April 2000
Volume 7, No.1

2000 Meeting

November 5-9
Amsterdam
http://www. fbu.uu.nl/meeting2000/

Future ISICR Meetings
2001 Cleveland, OH
2002 Vienna
Joint ISICR/ICS
2003 Melbourne

ISICR WWW SITE
bioinformatics.
weizmann.ac.il/ISICR/

ISICR BUSINESS OFFICE
ISICR@faseb.org
TEL: 301-571-8319
FAX: 301-530-7049

ISICR NEWSLETTER EDITORS
Howard Young
youngh@mail.ncifcrf.gov
Fax: 301-846-1673

Pat Fitzgerald-Bocarsly
Bocarsly@umdnj.edu
Fax: 973-972-7293

Hannah Nguyen
nguyenh@cesmtp.ccf.org
Fax : 216-445-9769

ISICR
INTERNATIONAL SOCIETY FOR INTERFERON AND CYTOKINE RESEARCH

A Message from the ISICR President

Greetings and best wishes to all ISICR members. I am delighted to assume the responsibilities of leading the Society for the first two years of the 21st century. These are exciting times for interferon and other cytokines in both new discovery research and clinical applications. Today we already see these important medicines helping to combat many diseases, including a variety of cancers, hepatitis B and C, and multiple sclerosis. The Society will continue to foster innovative science in the interferon and cytokine area through our annual ISICR meeting, joint meetings with other societies such as the International Cytokine Society and our ISICR awards programs.

I am very much committed to excellence in interferon and cytokine basic and clinical research. Personally, I have actively conducted research in the interferon field for 25 years and have been responsible for overseeing the regulation of interferons and cytokines and other biological products for their clinical investigation and medical use for over twenty years. It is with this experience and great enthusiasm for this field that I look forward to the next two years.

Some of the initiatives that I would like to initiate during my tenure as President include:

1. Enhancing the use of the internet for communication and ISICR activities, e.g. membership, scientific findings, information regarding events sponsored by the society, web casting
2. Ensuring the highest quality of science at our meetings including basic and clinical scientific studies.
3. Establish a new Clinical Committee that will enhance clinical science at our annual meeting
4. Facilitate partnerships with other societies, including the International Cytokine Society, FASEB, AAI, and Leukocyte Biology.
5. Strengthen the membership and financial base of our society.

I look forward to meeting and working with many of you in the future. See you in Amsterdam in 2000.

Kathy Zoon

1999 ISICR Awards

The ISICR Awards Committee invites nominations for **1999 Milstein Awards**, the **Christina Fleischman Award,** the **Viragen Award** and **Honorary Membership**. The deadline for the nominations is **May 1, 2000**.

The Milstein Award ($20,000)

Individuals who have made exceptional contributions to research related to interferons and cytokines either in a basic or clinical field. Milstein awards are made possible by the generous gift of Mr. and Mrs Seymour Milstein through the Milstein Foundation. This award represents a pinnacle of scientific achievement in our field and an important landmark of the society.

Honorary Membership

Individuals who have dedicated much of their career to the interferon/cytokine field and have made substantive contributions. Honorary members are the treasure of the society who provide us with a historical perspective and valued research tradition. We invite your nominations for eligible candidates for prestigious symbols of recognition by our society for outstanding achievements. A brief exposition of the reason for your nomination and other supportive documents (such as CV, if available) should be sent to the ISICR President,
Dr. Kathyrn Zoon
FDA
Center for Biol. Evaluation & Research, Suite 200
1401 Rockville Pike
Rockville, MD 20852-1448
FAX : (301) 827-0440
Email: zoon@cber.fda.gov

The nominations will be collated, and passed on to the Chair of the Awards Committee in May. This committee will then prepare a short list of candidates and vote for winners of the awards. As specified in the ISICR Constitution, the final vote of the Awards Committee is subject to the approval of the Board of Directors of ISICR.

Young Investigator Awards ($1,000)

Eligibility: ISICR members and are less than ten years after receiving a Ph.D or M.D degree. Every year up to five Young Investigator Awards are presented to ISICR members who have made notable contributions to either basic or clinical research within 10 years after receiving their Ph.D or M.D.. This award is provided by the generous gift of the Milstein Foundation. We urge every eligible individual to apply for the awards. We also ask more senior laboratory advisers to encourage their associates to apply. Send your 2000 Meeting abstract and CV to:
Dr. Ara Hovanessian, Chair,
ISICR Awards Committee,
Institut Pasteur,
U De Virol Et Immunol Cell,
28 Rue Du Dr Roux,
Paris, 75724, France
FAX: 33-1-4061-3012,
Email: arahovan@Pasteur.fr

We plan on having a check-off box in the abstract form for easy identification of the eligible candidates. A brief note describing your accomplishment, as well as a letter of recommendation from your adviser, are strongly encouraged. The deadline is the same as that of the Meeting abstract for the 2000 ISICR/ICS Meeting.

The Christina Fleischmann Memorial Award to Young Women Investigators ($1,000)

The rules for this ISICR award are the same as for the Milstein Young Investigator Award (see above) except for gender.

Viragen Award for Excellence in Interferon Research.

Viragen Inc (Florida, USA) has created a **$500** award for basic or clinical research in the interferon field. The rules for this new ISICR award are the same as for the Milstein Young Investigator Award (see above). Use the check box in the Abstract form to be considered for this award.

