Signals

THE **ISICR** NEWSLETTER

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IN THIS ISSUE:

A Farewell note from outgoing ISICR President, **Leonidas Platanias**

Dear ISICR members,

My term as president will end on December 2011. Effective January 1, 2012 my colleague and friend Chuck Samuel will assume the presidency and leadership of the society for the 2 next years. As my term approaches its end, I would like to point out some developments over the last 2 years.

The joint ICS/ISCR meeting in Chicago was a great success and generated the highest income ($128,000) in the history of both societies, making available $64,000 to each society. Such financial success has substantially strengthened ISICR and may possibly facilitate the development of a program to support young scientists. In the near future I will be asking the board of ISICR to consider the development of such a program to fund competitive small grants for pilot projects in the interferon field. Such support may be helpful for young investigators and others who may be struggling in the current funding environment at NIH with low pay lines.

The 2011 meeting in Florence promises to be exciting and stimulating. I believe it will help the society meet its goal of bringing together scientists from around the world to present and discuss their best and most recent cytokine and interferon research. I look forward to seeing many of you in Florence.

Discussions regarding a possible merger with the ICS have been ongoing. There is now a process in place for the gradual unification of the societies and the creation of the new CIS (Cytokine and Interferon Society) that will be going through different stages and may be finalized over the next 1-2 years.

I want to thank the ISICR Board of Directors, Committee Chairs and committee members for working hard to ensure the strength and viability of the ISICR. I also want to thank Lisa Hetherington for providing important administrative support to the society.

Finally, I would like to thank all of you for electing me President of the Society and for your support and confidence over the past two years. Please join me in wishing Chuck Samuel great success as he assumes the Presidency of our society.

Future ISICR Meetings

2011 Meeting
Oct. 9-12, 2011
Joint ISICR/ICS
Florence, Italy

2012 Meeting
Sept. 19-22, 2012
Joint ISICR/ICS
Geneva, Switzerland

ISICR
International Society for Interferon & Cytokine Research

2011 ISICR

Milstein

AWARD WINNER

PROFESSOR DOUG HILTON

Professor Doug Hilton

Director of the Walter and Eliza Hall Institute of Medical Research

Professor and Head of the Department of Medical Biology, the University of Melbourne.

Douglas Hilton was born in the UK in 1964 and migrated to Australia with his family in 1970. He grew up in the idyllic outer suburb of Warrandyte, in the lower Yarra Valley, just north east of Melbourne. He continues to live in Warrandyte with his wife Adrienne, sons Josh and Zeph, and their Kelpie, Jessie.

Doug Hilton was educated at Warrandyte Primary School and East Doncaster High School, where he recalls being inspired by "a fabulous biology teacher". As a 19-year-old Monash University undergraduate, Hilton was introduced to the amazing world of blood cells when he spent the summer holidays in Ian Young's laboratory at the John Curtin School of Medical Research in Canberra. In his Honours year and as a PhD student, Hilton worked at the Walter and Eliza Hall Institute with two giants of molecular haematology, Professors Don Metcalf and Nicos Nicola, to purify and patent a messenger protein called LIF, which is used by laboratories around the world to culture mouse embryonic stem cells.

After his PhD, Hilton spent two formative years as a postdoctoral fellow at the Whitehead Institute, Massachusetts Institute of Technology, in Cambridge, Massachusetts, with Professor Harvey Lodish. During this time, he worked on trying to understand how the dedicated receptor on the surface of red blood cells recognises the hormone erythropoietin (also known as EPO), famous for its clinical use in patients with renal failure and infamous for its illicit use by some sports people.

Since returning to Australia in 1993, Professor Hilton has continued his research at the Walter and Eliza Hall Institute on communication between cells, discovering several hormone receptors and an entirely novel family of STOP signals named the Suppressors of Cytokine Signalling proteins or SOCS proteins. In recent years, together with Professor Warren Alexander and Dr Benjamin Kile, Professor Hilton has established a new program using large-scale mouse genetics and genomics to identify which of the 30,000 genes in the genome regulate blood cell formation. The purpose of the program is to identify targets for the development of new medicines.

Professor Hilton has received many prizes and awards for his contribution to medical research, including the Amgen Medical Researcher Award, the inaugural Commonwealth Health Minister's Award for Excellence in Health and Medical Research and the GSK Australia Award for Research Excellence. In 2004 he was elected a Fellow of the Australian Academy of Science and currently serves on this organisation's council. In 2010 he was elected as a Fellow of the Academy of Technological Sciences and Engineering.

Throughout his career, Professor Hilton has been actively involved in the application of research through collaboration with industry. He is an inventor on more than 20 patent families, most of which have been licensed. He co-founded the biotechnology company Murigen Therapeutics and actively collaborates with CSL on a number of projects.

In addition to his obvious scientific achievements and accomplishments, Professor Hilton has been very active in promoting science and research to young people. He was a key speaker at many Future Leaders Forums in which several hundred high-achieving secondary school students are exposed to leaders in many walks-of-life. He has been a scientist in residence at secondary schools and is a member of curriculum committee of the Gene Technology Access Centre (GTAC), which was established by the Victorian Government to promote excellence and innovation in secondary science education. Professor Hilton also piloted and established Australia's most successful program to provide tertiary science students with a taste of life as researcher. Based on the eponymous MIT program started in 1969, the Undergraduate Research Opportunities Program (UROP) pairs talented second and third year tertiary students to the laboratories of first class researchers, where they are given their own research project. Since its inception in 1998, when only one student worked in his lab, the Program has expanded into 5 states, involves all of Australia's leading medical research institutions and has provided initial research experiences to hundreds of students most of whom have gone on to PhDs.

Professor Doug Hilton became the sixth director of the Walter and Eliza Hall Institute in its 95-year history and took over the reins on 1 July 2009.

2011 ISICR Milstein Award Winner: DR. DOUGLAS HILTON *by Thomas Tan*

Congratulations on receiving the Milstein Award this year! Where were you when you found out and who was the first person(s) you shared the news with?

The email came through from Dr. Platanias on July 2nd at 4.00 am Australian Time. I read that email about 5.15 am, over breakfast and before driving the 30 km from my home into the centre of Melbourne, where The Walter And Eliza Hall Institute is located. My children, Josh and Zeph, were the first to find out. They laughed.

A celebratory laugh, I am sure! Among your many contributions to the field of cytokine research, which one are you most proud of?

Two discoveries stand out. Purifying Leukemia Inhibitory Factor as a 21 year old undergraduate student under the supervision of Professors Metcalf and Nicola. Discovering the SOCS proteins with a very talented postdoctoral scientists, Dr Robyn Starr.

Speaking of the important discovery of SOCS, why do you think negative regulatory mechanisms of cytokine signaling have received very little attention from the pharmaceutical industry for therapeutic interventions?

To boost cytokine responses, we need to antagonize SOCS proteins. SOCS proteins act via binding to receptors and kinases and drugging protein-protein interactions is difficult. On the flip-side, to dampen down cytokine responses we would need to specifically elicit expression of SOCS proteins again a difficult challenge.

Tell us about the Walter and Eliza Hall Institute of Medical Research. What does the motto "Mastery of Disease through Discovery" mean?

The Walter And Eliza Hall Institute is 96 years old - we focus on blood cells and three main disease areas - cancer, infectious disease (mainly malaria) and immune and inflammatory diseases. We value both basic discovery and translation - hence we want to master disease through the discoveries we make. We have between 60 and 70 laboratory heads and about 800 staff and have close affiliations and excellent relationships with The University of Melbourne and The Royal Melbourne Hospital.

Is the rumor about the Australian Government planning to cut $400 million from the National Health and Medical Research Council (NHMRC) budget, which distributes the bulk of Australia's medical research funding, true? How would this affect the Walter and Eliza Hall Institute of Medical Research?

Like many countries, Australia is under economic pressure and health and medical research, like all areas of government spending, were examined for savings. The sector and the community came together to emphasize how important research is and the government responded by maintaining the research budget. We are now working with government to create a decadal plan for health and medical research, which will deliver the community want they expect - improvements in disease prevention, diagnosis and treatment in manner that is broadly accessible and affordable.

What are your current priorities as the Director of the Walter and Eliza Hall Institute of Medical Research?

1. Making it as easy as possible for talented and innovative researchers to succeed.
2. Taking risks and appointing some new laboratory heads at a young age - late twenties or early thirties. I really detest the recent trend (over the last 10 to 20 years) of extending the post-doctoral period for 10 or 15 years, before investigators are given a proper opportunity for independence.
3. Trying to fix the gender equity problem.

