Signals

THE INTERNATIONAL CYTOKINE AND INTERFERON SOCIETY NEWSLETTER

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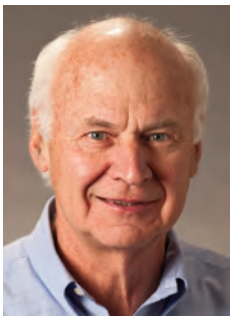


Charles Samuel

Luke O'Neill

Dear Colleagues,

It is now mid-March as we jointly write this note for the newsletter issue that will represent the first issue of Signals under the umbrella of ICIS, our new International Cytokine and Interferon Society.

The possibility of a merger between ISICR and ICS arose almost seven years ago driven by the increasing overlap of interests between the ISICR and ICS memberships. Leon Platanias and David Wallach, and Nancy Ruddle and Howard Young, then guided discussions with the help of our ISICR Board of Directors and ICS Council that led to the vote of our memberships a little over one year ago. The results were unequivocal. About 90% of both memberships voted to merge ISICR and ICS. We are now pleased to report that the merger documents have been signed by the two of us, as President of ISICR and President of ICS, and we are now one society, The International Cytokine and Interferon Society, otherwise known as ICIS.

The ICS Council and ISICR Board of Directors agreed that the merger should take place in a manner that recognizes the aspirations and cultures of both ISICR and ICS. We have worked together during the past year to achieve this outcome. Among the important next steps will be the election of new ICIS society officers in 2013. To help assure an orderly transition, during the formative period of the new society it was agreed that the current officers of ISICR and ICS will remain in position and act and work together prior to election of the new officers. The plan is for the new President to assume leadership in 2014, subsequently along with new committees.

We have witnessed tremendous progress in the cytokine field since the seminal discovery of interferon as the first cytokine and the remarkable progress that was made in the fields of interleukins and TNF family members. The membership of ISICR and ICS made what are perhaps the largest contributions to modern Immunology of any scientific group, and also laid the foundation for much of the Biotech/Biopharma sector. The decision to merge and form ICIS was a crucial milestone in the history of both ISICR and ICS. One of the activities that we will continue to enjoy together as ICIS society members is the Annual Meeting. Learning of the newest exciting scientific advances across the broad range of cytokines, together with our culture of friendships, has been and will continue to be an important benefit of ICIS society membership and aspect of the annual meeting. When the 2013 annual meeting was initially proposed by Warren Leonard, and endorsed by the Joint Meetings Committee led by Christine Czarniecki and Carl Ware, it was to be held as the 11th Joint Meeting of ISICR and ICS. But, when we convene in San Francisco, it will be as the first meeting of ICIS.

Our hope is that the new International Cytokine and Interferon Society formed by the merger will become a vibrant organization, one that grows in membership number and assumes a position of further scientific strength and leadership. With talented new investigators entering the cytokine and interferon fields, arriving with different backgrounds and bringing new experimental tools and cross disciplinary approaches, we look forward to a future of continuing exciting discoveries that will ultimately impact on patient care.

Welcome to ICIS and see you in San Francisio, September 29 to October 3!

With best wishes,
Luke O'Neill *(President, ICS)*
Chuck Samuel *(President, ISICR)*
Co-Presidents, ICIS, 2013

Future Meetings

2013 Meetings

JULY 7-10, 2013
International TNF
Québec City, Canada

Cytokines 2013
Sept. 29-Oct. 3, 2013
San Francisco, CA

ISICR
International Society for Interferon & Cytokine Research

WELCOME

NEW ICIS MEMBERS

The ICIS welcomes the following new members to the society. We look forward to your participation in the society and your attendance at the annual meeting.

Swarnali Acharyya
Memorial Sloan Kettering Cancer Center

Muhammad Ali
Università degli Studi Roma Tre

Burkhard Becher
University of Zurich

Kiran Bhaskar
Cleveland Clinic

Karim Brandt
University of Geneva

Jessica Brownell
Univ of Washington

Marco Cardone
NCI-Frederick, NIH

Michaela Gack
Harvard Medical School

Laura Icardi
VIB – U Ghent

Magali Irla
University of Geneva Medical School

Sebastein Jaillon
Istituto Clinico Humanitas

Jay Kolls
University of Pittsburgh

Yong Jun Liu
Baylor Research Inst

Nicola Ivan Lore
San Raffaele Scientific Institute

Kazuya Masuda
Osaka University

Ivan Ng
Monash University

Michael Pranzatelli
Southern Illinois University School of Medicine

Aradhana Rani
Kings College London

Tiziana Ada Renzi
Instituto Clinico Humanitas IRCCS

Barbara Sherry
The Feinstein Inst for Medical Research

Mari Shinohara
Duke Univ School of Medicine

Balendra Singh
Bundelkhand Univ

Erica Stein
Laboratory of Pathology/NCI/NIH

Dengyun Sun
Merck Animal Health

Emmanuel Thomas
University of Miami Miller School of Medicine

Vincent van Pesch
Universite Catholique de Louvain

Hongling Zhao
Albert Einstein College of Medicine

Your HELP is Needed: Play a role in building our new society

A key next step as part of the launch of the new International Cytokine and Interferon Society formed by the merger of ISICR and ICS is the election of new officers to assume leadership in 2014. This includes the positions of President, Secretary and Treasurer. We invite the membership to suggest names of potential candidates to the Nominations Committee (Alberto Mantovani, Leon Platanias, Nancy Ruddle, Bryan Williams, and co-chairs Luke O'Neill and Chuck Samuel). These are very important roles to take ICIS into the future. Suggestions of names may be sent to Lisa Hetherington at lhetherington@faseb.org or to any member of the committee before May 15.

CYTOKINES 2013:

The ICS and ISICR invite you to celebrate their planned merger into the new International Cytokine and Interferon Society (ICIS)

Mark your Calendars!

SEPTEMBER 29 – OCTOBER 3, 2013

Preparations for the 2013 ICIS meeting in San Francisco (September 29-October 3) are well underway, with an exciting program. The Scientific Organizing Committee includes Drs. Warren Leonard (National Institutes of Health), Sarah Gaffen (University of Pittsburgh), Karen Mossman (McMaster University) and Robert Schreiber (Washington University), with a Scientific Advisory Committee encompassing superb scientists from academia and industry.

The **Keynote speaker is K. Christopher Garcia**, HHMI and Stanford University. Elected to the National Academy of Sciences in 2012, Dr. Garcia is a world-leader in the structural biology of cytokines and cytokine receptors, having elucidated biological mechanisms and engineered cytokines with novel activities. His studies have spanned numerous cytokine families, including IL-1, type I interferons, IL-17, and type I cytokines including IL-2/15, IL-4/13, and the IL-6 family cytokines, giving him extraordinary breadth. He is a dynamic speaker and is a superb individual to start the meeting.

In honor of the planned merger of the ICS and ISICR into the ICIS, there will be a Special Inaugural Scientific Symposium with speakers who made seminal contributions related to some of the major cytokine families (IFNs, IL-2, and TNF) and the JAK-STAT pathway, and who continue state-of-the-art cutting research. Speakers include Dr. Tadatsugu Taniguchi (University of Tokyo), Dr. David Wallach (Weizmann Institute), Dr. Warren Leonard (NIH), and Dr. George Stark (Cleveland Clinic).

Each day will begin with an exciting Plenary Symposium, including "Cytokines and Microbes", "Cytokine Fundamentals: Signaling, Expression & Epigenetics", "Cytokines in Cancer Induction and Control" and "Bench and Bedside", followed by additional major symposia and mini-symposia, as well as venues to promote networking of trainees with each other and senior scientists.

Confirmed speakers include David Artis, Jody Baron, Greg Barton, Yasmine Belkaid, Jeff Bluestone, Andrew Bowie, Doreen Cantrell, Marco Colonna, Carolyn Coyne, Shane Crotty, Jason Cyster, Vishva Dixit, Charles Egwuagu, Katherine Fitzgerald, Richard Flavell, Thomas Gajewski, Michael Gale, K. Christopher Garcia, Sankar Ghosh, Tom Hamilton, Lothar Hennighausen, Chris Hunter, Akiko Iwasaki, Brendan Jenkins, Richard Jove, Susan Kaech, Tadamitsu Kishomoto, Lewis Lanier, Warren Leonard, Xiaoxia Li, Foo Liew, Xin Lin, Dan Littman, Richard Locksley, Angel Lopez, Averil Ma, Tak Mak, Grant McFadden, Karen Mossman, Anne O'Garry, John O'Shea, Michael Oldstone, Wenjun Ouyang, Soren Paludan, Fiona Powrie, Freddy Radtke, Alexander Rudensky, Federica Sallusto, Robert Schreiber, Alan Sher, Stephen Smale, George Stark, Tadatsugu Taniguchi, Thomas Tedder, Kevin Tracey, Giorgio Trinchieri, Emil Unanue, Tom Waldmann, David Wallach, Amy Weinmann, and Albert Zlotnik.

There are many travel awards, prizes and events for trainees and junior faculty. More information about the meeting and the application process for the society awards is at www.cytokines2013.com

Tell your friends and look for the FREE Smartphone/iPad App, Cytokines2013, coming this Spring!!!!!!

2012 CHRISTINA FLEISCHMANN Award Winner

STACY M. HORNER

Department of Immunology, University of Washington
Seattle, WA

Dr. Stacy Horner's research focuses on understanding how signaling of innate immunity through RIG-I is coordinated and regulated during RNA virus infection, particularly with hepatitis C virus (HCV).

Using interdisciplinary approaches, she is defining the spatio-temporal regulation of innate immunity at the levels of both host and virus. She is especially interested in the role that intracellular membranes play in organizing innate immune signaling platforms during RNA virus infection.

Dr. Stacy M. Horner received her Ph.D. in Microbiology from Yale University in 2007. Under the mentorship of Dr. Daniel DiMaio, her graduate research focused on human papillomavirus (HPV) regulation of cellular growth control pathways and also on designing strategies to eliminate HPV DNA from cervical cancer cells. Building on her interest of virus/host interactions, Dr. Horner joined the laboratory of Dr. Michael Gale Jr. at the University of Washington for her postdoctoral training. Her research has focused on understanding innate immune regulation by HCV, a global human pathogen. She has found that the mitochondrial-associated ER membrane (MAM; a subdomain of the ER located adjacent to mitochondria) is a major coordinator of innate immune signaling and is also the intracellular site of immune regulation by the HCV NS3/4A protease. She has found that during RNA virus infection, the MAM forms a central membrane platform that organizes MAVS-anchored "innate immune synapses" to drive innate immunity. Importantly, Dr. Horner's research has revealed that HCV NS3/4A protease-cleavage of MAVS, which abrogates immune signaling during HCV infection, takes place on the MAM rather than on the mitochondria thus revealing the MAM as a major site of immune signaling and control during HCV infection. Dr. Horner's research is providing insights that can be used to design novel therapeutics that target MAM-regulated processes to restore innate immunity and type I interferon production for the suppression of HCV infection and disease, and also other RNA viruses that are sensed by the RIG-I pathway.

2012 ISICR AWARD WINNER

THE MILSTEIN YOUNG INVESTIGATOR AWARDS

TAYLOR COHEN

Columbia University
New York, NY

Dr. Cohen received his Ph.D. from the University of Pennsylvania in 2009, under the supervision of Dr. Susan Margulies, following his work on the roles of sepsis and mechanical injury on epithelial tight junction structure and function. Due to his interest on the contribution of the airway epithelium in the host response to lung injury Dr. Cohen joined the laboratory of Dr. Alice Prince in January 2010 at Columbia University.

Dr. Cohen's main focus in Dr. Prince's lab has been to characterize the host response to the major human pathogen *Pseudomonas aeruginosa*. Specifically, Dr. Cohen established a role of type I interferon signaling in clearance of this pathogen from the lung, and demonstrated that mutations in epithelial CFTR, the underlying mutation in Cystic Fibrosis, impedes the epithelial cells from producing interferons in response to *P. aeruginosa*.

Dr. Cohen has more recently focused on the contribution of immune cells to pathology during acute bacterial pneumonia, specifically the role of type III interferon. Recognized primarily by epithelial cells, this member of the interferon family is known to be relevant in viral immunity and tumor development, and Dr. Cohen's work could help characterize its function during infection with bacterial pathogens

2012 ISICR AWARD WINNER

THE MILSTEIN YOUNG INVESTIGATOR AWARDS

BABAL KANT JHA

Cleveland Clinic
Cleveland, OH

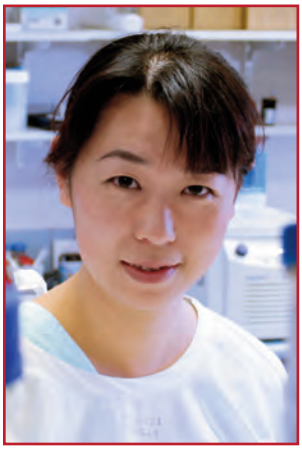
Dr. Jha's research focuses on innate defenses against viruses and cancer. In particular, his work in Prof. Robert Silverman's laboratory probes molecular mechanisms of the OAS-RNase L system and its antagonism by various cellular and viral factors under pathogenic conditions.

Recently, in a collaboration with Prof. Susan R. Weiss (University of Pennsylvania), Dr. Jha co-discovered that the murine coronavirus (MHV) accessory protein ns2 is a 2',5'-phosphodiesterase that degrades 2-5A and limits RNase L activation. These studies showed that inhibition of OAS-RNase L system by ns2, particularly in macrophages, is required for virus-induced hepatitis in mice. He is currently extending these observations beyond MHV to other host and viral proteins that are structurally similar to ns2. In addition, Dr. Jha is developing a targeted therapeutic intervention to enhance the efficacy of oncolytic viruses in the Silverman lab. He found that the anti-angiogenic drug, sunitinib, inhibits RNase L and PKR, and he is using this drug to increase the anti-tumor activity of an oncolytic virus in mice.

Dr. Jha received a master of philosophy (M. Phil) in 1998 and doctor of philosophy (Ph. D.) in 2005 in the area of Biochemistry and Structural Biology at the Jawaharlal Nehru University, New Delhi, India. As a part of his doctoral thesis he worked on role of conformational transition in ligand recognition under the joint mentorship of Prof. Kasturi Datta and Dr. Dinakar M. Salunke. In his doctoral research he demonstrated that the protein folding processes are influenced by structural elements operating within the polypeptide chain as well as on the local environment. He showed that the three dimensional structure of multifunctional and multi-compartmental protein HABP1/p32/gC1qR is highly sensitive to the fluctuations in local pH and ionic environment in various sub-cellular compartments which dictate the affinity and specificities of its different binding partners.

2012 ISICR AWARD WINNER

THE MILSTEIN YOUNG INVESTIGATOR AWARDS



CLARE SLANEY

Peter MacCallum Cancer Centre
East Melbourne, Australia

After completion of her immunology PhD in 2010, Dr. Slany started as a postdoctoral research fellow at the Peter MacCallum Cancer Centre in Melbourne, Australia. Her supervisor is Dr Belinda Parker and her current project focuses on the role of type I IFN in breast cancer metastasis.

She is a recipient of a four year postdoctoral fellowship co-funded by the Australian National Breast Cancer Foundation and the Cure Cancer Australia Foundation.