Travel Awards

ISICR members who intend to attend the 2000 ISICR/ICS meeting in Amsterdam are eligible for Travel Awards. They are provided primarily through the membership fees, based on the scientific merit of the abstract and financial necessity. However, this award does not exempt payment of the registration fee. Please note that there are no age restrictions to this award. Send your meeting abstract and a note explaining the need for a Travel Award to the Dr. Ara Hovanessian, Chair ISICR Awards Committee (the deadline is the same as that of the Meeting abstract).

New ISICR Members

The ISICR welcomes the following new members. Contact information can be obtained from the Headquarters Office

Jorge C. Clanco
Bethesda, MD
Christian Brechot
Paris, FRANCE
Marie-Paule Carreno
Paris, FRANCE
Tawni L. Crippen
College Station, TX
Maurizio Gelati
Milan, ITALY
Kenneth J. Genovese
College Station, TX
Jesus Gil
Madrid, SPAIN
Donna L. Gruol
La Jolla, CA
Curt M. Horvath
New York, NY
Stephen R. Indelicato
Kenilworth, NJ
Mattew J. Loza
Philadelphia, PA
Jeannine a. Majde
Arlington, VA
Dennis W. Metzger
Albany, NY
Wendy F. Milling
Dallas, TX
Sakura Saito
Tokyo, JAPAN
Allan Schwartz
New York, NY
Dan Shochat
South San Francisco, CA
Siva G. Somasundaram
Seattle, WA
Robert D. Stout
Louisville, KY
Jan H. Tavernier
Ghent, BELGIUM
Boris B. Vargaftig
Paris, FRANCE

Support the ISICR! Renew Your Membership Now!

The ISICR wishes to express its gratitude and appreciation for the continued support of interferon research by Seymour & Vivian Milstein

IMPORTANT NOTICE ISICR AWARDS

To be eligible for ISICR 2000 Awards, you must have paid your 2000 membership dues by May 1, 2000

Students and Fellows Science of the Future

The ABC's of Patent Law

Guest Writer:
Dr. Michele Wales, Esq.

Before I introduce our guest writer, a short note. The Science Journal has a web site www.nextwave.org. that provides useful "resources for young scientists" - check it out!

With the high competitive rate of scientific discovery, researchers and biotech companies need to establish and protect what is their discovery. Patent law is quickly becoming an attractive career choice for science grads, especially those who love science but don't really mix with working at the bench. We have the honor to interview Dr. Michele Wales, Esq., for insights on what patent law is and what being a patent attorney is all about.

Her accounts are particularly valuable as she has experienced life as both researcher and patent attorney. Equipped with a university portfolio showered with awards and scholarships, Michele Wales obtained her B.S. cum laude (1989) from the University of Conneticut and her PhD (1994) in Human Genetics and Molecular Biology at Johns Hopkins University. From her thesis research, which involved the characterization of abnormal DNA methylation in human cancer, Michele discovered HIC-1 as a novel tumor suppressor gene, a finding that she subsequently patented. She then obtained her J.D. (1997) from the George Washington University National Law Center, during which time she was a staff member of the American Intellectual Property Law Association Quarterly Journal. A registered member of the United States Patent Bar and Maryland State Bar, Michele began her patent law experience as an associate at Finnegan, Henderson, Farabow, Garrett and Dunner, L.L.P. and is now patent attorney in the legal department at Human Genome Sciences.

Michele has provided a very comprehensive description that I am sure will be beneficial to those interested. Enjoy!

Hannah

1. a) **What is patent law all about?** Patents reward inventors who discover a new invention, or an improvement of an old invention, the right to exclude others from making, using, and selling the invention. This right to exclude generally exists for 20 years from filing. To obtain a patent, the inventor must completely disclose to the public the invention in a written document. However, the claims are what define the rights of the patentee, just as a deed defines the rights of a property owner.

b) **What is required for something to be patented?** The requirements for obtaining a patent are determined by Congress. The major requirements are that the invention must have a use, also known as the utility requirement, and the invention must be both novel and non-obvious to a person having a strong foundation in the relevant area of technology. Moreover, the written document describing the invention must be capable of teaching a person with such a strong foundation to make and use the invention, it must fully describe the invention, and in the U.S., it must teach the best way the inventor knows of making and using the invention.

c) **What different fields rely on patents?** As long as the invention is a new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, any field can rely on the patent system.

d) **What importance do patents have in biomedical research, especially in the interferon and cytokine fields?** Patents are critical for bringing drugs to the market. Without a patent, pharmaceutical companies cannot recoup the expenses spent on research and development. For example, a patent has issued to HGS directed to polynucleotides and polypeptides that encode a chemokine, we call Myeloid Progenitor Inhibitory Factor-1, or MPIF-1. MPIF-1 is a protein designed to protect blood precursor cells and is in phase II human clinical trials to test the efficacy in the treatment of breast and ovarian cancer.