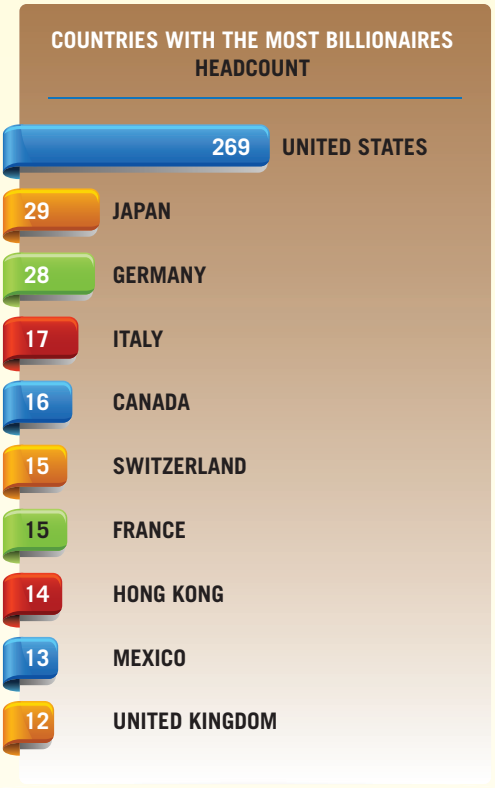
Thinking back, how has the trajectory of your scholastic pursuits influenced your career choices and present position? Did you have a role model?
I didn't really have a role model. Although my mother did not go to University, she was very supportive and very generous with her encouragement. I also had an excellent high school biology teacher - Libby Holland - who taught me a very important lesson - "although there is a lot of information in a text book, the most interesting things are yet to be discovered".

If you weren't a scientist, what would you be?
If I wasn't a medical researcher I would be entomologist. If I was a scientist, I would probably be unemployed. I am not a generally gifted individual with a myriad of career choices.

What keeps you up at night and what is your idea of relaxation?
I have the wonderful gift of being able to sleep soundly no matter what the pressure of day to day life - my family says that this is my only gift. Having said that, I am not very good at being idle. I like to collect insects or go fishing when I am on vacation.

This year's ISICR meeting will take place in Florence, Italy. What are you most looking forward to?
I do not enjoy air travel and being overseas. I would much prefer to drive somewhere remote in Australia , preferably where I am 100s of km from anyone else (family and friends excepted), rather than in a city. The best thing about the ISICR meeting is catching up with friends. Perhaps the meeting could me moved to a remote corner of the Australian outback, so I can have the best of both worlds?

Great idea!



Dr. Ara Hovanessian

With a tenured position as a Director of Research at France's National Center of Scientific Research, Ara Hovanessian conducted his research activities in Paris at the Institut Pasteur (1978-2004) and at the Université Paris Descartes (2004-2011) focusing mainly on the mechanism of action of interferon and HIV research. He holds BSc and MSc degrees from the American University of Beirut (1972, 1974) and a Ph.D. in biochemistry from King's College, London (1978); with a research project that described for the first time the dsRNA activated enzymes induced by interferon, the protein kinase PKR and the 2',5'-oligoadenylate synthetase. This work conducted with Ian Kerr was carried at the National Institute for Medical Research in Mill Hill, in the same laboratory where Isaacs and Lindenmann described interferon in 1957. For his pioneering work on the mechanism of action of interferon, Ara Hovanessian has received in 1990 the "European Award for Interferon Research" and the "ISICR Milstein Award", while the French government has bestowed on him the rank of Chevalier in the National Order of Merit for his scientific accomplishments on HIV research. Although recently retired, Ara Hovanessian follows actively two of his recent research projects: on the surface-nucleolin antagonist, HB-19 and related Nucant pseudopeptides, that are now in Phase II clinical trials as nontoxic agents in cancer therapy; and on the mixture of synthetic peptides, overlapping the CBD1 epitope in HIV-1 gp41, as a potential HIV-1 vaccine that gives a significant protection against mucosal SHIV challenge in macaques.

Dr. Philip Marcus

Board of Trustees Distinguished Professor of Molecular and Cell Biology in the College of Liberal Arts and Sciences, Dr. Marcus received his Ph.D. from the University of Colorado Medical Center in Microbiology/Biophysics.

At the age of 28, Phil Marcus developed a method to grow colonies, or clones, from single mammalian cells with his Ph.D. advisor. This was the first practical and efficient method for growing colonies from individual animal cells, and it is still used today in laboratories around the world. Known as a "clonogenic assay," it is often used in cancer research to isolate a few drug, virus, or radiation-resistant cells to study the molecular basis of the resistance.

Today, his laboratory is working on ways to control the spread of chicken influenza virus to reduce the chances of a pandemic. His research has centered on interferon, a protein produced by animals that activates a cell's anti-viral response. He has discovered, in collaboration with Dr Margaret J. Sekellick, a procedure that can overcome virus resistance to the action of interferon. Their technique essentially overwhelms the ability of a virus to block the antiviral action of interferon.

Dr. Marcus was chosen for the second ISICR Distinguished Service Award based on his long term guidance of the Journal of Interferon and Cytokine Research as well as his leadership of the ISICR Publications Committee.

WELCOME

NEW ISICR MEMBERS

We welcome these new ISICR members, coming from 11 countries and we invite and encourage them to participate in ISICR committee activities and meetings.

Hossein Bannazadeh Baghi
Ghent Univ, Ghent, Belgium

Johannes Bluijssen
Adam Mickiewicz Univ, Poznan, Poland

Samuel Breit
St Vincent's Hospital, Sydney, Australia

Katarzyna Bulek
Cleveland Clinic Foundation, Cleveland, OH

Eliseo Castillo
Univ of New Mexico Health Sciences Ctr, Albuquerque, NM

Marta Catalfamo
NIAID, Bethesda, MD

Alessandra Fragale
Istituto Superiore di Sanita, Rome, Italy

Elena Giacomini
Istituto Superiore di Sanita, Rome, Italy

Ioannis Grivas
Hellenic Pasteur Inst, Athens, Greece

Vivekanand Gupta
Fox Chase Cancer Center, Philadelphia, PA

Stacy Horner
Univ of Washington, Seattle, WA

Abbas Isa
Aeras, Rockville, MD

Belinda Kelava
Peter MacCallum Cancer Centre, Melbourne, Australia

Jing Jing Khoo
Monash Inst of Med Resrch Monash Univ, Clayton, Australia

Iryna Kolosenko
Karolinska Institute, Stockholm, Sweden

Daisuke Kurotaki
Yokohama Univ Graduate Sch of Medicine, Yokohama, Japan

Yuk Yu Leon
The Univ of Hong Kong, Hong Kong, China

Etna Marilena
Istituto Superiore di Sanita, Rome, Italy

Mohamed-Ali Maroui
CNRS, Paris, France

Giulia Marsili
Istituto Superiore di Sanita, Rome, Italy

Nicole Messina
Peter MacCallum Cancer Centre, Melbourne, Australia

Somashekarappa Nanjappa
Univ of Wisconsin, Madison, WI

Pramod Nehete
Univ of Texas MD Anderson Cancer Ctr, Houston, TX

Joost Oppenheim
NCI-Frederick, Frederick, MD

Dane Parker
Columbia Univ, New York, NY

Luke Parkitny
Neuroscience Research Australia, Randwick, Australia

Olivia Perwitasari
Univ of Washington, Seattle, WA

Edvige Perrotti
Istituto Superiore di Sanita, Rome, Italy

Sandeep Raghuwanshi
Univ of Pittsburgh, Pittsburgh, PA

Fabiana Rizzo
Istituto Superiore di Sanita, Rome, Italy

M. Sharif
Pfizer Inc, Cambridge, MA

Ann Sluder
SCYNEXIS Inc, Durham, NC

Marcin Stawowczyk
Stony Brook Univ, Stony Brook, NY

Michelle Tate
Monash Inst F Medical Research, Clayton, Australia

Huizhi Wang
Univ of Louisville, Louisville, KY

Gudrun Weiss
Copenhagen Univ, Copenhagen, Denmark

Ralph Weichselbaum
The Univ of Chicago, Chicago, IL

Jui-Hung Yen
Temple Univ School of Medicine, Philadelphia, PA

New Member MINIBIOs *by Thomas Tan*

Joost J. Oppenheim, M.D.
Deputy Director, Cancer Inflammation Program
Chief, Laboratory of Molecular Immunoregulation
National Cancer Institute-Frederick
Frederick, MD

Dr. Oppenheim obtained his M.D. degree from the Columbia College of Physicians and Surgeons, New York, trained as a clinical associate at the National Cancer Institute (NCI), Bethesda, Maryland. He returned to the National Institute of Dental Research and subsequently headed the Section of Cellular Immunology there and, since 1983, has been head of the Laboratory of Molecular Immunoregulation, NCI-Frederick. Dr. Oppenheim has devoted his research career to the study of cytokines. He was a codiscoverer of Interleukin 1, the Interleukin 8 and Monocyte Chemotactic Peptide 1 chemokines and most recently has been identifying cellular granule products and nuclear binding proteins as "alarmins" with cytokine-like functions.

Belinda Parker
Senior Research Fellow
Peter MacCallum Cancer Centre
Australia

Dr. Parker obtained her PhD in 2002 in the field of biochemistry, investigating the mechanism of action of chemotherapeutic agents. She then followed her interests in breast cancer biology at Johns Hopkins University where she investigated the molecular changes in the vascular endothelium and tumour epithelium of invasive breast cancer. Dr Parker returned to Australia to work in the Metastasis Research program at Peter MacCallum. Her research involves identification of key molecular pathways that contribute to bone metastasis and are potential molecular targets for treatment of bone metastatic breast cancer. Her recent work has revealed a critical role of tumour cell expression of Type I IFNs in immune surveillance and metastasis suppression.