Her recent studies, in collaboration with Prof. Paul Hertzog (Monash Institute of Medical Research, Melbourne, Australia) using a unique mouse model of breast cancer, has revealed that cancer cells growing in bone suppress a set of genes located at the type I IFN pathway, including Irf7, the master regulator of this pathway. Restoring Irf7 signalling by either enhanced Irf7 expression in tumour cells or injection of IFN-α1 greatly enhanced the anti-bone-metastatic immune activity, reduced bone metastases and increased metastasis-free survival time. In addition, she utilised type I IFN receptor null mice, NOD SCID IL-2rγ-/- mice (lacking a functional immune system) and mice specifically depleted in certain immune cell populations to demonstrate the critical function of the immune system in Irf7 induced metastasis suppression. Patient samples have also been analysed and indicate that the expression of these Irf7-regulated genes in the primary tumour could be used as prognostic markers for bone metastasis. This study was published by *Nature Medicine* (doi:10.1038/nm2830) and was selected as the cancer immunology highlight by *Nature* (487): 408.

2012 THE SIDNEY AND JOAN PESTKA AWARD WINNERS

AARON IRVING

Imaging Research Fellow, Monash Institute of Medical Research (MIMR), Clayton Vic. Australia

Aaron Irving obtained his PhD from the Diamantina Institute for Cancer, Immunology and Metabolic Medicine, University of QLD, Australia. This work focused on a role for Varicella-Zoster virus in blocking the Jak/STAT signaling pathway. Since then he moved to Bryan Williams' laboratory at MIMR, Monash University for his postdoctoral studies focusing on the crosstalk between innate immune sensors such as PKR and cell biology. He has a strong interest in direct host-pathogen interactions with a focus on advanced live cell microscopy as a tool for investigation. His recent work has characterized a novel role for PKR in regulating the actin cytoskeleton as a form of basal immune defense to block pathogen uptake.

LAURA ICARDI

Cytokine Receptor Lab, Ghent University – Department of Biochemistry VIB Department of Medical Protein Research, Gent – Belgium

Laura Icardi obtained her master degree in Molecular Biotechnology in 2006, in the University of Turin, Italy, working as an undergraduate student in the lab of Prof. Francesco Novelli, on the cross-talk between STAT1 and STAT3 activity in type II interferon signalling. Right after graduation, she was granted a Marie Curie RTN fellowship and moved to the University of Ghent, Belgium, where she joined the lab of Prof. Jan Tavernier, investigating the role of acetylation/deacetylation in the JAK/STAT signaling pathway. She is currently finalizing her PhD thesis, which was presented in autumn 2012.

2012 THE JOURNAL OF BIOLOGICAL CHEMISTRY/ HERBERT TABOR AWARD WINNER

VIJAY RATHINAM

University of Massachusetts Medical School
Worcester, MA

Dr. Vijay Rathinam has received his DVM and PhD from Madras Veterinary College and Michigan State University, respectively. Dr. Rathinam has a long-standing interest in elucidating innate immune mechanisms that govern the sensing of infectious microbes by the host.

Dr. Rathinam's PhD research focused on the role of Toll-like receptor signaling in dendritic cell recognition of *Campylobacter jejuni*, a clinically important human pathogen. Dr. Rathinam joined Dr. Kate Fitzgerald's laboratory at UMASS Medical School in 2009 as a post-doctoral fellow. His earlier work in the Fitzgerald lab demonstrated an essential role for AIM2, a cytosolic DNA sensor, in host defense against cytosolic bacteria and viruses. His current project identified a novel TRIF pathway that licenses NLRP3 inflammasome activation by Gram-negative bacteria.

Dr. Rathinam's postdoctoral studies led to several publications in journals such as *Cell* and *Nature Immunology*. His research work has been recognized by a career development award by the New England Regional Center of Excellence in Biodefense and Emerging Infectious Diseases and the American Association of Immunologists-Life Technologies Trainee Achievement Award in 2011.

2012 ICS AWARD WINNER

THE ED LEONARD PRIZE FOR CHEMOTAXIS/ CHEMOKINE RESEARCH

BENEDETTA SAVINO

Istituto Clinico Humanitas Rozzano, Italy

Benedetta Savino is a post-doctoral fellow with a fellowship from the FIRC (Italian Foundation for Cancer Research) at the University of Milan, Department of Medical Biotechnology and Translational Medicine, Humanitas Clinical and Research Center, Milan. She graduated in Medical Biotechnology in 2006 and she got her PhD degree in 2009. Her research is focused on innate immunity and cancer. She studies chemokines and their receptors, in particular the atypical chemokine receptor D6, in inflammatory conditions and the tumor microenvironment.

2012 ICS AWARD WINNER

THE ICS YOUNG INVESTIGATOR AWARDS

MAGALI IRLA

University of Geneva Medical School Geneva, Switzerland

Magali Irla obtained her PhD in Immunology in 2005 at the University of Marseille, France, where she studied gene expression by thymic epithelial cells, a cell type that plays a pivotal role in the education of T-cells. She then joined the University of Geneva, Switzerland, as an EMBO postdoctoral fellow. Her research focused on two areas addressing the mechanisms controlling the induction of T-cell tolerance in the thymus and its' maintenance in the periphery. In 2010, she obtained a junior group leader position and she discovered that lymphotoxin-alpha, produced specifically by autoreactive CD4+ thymocytes, controls homeostasis of the thymic medulla, a specialized microenvironment for T-cell tolerance induction, and thus critical for avoiding autoimmune disorders.

2012 ICS AWARD WINNER

THE ICS YOUNG INVESTIGATOR AWARDS

KIRAN BHASKAR

Cleveland Clinic Foundation
Cleveland, OH

Kiran Bhaskar did his Ph.D. at the National Institute of Mental Health and Neurosciences, India, and postdoctoral training at the University of Iowa, USA, where he studied the role of tyrosine phosphorylation of tau protein in the pathogenesis of Alzheimer's disease (AD). Dr. Bhaskar joined the Cleveland Clinic in 2006, where he demonstrated that oligomeric Abeta peptide induces neuronal cell cycle events, one of the pathological hallmarks of AD. Recently, Dr. Bhaskar demonstrated that neuroinflammation, cell-autonomous to microglia, accelerates tangle pathology and cognitive impairment in a mouse model of tauopathy, which is dependent on the activation of interleukin-1 receptor - p38 MAPK pathway within neurons.

EMMANUEL THOMAS

University of Miami Miller School of Medicine
Miami, FL

Emmanuel Thomas received his medical and scientific training at the University of Miami School of Medicine in Miami, FL. His Ph.D. training was conducted in the Department of Microbiology and Immunology under Dr. Glen N. Barber, and focused on the identification of genes involved in the innate immune antiviral response. After completing his doctoral studies and medical school, he participated in the Doris Duke Clinical Research Fellowship under the mentorship of Dr. Michael W. Fried at University of North Carolina Chapel Hill. During this fellowship, Dr. Thomas designed and implemented clinical research protocols aimed at increasing our understanding of the mechanism of action of interferon and ribavirin in antiviral therapy against Hepatitis C. He completed this work in the Liver Diseases Branch at the National Institutes of Health in the lab of Dr. T. Jake Liang as a research fellow. Currently, Dr. Thomas is a research assistant professor at the University of Miami School of Medicine with appointments in the Schiff Center for Liver Diseases, Sylvester Comprehensive Cancer Center and the Department of Cell Biology. His research focus is on studying the innate immune response to HCV and the mechanism by which HCV causes hepatocellular cancer.

2012 THE ICS POSTDOCTORAL INVESTIGATOR AWARDS

NICOLA IVAN LORE

San Raffaele Scientific Institute
Milan, Italy

Nicola Lore' has completed his doctoral training in the research area of host-pathogen interaction in Cystic Fibrosis airway diseases, working in the laboratory of Dr. Bragonzi at the San Raffaele Scientific Institute. Now he is continuing to study pathogenesis of *Pseudomonas aeruginosa*, with particular attention to host inflammation and tissue damage control during chronic *P. aeruginosa* infection. He is going to focus his interest on the role of NLRs during airway infection, moving in 2013 to the laboratory of Dr. M. Chamaillard at the Institut Pasteur de Lille.

ARADHANA RANI

King's College London
London, United Kingdom

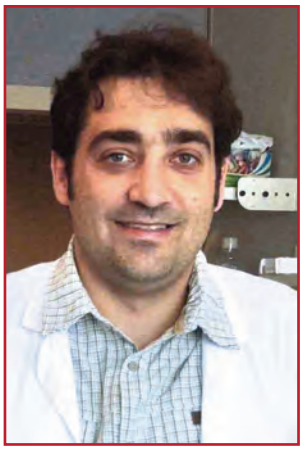
Dr. Aradhana Rani received her PhD in Immunology from King's College London, where she worked towards identifying novel STAT5 regulated genes in human CD4+ and CD8+ T cells while at Dr. John's lab. She has undertaken her post-doctoral training in Dr. Jurcevic's lab in the Division of Transplantation Immunology & Mucosal Biology at King's College London. Here she has continued to pursue her research at identifying novel IL-2 regulated targets and in the role of IL-2 regulated STAT5 in T cell differentiation. She is also actively involved in clinical trials, developing biomarkers for the drugs that target B and T cell signaling pathways.

2012 THE ICS POSTDOCTORAL INVESTIGATOR AWARDS

KARIM BRANDT

University of Geneva
Genève, Switzerland

Karim Brandt was born in Switzerland and graduated from the University of Geneva. He received his Ph.D in Biochemistry in 2010, conducted under the guidance of Dr. Danielle Burger at the University Hospital of Geneva. His thesis work focused on studying the regulation and signaling of IL-1 family members in acute and chronic inflammation. He received the FEBS Young Scientist Forum Grant and the European Cytokines Society Travel Grant in 2008 followed by Swiss Society for Biochemistry Travel Grant in 2009 and 2010. He is currently a postdoctoral fellow in Philippe de Moerloose's lab at the Medicine School of Geneva where he is studying Toll-like receptor signaling involved in antiphospholipid syndrome.



SEBASTIEN JAILLON

Istituto Clinico Humanitas IRCCS
Rozzano (Milan), Italy

Sébastien Jaillon received his Ph.D from the University Hospital of Angers (Inserm, Unit 564), France, in 2007. He joined Prof. Alberto Mantovani's laboratory at the Istituto Clinico Humanitas, Rozzano, Italy in 2008 as a post-doctoral fellow. His research focuses on innate immunity and inflammation and he has notably contributed to a better understanding of the mechanisms used by neutrophils in defense against fungi, resolution of inflammation and regulation of adaptive immunity.

2012 THE ICS OUTSTANDING SCHOLAR AWARDS

ABHISHEK GARG

University of Pittsburgh
Pittsburgh, PA

Abhishek Garg is from India and received his Bachelor's degree with honors in Biotechnology from Panjab University, India. After that he moved to University of Pittsburgh to pursue his graduate education and joined the laboratory of Dr. Sarah Gaffen in Department of Medicine. The research focus of his PhD thesis is to understand the regulatory mechanisms of IL-17 signal transduction, specifically focusing on the inhibitory pathways. The studies are directed towards identifying novel proteins as well as understanding the detailed mechanisms of regulation.

LAURA ICARDI

Cytokine Receptor Lab, Ghent University – Department of Biochemistry VIB Department of Medical Protein Research, Gent – Belgium

Laura Icardi obtained her master degree in Molecular Biotechnology in 2006, in the University of Turin, Italy, working as an undergraduate student in the lab of Prof. Francesco Novelli, on the cross-talk between STAT1 and STAT3 activity in type II interferon signalling. Right after graduation, she was granted a Marie Curie RTN fellowship and moved to the University of Ghent, Belgium, where she joined the lab of Prof. Jan Tavernier, investigating the role of acetylation/deacetylation in the JAK/STAT signaling pathway. She is currently finalizing her PhD thesis, which was presented in autumn 2012.

2012 THE ICS OUTSTANDING SCHOLAR AWARDS

TIZIANA RENZI

Istituto Clinico Humanitas
Rozzano, Italy

Tiziana A. Renzi is a PhD student of the University of Milan, working in the Department of Translational Medicine and Medical Biotechnology located in the Humanitas Clinical and Research Center, Milan. She graduated in 2010 in Medical, Molecular and Cellular Biotechnology from the Vita-Salute San Raffaele University (Milan) where her thesis focused on the role of microRNAs in the development and activation of murine iNKT cells. In her PhD project she is now investigating the role of the microRNAs in phagocyte activation in response to inflammatory stimuli.

KAZUYA MASUDA

Osaka University
Suita, Japan

Kazuya Masuda is from Mie prefecture in central Japan which has the most famous shrine in Japan (Ise Grand shrine). He now lives in Osaka where he is a graduate student in the laboratory of Tadamitsu Kishimoto in Osaka University. Intereleukin-6 (IL-6) has critical roles in the pathogenesis of autoimmune disease. His research interest is the post-transcriptional regulation of the cytokine IL-6, which is largely uncharacterized. Recently he identified a protein, Arid5a which selectively stabilizes IL-6 mRNA. His aim is to characterize the role of Arid5a in autoimmune disease and to develop therapeutics based on inhibiting Arid5a function in IL-6-dependent diseases.

The 2012 ISICR Milstein Travel Awardees

Geetanjali Gupta	V.C.S.G.Govt Med Sic & Research Institut, Srinagar, India
Eduarta Holl	Duke University, Durham, NC, USA
Hiroki Yoshida	Saga University, Saga, Japan
Brendan Jenkins	Monash University, Clayton, Australia
Tali Lang	Institute for Anatomy and Cell Biology, Giessen, Germany
Jui-Hung Yen	Temple University School of Medicine, Philadelphia, PA, USA
Atsuko Masumi	Musashimurayama-Shi, Japan
Jose Vicente Perez Giron	Institut Heinrich Pett, Hamburg, Germany
Ferial Aslani	Justus-Liebig-University Giessen, Giessen, Germany
Chia-Yi Yu	Academia Sinica, Taipei, Taiwan
Chien-Kuo Lee	National Taiwan University, Taiwan, Taiwan
Barbora Lubyova	Institute of Immunology and Microbiology, Prague,Czech Republic
Vineet Menachery	University of North Carolina, Chapel Hill, NC, USA
Balendra Singh	Bundelkhand University, Jhansi, India
Kiran Bhaskar	Cleveland Clinic, Cleveland, OH, USA
Jessica Brownell	University of Washington, Seattle, WA, USA
Chi Ho Howard Yim	Monash Institute of Medical Research, Clayton, Australia
Yu Dou	Monash Institute of Medical Research, Clayton, Australia
Mehdi Bourouba	University of Sciences And Technology Hb,Algiers, Algeria
Nicole De Weerd	Monash Institute of Medical Research, Clayton, Australia
Grigory Ryzhakov	Kennedy Institute of Rheumatology,University Of Oxford, London, UK
Giorgio Raimondi	University of Pittsburgh School of Medicine, Pittsburgh, PA,USA
Martina Schroeder	National University of Ireland Maynooth,, Kildare Co., Ireland
Lili Gu	National University of Ireland, Maynooth, Kildare Co., Ireland
Ryann Guayasamin	Yale School of Medicine, New Haven, CT, USA
Chafia Touil-Boukoffa	University of Sciences And Technology Hb, Algers,Algeria
Angel Morrow	NIH/NIAID, Bethesda, MD, USA
Manel Amri	University of Sciences and Technology Hb, Algiers, Algeria
Zora Melkova	Charles University, Prague, Czech Rep
Annie Bruns	Northwestern University, Evanston, IL, USA
Ana Gamero	Temple University, Philadelphia, PA, USA
Michelle Tate	Monash Institute of Medical Research, Clayton, Australia
Faten El Asmi	CNRS, Paris, France
Rute Nascimento	Instiuto Gulbenkian De Ciencia, Oeiras, Portugal
Ce Tang	Tokyo University of Science, Noda, Japan
John Pong	University of Hong Kong, Hong Kong, China
Tatiana Chernovskaya	Biocad, Lyubuchany, Russian Federation
Anna Lisa Remoli	Istituto Superiore Di Sanità, Rome, Italy

ICIS Awards 2013

DEADLINE FOR ALL AWARD APPLICATIONS AND NOMINATIONS: **May 21st.**

Submit your award application through the Cytokines-2013 Meeting website: http://www.cytokines2013.com

Email nominations for the Milstein Award, Honorary Life Membership, and ICIS Distinguished Service Award to the Co-Presidents Presidents of the ICIS to *ICIS@faseb.org*.

