Signals

THE **ISICR** NEWSLETTER

OCTOBER 2010 | VOLUME 17 | NO. 2

IN THIS ISSUE:

APPRECIATION

The ISICR wishes to express the appreciation of all of its members for the continued support of the Milstein Family in promoting and recognizing outstanding Interferon research.

2010 ISICR MILSTEIN AWARDS

From Dr. Robert Silverman, Chair ISICR Awards Committee

"There is a common theme that links this years' Milstein Awards: both Drs. Fish and Kotenko have elevated the entire IFN and cytokine field through their seminal and groundbreaking research relating to major pathogenic viral infections that have caused epidemics in the human population."

ELEANOR FISH
Canada Research Chair in Women's Health & Immunobiology
Director, Arthritis & Autoimmunity Research Centre, University Health Network
Division Head, Cell & Molecular Biology, Toronto General Research Institute
Professor, Dept. of Immunology, University of Toronto

"Eleanor Fish was selected for the Milstein Award based on her distinguished career, characterized by sustained, high quality science on the role of IFNs in viral defense and clinical infections. As an example, she performed cutting edge translational studies during the response to the SARS coronavirus outbreak in 2003 (published in JAMA)."

http://www.uhnresearch.ca/researchers/profile.php?lookup=1831

SERGEI KOTENKO
Associate Professor
Dept. of Biochemistry & Molecular Biology
University Hospital Cancer CenterUMDNJ - New Jersey Medical School, Newark, NJ

"Sergei Kotenko was selected for the Milstein Award based on his seminal co-discovery and cloning of the type III IFNs (IFN lambda or IL-28 and IL-29) and their receptors (published in Nature Immunology, 2003). The type III IFN discovery is making a major impact in the IFN field as it relates to highly pathogenic viruses, in particular influenza virus and hepatitis C virus."

http://bmb.umdnj.edu/index.php?option=com_content&task=view&id=47&Itemid=102

Future ISICR Meetings

2010 Meeting
Oct. 3 - 7, 2010
Joint ISICR/ICS
Chicago, Illinois

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

ISICR
International Society for Interferon & Cytokine Research

2010 ISICR HONORARY MEMBERSHIP

Keiko Ozato
Section Head, Section on Molecular Genetics of Immunity
Eunice Kennedy Shriver National Institute of Child Health and Human Development
Bethesda, MD

"Keiko Ozato is recognized for serving as a former president of the ISICR, for her long-standing commitment to the society, and for her many contributions to the science of IFN and cytokines."

http://ozatolab.nichd.nih.gov/

Sidney Pestka

Professor
Dept of Molecular Genetics, Microbiology & Immunology
University of Medicine and Dentistry of New Jersey-Robert Wood Johnson Medical School
Piscataway, NJ

"The Milstein Awards are a direct result of the interactions between Sid Pestka and the Milstein Family. In addition, he has served in a leadership capacity for the ISICR as a past President and Secretary for many years."

http://lifesci.rutgers.edu/~molbiosci/faculty/pestka.html

Howard Young

Principal Investigator & Deputy Lab Chief
Laboratory of Experimental Immunology
Cancer and Inflammation Program
Center for Cancer Research
National Cancer Institute-Frederick
Frederick, MD

"Howard Young is recognized for his many contributions to the ISICR (a past President, he is the "go-to" person for questions on any topic relating to the functioning of the society, he created and published the ISICR newsletter)."

http://ccr.cancer.gov/Staff/staff.asp?profileid=5711

2010 ISICR MILSTEIN YOUNG INVESTIGATOR AWARDS

Special thanks to the Milstein Family for their continuing support of the ISICR Milstein Awards

Yeonseok Chung
Institute of Molecular Medicine
The University of Texas
Houston, TX

Saurabh Chattopadhyay
Molecular Genetics
Cleveland Clinic Foundation
Cleveland, OH

Michael Gantier
Centre for Cancer Research
Monash Institute of Medical Research
Clayton, Australia

Ram Savan
Laboratory of Experimental Immunology
National Cancer Institute-Frederick
Frederick, MD

Estanislao Nistal Villan
Gene Therapy and Viral Hepatitis, CIMA.
Universidad de Pamplona
Pamplona, Spain

CHRISTINA FLEISCHMANN AWARD WINNER

Special thanks to the Fleischmann Foundation for the continuing support of this Award