Marta Catalfamo, Ph.D.
Staff Scientist
NIAID
Bethesda, MD

Dr. Marta Catalfamo received her PhD degree in Immunology, with honors, from the Autonomous University of Barcelona, Spain. After completing her post-doctoral training at the Experimental Immunology Laboratory, National Cancer Institute, NIH, she joined as Staff Scientist at the Laboratory of Immunoregulation at NIAID, NIH. Her research focuses in understanding the immunological mechanisms of the HIV infection, specifically in those that drive immune activation, the major player in the pathogenesis of the disease. Her work has identified clear differences in the activation of the CD4 and CD8 T cell pools in patients with HIV infection. Mainly, her studies are directed to address the role of the homeostatic response to the CD4 T cell depletion and the inflammatory response to the virus influence CD4 and CD8 T cell activation and the cross-talk of the signaling pathways between IL-7 and Type I IFNs associated with these two environments. Special NOTE: Dr. Catalfamo is now an Associate Editor of the ISICR Newsletter

Hans A.R. Bluijssen, Ph.D.
Professor
Adam Mickiewicz University
Poznan, Poland

Hans A.R. Bluijssen is a University professor at the Faculty of Biology of the Adam Mickiewicz University in Poznan, Poland. He received his Ph.D. in Molecular Biology from The Erasmus Medical Center Rotterdam and completed postdoctoral training at the New York University Medical Center and University Medical Center Utrecht. Currently he is head of the Department of Human Molecular Genetics within the Institute of Molecular Biology and Biotechnology (http://www.lhmg.amu.edu.pl/). His research interests include studying the role of cytokine and TLR signaling pathways in the inflammatory and immune responses involved in onset and progression of vascular diseases (Sikorski et al., Cytokine and Growth Factor Reviews 2011 Jul 11. [Epub ahead of print]). In addition, he is interested in unraveling the transcriptional response pathways mediated by interferons and their role in antiviral activity (Wesoly et al., Acta Biochim Pol. 2007;54(1):27-38.).

Daisuke Kurotaki, Ph.D.
Assistant Professor
Department of Immunology,
Yokohama City University Graduate School of Medicine,
Japan

Dr. Kurotaki obtained his Ph.D. from Hokkaido University (Prof. Toshimitsu Uede), Japan, for his work on the role of alpha9 integrin in autoimmune arthritis, in March 2009. Afterwards, as a post-doctoral fellow in the same laboratory, he identified a new, tolerogenic F4/80(hi)CD11b(low) macrophage subset among splenic red pulp macrophages. From this April, he has been investigating the role of transcription factors such as Interferon Regulatory Factors in myeloid cell development at Yokohama City University (Prof. Tomohiko Tamura). Dr. Kurotaki received prizes from the Japanese Society for Molecular Cell Biology of Macrophages (2009) and the Hokkaido Medical Society (2010).

REVIEWS OF INTEREST

Akdis M, Burgler S, Crameri R, Eiwegger T et.al. **Interleukins, from 1 to 37, and interferon-γ: Receptors, functions, and roles in diseases.** *J Allergy Clin Immunol* 127: 701-21, 2011

Axtell RC, Raman C, Steinman L. **Interferon-β exacerbates Th17-mediated inflammatory disease.** *Trends in Immunol* 32(6): 272-277, 2011

Barber GN. I**nnate immune DNA sensing pathways: STING, AIMII and the regulation of interferon production and inflammatory responses.** *Curr Opin Immunol.* 23(1):10-20, 2011

Hervas-Stubbs S, Perez-Gracia JL, Rouzaut A, Sanmamed MF, Le Bon A, Melero I. **Direct Effects of Type I Interferons on Cells of the Immune System.** *Clinical Cancer Res* 17(9): 2619-2627, 2011

Khoo JJ, Forster S, Mansell A. **Toll-like receptors as interferon-regulated genes and their role in disease.** *J Interferon Cytokine Res.* 31(1): 13-25, 2011

Kiladjian JJ, Mesa RA, Hoffman R. **The renaissance of interferon therapy for the treatment of myeloid malignancies.** *Blood* 117(18): 4706-4715, 2011

Mackall CL, Fry TJ, Gress RE. **Harnessing the biology of IL-7 for therapeutic application.** *Nature Rev Immunol* 11(5): 330-342, 2011

Neurath MF, Finotto S. **IL-6 signaling in autoimmunity, chronic inflammation and inflammation-associated cancer.** *Cytokine & Growth Factor Rev* 22(2):83-89, 2011

Nitta T, Ohigashi I, Nakagawa Y, Takahama Y. **Cytokine crosstalk for thymic medulla formation.** *Curr Opin Immunol.* 23(2): 190-197, 2011

Ouyang W, Rutz S, Crellin NK, Valdez PA, Hymowitz SG. **Regulation and functions of the IL-10 family of cytokines in inflammation and disease.** *Annu Rev Immunol.* 29:71-109, 2011

Rathinam VAK, Fitzgerald KA. **Innate immune sensing of DNA viruses.** *Virology* 411(2): 153-162, 2011

Richards KH, Macdonald A. **Putting the brakes on the anti-viral response: negative regulators of type I interferon (IFN) production.** *Microbes Infect.*13(4):291-302,2011

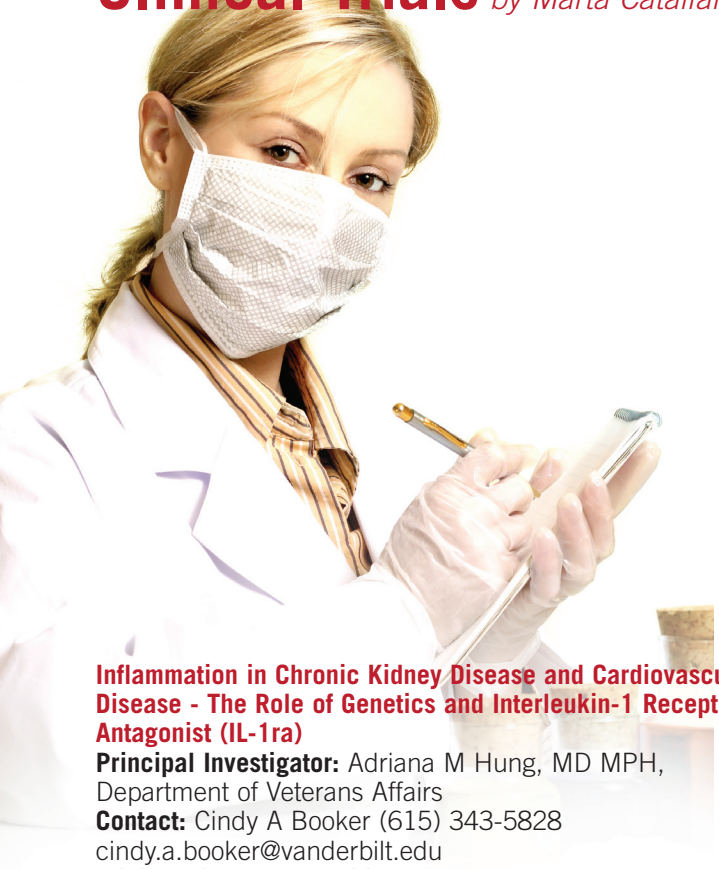
Rönnblom L, Alm GV, Eloranta ML. **The type I interferon system in the development of lupus.** *Semin Immunol.* 23(2):113-21, 2011

Wang BX, Rahbar R, Fish EN. Interferon: **Current Status and Future Prospects in Cancer Therapy.** *J Interferon Cytokine Res.* Feb 16, 2011 31(7): 545-552, 2011.

Thaiss CA, Semmling V, Franken L, Wagner H and Kurts C (2011) **Chemokines: a new dendritic cell signal for T cell activation.** *Front. Immun.* 2:31. doi: 10.3389/fimmu.2011.00031

Lacy P, Stow JL. **Cytokine release from innate immune cells: association with diverse membrane trafficking pathways** *Blood* 118: 9-18, 2011

Clinical Trials *by Marta Catalfamo*



Inflammation in Chronic Kidney Disease and Cardiovascular Disease - The Role of Genetics and Interleukin-1 Receptor Antagonist (IL-1ra)
Principal Investigator: Adriana M Hung, MD MPH, Department of Veterans Affairs
Contact: Cindy A Booker (615) 343-5828 cindy.a.booker@vanderbilt.edu
ClinicalTrials.gov Identifier: NCT00897715

Dose-effect Relationship of Low-dose IL-2 in Type 1 Diabetes (DF-IL2)
Principal Investigator: Principal Investigator: Davis Klatzmann, MD, PhD Assistance Publique - Hôpitaux de Paris
Contact: David Klatmann, MD, PhD +33 1 42 17 74 61 david.klatzmann@upmc.fr
ClinicalTrials.gov Identifier: NCT01353833

Clinical Study Phase II of L19-IL2 (recombinant human antibody fragment L19 specific to the alternatively-spliced EDB domain of fibronectin and human IL2) in Combination With Dacarbazine in Patients With Metastatic Melanoma
Principal Investigator: Filippo De Braud, Dr European Istitute of Oncology Milan (Italy) and Claus Garbe, Prof. M.D. University Hospital Tuebingen (Germany)
Contact: Leonardo Giovannoni, Dr. (0039) 0577 588 539
ClinicalTrials.gov Identifier: NCT01055522