Both the Awards Application webpage and the *ICIS@faseb.org* email address are now active.

Awards are dependent upon availability of donations and other sources of funding.

ICIS AWARDS LIST:

1. Seymour and Vivian Milstein Award for Excellence in Interferon and Cytokine Research
2. Honorary Life Membership
3. ICIS Distinguished Service Award
4. Ed Leonard Prize for Chemotaxis/Chemokine Research
5. ICIS Young Investigator Award for Cytokine Research
6. The Milstein Young Investigator Award
7. ICIS Postdoctoral Investigator Award
8. ICIS Outstanding Scholar Award
9. The Milstein Travel Awards
10. Christina Fleischmann Award to Young Women Investigators
11. Sidney & Joan Pestka Graduate and Post-Graduate Award in Interferon Research Sponsored by PBL Interferon Source
12. Journal of Biological Chemistry/Herbert Tabor Young Investigator Award

2013 ICIS AWARDS DESCRIPTIONS:

The Seymour and Vivian Milstein Award for Excellence in Interferon and Cytokine Research

The Seymour and Vivian Milstein Award for Excellence in Interferon and Cytokine Research, commonly known as The Milstein Award, represents the pinnacle of scientific achievement in interferon and cytokine research. The Milstein Award is bestowed upon a leading biomedical research scientist who has made outstanding contributions to interferon and cytokine research, either in a basic or applied field. Many laureates have made seminal advancements that have enabled the successful treatment of disease or have the potential to lead to significant health benefits for humanity. The Milstein Awards are dependent upon the generosity of the Milstein Family and have historically been given to individuals whose research has been focused in interferon biology. Such preference shall be continued for 2013 with a broadening of the award criteria beginning in 2014. Candidates must be society members for two years at the time of the nomination. Nominations should be communicated to the Co-Presidents of the ICIS to *ICIS@faseb.org* by **May 21st**.

Honorary Life Membership

Nominations are solicited for Honorary Life Memberships in the ICIS. Each year, an individual will be awarded Life Membership as a tribute to his/her contributions to the field. Nominees should be individuals who have made substantive contributions to the cytokine/interferon field over much of their careers, either in basic, clinical or applied research. Honorary members are esteemed members of the society and provide us with an historical perspective and valued research tradition. Honorary Life Members are accorded all rights and privileges of active members, are exempted from Society dues and annual meeting registration fees, and are listed in the dedicated Honorary Life Members section of the Society web site. The winner is elected by vote of the ICIS Council and will be an invited speaker at the next ICIS meeting. Nominations should be communicated to the Co-Presidents of the ICIS to *ICIS@faseb.org* by **May 21st**.

ICIS Awards 2013 continued

ICIS Distinguished Service Award

The ICIS will on occasion bestow this honor on an ICIS member who has made an extraordinary contribution to the society. The individual will have devoted significant time and energy over a period of years to elevating the goals of the society in furthering research on interferon, cytokines and chemokines. Nominations should be communicated to the Co-Presidents of the ICIS to *ICIS@faseb.org* by **May 21st**.

Ed Leonard Prize Fund for Chemotaxis/ Chemokine Research

This Award was established by Dr. Antal Rot in honor of Dr. Ed Leonard to further excellence in chemotaxis/ chemokine research. This competition is open to any postdoctoral fellow. Candidates cannot be junior faculty at the time of abstract submission. A statement from the candidate's scientific mentor testifying to the accuracy of these criteria must be provided. A CV and letter of recommendation should accompany the application.

The ICIS Young Investigator Award for Cytokine Research

This competition is open to investigators who are less than 15 years removed from gaining the PhD or MD degree (not counting leaves of absence). Applicants must have completed their postdoctoral training and currently hold a junior faculty position or equivalent. Awards will be given based on demonstrated excellence in cytokine or chemokine biology. A CV and letter of recommendation should accompany the application.

The Milstein Young Investigator Award

ICIS members who attend the 2013 ICIS meeting in San Francisco and who have received a Ph.D or M.D. within the previous 8 years are eligible. Every year up to five awards are granted to individuals who have made notable contributions to either basic or clinical research. This award is provided by a generous gift of the Milstein Family. We urge every eligible individual to apply for the awards. ICIS members may apply themselves or nominate other members for Milstein Young Investigator Awards. A CV and letter of recommendation should accompany the application. We also ask more senior laboratory advisers to encourage their associates to apply. The Milstein Young Investigator Awards are dependent upon the generosity of the Milstein Family and have historically been given to individuals whose research has been focused in interferon biology. Such preference shall be continued for 2013 with a broadening of the award criteria beginning in 2014.

ICIS Postdoctoral Investigator Award

Applicants must have completed their doctoral training and currently be engaged in fulltime postdoctoral research. Persons who have completed a medical degree and are currently enrolled in a doctoral degree program are not eligible. Awards will be given based on demonstrated excellence in cytokine or chemokine biology. A CV and letter of recommendation should accompany the application. First, second and third prizes will be given.

ICIS Outstanding Scholar Award

This competition is open to any full-time graduate or medical student. Candidates must provide a letter from their Department Chairman certifying their student status. Awards will be given based on demonstrated excellence in cytokine or chemokine biology. A CV should accompany the application First, second and third prizes will be given.

The Milstein Travel Awards.

ICIS members who attend the annual meeting are eligible for Travel Awards dependent upon a yearly, generous donation from the Milstein Family. Travel Awards are based on the scientific merit of the abstract and financial necessity. However, this award does not exempt payment of the registration fee. A CV should accompany the application for this award. Please note that there are no age restrictions to this award. However if both senior and junior members from the same laboratory apply for an award, preference is given to the junior member.

ICIS Awards 2013 continued

The Christina Fleischmann Award to Young Women Investigators

The rules for this ICIS award are the same as for the Seymour and Vivian Milstein Young Investigator Award (see above) except for gender and the candidate must have received a Ph.D or M.D. degree within the previous 10 years. This award is made possible through the generosity of the Fleischmann Foundation and is dedicated to the memory of ISICR member and outstanding interferon research scientist Christina Fleischmann.

The Sidney & Joan Pestka Graduate and Post-Graduate Award for Excellence in Interferon Research Sponsored by PBL InterferonSource.

The Sidney & Joan Pestka Graduate and Post-Graduate Awards are targeted to graduate students and post-doctoral fellows who have begun to make an impact in interferon research. The Awards are designed to fill the gap among the awards currently offered by the ICIS to more senior investigators—The Seymour and Vivian Milstein Young Investigator Award, the Christina Fleishmann Award, Honorary Membership, and The Seymour & Vivian Milstein Award. Candidates must be actively working in interferon research but need not be ICIS members. The award includes a $3500 cash award, $1500 travel grant, a $2500 PBL InterferonSource product credit for each awardee, and a complimentary one-year ICIS membership. This is an annual award and a recipient may receive an award only once. However, an individual who receives the Graduate Award remains eligible for the Post-Graduate Award. One award will be given to a graduate student and one award to a post-doctoral fellow where candidates of suitable caliber are identified. In years where a suitable candidate is not identified, an award will not be bestowed. Awards application package consists of a nomination form completed by an active ICIS member (NOT the nominee). Applicants should submit a statement describing his/her current interferon-related research, as well as a curriculum vitae. No proprietary or confidential information can be included in the application.

The Journal of Biological Chemistry/Herbert Tabor Young Investigator Award

The Journal of Biological Chemistry/Herbert Tabor Young Investigator Award will be presented at the ICIS meeting in San Francisco. The award, that includes a crystal award and cash prize honors Herb Tabor, who served for 40 years as the distinguished Editor in Chief of The JBC, and recognizes a young investigator who exemplifies Herb Tabor's values of creativity and scientific excellence. The award will be made to a San Francisco meeting participant based on the excellence of their abstract and other application materials. Postdoctoral researchers and junior faculty members who have not yet received tenure are eligible. A CV and letter of recommendation should accompany the application.

Ernest (Pete) Knight Jr.
1932-2013

A Remembrance to a Great Interferon Scientist and Colleague

By Kathryn C. Zoon, National Institutes of Allergy and Infectious Diseases, NIH

We lost a great colleague and friend on January 21, 2013, Ernest (Pete) Knight Jr at the age of 80 years old. We all knew him as Pete, a quiet spoken, intelligent, and trustworthy man who was also a true gentleman.

Pete was born (1932, Fordyce, AR) and grew up in Arkansas. For those of you who were wondering how he got his nickname "Pete", it was actually bestowed upon him by a county judge in Arkansas, a colleague of his dad. He attended the University of Arkansas and there he met the love of his life, Patsy. They married in 1955 and went to Illinois where Pete did his graduate work at the University of Illinois (1957-1960). This is where he first developed his interest in protein chemistry and got valuable experience into purifying bacterial proteins. Also during this time he and Patsy had a son named Peter (b.1960). It was certainly a very busy time for Pete. Following receiving his Ph.D., he received funds from the NIH to continue his protein purification studies as postdoctoral fellow in Paris, France (1961-1963). It was a wonderful experience for his scientific growth and his family. After his postdoc, Pete joined the Du Pont Company in their Central Research Department in Wilmington, Delaware where he continued to work on bacterial protein purification until 1967. Wanting to move from bacterial to animal proteins, Pete went to Jim Darnell's lab at Albert Einstein Medical School in New York, New York where he studied animal cells and viruses. This was an important turning point in Pete's scientific journey.

Being on the cutting edge of a new field and facing a challenging problem is always exhilarating and there was Pete working at the forefront with interferon in his crosshairs. As a protein chemist who had a great deal of experience in protein purification, he took on the challenge of purifying mouse interferon and human beta interferon and did it successfully (Knight, 1975, 1976a). If you asked Pete what were his major contributions he would say they were "1. The determination of $2X10^8$ U/mg were the ultimate specific activities for murine and human IFN-beta (Knight, 1975, 1976a); 2. The demonstration that murine IFN is a family of at least eight glycoproteins, all having IFN activity (Knight, 1975); 3.the demonstration that human IFN-beta is one glycoprotein of molecular weight 20,000 (Knight, 1976a); and 4. The demonstration that pure IFN-beta contains both antiviral and the antiproliferative activity" (Knight, 1976b, 2008). He and his colleagues then went on to sequence the first human IFN beta with the help of Leroy Hood and Mike Hunkapiller (Knight et al, 1980). This was a true intellectual collaboration. We were proud that our lab at NIH which was involved in the first sequencing of a human IFN alpha and Peter Lengyel's lab which was involved in sequencing the first mouse IFNs could participate in such a successful collaboration with Pete and L. Hood and M. Hunkapiller at the California Institute of Technology (Zoon et al, 1980, Taira et al, 1980). Pete's interest in IFN continued to grow. He discovered and studied a number of IFN induced genes and proteins (Knight and Korant, 1979, Korant et al, 1984, Knight et al 1985, Blomstrom et al, 1986). Pete shepherded the finances of the ISICR as Treasurer from 1985-1998. He was also very active reviewing manuscripts for the JICR. In 1987 Pete and I co-organized the ISICR Meeting in Washington, DC to commemorate the 30th Anniversary of the discovery of interferon. Pete loved to travel and often that was in conjunction with the Interferon meetings. We all have very fond memories of Pete at the meetings and the events surrounding it. Patsy often accompanied him and helped us all enjoy the beauties of the sites of the meetings. Pete retired from DuPont in 1990 and then went on to work with a new company, Cephalon that same year where he continued to provide expert advice for an additional 7 years. In 1997 he and Patsy decided to retire (really) and they went south to Hilton Head, SC. There they had many wonderful years in sun until they decided to join their son Peter and his family in Kittery Maine in 2005. Being together with his family and enjoying his granddaughter Caroline, was of great importance to him. He and Patsy enjoyed his last years there very much. Pete died with his family around him, peacefully and with dignity, the way we know he would have wanted it. Goodbye Pete, we will miss you.

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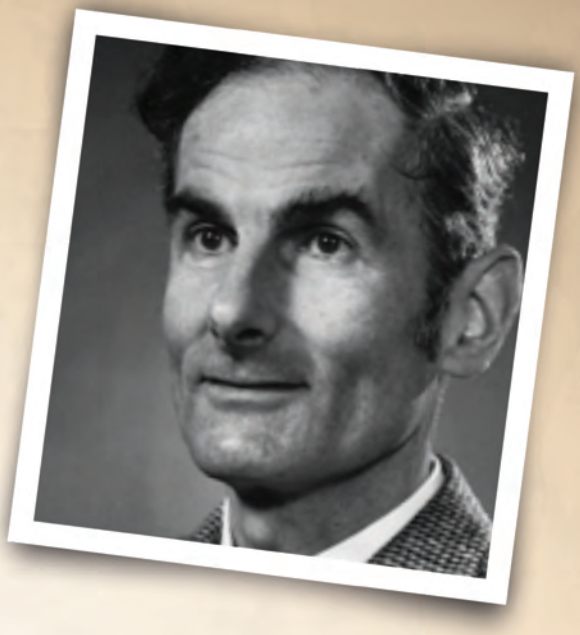
To read about Pete's work on purification of interferons, go to http://www.liebertonline.com/doi/pdfplus/10.1089/jir.2008.2811.hp1

Norman Finter
1924– 2012

By Robert Friedman



Very soon after Isaacs first described interferons, Norman Finter realized the importance of being able accurately and reproducibly to assay the amount of interferon present in a wide variety of biological fluids.

He both contributed to, and in 1966, very carefully edited the first multi-authored book on interferons. In the 1980s, he pioneered in the large scale production of interferon in fermentation systems, using transformed human cells. Finally, in the 1990s it was at his insistence that the Interferon Archive, currently housed at the Wellcome Foundation in London, was initiated. His work on the Archive insured its completion. These early contributions were a valuable foundation for the later development of research on interferons and cytokines.

Norman Finter was born in 1924. He won a coveted State Scholarship to Cambridge University, and trained in medicine during the Second World War, starting his clinical studies at London's Guy's Hospital. As a resident, he was appointed a junior lecturer in the Department of Pathology, which included virology, at Cambridge University. Arriving in the middle of a mumps epidemic, he became a virologist. In 1950/51 he spent a year as a guest scientist in the laboratory of Werner and Gertrude Henle in Philadelphia.

He returned to Cambridge and later joined the Virology Department of Imperial Chemical Industries (ICI) Pharmaceuticals in Cheshire. After Isaac's first papers describing interferon in 1957, the British Medical Research Council (MRC) applied for a patent on interferon, and decided to try and speed up its commercial development by establishing a working relationship with British pharmaceutical companies, including ICI. Thus, Norman became one of the initial members of the MRC Scientific Committee on Interferon, the main objective of which was to discover whether interferons had useful antiviral activity in humans.