2. **Describe a typical day at work as a patent attorney.** There really is not a typical day. It is always changing. Generally, my role is to maximize HGS' intellectual property portfolio. I am one of four in-house patent attorneys for Human Genome Sciences. Part of my responsibilities include negotiating with the United States Patent Office (USPTO) to obtain issued patents. This process is called prosecution. HGS has filed on more than 7,500 genes, and therefore, I am responsible for handling the prosecution of approximately 1/4 of these applications. Besides prosecution, I also spend time

on procedures with the USPTO and foreign patent offices that determine the first inventor of a particular invention and the appropriate scope of claims. These procedures in the United States are called interferences, while the rest of the world calls them oppositions. Interferences are essentially mini-litigations. We scour our inventor's notebooks and evaluate the opposing sides' notebooks to determine who invented the invention first. We then write motions and argue in front a judge in an effort to convince the judge that we were the first to invent the invention. The interference proceedings often determine that the person who filed first in the United States may not necessarily be the first to invent the invention. In contrast, in the rest of the world, all that matters is who filed the application first. Therefore, oppositions try to defeat (invalidate) or narrow the claims.

I am also responsible for the development, from an intellectual property standpoint, of two drugs that are in clinical trials, Keratinocyte Growth Factor 2 (KGF-2) and Vascular Endothelial Cell Growth Factor 2 (VEGF-2), as well as potential drugs which are in HGS' pipeline. I develop strategies for maximizing our patent protection for these drugs and attend clinical development meetings. I am also interacting with scientists on a daily basis. We discuss their research, decide when to file applications describing their invention, and often suggest future experiments that should be performed to more fully understand their data.

3. **You have had the opportunity to experience both scientific research at the bench as a Ph.D. and now working as a patent attorney. What would you say are the advantages and disadvantages of bench work vs. patent law? What kind of people, your opinion, would enjoy patent law?**

Patent law is extremely challenging and rewarding. You keep up with the latest technology, and constantly apply your scientific knowledge to the law. For example, when we review laboratory notebooks, we need to understand the language and the scientific rationale of the experiments that are being performed. In fact, legal strategies are created and won based on the strong understanding of science.

In patent law, you have discrete projects that need to be completed by specific deadlines. You learn how to manage these deadlines and feel a sense of accomplishment when the deadlines are met.

The biotech field is exploding and attorneys with strong biotech background, including Ph.D.'s, are in hot demand. Moreover, the monetary rewards of being a patent attorney have provided me with opportunities that would not have been available had I stayed at the bench.

Sometime, I do miss working in a laboratory setting. However, working at a biotech company, such as HGS, keeps me abreast of the current technology. And believe it or not, patent attorneys are some of the nicest people that I have met. The people who succeed as patent attorneys, especially biotech patent attorneys, are people who think creatively, who pay attention to detail, and who can strongly communicate their ideas.

4. **What do you need to become a patent lawyer, in terms of academic credentials and experience?**

To become a patent lawyer, you need a strong technical foundation, to graduate from law school, and pass both a state bar and the patent bar. However, one could become a patent agent without ever attending law school. A person with a strong technical foundation can take the patent bar. If he/she passes the bar, the patent agent can then prosecute applications before the USPTO. People who are still unsure about law school can work as a technical specialist at law firms and in the legal departments at companies, providing scientific guidance to attorneys.

5**. Could you suggest web sites and/or other resources for those interested in**

pursuing patent law as a career? What are the major locations or institutions dealing with patents in the biomedical field?

By searching Martindale-Hubbel (http://www.martindale.com/), one can identify patent law firms that specialize in biotechnology. Moreover, many companies have in-house legal departments that you can contact to determine whether openings exist. Finally, the American Intellectual Property Law Association, or AIPLA, (http://www.aipla.org/) also provides job opportunities.

6. **Do you have any advice for the interested?** Biotech patent law is a fast-paced and exciting field. If you are considering patent law as a career choice, feel free to contact me.

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Support the ISICR!

Renew Your Membership Now!

REVIEWS OF INTEREST

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WWW

Art's Biotechnology Resource

http://biotech.isCool.net
http://www.ahpcc.unm.edu/~aroberts
http://www.arc.unm.edu/~aroberts

This site allows easy access to hyperlinks and free software for the biochemist, biophysicist and molecular biologist. This site is constantly evolving and expanding, so it can be easy to use, reliable, and comprehensive. There have also been some new categories added:

Employment Opportunities: this is a list of the "searchable" databases with jobs that are related to the biotechnology field. If you know of any links that are related to employment, please email me at arthurr@wsunix.wsu.edu

Best Biotechnology Sites: this is a list of the best biotechnology-related sites in the world. If you know of any websites that are not on the list that would be considered the best, please email me at arthurr@wsunix.wsu.edu

Bioethics/ Legal Issues: provides information on the public's view of biotechnology research and legal issues that concern the biotechnology community. If you know of any other important sites related to the legality of biotechnology or ethics (i.e. human cloning), please email me at arthurr@wsunix.wsu

Sincerely,
Art Roberts (web designer)
arthurr@wsunix.wsu.edu

P.S. I reply to all emails that are sent, and I appreciate your comments and suggestions

Artemis

http://www.sanger.ac.uk/Software/Artemis/

The Sanger Centre is pleased to announce the availability of the first release of Artemis. Artemis is a free DNA sequence viewer and annotation tool which is capable of reading and writing complete EMBL entries. Documentation, screenshots and download instructions for Artemis are available.

Description
Artemis is a DNA sequence viewer and annotation tool that allows visualization of sequence features and the results of analyses within the context of the sequence, and its six-frame translation. Artemis is written in Java, reads EMBL-format sequences and feature tables, and can work on sequences of any size from a few kb to entire genomes of 5 Mb or more.