Low Dose IL-2 for GVHD as GVHD Prophylaxis After Stem Cell Transplantation
Principal Investigator: Alana Kennedy-Nasser, MD Baylor College of Medicine
Contact: Alana Kennedy-Nasser, M.D. 832-824-4807 aakenned@txccc.org
Catherine Bollard, M.D. 832-824-4781 cbollard@bcm.tmc.edu
ClinicalTrials.gov Identifier: NCT00539695

Efficacy and Safety of IL-11 in DDAVP Unresponsive (IL-11 DDAVP Un)
Principal Investigator: Margaret V. Ragni, MD, MPH University of Pittsburgh
Contact: Margaret V. Ragni, MD, MPH (412) 209-7288 ragni@dom.pitt.edu
Kristen Jaworski, BSN, RN (412) 209-7411 kjaworski@itxm.org
ClinicalTrials.gov Identifier: NCT00994929

Vaccination of Patients With Breast Cancer With Dendritic Cell/Tumor Fusions and IL-12
Principal Investigator: David Avigan, MD Beth Israel Deaconess Medical Center
Contact: David Avigan, MD 617-667-9920 davigan@bidmc.harvard.edu
Emily Yuan 617-667-1998 yyuan1@bidmc.harvard.edu
ClinicalTrials.gov Identifier: NCT00622401

An Open Label Dose Escalation Safety Study of Convection-Enhanced Delivery of IL13-PE38QQR in Patients With Progressive Pediatric Diffuse Infiltrating Brainstem Glioma and Supratentorial High-grade Glioma
Principal Investigator: Russell R. Lonser, M.D./National Institute of Neurological Disorders and Stroke
Contact: Patient Recruitment and Public Liaison Office (800) 411-1222 prpl@mail.cc.nih.gov
ClinicalTrials.gov Identifier: NCT00880061

Use of IL-15 After Chemotherapy and Lymphocyte Transfer in Metastatic Melanoma
Principal Investigator: Steven A. Rosenberg, M.D. National Cancer Institute
Contact: Recruitment Center - SB (866) 820-4505 ncisbirc@mail.nih.gov
ClinicalTrials.gov Identifier: NCT01369888

Efficacy of NNC109-0012 (anti IL-20) in Subjects With Active Rheumatoid Arthritis
Principal Investigator: Novo Nordisk A/S (Public Access to Clinical Trials)
Contact: Public Access to Clinical Trials - Novo Nordisk Please Contact NN via email clinicaltrials@novonordisk.com
ClinicalTrials.gov Identifier: NCT01282255

A Randomized Phase II Study of Interleukin-21 (rIL-21) Versus Dacarbazine (DTIC) in Patients With Metastatic or Recurrent Melanoma
Principal Investigator: Teresa Petrella Odette Cancer Centre - Sunnybrook Health Sciences Centre, Toronto, ON and Kerry Savage BCCA - Vancouver Cancer Centre, Vancouver, BC
Contact: Janet Dancey 613-533-6430 jdancey@ctg.queensu.ca
ClinicalTrials.gov Identifier: NCT01152788

Study To Evaluate The Safety And Efficacy Of ILV-094 (anti-IL-22) In Subjects With Rheumatoid Arthritis
Principal Investigator: Pfizer, Inc (Director, Clinical Trial Disclosure Group)
Contact: Pfizer CT.gov 1-800-718-1021
ClinicalTrials.gov Identifier: NCT00883896

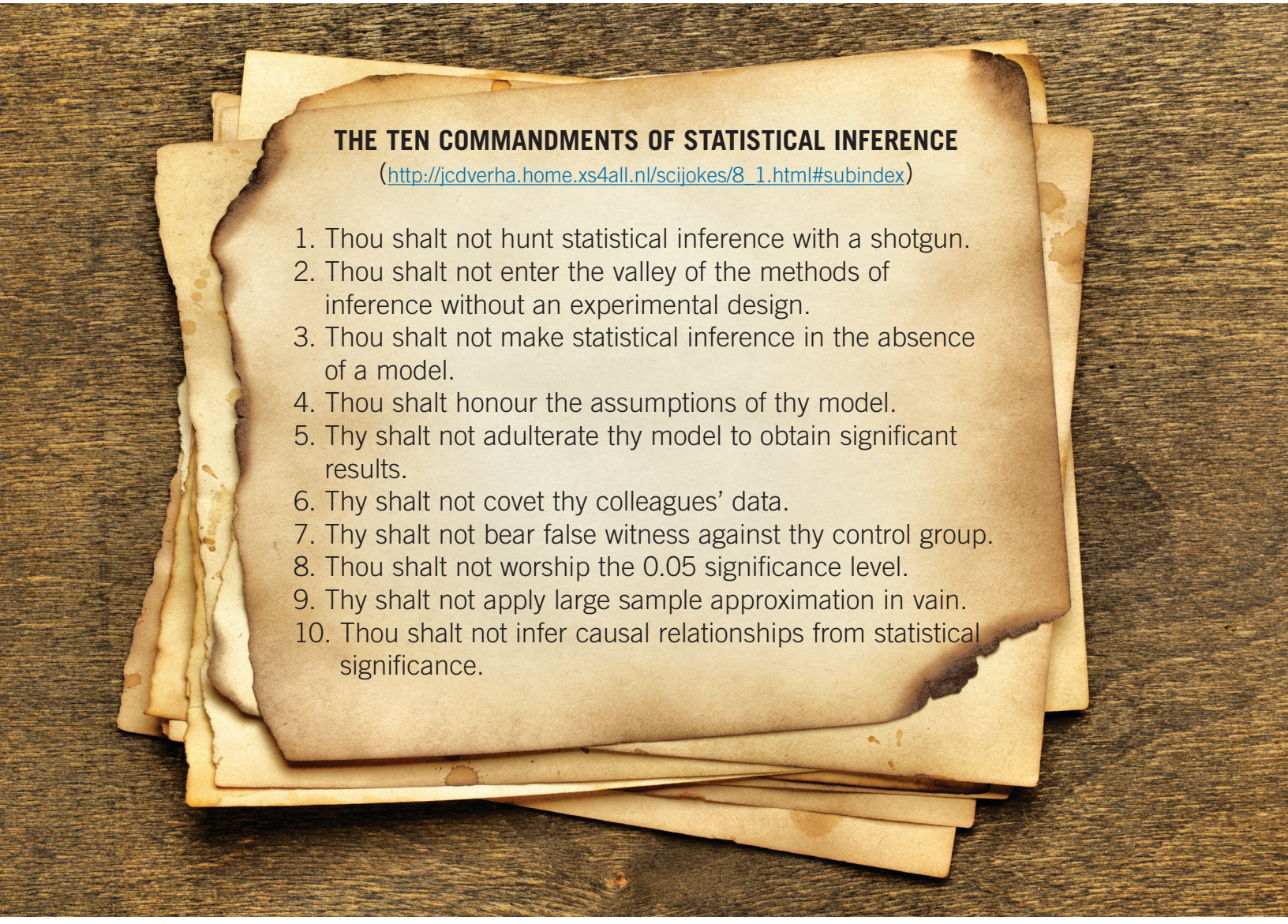
Clinical Trials *continued*

Wilm's Tumor 1 Protein Vaccine to Treat Cancers of the Blood
Principal Investigator: Alan S. Wayne, M.D./National Cancer Institute
Contact: NCI Referral Office 1-888-NCI-1937 ncicssc@mail.nih.gov
ClinicalTrials.gov Identifier: NCT00923910

Randomized, Controlled Trial to Test the Efficacy of Interferon Beta in the Treatment of Intermediate Uveitis.
Principal Investigator: Matthias D Becker, MD, PhD,FEBO Interdisciplinary Uveitis Center, University of Heidelberg
Principal Investigator: Friederike Mackensen, MD, FEBO Interdisciplinary Uveitis Center,University of Heidelberg
Contact: Friederike Mackensen, MD +4962215638558 Friederike.Mackensen@uveitiszentrum.de
Contact: Matthias D Becker, MD, PhD,FEBO +4962215636630 Matthias.Becker@uveitiszentrum.de
ClinicalTrials.gov Identifier: NCT00344253

Evaluating the Safety and the Biological Effects of Intratumoral Interferon Gamma and a Peptide-Based Vaccine in Patients With Melanoma (Mel 51).
Principal Investigator: Craig L. Slingluff, M.D. University of Virginia
Contact: Kristy Scott 434-982-1902 ks4ww@virginia.edu
Contact: Alison Gaucher, BS agg5a@hscmail.mcc.virginia.edu
ClinicalTrials.gov Identifier: NCT00977145

Efficacy of Interferon-gamma in Combination With Anidulafungin for the Treatment of Candidemia.
Principal Investigator: Corine Delsing, MD Radboud University
Contact: Corine Delsing, MD +31-24-3618819 C.Delsing@AIG.umcn.nl
Contact: Mihai Netea, MD. PhD +31-24-3618819 M.Netea@AIG.umcn.nl
ClinicalTrials.gov Identifier: NCT01270490



WWW

Autophagy Database

http://tp-apg.genes.nig.ac.jp/autophagy/index.html

The goal of the Autophagy Database is to provide up-to-date relevant information including protein structure data to researchers of autophagy, and to disseminate important findings to a wider audience so that their ramifications can be appreciated. For this purpose, we strive to make the database to contain as much pertinent information as possible and to make the contents freely available in a user-friendly format.