In this capacity, Norman set out to investigate reproducible assays for interferons, developing methods for measuring their biological activity. His publication of a cytopathic effect (CPE) inhibition dye uptake assay was a major contribution to the formulation and use of interferon standards. His recognition of the importance of interferon standardisation and the need to establish internationally available reference standards, so that potencies of interferon preparations could be reported in universal international units of biological activity, was essential when interferons started to be used as therapeutic products. He made important contributions to both the WHO and ISIR IFN Standards Committees throughout the 1980's and 1990's.

The book, *The Interferons* (1966), carefully edited and partially written by Norman, was deservedly popular for its distinguished chapter authors, and because it was a first in the field. A second completely revised edition was produced in 1973 titled '*Interferons and Interferon inducers*' It was almost twice the size of the first edition. In recognition of the exponential increase that had taken place in research on interferons, in 1984/5, Norman edited a four volume edition, *Interferon* that dealt comprehensively with all aspects of the field at that time.

As part of his work for Wellcome Foundation in the 1970s, Norman helped to develop the large scale production and purification of human lymphoblastoid interferon, employing Namalwa cells (a transformed B-lymphoblastoid cell line from a Burkitt's lymphoma patient); the resulting product was named and marketed as "Wellferon In 1990, Norman was selected as an Honorary Member of the ISICR. When the ISICR held its annual meeting in 2007 in Oxford to celebrate the 50th anniversary of interferon's discovery, Norman was much involved in its planning. He died aged 87 in Ludlow, Shropshire on April 13th, 2012.

To read about Norman's perspectives on the history of interferon research go to:
http://www.liebertonline.com/doi/pdfplus/10.1089/jir.2007.9975

Paper of Interest

Adult-onset immunodeficiency in Thailand and Taiwan.
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N Engl J Med. 2012 Aug 23;367(8):725-34.

An Interview with the Senior Author, Dr. Steven Holland, Chief, Laboratory of Clinical Infectious Diseases, National Institute of Allergy and Infectious Diseases, NIH

By Annette Khaled

While the observation for adult onset immunodeficiency dates from 2004, what drove the study to examine autoantibodies for IFN-gamma in the Asian populations?

This is an interesting story. I had been studying defects in interferon gamma mediated innate immunity predisposing to disseminated mycobacterial disease for about eight years or so when I reviewed a paper in 1999 from Thailand. The paper described an extraordinary group of patients who had disseminated nontuberculous infections who did not have HIV. Although those patients had both mycobacterial disease and other optimistic infections, they did not sound like the patients we had been describing: they had onset of disease that which was much later in life, they were not familial, and many of them survived. In contrast, the congenital immunodeficiencies were typically early in life, and in those with severe disease progressive and almost invariably fatal. I had met the author of that study, Dr. Ploenchan Chetchokisakd at an infectious disease conference in Toronto and we discussed how we could arrange a collaboration that would allow us to study her patients. In about 2004 we had recognized anti-interferon gamma autoantibodies in a cohort of patients identified in the United States, all of whom originated in East Asia (Patel et al, J Immunol 2005;175:4769-76.). As we were working on that paper, we obtained some anonymous samples from the group in Thailand and identified that they too had interferon gamma neutralizing activity. It took us several years to get a full protocol written, funded and in place, but it really took the extraordinary efforts of Dr. Sarah Brown to coordinate and bring to fruition the study in Thailand and Taiwan. Sarah has established a terrific foundation to really study this phenomenon and sort out aspects of important medicine as well as basic biology.

Initial studies did not reveal any genetic markers that confer susceptibility, but given the fact that the syndrome affects Asians from specific regional areas do you have thoughts on what could be predisposing these individuals?

There are certainly likely to be important genetic factors involved here. A recent paper in Blood describes HLA associations with the autoantibody patients seen in Taiwan (Chi et al, Blood. 2013;121:1357-66). However, the fact that the overwhelming majority of cases identified throughout the world are people of East Asian origin born in East Asia and not born in the countries to which they have emigrated suggests that there is going to be a more complex, and therefore much more interesting, gene environment interaction. So at this point, my guess is that we are dealing with predisposing genetics that are exacerbated by some kind of environmental exposure. Whether this exposure is microbial, viral, toxic, dietary or something else I just don't know yet. The fact that we have not seen any familial cases suggests that the genetic component is important but not predominant.

Why autoantibodies to IFN-gamma – are intracellular pathogens an important trigger for the syndrome and why? Is the type of cell infected by these pathogens (i.e. macrophages) a contributing factor? Is IFN-gamma thought to be more immunogenic than IFN-alpha?

These questions sound like the basis for a pretty exciting grant! The question regarding whether intracellular organisms per se are inducing this is one with which we struggled. In order to try and address this in our study, we included patients who had pulmonary disease from tuberculosis as well as patients who had disseminated tuberculosis as controls for our patients who had disseminated nontuberculous disease. We were able to compare our Thai patients with disseminated nontuberculous disease to our US patients with localized

pulmonary disease. The bottom line is that autoantibodies to interferon gamma appear to be limited to those who have disseminated nontuberculous infections. We did not find them in patients with pulmonary TB or patients with pulmonary nontuberculous infections. Surprising to us, we did not find them in patients with disseminated tuberculosis either. All of these negative data conspire to persuade me that tuberculosis and nontuberculous mycobacterial infections are really quite distinct. Although that may sound like a trivial point, it was not always so. In the setting of progressive HIV, the early susceptibility is to severe tuberculosis (when CD4 counts are around 500/mcl), whereas susceptibility to nontuberculous infections begins when the CD4 count hits about 50/mcl. Therefore, the HIV experience suggested that mycobacterial susceptibility was a continuum. Our study of anti-interferon gamma autoantibodies suggests that while mycobacteria may exist in a continuum of virulence where global T cell functions are concerned, where interferon gamma is concerned, MTB and nontuberculous mycobacteria are not directly connected.

Your question regarding the relative immunogenicity of interferon alpha and interferon gamma is absolutely fascinating. There are in fact very few overlaps between those who develop anti-interferon alpha autoantibodies and those who develop anti-interferon gamma autoantibodies. The conditions in which you see high levels of anti-interferon alpha autoantibodies are really two: autoimmune polyendocrinopathy with candidiasis and ectodermal dystrophy (APECED) due to mutations in the AIRE gene and thymoma. Interestingly enough, in neither of those conditions are anti-interferon gamma autoantibodies encountered and in neither of those conditions are disseminated mycobacterial infections seen either. Conversely, in our population with anti-interferon gamma autoantibodies we have not encountered anti-interferon alpha autoantibodies. These data suggest that the driving forces for the one and the other are quite distinct. Whereas one might have thought that chronic inflammation per se would be a driver for autoantibody production against cytokines, that has not been what we've seen so far.

While high titers and high avidity seem to characterize the production of IFN-gamma autoantibodies in patients, is there a reason why reducing the titers, even when the antibody specificity may increase, improves patient outcomes?

The question you pose is a challenging one. We know that titer is important in many things, ranging from protection from infection to strength of immune response. The experience that Sarah Brown has published recently (Browne et al., Blood 2012;119:3933-9) suggests that when titers fall below a certain threshold patients are able to signal relatively normally. I try to keep in mind that most interferon gamma signaling occurs at a relatively local and paracrine level, where I have to assume that the relative concentration of ligand and receptor is high. Exactly what the critical concentration is at which signaling is normal is a topic of great interest in Sarah's lab. Along similar lines, it is noteworthy that the syndrome of anti-GM-CSF autoantibody formation, which causes the majority of adult onset pulmonary alveolar protein analysis, is treated quite effectively by either subcutaneous or inhaled GM-CSF, suggesting that there must be mechanisms by which ligand can either still stimulate in the presence of antibody or can bypass antibody to achieve receptor activation. We don't know that this is the case for interferon gamma, but the GM-CSF experience does set a precedent.

Seems that the loss of IFN-gamma-mediated signaling could over time limit the ability of B cells to class switch – do you think that this could explain why the syndrome may resolve in some patients?

It's hard to know. I don't think class switch is where the problem lies. These are predominantly IgG4 antibodies and we have not yet detected and important IgM signal. Interestingly, after rituximab therapy and months of B cell of obliteration, when the B cells come back, so do the autoantibody titers. This suggests that there are long-lived plasma cells, non-B cell factors, or early pre-CD20 B cell factors, which are leading to the production of anti-interferon gamma autoantibodies. I am personally at a loss, although quite thrilled, that a significant number of patients seem to get over this condition. I don't think they lose their autoantibodies altogether, but they do seem to allow their antibodies to come down to a level that allows persistent signaling. We're still trying to sort out exactly what is the antibody level that is disease associated and how to get people below that level. Sarah has an open protocol now for the prospective administration of rituximab for patients with this condition.

What's next – can we expect to see an increase in adult onset immunodeficiency due to IFN-gamma autoantibodies outside of the Asian groups?

We diagnosed our first native-born American with this condition just last year, so I'm sure that we will be seeing more of it. In addition, Sarah's group has identified autoantibodies to IL-12 causing disseminated Burkholderia infection and to GM-CSF causing cryptococcosis. With the greater recognition of these cases, and the development of terrific assays for their diagnosis (Ding et al., J Clin Immunol 2012;32:238-45) the ability to diagnose these conditions will become reliable, rapid, inexpensive and simple. Whether all patients will need therapy with rituximab, what are the driving forces for autoantibody development, etc., are questions that should keep us busy for quite a while. I'm absolutely confident that there is a lot to learn from these conditions and that further exploration will give us fascinating windows onto B cell-T cell interaction and biology.

REVIEWS OF INTEREST

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WWW

ALFRED

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ALFRED is a free, web accessible, curated compilation of allele frequency data on DNA sequence polymorphisms in anthropologically defined human populations. Currently, ALFRED has allele frequency tables on over 663 400 polymorphic sites; 170 of them have frequency tables for more than 100 different population samples. In ALFRED, a population may have multiple samples with each 'sample' consisting of many individuals on which an allele frequency is based. There are 3566 population samples from 710 different populations with allele frequency tables on at least one polymorphism.

Cytokines & Cells Online Pathfinder Encyclopedia

http://www.copewithcytokines.org/cope.cgi

The acronym COPE stands for "Cytokines & Cells Online Pathfinder Encyclopaedia. The version number (times 1,000) reflects the number of entries.

COPE is an extremely cross-referenced encyclopedia started many years ago. COPE covers an extraordinary broad array of complex and extensively referenced information. COPE also conveniently organizes information in topic-specific subdictionaries. I suppose nowadays the more appropriate term to use is "bioinformatic initiative". After all, bioinformatics does not only create new information but also consolidates available information. In one way or other COPE does both. I can only hope that the "**COPE Bioinformatics Initiative**" will be more successful in attracting a bit of corporate funding from "sponsored research" or "extramural research" funds where the simple COPE encyclopedia failed more or less in the past. What could be more "target audience-oriented" in the field of communication biology than COPE?

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The ultimate option:

- buy or license COPE exclusively on a long-term basis with me as a consultant author continuing the work. This would offer a plethora of possibilities. Just contact me at Prof H Ibelgaufts cytokines@copewithcytokines.org

Encyclopedia of DNA Elements

http://www.encodeproject.org/ENCODE/

The Encyclopedia of DNA Elements (ENCODE) Consortium is an international collaboration of research groups funded by the National Human Genome Research Institute (NHGRI). The goal of ENCODE is to build a comprehensive parts list of functional elements in the human genome, including elements that act at the protein and RNA levels, and regulatory elements that control cells and circumstances in which a gene is active.

WWW

Continued

IBIS

http://www.ncbi.nlm.nih.gov/Structure/ibis/ibis.cgi

IBIS is the NCBI Inferred Biomolecular Interactions Server. For a given protein sequence or structure query, IBIS reports physical interactions observed in experimentally-determined structures for this protein. IBIS also infers/predicts interacting partners and binding sites by homology, by inspecting the protein complexes formed by close homologs of a given query. To ensure biological relevance of inferred binding sites, the IBIS algorithm clusters binding sites formed by homologs based on binding site sequence and structure conservation.

MAPPER Database

http://genome.ufl.edu/mapperdb

The MAPPER Database contains putative Transcription Factor Binding Sites (TFBSs) located in the upstream sequences of genes from the human, mouse and D.melanogaster genomes. For each transcript, the region scanned extends from 10,000bp upstream of the transcript start to 50bp downstream of the coding sequence start. Therefore, the database contains putative binding sites in the gene promoter and in the initial introns and non-coding exons.

Information displayed for each putative binding site includes the transcription factor name, its position (absolute on the chromosome, or relative to the gene), the score of the prediction, and the region of the gene the site belongs to. If the selected gene has homologs in any of the other two organisms, the program optionally displays the putative TFBSs in the homologs.

MATADOR: Manually Annotated Targets and Drugs Online Resource

http://matador.embl.de/

MATADOR is a resource for protein-chemical interactions. It differs from other resources such as DrugBank in its inclusion of as many direct and indirect interactions as we could find. In contrast, DrugBank usually contains only the main mode of interacton. The manually annotated list of direct (binding) and indirect interactions between proteins and chemicals was assembled by automated text-mining followed by manual curation. Each interaction contains links to PubMed abstracts or OMIM entries that were used to deduce the interaction. (These articles are not necessarily useful review articles.)

Indirect interactions are caused by many different mechanisms. For example, binding a metabolite of a drug as well as changes in gene expression fall under that category. In order to capture as many interactions as possible, all the different mechanisms are grouped together. You as the user can decide if you rather trust only the direct interactions (with a known mechanism) or also indirect interactions.

miRNEST

http://mirnest.amu.edu.pl

miRNEST is a comprehensive database of animal, plant and virus microRNAs. The core part of the database is built from our miRNA predictions conducted on Expressed Sequence Tags of 225 animal and 202 plant species. The miRNA search was performed based on sequence similarity and as many as 10 004 miRNA candidates in 221 animal and 199 plant species were discovered. Out of them only 299 have already been deposited in miRBase. Additionally, miRNEST has been integrated with external miRNA data from literature and 13 databases, which includes miRNA sequences, small RNA sequencing data, expression, polymorphisms and targets data as well as links to external miRNA resources, whenever applicable.

Mouse Multiple tissue Metabolome DataBase

http://mmmdb.iab.keio.ac.jp/

MMMDB is a freely available metabolomic database containing a collection of metabolites measured from multiple tissues from single mice. The datases are collected using a single instrument and not integrated from literatures, which is useful for capturing the holistic overview of large metabolomic pathway.

Currently data from cerabra, cerebella, thymus, spleen, lung, liver, kidney, heart, pancreas, testis, and plasma are provided. Non-targeted analyses were performed by capillary electropherograms time-of-flight mass spectrometry (CE-TOFMS) and, therefore, both identified metabolites and unknown (without matched standard) peaks were uploaded to this database. Not only quantified concentration but also processed raw data such as electropherogram, mass spectrometry, and annotation (such as isotope and fragment) are provided.

WWW

Continued

Pathway Central ™

http://www.sabiosciences.com/pathwaycentral.php

SABiosciences provides 100+ free down-loadable signaling pathway maps at Pathway Central ™. Download free pathway maps in PowerPoint

STITCH

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 between 300,000 small molecules and 2.6 million proteins from 1133 organisms.

