capacity was determined by bioassay and IFN-γ producing capacity by time-resolved immunofluoroassay. The increased levels of IFN-α and IFN-γ production were observed in the *Labre* group and in the *Bio-normalizer* group, respectively, but no change of IFN production was seen in the Spirulina group. IFN-α and IFN-γ producing capacities are considered to be useful parameters of immunological functions. Therefore, it is suggested that the enhancement of these immunological functions improves the general condition and the quality of life of patients with impaired immune competence without any side effects.

ISICR '94 インターフェロンとサイトカイン研究国際学会年次会議
1994年10月2-7日。ホテル・マリオット – ブダペスト，ハンガリー

ヒトのインターフェロン産生能に対する食品サプリメントの効果

Atsuko KISHI, Kazuko UNO, Yuiko MATSUBARA,
Akira OSATO and Tsunataro KISHIDA
京都パストゥール研究所（現ルイ・パストゥール医学研究センター）

筆者らは，ヒトの全血のIFN産生能に対するラブレ(*Labre*)，バイオ・ノーマライザー，スピルリナA (*Spirulina A*)という食品サプリメントの1ヶ月間の経口投与の効果について研究した。ラブレは漬物すぐきから新たに分離した乳酸短杆菌亜種の凝固剤である。バイオ・ノーマライザーは，薬草を発酵させた健康食品である。スピルリナAは，*Spirulina alga*を主原料とする。INF-α産生能はバイオアッセイにより，INF-γ産生能は時間蛍光イムノアッセイにより測定した。IFN-αとIFN-γの産生レベルの増加は，それぞれラブレ投与群とバイオ・ノーマライザー投与群で認められたが，IFN産生の変化は*Spirulina*投与群で認められなかった。IFN-αとIFN-γの産生能は，免疫機能を示す有用なパラメーターと考えられる。したがって，こうした免疫機能の強化により，免疫能力を損なった患者の全身状態とQOLを何ら副作用をもたらすことなく改善できることが示唆される。