We would greatly appreciate your participation so that this undertaking would involve more people, promote the digestion of the subject, and provide nourishment for all users.

This database has been supportedby by the Targeted Proteins Research Program of the Ministry of Education, Culture, Sports, Science and Technology (MEXT), Japan.

BioInfoBank Library

http://lib.bioinfo.pl/

This site is aimed at supporting and promoting the scientific activity of students and scientists. The site facilitates fast publication of research results through short and concise reports, exchange of ideas and comments through dedicated forums and blogs and provides space to place structured resumes. The site also offers useful search capabilities such as the selection of similar papers to a group of papers. In an effort to promote the utilities of this service we have launched two competitions, the best report competition and the best thesis competition. Both offer a chance to win small prizes and put Your work on our hall of fame.

Electronic Statistics Textbook

http://www.statsoft.com/textbook/

StatSoft has freely provided the Electronic Statistics Textbook as a public service for more than 12 years now. This Textbook offers training in the understanding and application of statistics. The material was developed at the StatSoft R&D department based on many years of teaching undergraduate and graduate statistics courses and covers a wide variety of applications, including laboratory research (biomedical, agricultural, etc.), business statistics, credit scoring, forecasting, social science statistics and survey research, data mining, engineering and quality control applications, and many others.

The Electronic Textbook begins with an overview of the relevant elementary (pivotal) concepts and continues with a more in depth exploration of specific areas of statistics, organized by "modules," accessible by buttons, representing classes of analytic techniques. A glossary of statistical terms and a list of references for further study are included.

The only Internet Resource about Statistics Recommended by Encyclopedia Britannica.

Proper citation

- (Electronic Version): StatSoft, Inc. (2011). Electronic Statistics Textbook. Tulsa, OK: StatSoft. WEB: http://www.statsoft.com/textbook/.
- (Printed Version): Hill, T. & Lewicki, P. (2007). STATISTICS Methods and Applications. StatSoft, Tulsa, OK.

Recommended by Taralyn Tan in *Genetic Engineering News*

Center for Scientific Review

http://cms.csr.nih.gov/

The Center for Scientific Review (CSR) is the portal for NIH grant applications and their review for scientific merit. We organize the peer review groups or study sections that evaluate the majority (70%) of the research grant applications sent to NIH. We also receive all grant applications for NIH, as well as for some other components of the U.S. Department of Health and Human Services (DHHS). Since 1946, our mission has remained clear and timely: to see that NIH grant applications receive fair, independent, expert, and timely reviews -- free from inappropriate influences -- so NIH can fund the most promising research.

Resources

- NIH Grant Review Process YouTube Videos
- Evaluation of Unallowable Resubmission and Overlapping Applications
- Quick Links: Answers for Applicants
- Funding Opportunities & Forms
- Insider's Guide to Peer Review for Applicants
- Advice to Investigators Submitting Clinical Research Applications*
- New Electronic Applications
- Submission and Assignment Process
- Appeals of Initial Scientific Peer Review
- Cover Letters Help Us Refer and Review Your Application

WWW

Continued

Drug Bank

http://www.drugbank.ca/

The DrugBank database is a unique bioinformatics and cheminformatics resource that combines detailed drug (i.e. chemical, pharmacological and pharmaceutical) data with comprehensive drug target (i.e. sequence, structure, and pathway) information. The database contains 6827 drug entries including 1437 FDA-approved small molecule drugs, 134 FDA-approved biotech (protein/peptide) drugs, 83 nutraceuticals and 5206 experimental drugs. Additionally, 4436 non-redundant protein (i.e. drug target/enzyme/transporter/carrier) sequences are linked to these drug entries. Each DrugCard entry contains more than 150 data fields with half of the information being devoted to drug/chemical data and the other half devoted to drug target or protein data.

DrugBank is supported by David Wishart, Departments of Computing Science & Biological Sciences, University of Alberta.

Recommended by Taralyn Tan in *Genetic Engineering News*

The Human Protein Atlas

http://www.proteinatlas.org/

Here you can search for a gene or protein and find

- protein expression profiles based on immunohistochemistry for a large number of human tissues, cancers and cell lines
- subcellular localization in three cell lines
- transcript expression levels in three cell lines
- or: use Fields in the Search function to build your own query to find all proteins expressed in a certain organ or specific tissue, located in a certain subcellular compartment or differentially expressed in a given tumor type.

Recommended by Taralyn Tan in *Genetic Engineering News*

Integrated Genomic Resources of Human Cell Lines for Identification

http://igrcid.ibms.sinica.edu.tw/cgi-bin/index.cgi

The database "Integrated Genomic Resources of Human Cell Lines for Identification" (IGRhCellID) is aiming to incorporate various genomic resources of common human cell lines for providing lines of evidence to maintain the proper cell identification and to support the experimental designs of using human cell lines. In addition to cell authenticity tools (such as short tandem repeat markers, gender, karyotype, isoenzyme profile and immunotypes) retrieved from ATCC, DSMZ, and ECACC; IGRhCellID provided other genomic resources including genome-wide homozygous deletions, amplicons and altered gene expression from our analysis of microarrays (SNP and Gene) of common human cell lines. Furthermore, IGRhCellID integrated somatic mutation data including p53 mutations from UMD TP53 mutation database and mutations of other cancer genes from COSMIC database. Since the efforts to eradicate the mis-identification problem is unsuccessful, IGRhCellID is established to provide not only STR profiles of human cell lines as most recommended assay for cell authenticity but also other authentic tools with conventional laboratory PCR or DNA sequencing assays for routine examination of proper cell identification.

Applications:

- To provide STR profiles of human cell lines as the most recommended authentic assay
- To perform routine cell identification experiments with common PCR using SNP markers or with DNA sequencing experiments using gene mutations data
- To select cell lines with designated genetic background to search for human cell lines with deleted gene to serve as indigenous knock-out cell model, with amplified gene to be the cell models for testing therapeutic efficacy, and with overlapped aberrant chromosomal loci for revealing common cancer genes

Kinopedia

http://www.kinopediaweb.com/

The Kinopedia platform is an interactive bioinformatics database that provides a comprehensive map of any known active interaction between two protein classes: kinase enzymes and their substrates. The Kinopedia platform includes a search engine and analysis tool that delivers unprecedented solutions to study and exploit kinase molecular networks.

NIH Databook

http://report.nih.gov/nihdatabook/

The NIH Databook provides summary statistics on extramural grants and contract awards, grant applications, the organizations that NIH supports, the trainees and fellows supported through NIH programs, and the national biomedical workforce. Tables and charts are provided in a variety of formats, including PowerPoint slides and PDF files.

Pathway Commons

http://www.pathwaycommons.org/pc/home.do

Pathway Commons is a convenient point of access to biological pathway information collected from public pathway databases, which you can browse or search.

- Biologists can browse and search Pathway Commons pathways.
- Computational biologists can download all pathways in BioPAX format for global analysis.
- Software developers can build software on top of Pathway Commons using our web service API. You can also download and install the cPath software to create a local mirror of Pathway Commons.

All data is freely available, under the license terms of each contributing database.

STITCH (Search Tool for Interactions of Chemicals)

http://stitch.embl.de/

STITCH is a resource to explore known and predicted interactions of chemicals and proteins. Chemicals are linked to other chemicals and proteins by evidence derived from experiments, databases and the literature. STITCH contains interactions for over 74,000 small molecules and over 2.5 million proteins in 630 organisms.

Viral Zone

www.expasy.org/viralzone/

ViralZone, developed by the Swiss Institute of Bioinformatics, provides fact sheets on all known virus families/genera with easy access to sequence data. A selection of reference strains (RefStrain) provides annotated standards to circumvent the exponential increase of virus sequences. Moreover ViralZone offers a complete set of detailed and accurate virion pictures.

Quick Facts about Florence:

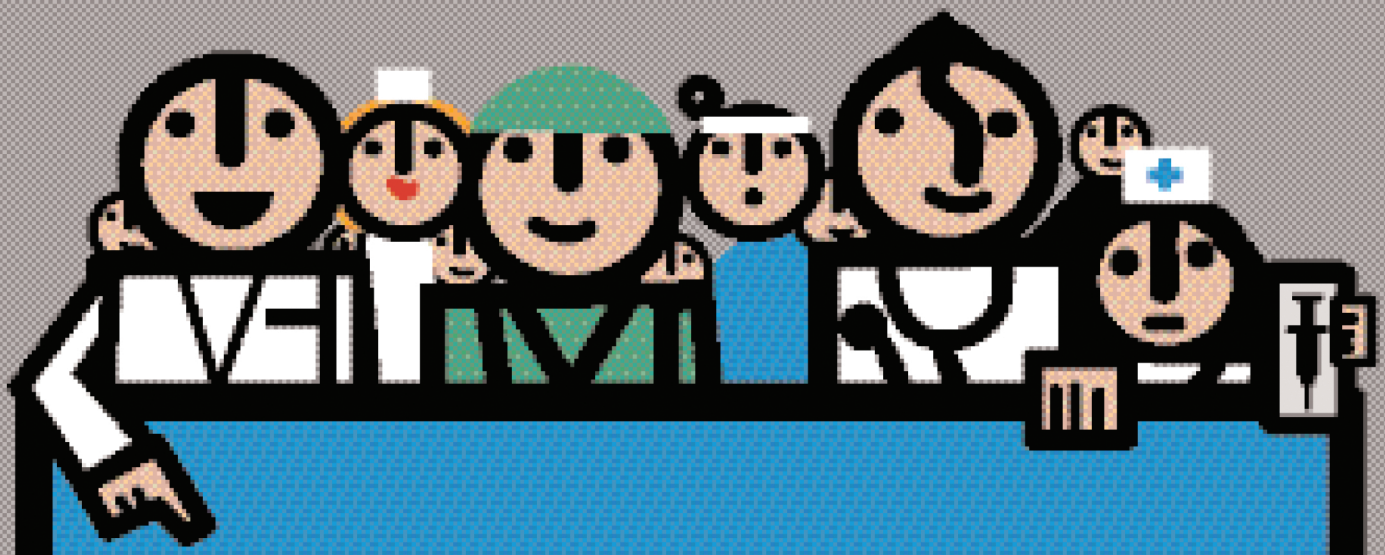
Time Zone: Central European Time Zone (GMT+1)
Country Dialing Code: 39 Area Code: 055
Currency: Euro (EMU)
Electricity: 220 volts @ 50Hz Type B-Two Round Pin plug
Major Airport: Amerigo Vespucci/Peretola Airport (FLR), and Galileo Galilei Airport (PSA)
English Newspapers: "The Florentine" & "East Milano"
Italian Newspapers: "Corriere della Sera", "La Nazione" & "Metro Florence"
Principal Industries: Tourism, Fashion, Textiles, Wine, Agriculture UNESCO World Heritage Site (1982)