The Tocris Molarity Calculator

http://www.tocris.com/molarityCalculator.php#.URPxN2ewWCx

Calculate the mass, volume or concentration required for a solution.
The Tocris molarity calculator is a useful tool which allows you to calculate the:

- mass of a compound required to prepare a solution of known volume and concentration
- volume of solution required to dissolve a compound of known mass to a desired concentration
- concentration of a solution resulting from a known mass of compound in a specific volume

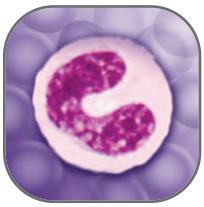
Virus Pathogen Database

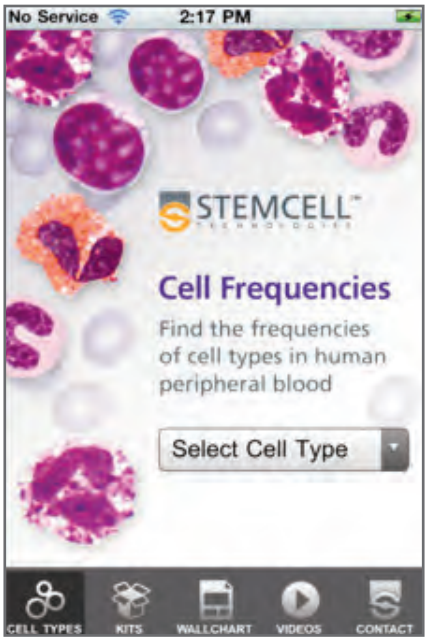
http://www.viprbrc.org/brc/home.do?decorator=vipr

The Virus Pathogen Database and Analysis Resource (ViPR, www.ViPRbrc.org) is an integrated repository of data and analysis tools for multiple virus families, supported by the National Institute of Allergy and Infectious Diseases (NIAID) Bioinformatics Resource Centers (BRC) program. ViPR contains information for human pathogenic viruses belonging to the Arenaviridae, Bunyaviridae, Caliciviridae, Coronaviridae, Flaviviridae, Filoviridae, Hepeviridae, Herpesviridae, Paramyxoviridae, Picornaviridae, Poxviridae, Reoviridae, Rhabdoviridae and Togaviridae families, with plans to support additional virus families in the future. ViPR captures various types of information, including sequence records, gene and protein annotations, 3D protein structures, immune epitope locations, clinical and surveillance metadata and novel data derived from comparative genomics analysis.

THE ISICR SLIDE REPOSITORY

Ever see a slide in a talk that you wish you could use for your own presentation? Well now this may be possible through the Slide Repository. All ICIS Members can go in and post slides that they have developed or download slides that others have provided to the membership. ICS members should please contact Howard Young for access to the repository. OVER 500 SLIDES ARE NOW AVAILABLE!!!!!! For this member only feature, you need to have your member number so if you are not sure what that is, please contact the membership office. We urge members to upload general slides that other members can use for lectures, classes, seminars, etc. Slides are not to be changed without permission from the donor and all copyright permissions must be obtained. The repository now has a useful search capability that allows you to find slides on a particular topic. If you have trouble uploading or downloading slides, please contact Howard Young at younghow@mail.nih.gov.



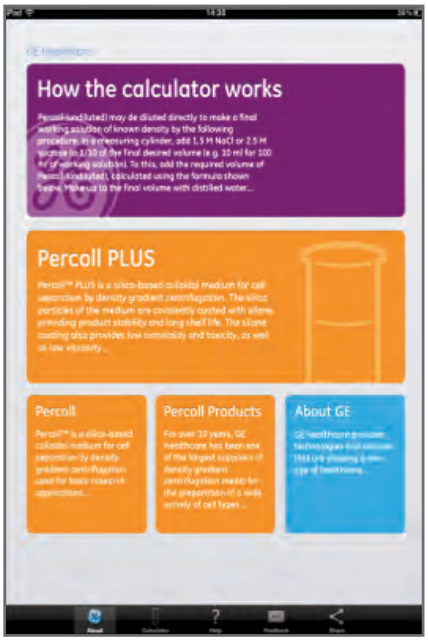


Cell Frequencies

Thousands of people already use the Cell Frequencies in Human Peripheral Blood wallchart as a reference tool in their labs. Now you can have this resource right at your fingertips by downloading it on your iPhone, iPad, and Android devices.

The new Cell Frequencies mobile application provides scientists with a reference standard for more than 25 cell types in normal human peripheral blood including:

1. Estimated absolute cell frequencies
2. Estimated percentages in normal human peripheral blood
3. A description of each cell type, including surface antigens and cell size
4. Video protocols on processing human blood sources, including whole blood, PBMC, leukapheresis samples and buffy coat, for specific cell isolation
5. Video protocols on isolating specific cell types



GE Healthcare
Life Sciences

New Percoll™ Calculator

Calculating working volumes for your Percoll solutions is now easier.

Simply

- Enter the densities of undiluted Percoll solution and diluting medium
- Add the desired final density and working volume

The calculator will do the rest. You can also save and share your favorite recipes.

Compatible with Apple, Android and PC

iPathways

By The Systems Biology Institute

Description

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 currently has over 6000 registered users and your feedback is key! Drop a message at helpme@ipathways.org

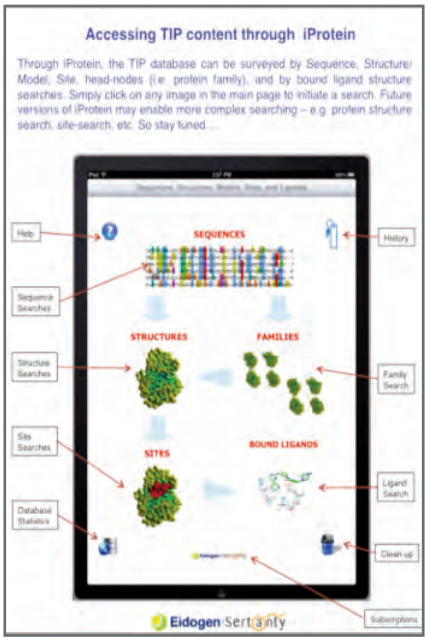
Features:

- Register Free!
- Navigate pathway information by tapping on a gene or protein molecule or a reaction box
- View publications associated with a reaction by tapping the PUBMED id on a reaction
- Explore genes of interest on iHOP or Entrez directly from your pathways
- Password reset feature
- New [Preferences] option in [Settings] allows users to register email address (used by password reset feature)
- iPhone iPad

This app is designed for both iPhone and iPad

- Free
- Category: Medical
- Updated: Oct 19, 2011
- Version: 1.2.1
- Size: 1.2 MB
- Language: English
- Seller: SAMIK GHOSH
- © 2010-2011 The Systems Biology Institute

Requirements: Compatible with iPhone, iPod touch, and iPad. Requires iOS 4.3 or later.



iProtein

By Eidogen-Sertanty

Description

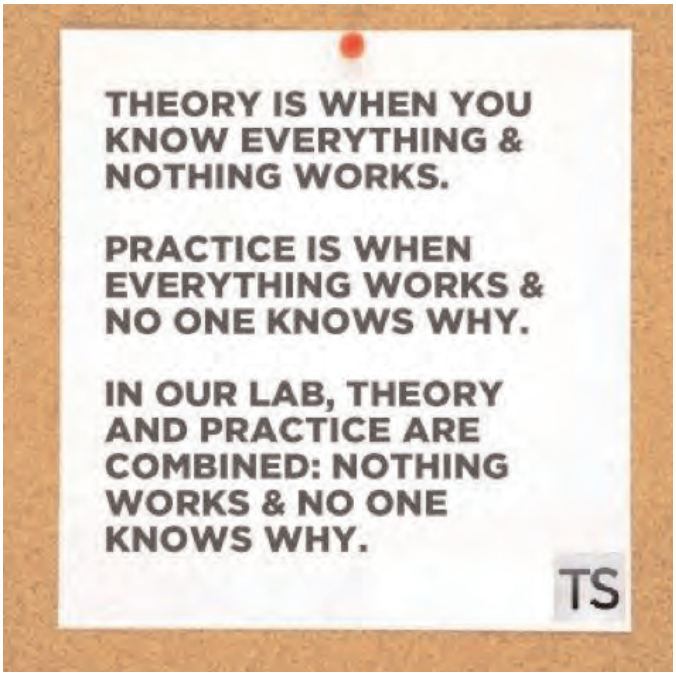
iProtein brings target informatics to a whole new level by providing access to the world's largest repository of protein structures and models - Eidogen-Sertanty's Target Informatics Platform (TIP).

TIP amplifies the rapidly expanding body of experimental protein structural information found in the Protein Data Bank (PDB) by generating high accuracy protein structural models across sequences found in Swiss-Prot, RefSeq, Ensembl, IPI, etc.

Through iProtein, the TIP database can be surveyed by Sequence, Structure/Model, Site, Protein Family, and by co-complexed ligand structures.

Please message us at info@eidogen-sertanty.com if you have any questions or suggestions.

Happy proteome hunting!



ISICR at the **AAI Meeting**

International Society for Interferon and Cytokine Research (ISICR) Symposium: Interferons and Innate Immunity
Tuesday, May 7, 9:45 AM – 11:45 AM

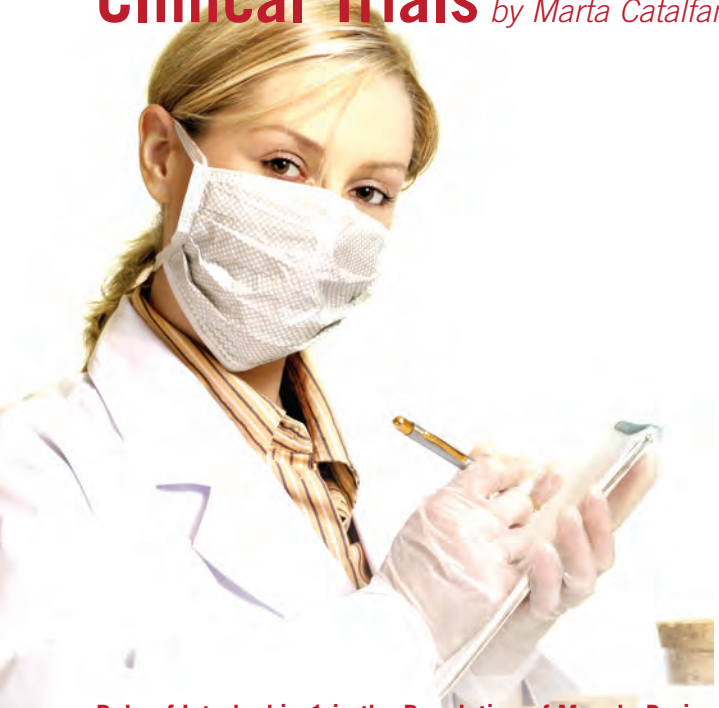
Chairs:

Eleanor N. Fish, University Health Network and University of Toronto
Bryan R.G. Williams, Monash Institute of Medical Research

Speakers:

Iain L. Campbell, University of Sydney, *Type I IFN signaling in the host response to virus infection*
Hilario Ramos, University of Washington, *The convergence of IL-1 and type I IFN signaling in antiviral immunity*
Meredith O'Keeffe, Burnet Institute, *The role of IFN-λ in dendritic cell activation*
Laurel L. Lenz, National Jewish Health and University of Colorado Denver, *Regulation of myeloid cell responsiveness to IFN-γ by type I IFNs*
Dane Parker, Columbia University Medical Center, *Type I IFNs and Staphylococcus aureus*
Bryan R.G. Williams, Monash Institute of Medical Research, *Regulation of IFN and cytokine signaling and action of PLZF*
Eleanor N. Fish, University Health Network and University of Toronto, *Type I IFNs: master regulators of the immune response to virus infection*

Clinical Trials *by Marta Catalfamo*



Role of Interleukin-1 in the Regulation of Muscle Derived Interleukin-6 During Exercise (MUSIL)
Principal Investigator: Marc Y.Donath, University of Basel
Contact: Eleonora Seelig, MD 079 843 32 23 ext 0041
ClinicalTrials.gov Identifier: NCT01771445

Immunomodulation, IL-1 Inhibition, and Postoperative Incisional Pain
Principal Investigator: Robert L. Lobato, MD. Stanford Univ.
Contact: Priya Hegde, MS. 650-724-2742
priyahegde@gmail.com
ClinicalTrials.gov Identifier: NCT01466764

Low Dose IL-2, Hematopoietic Stem Cell Transplantation, IL2 for GVHD
Principal Investigator: Catherine Bollard, Associate Professor of Pediatrics-Hem-Onc Cell & Gene, Baylor College of Medicine
Contact: Catherine Bollard, MD. 832-824-4781
cmbollar@txch.org
ClinicalTrials.gov Identifier: NCT00539695

DT388IL3 Fusion Protein in Treating Patients With Acute Myeloid Leukemia or Myelodysplastic Syndromes
Principal Investigator: Arthur E. Frankel, MD, Director, Division of Hematology/Oncology, Scott and White Hospital & Clinic
Contact: Arthur E. Frankel, MD 254-724-0094
ClinicalTrials.gov Identifier: NCT00397579

A Study of CSL362 (Anti-IL3Rα) in Patients With CD123+ Acute Myeloid Leukemia Currently in Remission
Principal Investigator: Dr. Mark DeWitte, CSL Limited
Contact: Clinical Trial Registration Coordinator
csl.clinicaltrials@csl.com.au
ClinicalTrials.gov Identifier: NCT01632852

Safety and Efficacy of Blocking IL-4 With Pascolizumab in Patients Receiving Standard Combination Therapy for Pulmonary Tuberculosis (TB)
Principal Investigator: Nick Paton, MD, National University, Singapore
Contact: Meera Gurumurthy, +65 90018835
mdcgm@nus.edu.sg
ClinicalTrials.gov Identifier: NCT01638520

Anti-IL-5 Therapy in Bullous Pemphigoid(BP)
Principal Investigator: Dagmar Simon, Inselspital, Bern University Hospital
Contact: Dagmar Simon, MD +41 31 632 22 78
dagmar.simon@insel.ch
ClinicalTrials.gov Identifier: NCT01705795

A Randomized, Placebo-controlled, Double-blind Pilot Study of Single-dose Humanized Anti-IL5 Antibody (Reslizumab) for the Reduction of Eosinophilia Following Diethylcarbamazine Treatment of Loa Loa Infection (filarial nematode- roundworm)
Principal Investigator: Amy D Klion, M.D., National Institute of Allergy and Infectious Diseases
Contact: Amy D Klion, M.D. 301-435-8903 aklion@nih.gov
ClinicalTrials.gov Identifier: NCT01111305

A Study of CNTO 136 (Sirukumab), a Human Anti-IL-6 Monoclonal Antibody, Administered Subcutaneously, in Patients With Active Rheumatoid Arthritis Despite Anti-TNF-Alpha Therapy (SIRROUND)
Principal Investigator: Janssen Research & Development, LLC
Contact: Janssen Research & Development, LLC Clinical Trial
JNJ.CT@sylogent.com
ClinicalTrials.gov Identifier: NCT01606761

Adipocyte, Insulin-resistance and Immunity: Evaluation of Interleukin-7 in Lipodystrophy, Diabetes and Obesity (IL-7norm)
Principal Investigator: Marie Christine VANTYGHEM, PhD, Lille University Hospital
Contact: Marie Christine VANTYGHEM, PhD.
+33 3 20 44 45 35 mc-vantyghem@chru-lille.fr
ClinicalTrials.gov Identifier: NCT01784289

Interferon Responses in Eczema Herpeticum (ADEH) (IFN)
Principal Investigator: Donald Leung, PhD, M.D, National Jewish Health
Contact: Gayle Spears, NP. (303) 398-1852
spearsg@njhealth.org
ClinicalTrials.gov Identifier: NCT01429311

Intravesical Administration of INSTILADRIN (rAd-IFN With Syn3) in Patients With Bladder Cancer
Principal Investigator: Colin Dinney, MD, M.D. Anderson Cancer Center
Contact: David Sawutz, PhD, 201-920-9097
david.sawutz@fkdtherapies.com
ClinicalTrials.gov Identifier: NCT01429311

PRESIDENT OBAMA AWARDS DR. JAN VILCEK

The National Medal of Technology and Innovation

Congratulations to our very own

Dr. Jan Vilcek who was named a recipient of the National Medal of Technology and Innovation by President Barack Obama.