Artemis distribution
Artemis may be freely distributed under the terms of the GNU General Public License, and should run on any system with a recent version of Java, but it is currently best supported on UNIX. Please note that, although we believe Artemis to be useful in its present form, it is still undergoing continuous testing and development.

Mailing list
We welcome contributions to Artemis and suggestions for new features. An email discussion list has been set up for this purpose. To join, send a message to majordomo@sanger.ac.uk with 'subscribe artemis' in the body (not the subject). Announcements will also be sent to this list.

Acknowledgments
The development of Artemis is funded by the Wellcome Trust's Beowulf Genomics initiative, through its support of the Pathogen Sequencing Unit.

Bioethics

http://www.bioethics.net

We are proud to announce the Newly Renovated Bioethics Internet Project at http://www.bioethics.net

http://www.bioethics.net is the most-utilized, most advanced, bioethics resource on the Internet. Receiving as many as 600,000 hits per month fromprofessionals, patients, students, and teachers around the world, the Center's Internet programs are creating a new way of thinking about communications and public education in bioethics. This user-friendly, award-winning website provides ready access to commentary about a variety of issues in bioethics, including important cutting edge topics as well as more

familiar subjects in the field such as:
- Cloning
- Gene Therapy
- Abortion
- Physician Assisted Suicide
- Egg Donation & In Vitro Fertilization (IVF)
- Sperm Donation
- Managed Care

The website also provides information about the Center's current and upcoming activities and projects, and the bioethicists who challenge public thought about these issues. Recognized as an important departure point for accessing other Internet resources, the site provides numerous links to other bioethics sites and search tools to aid the 'surfer' through an ever-expanding collection of health and bioethics related material. Please stop by to learn and contribute to the field of bioethics.

Michael Usowski,
Internet Managing Editor
Center for Bioethics,
University of Pennsylvania
3401 Market St #320
Philadelphia PA 19104
Tel: (215) 573-1996
Fax: (215) 573-3036

Bioinformatics Supercomputing Centre

http://www.bioinfo.sickkids.on.ca

The BSC (Bioinformatics Supercomputing Centre) has been established at the Hospital for Sick Children in Toronto, Ontario, Canada. The BSC has recently acquired Canada's most powerful supercomputer devoted to biological and bioinformatics research. In addition to offering the online resources listed below, the BSC provides assistance with bioinformatics programs, databases etc. Contact us (see below) for support. The BSC's Mission: To be the Canadian leader in bioinformatics through innovative computational research and provision of training, support, software, and database access. Currently, the BSC provides, free of charge, the following internet accessible resources to scientists: 1)High-speed BLAST of the most current databases on the Origin 2000 supercomputer (SGI)
2)Canadian Node of the human Genome Data Base (GDB)
3)The Cystic Fibrosis Mutation Database
4)The Chromosome 7 database
5)Software enhancement/creation
6)Bioinformatics Training/Support/Data Analysis
7)The GCG package and its new web interface--SeqWeb, available to researchers within the Hospital for Sick Children.

Call our Help Desk at
(416) 813-8877
E-mail
help@bioinfo.sickkids.on.ca --

Brenda Muskat Bioinformatics Analyst/Trainer Bioinformatics Centre Dept. of Genetics and Genomic Biology Hospital for Sick Children 555 University Ave. Elm 10-104 Toronto, Ontario Canada M5G 1X8 (416) 813-8877

Biology/Science Website

http://mindquest.net

Excellent FREE resources for biology students. Study guides, interactive online quizzes and practice exams, interactive crossword puzzles, links, live chat, message boards, streaming videos (no plug-in needed) such as anatomy dissections, pictures, science news feeds from Reuters News service. All areas of science (physics, chemistry, astronomy, math, etc.), with emphasis on biology.

Dr. Randall Oelerich
mindquest.net creator/webmaster
Dept. Biology
Lake Superior College
Duluth, Minnesota

GeneCards Mirror

http://www.cgal.icnet.uk/genecards

The Imperial Cancer Research Fund (ICRF) now hosts the first UK mirror of the Weizmann Institute's GeneCards database of human genes, proteins and diseases.

Michael Mitchell User Support
Molecular Biology Software
+44 (0)171 269

Protein Homology

http://stash.mrc-lmb.cam.ac.uk/PDB_ISL/

PDB_ISL (intermediate sequence search) is a sensitive and fast search procedure. It is useful for finding sequences that are in the PDB protein structure database which are homologous to a sequence of unknown structure. The server utilizes the intermediate sequences that have been collected from a larger squence database. These sequences have been found from searches of the domains in the SCOP database (version 1.38) against NRDB using PSI-BLAST.

Resume/CV Database

www2.sciencecareers.org

Science has launched a new Resume/CV Database where scientists can post a resume/CV for inclusion in this database accessed by human resources professionals at leading biotechnology and pharmaceutical organizations. Go to our web site: www2.sciencecareers.org to post your resume/CV. Be sure to tell your colleagues about this exciting new service from Science.