Did you know?

- Julius Caesar founded Florence in 59 BC as the retirement location for his veteran soldiers.
- People who live in Florence are called "Florentines."
- The Italian name for Florence is "Firenze".
- The city of Florence is considered the "birthplace of the Italian Renaissance" and the "Athens of the Middle Ages".
- Florence was home to the infamous Medici family from the 14th century to the 18th century.
- Leonardo da Vinci, polymath; Niccolo Machievelli, poet and philosopher; Galileo Galilei, astronomer and physicist; Amerigo Vespucci, explorer; Donatello, sculptor; Rafael, painter; Robert Cavalla, fashion designer; and Guccio Gucci, fashion designer and founder of the Gucci label all lived in Florence.
- In 1339, Florence became the first city in Europe to have paved streets.
- Florence Nightingale was born in and named after the city of Florence.
- There are 465 steps to the top of Brunelleschi's cupola.
- Ponte Vecchio is the only bridge in Florence to have survived WWII intact. Hitler declared it was too beautiful to destroy.
- Regional dishes include: Crostini Toscani, sliced bread rounds topped with chicken pate; Bistecca alla Fiorentia, a large very rare T-Bone steak cooked over charcoal; and Tagliata, sliced rare beef served on a bed of arugula, topped with slices of Parmesan cheese

RULES OF THE LAB

(http://jcdverha.home.xs4all.nl/scijokes/8_1.html#subindex)



1. When you don't know what you're doing, do it neatly.
2. Experiments must be reproduceable, they should fail the same way each time.
3. First draw your curves, then plot your data.
4. Experience is directly proportional to equipment ruined.
5. A record of data is essential, it shows you were working.
6. To study a subject best, understand it thoroughly before you start.
7. To do a lab really well, have your report done well in advance.
8. If you can't get the answer in the usual manner, start at the answer and derive the question.
9. If that doesn't work, start at both ends and try to find a common middle.
10. In case of doubt, make it sound convincing.
11. Do not believe in miracles---rely on them.
12. Team work is essential. It allows you to blame someone else.
13. All unmarked beakers contain fast-acting, extremely toxic poisons.
14. Any delicate and expensive piece of glassware or equipment will break before any use can be made of it.(Law of Spontaneous Fission)

Cytokine Freeze Thaw Stability

Todd Watterson, Quansys Biosciences
http://www.quansysbio.com/

Some samples and cytokines appear resistant to freeze-thaw cycles while others lead the ephemeral existence of the mayfly (or RNA). Some good research has been done on the effect of freeze thaw cycles and protein detection. An important early study demonstrated significant reductions in microsomal (isolates of the endoplasmic reticulum) activity from freeze thaw [1]. However cytokine measurement mostly involves the measurement of quantity rather than activity. Most of that measurement is done through ELISA where the protein of interest needs only to be intact enough for antibody binding. Using ELISA, researchers demonstrated that over 10 freeze thaw cycles with vials brought up to room temperature for a 3-4 hr period, had minimal effect on neopterin, β2-microglobulin, TNF-α, sTNF-RII, and sIL-2R with the %CV between mean values being below 4% [2]. Another study examined seven freeze-thaw cycles on 21 human cytokines and reported no changes in concentrations, however time at room temperature was not provided [3]. A different small study showed some large variations in pleural fluid samples due to freeze thaw including the well know effects of freeze thaw cycles on TGF-β [4]. Cytokine degradation can occur through endogenous proteases, bacterial biofilm, and a plethora of other possible mechanisms [5, 6]. While a particular cytokine may not be affected by the freeze-thaw process, it may be more susceptible to degradation at room temperature. The key is to be careful with handling samples and minimize any condition that might be harmful to your samples.

1. Bartosek, I., et al., *Preservation of rat hepatic microsomal enzyme activities: Effect of low temperature and freeze-drying.* Journal of Pharmacological Methods, 1980. 3(3): p. 191-200.
2. Aziz, N., et al., *Variables that affect assays for plasma cytokines and soluble activation markers.* Clin Diagn Lab Immunol, 1999. 6(1): p. 89-95.
3. Lambeck, A.J., et al., *Serum cytokine profiling as a diagnostic and prognostic tool in ovarian cancer: a potential role for interleukin* 7. Clin Cancer Res, 2007. 13(8): p. 2385-91.
4. Bielsa, S., et al., *Reproducibility and reliability of pleural fluid cytokine measurements.* Eur Respir J, 2009. 34(4): p. 1001-3.
5. Fletcher, J., et al., *Cytokine Degradation by Biofilms of Porphyromonas gingivalis.* Current Microbiology, 1998. 36(4): p. 216-219.
6. Zhao, W., et al., *Cytokine production by skin-derived mast cells: endogenous proteases are responsible for degradation of cytokines.* J Immunol, 2005. 175(4): p. 2635-42.

Additional Cytokine Freeze-Thaw References Information obtained, courtesy of BioCoR at
http://biocor.umn.edu/assets/files/ANALYTE%20STABILITY%20&%20FREEZE-THAW%20INFORMATION-1.pdf

Cytokines frozen at -80 C until assayed. Most cytokines are stable for up to 2 yr storage. Degradation of IL-13, IL- 15, IL-17 & CXCL8 appear within 1 yr of storage, whereas IL-2, IL-4, IL-12, & IL-18 are stable for up to 3 yr. IL-1α, IL-1-,, IL-5, IL-6, & IL-10 are degraded up to 50% with 2-3 years of storage. Most of the cytokines are stable for up to 3X F/T. However, levels of certain CKs like TNF-α increase with each successive F/T, becoming significant after 3X.
Ref: *Curr Opin Clin Nutr Metab Care.* Digital Commons @UConn, 9-1-2010. Conceptual and methodological issues relevant to cytokine and inflammatory marker measurements in clinical research.

Cytokines in plasma (β2M, sIL-2R, neopterin, IFN-γ, sTNF-RII, TNF-α) measured as stored at ambient to -70 C over 20 days; -70 C storage most stable
Ref: *Clin Diagn Lab Immunol* 1999; 6:89-95. Stability of plasma levels of cytokines and soluble activation markers in patients with human immunodeficiency virus.

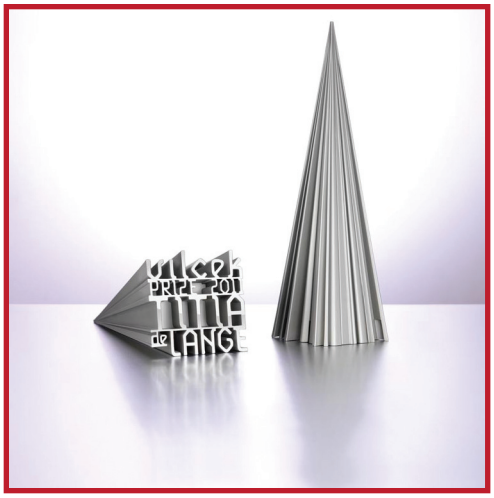
15 cytokines measured. LTS showed cytokines are stable for a period up to 2yr at -80 C. After 4 yr IL-1α, IL-1β, IL-10, IL-15, CXCR8 degraded up to 75%. Only 2 of 15 cytokines remained stable after several F/T cycles. Although most cytokines are stable in a high protein matrix such as plasma during the 1st F/T, the second+ F/Ts should be avoided.
Ref: *BMC Immunology* 2009, 10:52 (e-paper). Prerequisites for cytokine measurements in clinical trials with multiplex immunoassays. QC for multiplex assay: coupled Abs on microspheres.

2011 Vilcek Prizes in Biomedical Science

The Vilcek Foundation recently announced the 2011 winners of its annual prizes honoring the contributions of foreign-born scientists and artists.