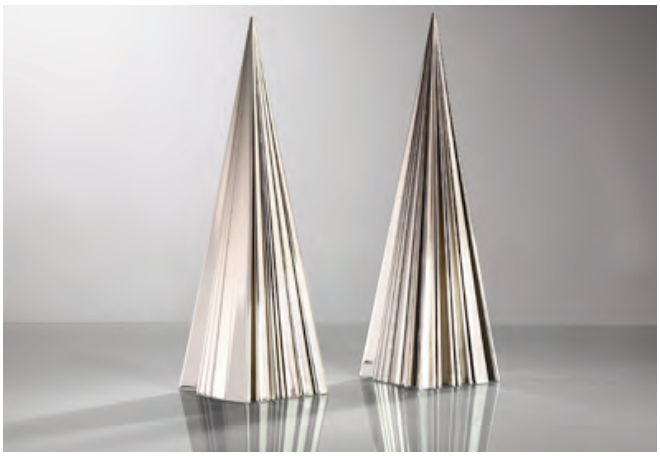
"I am proud to honor these inspiring American innovators," President Obama said in a statement released by the White House. "They represent the ingenuity and imagination that has long made this Nation great—and they remind us of the enormous impact a few good ideas can have when these creative qualities are unleashed in an entrepreneurial environment."

Dr. Vilcek is being recognized for his for his pioneering work on interferons and contributions to the development of therapeutic monoclonal antibodies. His work was instrumental in the development of the anti-inflammatory drug Remicade®, now widely used for the treatment of Crohn's disease, ulcerative colitis, rheumatoid arthritis, ankylosing spondylitis, psoriasis and other chronic inflammatory disorders.

The National Medal of Technology and Innovation, the highest honor bestowed by the United States Government upon scientists, engineers, and inventors, recognizes those who have made lasting contributions to America's competitiveness and quality of life.

Photo by Yale University

The 2013 Vilcek Prize in Biomedical Science



Richard A. Flavell, Ph.D., FRS

Better than most, Yale immunologist Richard A. Flavell understands how the best-laid plans involving mice and men can go astray. "All animal models are abstractions," he has said. "You're not studying humans but a process in animals that is relevant to humans." Still, Dr. Flavell and his researchers work almost entirely with mouse models to discover why the human immune system sometimes fails to protect the body from foreign invaders, leading to such debilitating autoimmune diseases as Type I diabetes, rheumatoid arthritis, psoriasis, multiple sclerosis, and Crohn's disease.

By the eighties, the results of Dr. Flavell's research with genetically engineered mice were notable—a vaccine for Lyme disease among them—but there had to be a better way, he believed. Together with his colleagues, he set to work building a better mouse model, one with human immune cells that would make it possible to safely and reliably assess potential vaccines and therapies prior to human trials. Today, "humanized" mice are in wide use in scientific research, promising hope for the development of vaccines for HIV, multiple sclerosis, and other autoimmune disorders.

Ironically, the future of this innovative scientist looked anything but promising initially. Born in the Essex region of England, Dr. Flavell admits he "was a very bad pupil, [who] lacked motivation and found everything boring." It was a chemistry teacher who broke through his intellectual malaise, inspiring him to do chemistry experiments and this led him to combine this interest with his fascination with natural history. He began to "want to discover things."

He went on to earn his PhD in Biochemistry, from Hull University, and conducted his postdoc work at the University of Amsterdam and the University of Zurich. While at the latter, by first altering a gene's function and then analyzing the effect on the development or behavior of the organism—the opposite approach to classical, "forward genetics"—he opened the door to a new field of study, logically dubbed "reverse genetics."

As Assistant Professor at the University of Amsterdam (his first faculty position), he made a second notable discovery: that mammalian DNA contains introns, segments of genetic code that break up a gene into pieces. He continued his gene studies back in England, as head of the Laboratory of Gene Structure and Expression at the National Institute for Medical Research at Mill Hill. Then, in 1982, he left academia, drawn by "the dawn of biotech" to take the helm at Biogen Research Corporation, in Cambridge, Massachusetts. But when Yale came calling six years later, he turned in his corporate credentials to become founding Chairman of the School of Medicine's Immunobiology department. Today, the Sterling Professor of Immunobiology, and HMMI investigator, directs one of the top immunology programs in the country, as well as his own lab.

Dr. Flavell's contributions to the field of genetics are reflected in the recognition of the science community worldwide. He received the Invitrogen Meritorious Career Award from the American Association of Immunologists, and was made a member of the Royal Society, the National Academy of Sciences, and the Institute of Medicine, among others. Dr. Flavell has also found time to author or co-author hundreds of highly cited papers (including some with his **co-Vilcek Prize winner, Ruslan Medzhitov**).

How does he manage it all and still indulge his lifelong passion for rock 'n' roll? (He plays guitar with his "lab rock" band, the Cellmates.) He is a master of instrumentation.

7 Tips to Make PCR Primers Last Longer and PCR Reactions Run Better

Tom Russell, Ph.D., Eric Reyes Sigma Life Science

Successful PCR runs require more than excellent primer design. Here are seven best practices for both obtaining consistently high-quality data and ensuring the integrity and economic use of your PCR reagents.

1. Centrifuge lyophilized primers upon delivery. While the DNA is usually present as a nearly invisible film on the bottom of the tube, it can come loose and fall out when the cap is removed for the first time.

2. Resuspend primers in 10 mM Tris pH 7.5, 1 mM EDTA solution (TE buffer) instead of water. The Tris and EDTA prevent acidic water and contaminating DNases from hydrolyzing and enzymatically degrading DNA, respectively.

3. Aliquot the resuspended primers into working stocks. This eliminates the need for damaging freeze / thaw cycles of the master stock as the working stocks can be removed from the freezer three to five times without degrading the DNA. If contamination of a working stock occurs, it can be thrown out and replaced with another without compromising the master stock.

4. As with your primers, if you purchase large volumes (e.g., 50 mL) of 2X PCR premixes, you can aliquot these reagents into smaller working stocks that are suitable for a single experiment (e.g., a 96-well plate) to avoid contamination.

5. For each target gene you are working on, make a "master mix" of your 2X PCR premix, water, and primers. Some people factor in extra replicates or a percentage (~10%) of volume for each master mix to account for pipetting error. You can then add this "master mix" to the tubes/plates first and then add your samples.

6. If you want to be "extra-passionate" about the precision between your technical replicates, you can even make a "master mix" for each target and sample—add the 2X PCR premix, primers, water, and template—and then add everything all at once into your tubes/plates. This will require extra tubes, but the intra-replicate variability can be greatly reduced.

7. Always keep your pipettes calibrated and take your time. Reagents are expensive, and samples can be limited.

Tom Russell, Ph.D., and Eric Reyes are global product managers for oligonucleotides and PCR Reagents, respectively, at Sigma Life Science.

This information first appeared in Genetic Engineering News. Reproduced with permission of the authors.

Save Time by Using Addgene's Plasmid Repository

Addgene is a non-profit organization that facilitates research by operating a plasmid repository for the life science community. The organization stores, archives and distributes plasmids for scientists around the world.

If your lab receives plasmid requests, you can save a significant amount of time by depositing your plasmids to Addgene. Depositing is easy and free, and Addgene will handle future plasmid distributions on your behalf, process material transfer agreements (MTAs) and provide you with records of the shipments. Over 1,300 laboratories (including Dr. Howard Young's lab) currently distribute plasmids through Addgene, and hundreds of new laboratories join this community effort each year. To learn more, email *deposit@addgene.org*.

If your lab is looking for plasmids, Addgene's current collection of over 20,000 plasmids represents a broad range of disciplines, and includes many plasmids for interferon and cytokine research. You can search the website by visiting www.addgene.org.

New decisions from the Nomenclature Committee on IFN-lambda.

In a recent study of hepatitis C virus infection in primary hepatocytes, Dr Prokunina-Olsson and collaborators discovered a transcribed region upstream of the IFNL3 gene. The authors contacted the ISICR nomenclature committee for nomenclature advice. After an intense e-mail correspondence, the committee members agreed that the gene product best qualified as a new interferon lambda based on sequence homology and the upregulation of several ISGs. The paper is published (Prokunina-Olsson et al., Nature Genetics, 45:164-171, 2013) with the new gene designation IFNL4, which should correspond to the peptide IFN-λ4, following previous principles.

The designation was accepted by the HUGO Gene Nomenclature Committee and is also present in the gene banks with IFNAN as an alias.

The previous designations for the IFNL genes (IL-28 and IL-29) have not been fully accepted by the scientific community, as IFN-λ is preferred. Therefore the committee contacted the HGNC, proposing that the official names in the gene banks should be IFNL1, IFNL2 and IFNL3 instead of IL-29, IL-28A and IL-28B. This recommendation was accepted as the official gene names and thus the gene banks are now using the IL-designations as aliases.

Erik Lundgren
Chairman of the ISICR Nomenclature Committee

ISICR COMMITTEES MINUTES

ISICR Board of Directors Meeting

September 11, 2012
Geneva, Switzerland

Attending:

Present: Chuck Samuel (Pres)
Bob Friedman (Treasurer)
Leon Platanias (Past-Pres)
Eleanor Fish
Ganes Sen
Bob Silverman
Howard Young (by Skype)
joined additionally by Bryan Williams
Keiko Ozato

Absent:

Friedemann Weber
Tom Hamilton (Secretary)

Agenda

1. Milstein Gift and Awards.

   Gift: The Society received a generous gift of $60K from the Milstein Family. Howard Young joined Rob Pestka in meeting with Philip Milstein in NYC during the first week of September, 2012. The plan is for Howard to represent the Society in the annual meeting, to provide continuity in the process, and to update the Milsteins on Society activities and exciting progress in the interferon field.

   Award eligibility: Guidelines for The Milstein Award were reviewed. In addition to seminal scholarly contribution, the BOD unanimously agreed that the nominee must have been a member of the Society for a minimum of two years at the time of nomination in order to be eligible for consideration for The Milstein Award.

   Website: It was agreed to continue to maintain the Milstein Award website.

   It was unanimously agreed that the Milsteins should receive a Special Distinguished Service Award in 2013 in recognition of their long-standing support of the Society.

2. Status of Merger issues with ICS

   [Background information was provided by e-mail, from CES to BOD of August 2 and August 24, and subsequent CES replies to David Wallach of August 15 and August 27]

   Finances: It was agreed that the auditor should provide the results of the compilation audit at the same time to the Treasurers of the two societies (Bob Friedman, ISICR; Amanda Proudfoot, ICS) and the Presidents of the two societies (Luke O'Neill, ICS; and myself, ISICR). [The request was made on 9.17.12 to Deborah Diddle, Manager of FASEB Accounting Services, with copy to Luke, Amanda and Bob to provide compilation results to officers (Pres; Treasurers) of the two societies.

   Management and Personnel: Following discussion, the BOD affirmed our earlier August 2012 decision not to sign the ICS "Agreement" regarding future commitment to Sherwood R. For 2014 forward, decisions regarding business management/personnel will be made by the new officers and BOD-Council. For 2013, ISICR will renew with FASEB (see item 3).

3. ISICR proposed contract extension with FASEB for 2013.

   It was unanimously agreed to extend our contract with FASEB for the calendar year 2013 to provide business services for ISICR and to accept the contract draft provided Jennifer Pesanelli Deputy Exec Director at FASEB on August 17. The one year extension is made to be consistent with the merger transition plan.

4. ISICR Member journal services.

   The issue of ISICR member journal services provided by FASEB was discussed. The services are believed to include: 1. Prepare a list of payments received for the *Journal of Interferon and Cytokine Research*; 2. Provide list of names and addresses of subscribers for the current month each month to the ISICR's Business Manager; 3. After researching, forward all written, telephone, fax, or e-mail inquiries from members in reference to their journal subscription to the Business Manager; 4. Forward claims or missing issues or refund requests to the Business Manager.

   The Publications Committee recommended that the costs should be shared in an appropriate manner by the Publisher and the Society; the BOD unanimously concurred with this approach.

5. Immunology 2013 Honolulu.

   The opportunity for ISICR to participate with 2-hour Guest Symposium at the AAI Immunology meeting in Honolulu May 3-7, 2013, was discussed. A strong majority favored participation, dependent upon the ability to organize a symposium with speakers that already plan to attend the Honolulu meeting. Eleanor Fish generously agreed to attempt to organize a Guest Symposium for 2013. The question arose whether AAI is willing to waive the registration fee for Guest Symposium speakers. [Jennifer Meyers of AAI replied 9.18.12 that AAI will not waive registration.]. It was unanimously agreed that the Society would support the Guest Symposium participant costs by an amount not to exceed $5K total for the symposium.

Respectfully submitted,
Tom Hamilton, ISICR Secretary
Charles Samuel, ISICR President

ISICR Awards Committee Meeting

September 11, 2012
Geneva, Switzerland

Present:

Bob Silverman (Chairperson)
Ganes Sen
Nancy Reich
Bryan Williams
Eleanor Fish
Chuck Samuel (ex-officio)

Absent:

Takashi Fujita
Dhan Kalvakolanu
George Stark

1. The 2012 awards were reviewed.

In 2011 $60,000 (Milstein Family); $10,000 (PBL) and $1,500 (Christina Fleischmann Foundation) was received in support of the ISICR Awards.

Amounts of the travel awards ($39,200 to 37 individuals, an average of $1,059 each) were based on the quality of the abstracts and the distance the person had to travel.

The awardees included:
Milstein Award: Jean-Laurent Casanova
Honorary Member: Michael Tovey
Distinguished Service Award: Robert Friedman

Milstein Young Investigator Awards:
Taylor Cohen, Columbia University, USA
Babal Jha, Cleveland Clinic, USA
Clare Slaney, Peter MacCallum Cancer Centre, Australia

Christina Fleischmann Award:
Stacy Horner, University of Washington, USA

Herbert Tabor Award (a joint award of the ICS and ISICR):
Vijay Rathinam, University of Massachusetts, USA

Pestka Awards:
Postgraduate: Aaron Irving, Australia
Student: Laura Icardi, Belgium

Respectfully submitted,
Robert Silverman
Chair, ISICR Awards Committee

2. Milstein Gift and Awards

Gift: Stable Society interaction with Milstein Family.
Awards: Process and guidelines.

Howard Young with Rob Pestka met with Mr. Philip Milstein just prior to the ISICR/ICS Meeting to thank him for supporting the ISICR and to build a relationship. Howard will be the society's contact with the Milstein Family in the future.

The ISICR Board decided just prior to the Awards Committee meeting to put in place a two-year membership eligibility requirement prior to being nominated for the Milstein Award. This new rule will begin in 2013.