CLINICAL TRIALS

Study of newly diagnosed multiple myeloma patients who will receive chemotherapy with VAD, or patients who have completed chemotherapy with VAD and achieved a plateau phase: Initiation of maintenance therapy with **GM-CSF**. Contact: Dr. Mohamad Hussein, The Cleveland Clinic, Cleveland, OH 44195 TEL: 216-445-6830

Study of the HER-2/neu protein based vaccine with **GM-CSF** as an adjuvant (mixture) in patients with breast or ovarian cancer that exhibits HER-2/neu. Contact: Donna Davis, R.N., Research Nurse, University of Washington Medical Center, Seattle, WA 98195 TEL: 206-616-9538

97-N-0148: A 48-Week (24-Week Baseline Followed by a 24-Week Treatment) Phase II Pilot Study of the Tolerability and Effect/Efficacy of Subcutaneously Administered **Insulin-Like Growth Factor-1** (rhIGF) (CEP-151) in Multiple Sclerosis (MS) Patients. Contact: Patient Recruitment and Public Liaison Office, CC, Bethesda, MD 20892-4754 TEL: 1-800-411-1222

Daily **Interferon** in Combination with Ribavirin for Patients with Chronic Hepatitis C Infection who have Relapsed or Failed Prior Interferon and Ribavirin Combination Therapy. Contact: Robert S. Brown, Jr., MD, MPH, Columbia-Presbyterian Medical Center, New York, NY TEL: 212-305-0914

Study of **Interferon Alpha 2-b** in combination with Adriamycin for metastatic for adults with metastatic islet cell cancer. Contact: Judy Fayter, LPN, CCRA, Shore Memorial Hospital, Somers Point, NJ TEL: 609-653-4670

Study to Determine the Efficacy of **Interferon Beta-1a** in the Treatment of Idiopathic Pulmonary Fibrosis (IPF). Contact: Clinical Trials Center, Clearwater, FL TEL: (800) 677-4629

98-N-0160: Combined Virological and Immunological Evaluation of Treatment of Patients with Early HTLV-1-Associated Myelopathy with Recombinant Human **interferon Beta-1a**. Contact: Patient Recruitment and Public Liaison Office, CC, Bethesda, MD 20892-4754 TEL: 1-800-411-1222

94-I-0149: Treatment of Multiply Drug Resistant Tuberculosis with **interferon Gamma**: A Phase I/II Dose Escalation Trial. Contact: Patient Recruitment and Public Liaison Office, CC, Bethesda, MD 20892-4754 TEL: 1-800-411-1222

99-I-0089: **Interferon Gamma** Administration in Leukocyte Adhesion Deficiency Type I. Contact: Patient Recruitment and Public Liaison Office, CC, Bethesda, MD 20892-4754 TEL: 1-800-411-1222

NIAID ACTG 299: Phase I/II Trial of Recombinant **Interleukin-2** In Symptomatic Human Immunodeficiency Virus-Infected Children. Contact: Professional Services.Chiron Corp, Emeryville, CA 94608 TEL: (510)601-3440

Vaccine Therapy Plus I**nterleukin-2** in Treating Patients With Unresectable Stage III or Stage IV Melanoma. Contact: Lori Elder, Assistant Director, University of Virginia School of Medicine Clinical Trials Office, Charlottesville, VA 22908 TEL: 804-924-8530

99-N-0169: Phase I/II Trial. Effect of the Humanized Monoclonal Antibody Against the **Interleukin-2 Receptor** Alpha Subunit (IL-2R-Alpha; Zenapax® (Registered Trademark)) on Inflammatory Activity in the CNS in MS. Contact: Patient Recruitment and Public Liaison Office, CC, Bethesda, MD 20892-4754 TEL: 1-800-411-1222

99-I-0114: T Cell Cytokine Changes During **IL-4 Receptor** Treatment for Asthma. Contact: Patient Recruitment and Public Liaison Office, CC, Bethesda, MD 20892-4754 TEL: 1-800-411-1222

Safety, Tolerance and Efficacy of Treatment with Subcutaneous **IL-10** in Subjects with Steroid-Dependent Crohn's Disease. Contact: Marie Marcucci, Massachusetts General Hospital, Boston, MA 02115 TEL: 617-724-7559

NIAID ACTG 325: A Phase I, Double-Blind, Randomized, Placebo-Controlled Trial Of Recombinant Human **Interleukin-12** (rhIL-12) In HIV-Infected Subjects With Less Than 50 CD4+ T Cells And Subjects With 300-500 CD4+ T Cells. Contact: Celine Briscoe. Genetics Institute, Cambridge, MA 02140 TEL: (617)498-8133

NIAID ACTG 387: A Randomized Controlled Trial to Compare the Efficacy of a Four Drug Antiretroviral Regimen Alone or in Combination with **GM-CSF** or **IL-12** Administered to HIV-1 Infected Subjects as Measured by the Characteristics of Viral Decay. Chair; Dr. G. Kost Contact: Univ of California / San Diego Treatment Ctr, 2760 5th Ave, San Diego CA 92103; Univ of Colorado Health Sciences Ctr, 4200 East 9th Ave, Denver CO 80262; Indiana Univ Hosp, 550 North Univ Blvd, Indianapolis IN 46202

Remember : Students and Postdoc Membership Dues are only $10

FAMOUS QUOTES

As long as one keeps searching, the answers come.
Joan Baez

FDA APPROVAL OF ACTIMMUNE® PROVIDES HOPE FOR CHILDREN WITH FATAL DISEASE

From **Chris Czarniecki**

InterMune Pharmaceuticals (Palo Alto, CA) today announced that the U.S. Food and Drug Administration has approved Actimmune® (Interferon gamma-1b) Injection for delaying the time to disease progression in patients with severe, malignant osteopetrosis. Osteopetrosis is a life-threatening,congenital disorder in which an overgrowth of bony structures leads to blindness, deafness and increased susceptibility to infections. In the most serious form of the disease, most patients become blind or anemic by six months of age and die within the first ten years of life, frequently in the first two years. Actimmune was previously approved in 1990 for reducing the frequency and severity of serious infections associated with Chronic Granulomatous Disease.