Titia de Lange

The sixth annual Vilcek Prize for Biomedical Science, given in recognition of a sustained record of innovation and achievement, was awarded to Dutch-born Titia de Lange (http://www.rockefeller.edu/research/faculty/abstract.php?id=130), the Leon Hess professor and head of the laboratory of cell biology and genetics at Rockefeller University. De Lange received the award for her research on mechanisms that help maintain genome stability. Her work has led to a greater understanding of how telomeres protect chromosome ends and what happens when telomere function is lost during the early stages of tumorigenesis.

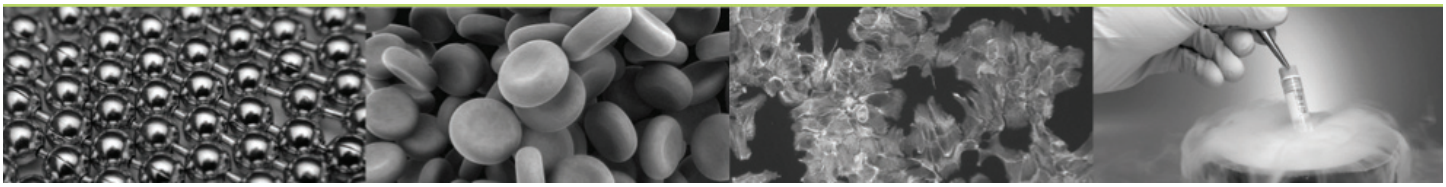


Yibin Kang

The Vilcek Foundation also presented Yibin Kang (http://www.molbio.princeton.edu/index.php?option=content&task=view&id=216) with its 2011 Vilcek Prize for Creative Promise in Biomedical Science. The prize recognizes foreign-born scientists and artists not more than 38 years old who have made outstanding contributions in the early stages of their professional careers. Currently an associate professor of molecular biology at Princeton University, Kang's research contributes to the general understanding of the molecular basis of cancer metastasis. His work focuses on the identification of genes and pathways that control metastasis and their role in the propensity of cancer cells to metastasize to different organs.

ISICR Business Office: ISICR@faseb.org • TEL: 301-634-7250 • FAX: 301-634-7455 • **www.ISICR.org**

Biopreservation Research Consortium (BRC)



The preservation of biological specimens is an enabling technology for a wide variety of fields, including but not limited to: cell therapy/regenerative medicine, biobanking of biospecimens for personalized medicine, and production of recombinant proteins. We have placed increasing demands on the quality of biological specimens that are preserved and the diversity of specimens that require stabilization. Unfortunately, advances in preservation science and technology have not kept pace with the increasing demands placed on these biological samples. This gap between state-of-the-art in preservation and emerging needs led to the formation of the BRC.

The BRC proposes to streamline academic research and development to address the problems/concerns of the end users of the preservation technologies.To this end, the BRC brings together faculty involved in preservation research, cell therapy, and biobanking together with industry, governmental agencies, and other organizations for the purpose of accelerating advances in preservation and their dissemination.

More information on the consortium can be found on the BioCoR website (http://biocor.umn.edu/consortium1). If you are interested in participating in the BRC and would like a membership agreement to review, please contact us at biocor@me.umn.edu or call Ms. Tori Piorek at 612.625.6808.

"There is something fascinating about science. One gets such wholesale returns of conjecture out of such a trifling investment of fact."

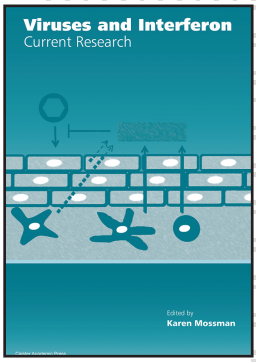
- Life on the Mississippi; Mark Twain.

CYTOKINES AROUND THE WORLD

Can you guess the language? Look for the answers elsewhere in the newsletter.

1. Citokineve
2. السيتوكينات
3. Sitokinler
4. Цитокини
5. 細胞因子
6. Cytokiny
7. Κυτοκινών
8. Sytokiinien
9. ציטוקינים
10. Citochine
11. Cýtókína
12. Цитокинов
13. Chytocinau
14. Citoquinas
15. Sitokinler
16. サイトカイン
17. Citocinas
18. साइटोकिन्स
19. Zytokine
20. Tsütokiinide

Book Review *by Howard Young*



Viruses and Interferon: Current Research
Edited by: Karen Mossman
Published by Caister Academic Press
ISBN: 9781904455813
Pages: 282

The world of scientific publishing is changing as the electronic age has made the existence of many hard cover books a rarity in labs. In addition, the use of scientific libraries has been altered forever by the electronic revolution as fewer people venture into the libraries to peruse the shelves. Nonetheless, having a book where one can turn the pages and think about what is written, still results in a sense of satisfaction. This book, edited by Karen Mossman, is focused on the interaction of viruses and the Type I interferon system. To her credit, Dr. Mossman has convinced many of the leaders in this field of research to contribute to this book. Chapter 1 focuses on the antiviral effects of extracellular dsRNA and is a comprehensive analysis of the current state of the art of this topic. The next 3 chapters are all well written, broad overviews with Chapter 2 focusing on Type I IFN induction by viruses, Chapter 3 exploring the relatively newly defined role of Type III IFNs in antiviral immunity and Chapter 4 reviewing how the IFNs exert antiviral effects. All these chapters provide a systemic and thorough background on these subjects. Chapters 5-9 focus on the interaction of specific families of viruses with the interferon system, covering herpes simplex viruses, pox viruses, Haemorrhagic fever viruses, the influenza virus and Hepatitis C virus respectively. These chapters are also well written and provide a solid background for those scientists who wish to be brought up to date on these viruses and their interactions with the host. The final chapter is also unique in that it covers the clinical application of interferons with respect to virus infections. There have not been many reviews on this subject, so inclusion of the topic in this book is both timely and appropriate. Based on the information and data discussed in this chapter, the use of interferon as a magic bullet against viruses may well become reality when administered at the proper dose and formulation.

Readers should be aware that this volume is not meant to be a complete description of the interferon induction pathways, nor is there much information on the role of Type II IFN (IFN-γ) in the host anti-viral response.

Overall Dr. Mossman has done an excellent job of putting together a series of thorough reviews that focus on a specific topic and are well written. This book will be of value to those individuals who want a source of focused information on how the innate interferon response to viral infection has evolved and how the attacking viruses have similarly developed mechanisms to evade the interferon response.

Cytokines 2012

Dear Meeting Attendees,

We would like to welcome you to the **10th Joint Annual Meeting of the International Cytokine Society (ICS) and the International Society for Interferon and Cytokine Research (ISICR)**, which will take place in Geneva in 2012. The objective of the meeting is to promote interactions between scientists performing cutting-edge studies of the molecular mechanisms of cytokine function, signal transduction, and gene expression, and those working in drug discovery and in the clinic to translate this knowledge into novel therapies for human diseases. The therapeutic potential of targeting cytokines and of modulating their signaling pathways enforce the need for enhanced interactions between basic, translational, and clinical researchers. For this purpose, the sessions will include presentations of cutting edge basic science and clinical science both in plenary and concurrent sessions.

The broad themes proposed will incorporate basic and clinical research on innate immunity, host-pathogen interactions, inflammation, autoimmunity, cell signaling, transcriptional and post-transcriptional gene regulation and tumor immunity. These themes are consistent with the well-recognized strengths of many of the world-class research institutions in Switzerland, as well as the research interests of both the ICS and ISICR societies. In addition, we have also included sessions focused on osteoimmunology, tissue repair, and the link between inflammation and metabolism.

In addition to this exciting scientific program we hope that you will take the time to visit Geneva and its beautiful countryside. Geneva is a lively international city located in the middle of Europe close to the Swiss and French Alps with many possibilities for pleasant day trips for those who wish to extend their stay after the meeting.

On behalf of all participants, we would like to express our gratitude to the meeting's Sponsors and Exhibitors. The dissemination of knowledge that takes place at such meetings and the interactions and collaborations that are established are essential for future advances in biomedical research. Successful meetings simply would not be possible without substantial support from corporations, foundations, and institutes.

We look forward to seeing you in what promises to be an exciting and timely meeting.

Cem Gabay
Chairmen

Amanda Proudfoot
Co-Chair

Main Topics

- Cytokines and infectious disease
- T-cell subsets and cytokines
- Cytokines and innate immuneresponses
- Inflammation and autoimmunity
- Tumor immunology
- Pattern recognition receptors and ligands
- Tissue remodeling
- Macrophage dendritic cells subsets
- MicroRNA and regulation of immune responses
- Allergy
- Interferon and anti-viral responses
- Modulation of immunity by intestinal bacteria
- Osteoimmunology
- IL-17 and related cytokines in inflammatory diseases
- B cells and autoimmunity
- Targeting chemokines in inflammatory diseases
- Targeting IL-1 in human diseases

Opening of Registration: 15 February 2012
Opening of Abstract Submission: 15 February 2012
Closing of Abstract Submission: 11 May 2012, Midnight, **CET**
Early Registration Deadline: 11 May 2012

Transportation and Accommodation

Located in the centre of Europe, Geneva is easily accessible by air from all major European cities, and there are interesting low-budget connections from several of them. The international airport is only 15 minutes from the City Centre. Geneva has a wide choice of hotels in different categories. Hotel reservations will be possible using online registration available in February 2012 on the ISICR-ICS 2012 website.