3. Discussion of the future role of the committee with regard to the merger.

The transition plan for the CIS states; "It is recommended that in 2013, the joint Awards Committee should decide on whether duplicate categories of Awards should be combined." Discussions between the ICS Awards Committee co-chairs (Marion Kasaian and Jennifer Towne) and Bob Silverman are in progress to possibly merge overlapping awards between the ISICR and ICS.

4. Other Business

A proposal was made and unanimously passed to add a new award. The Independent Investigator Award would be for an individual who has been a lab head for less than 10 years and would be given yearly, pending approval from the Board.

Joint ISICR/ICS Meetings Committee Meeting

September 11, 2012
Geneva, Switzerland

The meeting was called to order on Tuesday, September 11, 2012. The meeting was well-attended. The following voting members represented the ISICR: John Hiscott, Leon Platanias, Nancy Reich, Chuck Samuels (for Allen Lau), Ganes Sen (for Santo Landolfo), Michael Tovey, Hiroki Yoshida and, Committee Co-Chair Christine Czarniecki. The following voting members represented the ICS: Sarah Gaffen, Marion Kasaian, Warren Leonard, Amanda Proudfoot, Sherwood Reichard, John Schrader, Jennifer Towne and Acting Committee Co-Chair (for Carl Ware) David Wallach. Also attending were the following invited guests: Eleanor Fish, Cem Gabay, Paul Hertzog, Brendan Jenkins, Andrew Kovalenko, Karen Mossman, Bryan Williams.

2011 – Florence, Italy

Santo Landolfo (ISICR) was not able to attend the meeting to present the final report of the 9th Joint ISICR/ICS Conference titled "Cytokines and Interferons: from the bench to the bedside" (October 9-12, 2011). He did however provide a final report to each of the societies which provided summary information provided below. Total income was broken down as follows: 155,404 Euros from Registrations (492 registrants); 111,896 Euros from 14 Sponsors (including exhibits); 9169 Euros from ISICR; 10,292 from ICS. Total Income was 286,761 Euros; Total expenses (VAT excluded) were 279,150 Euros. ISICR and ICS each received 3805 Euros after all expenses were paid.

There were 580 participants broken down as 153 members; 88 invited chairpersons/speakers; 101 non-members; 35 Industry; 203 under age 35. Participants came from 41 countries with the majority coming from US (136) followed by Italy (75). The Committee thanks Santo and his organizing committees for their efforts.

2012 - Geneva

Cem Gabay (ICS) presented a status of the 10th Joint ISICR/ICS Conference in Geneva, Switzerland. The scientific theme for this conference is "Cytokines: From Basic Biology to Clinical Application."

Total income (including VAT) was reported as 451,312 CHF and that included; 235,460 CHF from 27 Industry Sponsors. The breakdown of income sources was 43% from registrations; 31% from Industry sponsorship and 20% from exhibitors. The income figure does not include 20,000 USD which was provided as seed funds by ICS (10,000 USD) and ICS (10,000 USD).

Total expenses were reported as 354,763 CHF and that included 47102 CHF to MCI the meeting secretariat. The Meeting Chairs reported positive experiences with MCI. The final yield after expenses was reported as 96,549 CHF and ICS and ISICR will each receive 50% of that amount plus the seed funds original provided.

The final report provided by the Organizers to the Committee provided the following information. Total number of delegates was 432 (43 invited speakers) representing 40 countries with the majority (106) coming from Switzerland followed by 77 from the United States. This total number of participants was very close to the 500 number used for budgeting purposes. Analysis of number of registrations by month in 2012 indicated approximately 50% of the total by June 2012.

The breakdown of registrants was 78 Academic/Government ISICR/ICS Members; 87 Academic/Government Non-Members; 5 Industry ISICR/ICS Members; 40 Industry Non-Members; 87 Students/Residents in Training.

The organizers used MCI as the secretariat with a final cost of 47,102 CHF. The organizers experience with MCI as a secretariat was excellent.

Differences noted in this meeting compared to past ISICR/ICS annual meetings: (i) This meeting was 3 days in length which is one day shorter than our previous meetings; (ii) the organizers set aside a reserve provision of 10,000 CHF and these funds will be held for one year after the meeting to cover any remaining bills that may come through.

2013 – San Francisco, CA, USA

Sarah Gaffen (ICS) presented an update on the planning for the 11th Joint Society Conference in San Francisco, California, USA. The dates are Sunday, September 29 – Thursday, October 3, 2013 and it will take place at the Hyatt Regency, Embarcadero located in San Francisco, California. The Scientific Theme for this conference is Cytokines: From Molecular Mechanisms to Human Disease. The scientific organizing committee has the following members: Warren Leonard (NIH, USA); Sarah Gaffen (University of Pittsburgh, USA); Robert Schreiber (Washington University, USA); and Karen Mossman (McMaster University, Ontario Canada). The secratariat is Sherwood Reichard. The website for this meeting has been established and the link is www.cytokines2013.com. The Scientific Advisory Committee has been established and the members are: Daniel J. Cua, Charles A. Dinarello, Vishva M. Dixit, Charles Egwuagu, Douglas J. Hilton, David E. Levy, Ellen V. Rothenberg, Federica Sallusto, Tadatsugu Taniguchi, Howard A. Young.

Since it is not clear when the merger activities of the two societies will be complete, the organizers were advised to create a Memorandum of Understanding (MOU) for this meeting as has been done for our past joint meetings and have that executed by ISICR and ICS leadership. The organizers will also be requesting seed funds from each of the societies (ISICR and ICS).

2014 – Melbourne, Australia

Brendan Jenkins presented an update on the planning for the 12th Joint Society Conference that will take place the Melbourne Convention and Exhibition Centre which is located on the banks of the Yarra River in central Melbourne. The dates are October 26 – 29, 2014. A block of rooms at the Hilton Hotel will be reserved.

The Organizers have obtained a confirmed commitment of 65,000 AUD/ 61,465 USD from Melbourne Convention & Visitors Bureau (MCVB), and Melbourne Convention & Exhibition Centre (MCEC). The secretariat will be ASN Events, an Australian-based company. The working budgets for an estimate of 500 registrants was presented. The organizers will be requesting seed funds from each of the societies (ISICR and ICS).

Beyond 2014

Concern was raised that we still have no new proposals for meetings beyond 2014 and while our committee members have been reaching out to investigators to identify potential organizers, no one has come forward. One suggestion submitted to the committee is — to return to San Francisco every other year may be an option in the absence of other specific sites. The previous ICS San Francisco meeting was outstanding scientifically and financially successful and we expect the same with the 2013 Annual Joint Society Meeting. Anyone interested in submitting a proposal for a future meeting should contact Christine Czarniecki or Carl Ware to obtain a copy of the Meetings Proposal Guidelines.

Other Topics Discussed:

Fundraising for Satellite Meetings:

There was general discussion of satellite meetings associated with the annual society meeting. Specialized satellites, organized in conjunction with the main meeting of the societies can bring (and have brought) significant advantages to the organizers and the scientific community. All agreed that that fundraising for satellite meetings and annual meetings must be coordinated so as not to lead to competition for funding.

Summaries of Other Meetings sponsored by ISICR or ICS:

Brief reports for the following meetings were presented:

1. 2011-(ISICR) - Prato Satellite Meeting - October 13-14, 2011– (Interferon Stimulated Genes and their Protein Products) – Bryan Williams – 100 participants. The proximity of the Monash Prato (venue) and its minimal cost and support were key factors in successful budget control.

2. 2012-(ICS) Midyear Dublin Conference - June 18-21, 2012 - (IL-17 and related Cytokines: Basic Biology and Clinical Applications) – Sherwood Reichard – 205 participants which included 29 speakers. Total Income was 169,882 USD; Total expenses were reported as 134,081 USD. Final Net of 35,801 USD.

3. 2013-(ICS) 14th International TNF Meeting – July 2013 - Quebec City – David Wallach. Co-organizers are Jen Gommerman (University of Toronto) and Linda Burkly (Biogen Idec). Venue is Lowes le Concorde, located in downtown Quebec City. Funds raised as of October 2012 reported as 82,038 USD. Seed money from ICS (1000 USD) has been returned in full. (http://www.tnf2013.com)

4. 2014-(ICS) A meeting about IL6 and related cytokines, chaired by Stefan Rose-John and Tadamitsu Kishimoto will be held in Kiel, Germany in spring/summer 2014.

5. 2015-(ICS) The 15th International TNF conference, chaired by Peter Vandernabeele and Henning Walczak, will be held in Ghent, Belgium, in 2015.

There was no other business to discuss and the Meeting was adjourned.

Respectfully submitted,
Christine Czarniecki
Co-Chair of the Joint ISICR/ICS Meetings Committee

ISICR Membership Committee Meeting

September 11, 2012
Geneva, Switzerland

Present:

Ana Gamero
Eleanor Fish

Absent:

Cassandra James
Ben-Zion Levi
Lawrence Pfeffer
Howard Young (provided input prior to the meeting via email)

1. Membership numbers reviewed and the reduced membership to date (August 2012) was noted.

2. Recommendation made that a blast email be sent in April each year to the membership relating to delinquent renewals and lost contact information.

3. Noted that >500 followers of ISICR on Linkedin – non-members included. Opportunity to attract new membership via Linkedin.

4. Membership dues for the merged Society need to be set. The recommendation from the Committee would be to grandfather the current fee scale until the merger is finalized, i.e. no adjustment to the membership fee until renewal date.

5. It was duly noted that there is an urgent need for co-editors for the Newsletter. Specifically to help with mini-bios, interviews of Milstein recipients. Suggestion to reach out to membership from Asia-Pacific

Respectfully submitted,
Eleanor Fish
Chair, ISICR Membership Committee

ISICR Nomenclature Committee Meeting

September 11, 2012
Geneva, Switzerland

Members present:

Erik Lundgren and Paul Herzog.

PH was chosen to take the minutes. The minutes were distributed to the all members for information and input.

The minutes from the previous meeting (Firenze 2012) have been distributed.

The proposed designation 2011 from Dr Eva Wattrang, Swedish University of Agricultural Sciences, of the IFN-αω group as IFN-μ, was discussed. As so far no demonstration of functional activity of a protein has been demonstrated, it was decided that IFN-μ should be the putative designation, awaiting functional data.

No new nomenclature issues were raised this year.

The committee discussed its future in relation to plans to fuse ISC and ISICR.

It was unanimously decided to recommend the board of directors to keep the present committee. This was based on the success of previous decisions (type III IFNs, and greek letter designations) as they have been accepted by the scientific community. Moreover, with expected more sequences coming up from more species, there is a need to formulate and maintain rules for designations, to avoid confusion and help scientific communication. The tasks for the committee after the merger with ICS has to await further decisions.

Respectfully submitted,

Paul Herzog
Erik Lundgren

ISICR Publications Committee Meeting

September 11, 2012
Geneva, Switzerland

Present:	Absent:
Chair Bryan Williams	Karen Mossman
Jermiah Tilles	Anthony Sadler
Charles Samuel	Cassandra Berry
Ganes Sen	Thomas Hamilton

Agenda

- Report from the Editors, JICR
- Society relationship with publisher
- Status of Journal in the combined society
- Editorial board turnover
- Associate Editor changes

The chair congratulated the editors on the impressive rise in the impact factor of the journal. The impact of the special issue on ISGs has yet to be measured. A number of excellent reviews recently published will also make a favorable impact and there has been an increasing number of quality submissions of regular papers.

The issue of linking journal subscription to membership was again raised but the opinion of the committee was this could be the subject of further discussion once the merger of the societies was completed.

The question of the official status of the journal linked to the society was discussed and it was noted that it was not unusual for societies to have more than one official journal.

The lack of accessibility of recent issues of the journal online was identified as a problem to be addressed again with the publisher.

Although the membership of the publications committee was scheduled for turnover in 2013, it was decided to maintain the current membership until the society merger was completed at which time a new committee would be formed.

Respectfully submitted,
Bryan Williams
Chair, ISICR Publications Committee

ISICR Standards Committee Meeting

September 11, 2012
Geneva, Switzerland

The meeting was called to order on Tuesday, September 2012.

Present:	Absent:
Jorgen Dahlstrom	Anna Costa-Pereira
Susan Kirshner	Huub. Schellekens
Robin Thorpe	Martin Schiestl
Meenu Wadhwa (invited)	Steve Swanson
Michael Tovey (chair)	Meena Subramanyam

The following topics were discussed:

I. New Cytokine Reference Preparations

Robin Thorpe & Meenu Wadhwa, NIBSC, UK, submitted a report on new & replacement cytokine reference preparations.

1. Replacement Standards

- IL-2 2nd IS (Collaborative study completed, for endorsement by WHO ECBS-October 2012)
- EPO 3rd IS (Collaborative study completed, for endorsement by WHO ECBS-October 2012)
- TNF-α 3rd IS (Proposal for 3rd IS to be submitted to WHO ECBS-Oct'12)

2. New standards

- TGF-beta3, 1st IS (09/234). Endorsed by WHO ECBS-Oct'11).
- IL-29 (Collaborative study completed, for endorsement by WHO ECBS-October 2012)
- TNF soluble receptor II Fc fusion protein – need identified as many manufacturers worldwide developing products; negotiations for procurement of material ongoing. Proposal for 1st IS to be submitted to WHO ECBS-Oct'12.

3. Standards in development

Donations & Collaborations required

Provision of:

- Novel cytokines
- Cytokines for replacement standards
- Therapeutic antagonists/antibodies

Participation in Collaborative Studies

- Peg-G-CSF, TNF-α antagonists

Those interested please contact:
Meenu.Wadhwa@nibsc.hpa.org.uk

II. Initiatives to promote the use of cytokine standards

The Committee discussed initiatives to promote the use of cytokine standards. It was decided to extend the recent publication in the journals Cytokine, JICR, and JLB to other journals including the leading immunology journals. This would take the form of an editorial outlining the role of the ISICR Standards Committee, the WHO, and the NIBSC in the establishment of international cytokine standards and reference preparations together with a list of reagents available from the NIBSC.

III. Establishment of Standardized Assays and Reference Preparations for Human Anti-drug Antibodies

Patients treated with cytokines such as interferon-beta or growth factors such as erythropoietin may produce antibodies against the product that can adversely affect the efficacy of treatment. There is a need to standardize immunogenicity data obtained in different clinical studies using different drugs and different assays.

Ongoing initiatives:

- The establishment of a standardized neutralizing antibody assay for detection of antibodies against IFN-beta (EMA/CHMP/BWP/580136). The monoclonal anti-MxA antibodies required to undertake the ELISA for the detection of the MxA protein using the standardized assay are currently being prepared and will be made available in the near future by the NIBSC.
- A manuscript describing the establishment of the MxA standardized neutralizing antibody assay for the detection of antibodies against IFN-beta has been submitted for publication.
- The establishment of an antibody reference panel for the standardization of EPO antibody assays (WHO – ECBS proposal endorsed, Oct 2010). A panel of human antibodies of different characteristics (isotypes, affinities) for use as performance indicators for different EPO antibody assays is currently being established. The antibodies have been provided to the NIBSC recently and discussions on the next steps are ongoing.

New initiatives:

- Jorgen Dahlstrom, Thermo Fisher Scientific, Sweden, presented a report on the need for drug-specific antibody standards of IgE isotype in addition to the current WHO standard for total IgE. It was decided that Jorgen Dahlstrom would investigate the sourcing of suitable material as well as the development of methodologies to assess the potency of such material.
- Michael Tovey, INSERM, France presented a report on the need for the establishment of a common standardized assay for neutralizing antibodies (NAbs) against TNFα antagonists. Such drugs are used widely to treat a number of inflammatory and autoimmune diseases and there are numerous reports of the formation of neutralizing anti-drug antibodies against such products. The Committee agreed that an appropriate approach would be to establish an international collaborative study to compare the performance of suitable assay platforms.