"Actimmune provides us with a new treatment option for osteopetrosis in that it helps to reduce the number of infections, improve bone marrow function and prolong the lives of children with this

disease," said L. Lyndon Key, Jr., M.D., Professor of Pediatric Endocrinology at the Medical University of South Carolina.

"The approval of Actimmune is a significant milestone for InterMune and for patients who suffer from osteopetrosis as it makes available a much needed medication to patients in desperate need of treatment alternatives," said W. Scott Harkonen, M.D., President and Chief Executive Officer of InterMune Pharmaceuticals. "Additionally, we believe that Actimmune has a tremendous potential in the treatment of a variety of other diseases. In fact, published clinical trial results have suggested that the drug may be useful in treating serious lung diseases and systemic infections."

The FDA's decision to approve Actimmune (Interferon gamma-1b) Injection was based on a BLA application filed in August 1999. The Phase III clinical trial evaluated the efficacy of Actimmune by determining the length of time to disease progression. Disease progression was defined as death, significant reduction in hemoglobin or platelet counts, serious bacterial infection requiring antibiotics, a 50 decibel decrease in hearing or progressive optic atrophy. In the trial, 15 patients were randomized to receive either Actimmune or a control vitamin D medication called calcitriol. Study results showed that the median time to disease progression was significantly delayed in patients treated with Actimmune® (at least 165 days) compared to patients treated with the control (65 days). All side effects seen in patients who participated in both the Phase II and Phase III clinical trials (34 patients) were mild in severity, the most common being flu-like symptoms such as fever (16 patients), headache (3 patients), and fatigue (1 patient) which could be alleviated by taking acetaminophen one hour prior to injection. Prior to the filing, the FDA granted the drug fast track review and orphan drug status. The FDA's fast track program facilitates the development and expedites the review of drugs intended for the treatment of serious or life-threatening diseases and that demonstrate the potential to address unmet medical needs for such conditions. The FDA may grant orphan drug designation to drugs intended to treat a rare disease or condition. Once approved, the FDA may not approve any other applications to market the same drug for the same indication, except in very limited circumstances, for seven years.

POSTDOCTORAL POSITIONS CAN NOW BE LISTED ON THE ISICR WEB SITE

A new site has been created on the ISICR website that will permit ISICR members to list their open postdocotoral positions.

Obituary

William E. Stewart III

(17 July 1940 – 30 January 2000)

William E. Stewart III, was a pioneer in the field of interferon research, author of the classic 1979 textbook *The Interferon System*, founder of both the *Journal of Interferon Research* (1980) and the *International Society for Interferon Research* (1983), the predecessors of the current Journal and Society. Those who knew Bill agree he was a talented, complex, multifaceted, enigmatic, and colorful individual who made many scientific contributions and who had a significant impact on the careers of many with whom he interacted. In order to capture the myriad facets of Bill Stewart's scientific career, define his impact on the field, and the influence he had on other researchers, I solicit your remembrances of him, including personal anecdotes. Photographs of Bill also would be appreciated. The material will be edited and assembled as a special tribute in the journal he founded.

Please send material by E-mail: pmarcus@biotek.mcb.uconn.edu or to the Department of Molecular and Cell Biology, University of Connecticut, 75

North Eagleville Road, Storrs, CT 06269-3044.

Philip I. Marcus

The FOOD OFFENSE: A technique for stress reduction in the laboratory

Howard A. Young

Maintaining positive interactions between laboratory personnel is a crucial aspect of managing a laboratory. As laboratories become more crowded, personality conflicts invariably arise and when they do, the entire laboratory can suffer from the increased stress and tension that may occur. I report here a novel and unique method for reducing stress in the laboratory. This method, termed a **FOOD OFFENSE**, has been utilized by my laboratory for a number of years and has proven successful in defusing the occasional stressful laboratory incident. The original **FOOD OFFENSE** was previously published in the Life Technologies newsletter, *Focus* (15:21, 1993). Here I reprint it and update it for the 21st century.

A **FOOD OFFENSE** is defined as being a situation where the actions of one member of the laboratory leads to the disruption of the work of other members of the laboratory. While there may be a strong debate regarding whether or not a specific act is a **FOOD OFFENSE**, a majority vote in the lab is sufficient to declare a **FOOD OFFENSE**. Examples of **FOOD OFFENSES** are as follows:

1. Using up a common reagent (e.g. blot washing buffer) and not remaking it before the next person needs it.
2. Leaving common equipment (e.g. tissue culture hood) so messy that the next user must clean it before it can be used.
3. Using isotope and not recording its' removal such that the next user winds up not having as much as expected.
4. Stripping a blot for someone but forgetting about it such that the blot burns after the buffer boils away (this actually happened).
5. Providing the wrong restriction map with any plasmid (or not providing any restriction map at all).
6. Tearing a journal article out of a journal before anyone else has read it.
7. Providing the wrong clones for newest microarray chip.
8. Scheduling a lab meeting but forgetting to show up despite the fact everyone else managed to remember.
9. Neglecting to tell the lab that the cell line you work with is mycoplasma contaminated.
10. Starting a gel for someone but plugging the electrodes in backwards.
11. Forgetting to turn off a gel for someone.
12. Spilling radioisotope and not cleaning it up (a **MAJOR FOOD OFFENSE**).
13. Leaving a big, heavy rotor in a centrifuge when you know the next person to use it is 5' 2" tall, weighs 90 pounds and needs the smaller rotor.
14. Breaking any piece of equipment and not telling anyone.