GENEVAVENUE

The 10th Annual Joint meeting of ISICR-ICS will take place at the International Conference
Centre Geneva (CICG) located near the United Nations and only 10 minutes from the City Centre.

CONGRESS ORGANISER

MCI Suisse SA has been selected by the ISICR/ICS as the official Organizer for the 2012 Meeting and will process registrations, hotel reservations and excursions. All correspondence should be sent to:

ISICR/ICS 2012
c/o MCI Suisse SA – 75, rue de Lyon – CH-1211 Geneva 13 – Switzerland
Email: Cytokines2012@mci-group.com
Phone: +41 22 33 99 574
Fax: +41 22 33 99 631

FREE SCIENTIFIC APPS

Scientific Apps for use with iPhone/iTouch/iPads and Android devices are now starting to appear. Here some Apps that I have found since the first list was posted in the ISICR Newsletter 17.2. Please feel free to send me any that you have found useful, both for Apple technology and Android devices. I would also appreciate feedback on the Cytokines 2011 App developed for this meeting (created by Blue Pane Studios http://www.bluepanestudio.com/)

DailyCalcs

By Life Technologies

DailyCalcs turns your phone or iPod Touch device into a science calculator to simplify everyday tasks in the lab. This application features the 5 following calculators absolutely free from Invitrogen:

1. **Molarity Calculator**
   The Molarity Calculator tool will allow you to find the mass required to prepare a solution of known volume & concentration, find the volume of solution required to dissolve a known mass to a specific molarity or find a concentration of a solution resulting from a known mass & volume.
2. **Dilution Calculator**
   The Dilution Calculator tool will allow you to determine the required volume of a stock solution of known concentration to make a final solution of desired volume & concentration. This tool greatly simplifies the everyday tasks of making solutions in the lab.
3. **Molecular Weight Calculator**
   The Molecular Weight Calculator will compute the average molecular weight (MW) of molecules by entering in the chemical formula (i.e. C3H2O4). Supports complex molecules such as “C3H2(NO)4” & “C3H2Cl4.(H2O)3” & is linked into the Molarity Calculator to work in tandem for molarity calculations.
4. **Cell Culture Reference Charts**
   Reference charts for cell culture dishes, plates & flasks showing vital data such as growth surface area, cell seeding density, number of cells at confluency, volume of growth media necessary & required versene or trypsin volume for cell detachment.
5. **Unit Converter**
   A comprehensive unit converter tool capable of converting over 44 units in 7 different types of measurements including the following:

Distance converter (m, ft, in, cm, mm, yards & km) Speed converter (m/sec, ft/sec, in/sec, cm/sec, km/sec, miles/sec, miles/hr, km/hr, knots) Area converter (m2, ft2, in2, yd2, acres, km2, miles2) Volume converter (liters, m3, cm3, ft3, in3, yards3) Weight converter (kg, g, oz, lbs, tons) Temperature converter (Celcius, Farenheit, Kelvin) Molar converter (mole, mM, ìmol, nmol, pmol, fmol).

Science Radio

By the National Science Foundation

Science360 Radio is a part of the National Science Foundation’s Science360 network. It focuses on the latest developments in scientific research, providing a variety of science topics with continuous audio programming 24 hours a day, seven days a week, from contributors including mainstream media outlets, colleges and universities, and more.

Gene Lab

By Smiling Frog Software LLC

This application uses Genetic Algorithms to create colorful abstract creatures. You can clone, mutate, and breed your creatures to create billions of unique designs. You can save your creatures, share them via E Mail, and save images of them to your camera roll. Images saved to the camera roll can be used as your device’s wallpaper.

Molecules

By Sunset Lake Software

Molecules is an application for the iPhone, iPod touch, and now iPad that allows you to view three-dimensional renderings of molecules and manipulate them using your fingers. You can rotate the molecules by moving your finger across the display, zoom in or out by using two-finger pinch gestures, or pan the molecule by moving two fingers across the screen at once.

New molecules can be downloaded from the RCSB Protein Data Bank (http://www.rcsb.org/pdb), an international repository of biological molecules and their 3-D structures, or NCBI’s PubChem, a public database of compounds.

Molecules can be downloaded directly to your handheld device and stored there for later viewing. In addition, you can view detailed information about the molecule, such as the researchers who established its structure, its amino acid or nucleotide sequence, and its full name. Multiple visualization modes can be switched to by double-tapping on the 3-D rendering. Custom molecule structures can also be downloaded to the device from any publicly available web server. The location of these structures can either be manually specified in the application, or custom URLs can be clicked on within Safari or Mail on the device. This will launch Molecules and have it start downloading the file at that address.

iPathways

By The Systems Biology Institute

Explore biological pathways on your palm!! In comprehending the biological complexity of living systems in disease and healthy states, molecular pathway maps form an integral part of a researcher's arsenal. iPathways, developed by The Systems Biology Institute, Tokyo, brings your pathways from the desktop to the device for the first time!! iPathways provides access to molecular maps constructed in CellDesigner™, compatible with SBML (Systems Biology Markup Language) and SBGN (Systems Biology Graphical Notation) standards. Browse pathways from your account and explore publications and genes of interest. iPathways is currently in 1.1 and your feedback is key! Drop a message at helpme@ipathways.org

Protocolpedia

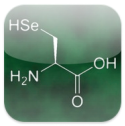
By Hue Medscience Pvt ltd

Protocolpedia app is an essential resource for every scientist and lab researcher. Get offline access to hundreds of complete protocols and collect your favorites in one place. Protocolpedia keeps your lab methods organized for easy access conveniently from your app. This app works on iphone,ipad and ipod touch. Other features include offline calculators,live forum with ability to post pictures and interact with fellow researchers right from the app, multimedia access to view educational videos and lab methods. Forums and videos require wi-fi or cellular internet. Protocolpedia app is an adaptation of www.protocolpedia.com, the largest growing website on lab methods and protocols. Same login can be used for the website and app.

Features

- Live forums: Instant and live posting of messages and pictures straight from iphone/ipod. Messages and Pics simultaneously are added to the website .
- Complete protocols in many categories including Molecular biology, Biochemistry, Cell Biology, Histology, Immunology and many more.
- Calculators: Dilution,Molarity, Oligo Resuspension & PCR Mastermix. (More to be added soon)
- Videos:Useful videos on lab methods and learning new techniques.

Protocols and calculator can be accessed offline. Updated protocols can be downloaded when available. Developed by Huemedscience.com in association with Jon Mandell. Copyright Hue Medscience Pvt limited.



BioFacts!

By fiddlemeragged

BioFacts puts thousands of Biology (Plants, Animals and Humans) facts at your fingertips.
Simply click on the 'Another BioFact' button to receive a random fascinating fact from the world of Biology.

Both informative and fun it's great for
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The meeting (Cytokines 2011) App is available for free in both Apple and Android formats!

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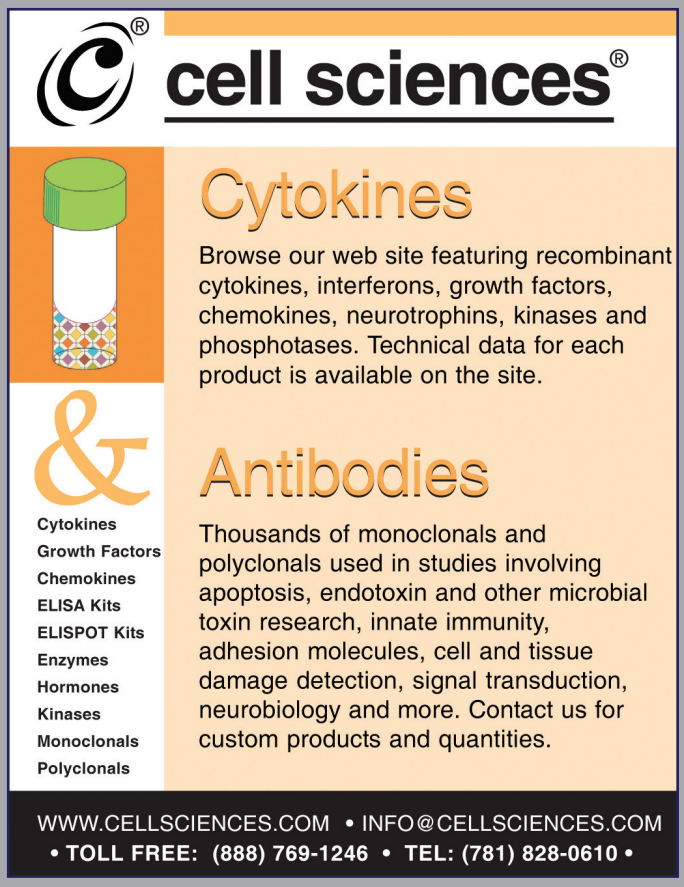

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CYTOKINES AROUND THE WORLD **ANSWERS**

Answers to "Can you guess the language?" from page 19

1. Albanian
2. Arabic
3. Azerbaijani
4. Bulgarian
5. Chinese (traditional)
6. Czech
7. Greek
8. Finish
9. Hebrew
10. Italian
11. Icelandic
12. Russian
13. Welsh
14. Spanish
15. Turkish
16. Japanese
17. Portuguese
18. Hindi
19. German
20. Estonian

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