IV. Other Business

Susan Kirshner, FDA, suggested that there was a need for the publication of papers outlining the correct use of standards. The Committee's agreed that that there was indeed a need for such publications. The establishment of a workshop on the use of cytokine standards was also discussed. The forthcoming ISICR/ICS Cytokines 2013 meeting, to be held in San Francisco in September 2013, may be a suitable venue for such a workshop. It was decided that Michael Tovey would investigate these matters further.

Respectfully submitted,
Michael Tovey
Chair, ISICR Standards Committee

MEETINGS

Please join us for the 14th International TNF Meeting Loews Le Concorde, Québec City, Canada

July 7-10, 2013

The TNF Conference holds a biannual meeting focused on the biology of the TNF superfamily of ligands and receptors. This tradition began in 1987 with the cloning of TNF and continued with the ongoing discovery of new ligand and receptor family members. Currently, approximately 300-350 attendees come together from Europe, North America and Asia, with broad representation from academia and the biopharmaceutical industry. Our delegates include international leaders in the field, established academics and trainees.
To register, please go to http://www.tnf2013.com/

Take advantage of the early registration fees and student rates! **Bienvenue à Québec!**

Cytokines 2013

September 29 - October 3, 2013
Hyatt Regency San Francisco
San Francisco, California, USA

The ICS and ISICR Invite you to celebrate their merger in into the new
International Cytokine and Interferon Society
by attending the inaugural ICIS meeting in San Francisco

Scientific Organizing Committee
Warren Leonard
Robert Schreiber
Sarah Gaffen
Karen Mossman

Secretariat
Sherwood Reichard
119 Davis Road, Suite 5A
Augusta, Georgia 30907 USA
Phone: 706-228-4655
Fax: 706-228-4685

www.cytokines2013.com

Things to do in San Francisco

By Bob Friedman

There is no city more colorful and exciting to visit than San Francisco. It is culturally stimulating, a wonderful place to walk around and observe the life of this beautiful city. There are a large number of great restaurants and bars in almost all of its unique neighborhoods. It's a fine place to get a map and wander about in. You can easily get around the city by public transport. The San Francisco Municipal Railway system consists of busses, streetcars, light rail, and cable cars. The fare is $2, with a significant reduction if you are over 65. Exact change is required and free transfers good for 90 minutes after issue are available.

A partial list of its many wonderful attractions might include:

- Golden Gate Park containing an aquarium at The California Academy of Sciences, a fine art collection at the De Young Museum, and a Botanical Garden. This is a great place to spend a day.
- Mission San Francisco de Asis was founded in 1776, and was part of the string of missionaries set up in California by the Jesuits, when it still belonged to Spain.
- Golden Gate Bridge is a nice place to walk across with beautiful views along the way.
- Alcatraz is a big tourist attraction. It was the former domicile of such colorful characters as Al Capone and Machine Gun Kelly. You must take a ferry to get there, and since it's a very popular site it's best to make reservations for a visit well in advance (415) 981-7625.
- A Cable Car Ride from Powell to Market Street is a must do in this town.
- Lombard Street is said to be the crookest street in the world.
- Chinatown is a colorful place for shopping and taking a walk.
- Two other art museums are certainly worth a visit: The Asian Art Museum and The Legion of Honor in Lincoln Park.
- A CityPass can be purchased which will cover the cost of both transportation in town and admissions for any of the attractions above where there is an entry fee.

As noted above this is a great town for walking. A trip around town might include as a minimum Union Square, Jackson Square, North Beach (includes Little Italy), Coit Tower, Telegraph Hill, Golden Gate Bridge, Oakland Bay Bridge, Fisherman's Warf, and Ghiradelli Square. Segway tours of Golden Gate Park are available at (415) 474-3130.

Little Known Facts about San Francisco

By Grace A

From: http://www.venere.com/blog/san-francisco-fun-facts/

1. A city of many names

San Francisco was originally called ***Yearba Buena***, a Spanish name meaning "good herb" or "good grass." "Baghdad by the Bay" coined by columnist Herb Caen, and "The City that Knows How" are among the common nicknames of the city.

2. The city of billionaires

Did you know that San Francisco is one of the richest cities in the world? It ranks fourth in the world, after New York, Moscow and London, in terms of the numbers of billionaires that call it home. This is despite the fact that it has less than 10% of the population of the other three cities. San Francisco is also known for having the largest Chinese community in the world, outside of China.

3. The bridge that is too long to paint

An important tourist spot in San Francisco is the Golden Gate Bridge. Established in 1937, it is the world's second longest single span. It links San Francisco with Marin County and the Redwood Empire. The Golden Gate Bridge is continuously painted and repainted all the time, because the bridge is so long that by the time the paint crew gets from one end to the other, it's time to start over again.

4. More facts you never thought you didn't know

Muir Woods, an unspoiled and remarkably scenic stand of giant redwoods, is located just across the Golden Gate Bridge. San Francisco is the birthplace of many things that are our today. The Chinese Fortune Cookie was invented at the Japanese Tea Garden by Makato Hagiwara. Chop Suey was created in 1878 during a banquet. Denim Jeans were also invented in San Francisco. It was primarily for the use of the Gold Rush miners because they needed rough clothes that were comfortable at the same time.

5. Where there is a coffee shop for everyone

San Francisco is known for its coffee shops, of which there are over three hundred within its boundaries. It is here that the famous Irish coffee was invented. Caffe Trieste is the first coffee shop in San Francisco that was established in 1956. It is said that large portions of the famous The Godfather Trilogy script was written here by Francis Ford Coppola.

6. Of crooked streets and notorious places

Lombard Street is not the crookedest street, as is popularly thought to be. It is Vermont Avenue. The notorious Alcatraz federal prison island is located in San Francisco Bay, where Al Capone spent five years. It was closed in 1963.

7. The eccentric mayor who liked to bathe

The Sutro Baths is an extravagant public bathhouse built by the eccentric former mayor, Adolph Sutro, who is also known for building the Cliff House. The Sutro Baths is located at Ocean Beach where a massive crowd of 7000 people gathered on the occasion of its official opening.

8. Motels, star treks and plagiarizing poets

The Motel Inn on Monterey Street is the first motel in existence. It opened up in 1925 in San Luis Obispo. The name Monterey Jack Cheese is a tribute to David Jacks, who spent much of his adult life trying to sell his cheese. Did you know that the Star Fleet Headquarters in Star Trek is located just north of San Francisco? The computer mouse was invented in Silicon Valley and the picture of a rolling hill against a blue sky which is the default wallpaper in Windows XP was shot in the Napa Valley.

Cytokines 2013

CONFIRMED SPEAKERS
as of March 14, 2013

David Artis
University of Pennsylvania
Philadelphia, PA USA

Jody Baron
University of California
San Francisco, CA USA

Greg Barton
University of California
Berkeley, CA USA

Yasmine Belkaid
National Institutes of Health
Bethesda, MD USA

Jeff Bluestone
University of California
San Francisco, CA USA

Andrew Bowie
Trinity College
Dublin, Ireland

Doreen Cantrell
University of Dundee
Dundee, Scotland

Marco Colonna
Washington University
St. Louis, MO USA

Carolyn Coyne
University of Pittsburgh
Pittsburgh, PA USA

Shane Crotty
La Jolla Institute Allergy & Immunology
La Jolla, CA USA

Jason Cyster
University of California
San Francisco, CA USA

Vishva Dixit
Genentech
South San Francisco, CAUSA

Charles Egwuagu
National Institutes of Health
Bethesda, MD USA

Katherine Fitzgerald
University of Massachusetts
Worcester,MA USA

Richard Flavell
Yale University
New Haven, CT USA

Thomas Gajewski
University of Chicago
Chicago, IL USA

Michae Gale
University of Washington
Seattle, WA USA

K. Chris Garcia
Stanford University
Stanford, CA USA

Sankar Ghosh
Columbia University
New York, NY

ThomasHamilton
Cleveland Clinic
Cleveland, OH USA

Lothar Hennighausen
National Institutes of Health
Bethesda, MD USA

Chris Hunter
University of Pennsylvania
Philadelphia, PA USA

Akiko Iwasaki
Yale University
New Haven, CT USA

Brendan Jenkins
Monash University
Victoria,Australia

Richard Jove
Beckman Research Institute
City of Hope,
Duarte, CA USA

Susan Kaech
Yale University
New Haven, CT USA

Tadamitsu Kishimoto
Osaka University
Osaka, Japan

Lewis Lanier
University of California
San Francisco, CA USA

Warren Leonard
National Institutes of Health
Bethesda, MD USA

Xiaoxia Li
Cleveland Clinic
Cleveland, OH USA

Foo Y. Liew
University of Glasgow
Glasgow, Scotland

Xin Lin
MD Anderson Cancer Center
Houston, TX USA

Cytokines 2013

CONFIRMED SPEAKERS
as of March 14, 2013

Daniel Littman
New York University
New York, NY USA

Richard Locksley
University of California
San Francisco, CA

Angel Lopez
Center for Cancer Biology
Adelaide, Australia

Averil Ma
University of California
San Francisco, CA USA

Tak Mak
University of Toronto
Toronto, Canada

Grant McFadden
University of Florida
Gainesville, FL USA

Karen Mossman
McMaster University
Hamilton, Canada

Anne O'Garra
National Institute for Medical Research
London, United Kingdom

John O'Shea
National Institutes of Health
Bethesda, MD USA

Michael Oldstone
Scripps Institute
La Jolla, CA, USA

Wenjun Ouyang
Genentech
South San Francisco, CA USA

Søren R. Paludan
Aarhus University
Aarhus, Denmark

Fiona Powrie
University of Oxford
Oxford, United Kingdom

Freddy Radtke
ISREC
Lausanne, Switzerland

Alexander Rudensky
Memorial Sloan \Kettering
New York, NY USA

Federica Sallusto
Institute for Research in Biomedicine
Bellinzona, Switzerland

Robert Schreiber
Washington University
St. Louis, MO, USA

Alan Sher
National Institutes of Health
Bethesda, MD USA

Stephen Smale
University of California
Los Angeles, CA USA

George Stark
Cleveland Clinic
Cleveland, OH USA

Tadatsugu Taniguchi
University of Tokyo
Tokyo, Japan

Thomas Tedder
Duke University
Durham, NC USA

Kevin Tracey
Feinstein Institute
Manhasset, NY USA

Giorgio Trinchieri
National Cancer Institute
Frederick, MD USA

Emil Unanue
Washington University
St. Louis, MO USA

Thomas Waldmann
National Institutes of Health
Bethesda, MD USA

David Wallach
Weizmann Institute
Rehovot, Israel

Amy Weinmann
University of Washington
Seattle, WA USA

Albert Zlotnik
University of California
Irvine, CA USA

MEETINGS

Melbourne, Australia
Melbourne Convention Centre

Cytokines2014

Oct 26-29, 2014

The new Melbourne Convention Centre, on land adjacent to the Exhibition Centre, was completed in 2009. At a cost of A$1 billion, the development consists of a 5541 seat Plenary Hall that can be divided into three separate theatres, 32 meeting rooms of various sizes, a grand banquet room as well as a Hilton hotel, office, residential and retail space. It was developed by a consortium led by Brookfield Multiplex and Plenary Group and designed by Larry Oltmanns. The new centre uses a range of features in order to achieve a 6 Star Green Star environmental rating and to become the first convention centre in the world with that rating. The architects for the development were NH Architecture and Woods Bagot. The new Melbourne Convention Centre was awarded the Australian Construction Achievement Award in 2010.

International Cytokine & Interferon Society

FORMERLY

ISICR International Society for Interferon & Cytokine Research

&

MAIL COMPLETED APPLICATIONS TO:

International Cytokine and Interferon Society
Attn: Dues and Subscriptions Services
9650 Rockville Pike, Bethesda, MD 20814 (USA)
Phone: 301.634.7250 Fax: 301.634.7099
Email: ICIS@faseb.org

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Regular Member	☐ $50.00	☐ $120.00
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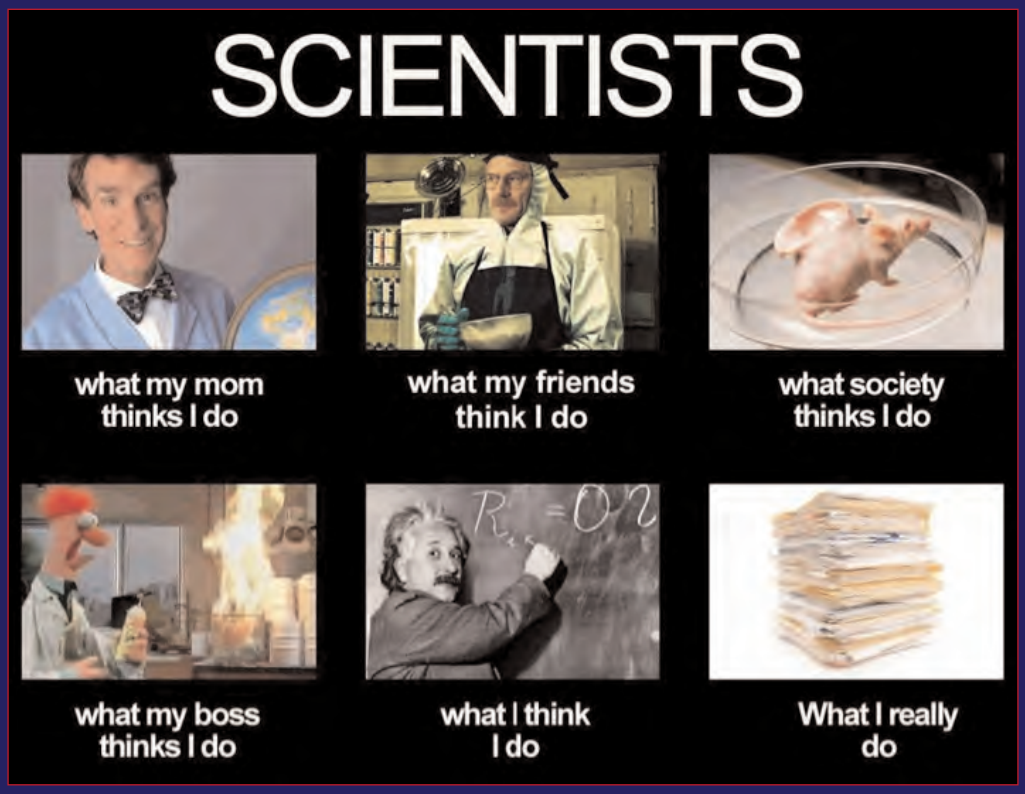
STUDENT/FELLOW CERTIFICATION

I certify that _____ is a candidate for an advanced degree or a post-doctoral fellow in a fi eld related to Interferon and Cytokine Research at _____
(Institution and Department)

_____ Date _____

(Signature of applicant's major research advisor)



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REMEMBER TO **JOIN** THE INTERNATIONAL CYTOKINE AND INTERFERON SOCIETY OR **RENEW** YOUR MEMBERSHIP FOR 2013 OR BEYOND (3 YEAR, 5 YEAR, LIFETIME (AGE 55+) AND STUDENT MEMBERSHIPS ARE AVAILABLE)

Signals

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Bethesda, MD 20814-3998
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