When a **FOOD OFFENSE** is committed and the individual is identified, the individual is given two options:

Option #1. Bring in food for the lab.
Option #2. Start looking for another job.

Since choice #1 is the preferred response, the type of food which satisfies a **FOOD OFFENSE** is somewhat restricted. The rules are as follows:

1. Homemade food, preferably containing chocolate, is desirable but not absolutely required.
2. Certain foods, such as Vegemite from Australia or gefilte fish, do not satisfy a food offense.
3. Healthy foods might qualify but only if they taste like something fattening.
4. Trying a recipe for the first time should generally be avoided unless you are absolutely sure it is wonderful.

There are a few additional rules that apply to a **FOOD OFFENSE**.

1. New students are exempt for the first two weeks in the lab as they are generally expected to mess something up.
2. **FOOD OFFENSES** only apply to incidents where other lab members are affected. If you use up the isotope but no one else in the lab uses it,that is not a **FOOD OFFENSE**.
3. No one is exempt from **FOOD OFFENSES**, including the head of the lab.
4. Poverty cannot be claimed as a reason to avoid providing food. A dozen doughnuts will not break anyone.
5. The person who commits the **FOOD OFFENSE** is allowed to partake in the eating. In fact, one might well be wary of food that is avoided by the individual who provided it.
6. One cannot prepay **FOOD OFFENSES**. However any food brought for the lab is always welcome.
7. If the **FOOD OFFENSE** payment is really bad, the individual committing the **FOOD OFFENSE** should be required to try again.

Finally, if your laboratory has any individuals who commit **FOOD OFFENSES** but absolutely refuse to cooperate, it might be well to invoke option #2. Anyone who cares so little about the other members of a laboratory and constantly creates stressful situations is probably more trouble than they are worth and might be better off somewhere else.

I wish to acknowledge all the past and present members of my laboratory who have cooperated fully with me in reducing stress and tension in the lab. However I cannot imagine that I could have ever committed any of the **FOOD OFFENSES** that I have been charged with.

FLU: The story of the great influenza pandemic of 1918 and the search for the virus that caused it. By Gina Kolata. Farrar, Straus and Giroux, New York, 1999. 330pp. List price $25, but available for much less from Amazon.com.

Reviewed by
Pat Fitzgerald-Bocarsly

New York Times science writer, Gina Kolata has recently published this non-fiction “science thriller” on the infamous influenza pandemic of 1919. As with her other recent books “Clone: the road to Dolly and the path ahead” and “The baby doctors: probing the limits of fetal medicine”, Kolata is writing for the educated layman, seeking to make the science and personalities involved comprehensible to the scientifically curious. As with other Kolata writings, FLU is a very readable, sometimes amusing offering as she uncovers the process of scientific discovery. The scientist with an interest in the history of science should find the book both entertaining and informative.

The influenza pandemic of 1919 struck at the end of World War I, and is estimated to have killed 500,000 Americans and as many as 20 million people worldwide, rapidly striking down healthy, young men and women within a few days, and sometimes wiping out whole villages. What made the 1919 flu so deadly, and what the possibilities are of a global recurrence have been the subject of much national concern. Kolata describes how such national fear lead directly to the swine flu debacle of 1976, when a massive government initiative to immunize the country against a flu epidemic that never materialized was launched. As a first year graduate student that year, I recall the politics and press that surrounded that plan, and the backlash as alleged vaccine side-effects were touted. (I chose not to take the vaccine and hoped for “herd immunity”.)

Particularly revealing about the nature of scientific inquiry are Kolata’s accounts of the quest to recover the 1919 flu virus. She recounts the stories of Hulit, a Swedish pathologist, who sought the virus over a period of half a century, and Taubenberger, a scientist from the Armed Forces Institute of Pathology, who successfully used sensitive PCR techniques to retrieve it from archived

tissue samples, and later, the bodies of flu victims. Hulit carried out an expedition to Alaska in 1951, exhuming bodies of Eskimo flu victims that had been buried in permafrost. Unfortunately, the technology of the 1950's was not sophisticated enough to detect virus in these tissues. Hulit patiently waited more than 50 years, watching the literature until science would develop to the point where such samples could be useful. Ultimately, a retired, 72-year old Hulit found that opportunity in the late 1990's and returned to Alaska, exhumed the bodies, and recovered lung tissue that yielded positive results in Taubenerger's lab – a mission that cost about $3,000. Kolata juxtaposes this account to a similar mission by a scientist named Duncan, who, with much fanfare, years of planning, a large scientific staff, and half a million dollars in expenditures (most from government grants) has yet to yield any virus. The scientist reader can't help but cheer as the small guy wins out over the cumbersome, scientific bureaucracy!

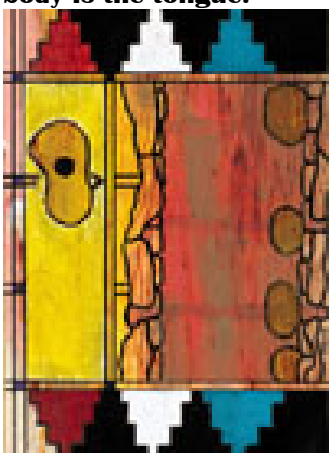
For the interferonologist, Kolata's book is a little disappointing: although interferon is mentioned, she doesn't describe the importance of the flu virus in the discovery of interferon, nor does she mention Mx as a unique host defense. At the very end of the book, she discusses theories about the interaction of the NS1 protein of influenza and interferon, and the possible contribution of interferon resistance to the virus's lethality – here, unfortunately, her science becomes garbled and faulty, perhaps because this was added at the last moment.

It is sometimes said that the history of an era only becomes valid after 30 or more years have passed, thus allowing various documents to become available for historical perusal. Kolata's book spans from the epidemic itself all the way to 1999 – just months before the book was published. Indeed, the reader is left with a cliff-hanger – although virus has been found in frozen bodies and archived paraffin blocks from 1919, the answers regarding it's particular lethality remain a mystery. With modern molecular biology, such answers are likely imminent. Perhaps Kolata will have to write a sequel or an update in a few years. Meanwhile, mankind is left with the haunting questions of what exactly happened in 1919 and whether such an influenza pandemic could strike again. Or, with the advent of public health policy, antibiotics, vaccine surveillance and development, and the dawn of antiviral drugs, has the virus been rendered impotent? Perhaps only time will provide these answers.

Thoughts to Ponder

The average human eats eight spiders in their lifetime at night.

The strongest muscle in the body is the tongue.



Third Joint Meeting of the ISICR/ICS

November 5-9, 2000 RAI Amsterdam The Netherlands

http://www.fbu.uu.nl/meeting2000/

The International Society for Interferon and Cytokine Research and the International Cytokine Society will hold their joint meeting in Amsterdam, November 5 to November 9 at the Amsterdam RAI International Exhibition and Congress Centre. This meeting is widely recognized as the foremost International Congress on cytokine research, creating an outstanding forum for the exchange of ideas and new information. The programme will be underpinned by plenary

lectures on topics of wide interest given by outstanding scientists highlighting new developments of the past two to three years. In addition to keynote lectures and symposia, papers will be selected from submitted abstracts for oral and poster presentations. We therefore invite you to submit your abstract to the *Third Joint Meeting of the ICS/ISICR* in Amsterdam. The abstract form, as well as other information about the *Third Joint Meeting of ICS/ISICR*, is available on this website.

Amsterdam with their world-famous canals and ancient buildings is a superb conference venue with fine shops, unique art-galleries and a busting night-life. The programme will give ample opportunities to visit the historical city of Amsterdam with its numerous typical 17th century canal houses retaining most of their period architecture, furnishings and paintings.

The science programme will include plenary lectures, workshops and poster sessions. Workshops are held in conjunction with poster exhibits. Conferees will participate and have the opportunity to discuss their subject and/or posters. Symposia and workshops will take place simultaneously in the morning and afternoon. The final list of workshops will be established according to the topics covered by the abstracts.

Session topics include:
- Toll-like receptors & the response of the host
- Cytokines & autoimmunity
- Cytokine-binding proteins
- Cytokines in mucosal immunity
- Defects of the IL-12 & IFN-gamma pathway
- Angiogenesis
- Cytokines in organ transplantation
- Suppressor of cytokine signalling (SOCS)
- Adhesion molecules & cytokines
- Cytokines in neurological disease
- Chemokines, HIV & vaccine
- Cytokines & hematological tumors
- Cytokines in asthma & allergy
- The renaissance of IFN-beta

Participants who would like to present an oral or a poster presentation must submit an abstract. Further details can be found on the website. It is also possible to ask the congress secretariat to send you this guideline by e-mail or postal mail.

IMPORTANT DATES

May 1, 2000
Deadline for submission of abstracts (post or e-mail) *Your abstract will be confirmed within one week after receipt.*
Deadline for submission of awards application

July 17, 2000
Notification of acceptance of papers:

August 31, 2000
Deadline for early registration

October 31, 2000
Deadline for advance meeting registration
After this date registration must be made at the meeting.

Registration Fees

	Early*	Advance*	At the meeting
Members	400 Euro	500 Euro	600 Euro
Non Members	500 Euro	600 Euro	700 Euro
Students***	300 Euro	350 Euro	400 Euro
Guests/spouse	250 Euro	275 Euro	300 Euro

* Not later than August 31, 2000
** After September 1 and before November 1, 2000
*** Students must provide a document of university registration
The above fees include V.A.T. of 17.5 %.

Hosts

International Society for Interferon and Cytokine Research
President : Kathryn Zoon
Secretary : Sidney Pestka
Treasurer : Sam Baron

International Cytokine Society
President : Scott Durum
Vice President : Jean-Michel Dayer
Secretary : Carl Ware
Treasurer : Matthew Fenton

Local Organising Committee
Chair: Huub Schellekens, Utrecht University
Members:
Lucien Aarden, CLB, Amsterdam
Wim Buurman, Maastricht University
Sander van Deventer, Academical Medical Centre, Amsterdam
Jos van der Meer, University

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Peter van der Meide, Utrecht University
Susanne Osanto, University Hospital, Leiden
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