Xiaoyu Hu
Department of Medicine
Weill Cornell Medical College
New York, NY

Milstein TRAVEL AWARD Winners

Winners come from 16 countries

Yasuhiro Abe	National Institute of Biomedical Innovation, Ibaraki, Japan
Aoi Akitsu	The University of Tokyo, Minato-ku, Japan
Shuvojit Banerjee	Cleveland Clinic Foundation, Cleveland OH
Petra Baresova	1st Medical Faculty of Charles University, Prague, Czech Republic
Angela Battistini	Istituto Superiore di Sanità, Rome, Italy
Daniel Burke	University of Toronto, Toronto, Canada
Arindam Chakrabarti	Cleveland Clinic Foundation, Cleveland OH
Olivia Chan	University of Toronto, Toronto, Canada
Mounira Chelbi-Alix	CNRS, Université Paris Descartes, Paris, France
HyeonJoo Cheon	Cleveland Clinic Foundation, Cleveland OH
Soo-hyun Chung	University of Tokyo, Tokyo, Japan
Sara Colpitts	University of Connecticut, Farmington CT
Helena Costa	Instituto Gulbenkian de Ciencia, Oeiras, Portugal
Ana Costa-Pereira	Imperial College London, London, UK
Thomas Decker	University of Vienna, Vienna, Austria
Brian Doehle	University of Washington, Seattle WA
Chee-Mun Fang	Johns Hopkins University, Baltimore MD
Di Feng	UMDNJ, Newark NJ
Jamie Flammer	Weill Cornell Medical College, New York NY
Padmaja Gade	University of Maryland, Baltimore MD
Carole Galligan	Toronto General Research Institute, Toronto, Canada
Kate Goossens	CSIRO, Geelong, Australia
Ismar Haga	Ludwig Institute for Cancer Research, Sao Paulo,Brazil
Kristan Hagan	UT Southwestern Medical Center, Dallas TX
Craig Hawkshaw	University of Toronto, Toronto, Canada
Philippa Hillyer	CBER, FDA, Bethesda MD
Deborah Hodge	NCI-Frederick, NIH, Frederick MD
Wei-Chun HuangFu	University of Pennsylvania, Philadelphia PA
Satoshi Ikeda	IMSUT, Shirokanedai, Japan
Aaron Irving	Monash Institute of Medical Research, Clayton, Australia
Brendan Jenkins	Monash Institute of Medical Research, Clayton, Australia
Babal Jha	Cleveland Clinic Foundation, Cleveland OH
Vladimir Jurisic	Univ of Kragujevac, Kragujevac, Serbia
Sudhakar Kalakonda	University of Maryland, Baltimore MD
Archontoula Kavrochorianou	Hellenic Pasteur Institute, Athens, Greece
Catherine Kennedy	Monash Institute of Medical Research, Clayton, Australia
Kevin Kotredes	Temple University, Philadelphia PA
Christopher Krause	UMDNJ, Piscataway NJ
Arun Kumar	University of Helsinki, Helsinki, Finland
Chien-Kuo Lee	National Taiwan University, Taipei, Taiwan
Zhi Li	Institut Pasteur, Paris, France
Niamh Mangan	Monash Institute of Medical Research, Clayton, Australia
Latifa Mohamed	King Faisal Specialist Hospital, Riyadh, Saudi Arabia
Mira Patel	NICHD, NIH, Bethesda MD
Sandra Pellegrini	Institut Pasteur, Paris, France
Leesa Pennell	University of Toronto, Toronto, Canada
Tracy Putoczki	Ludwig Institite for Cancer Research, Melbourne, Australia
Hilario Ramos	University of Washington, Seattle WA
Giovanna Romeo	Sapienza University of Rome, Rome, Italy
Sujayita Roy	Johns Hopkins University, Baltimore MD
Anthony Sadler	Monash University of Medical Research, Clayton, Australia
Shinobu Saijo	University of Tokyo, Tokyo, Japan
Aristobolo Silva	Federal University of Minas Gerais, Belo Horizonte, Brazil
Madhurima Singh	University of South Carolina, Columbia SC
Håkan Steen	Temple University, Philadelphia PA
Rivka Stone	UMDNJ, Newark NJ
Leslie Summers deLuca	University of Toronto, Toronto, Canada
Dongxu Su	Cleveland Clinic Foundation, Cleveland OH
Emmanuel Thomas	NIDDK, NIH, Bethesda MD
Chafia Touil-Boukoffa	University of Sciences & Technology, Algiers, Algeria
Anette van Boxel-Dezaire	Cleveland Clinic Foundation, Cleveland OH
Deborah Vestal	University of Toledo, Toledo OH
Ben Wang	University of Toronto, Toronto, Canada
Dakang Xu	Monash University of Medical Research, Clayton, Australia
Haixia Xu	Hospital for Special Surgery, New York NY
Chanyu Yue	Temple University, Philadelphia PA
Xing Zhang	SAIC-Frederick Inc., NCI-Frederick, Frederick MD

NEW ISICR MEMBERS

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

Aoi Akitsu
Univ of Tokyo Inst of Medical Science, Tokyo, Japan

Abul Arif
Cleveland Clinic Foundation, Cleveland, OH

Noella Arnaud
Institut Pasteur, Paris, France

Robert Axtell
Stanford Univ, Stanford, CA

Shuvojit Banerjee
Cleveland Clinic Foundation, Cleveland, OH

Petra Baresova
1st Faculty of Medicine Charles Univ Prague 2, Prague Czech Republic

Maria Barton
Cleveland Clinic Foundation, Cleveland, OH

Angela Battistini
Instituto Superiore di Sanita, Rome, Italy

Andrew Bean
CSIRO, Geelong, Victoria Australia

Teresa Bergh
Harmony Global, Duluth, GA USA

Gordon Broderick
Univ of Alberta, Edmonton, AB Canada

Wei Cao
Univ of Texas, Houston, TX

HyeonJoo Cheon
Cleveland Clinic Foundation, Cleveland, OH

Yeonseok Chung
MD Anderson Cancer Ctr, Houston, TX USA

Soo-hyun Chung
Univ of Tokyo & Inst of Med Science, Tokyo, Japan

Velasco Cimica
Stony Brook Univ, Stony Brook, NY

Helena Costa
Instituto Gulbenkian de Ciencia, Oeiras, Portugal

Shyamasree Datta
Cleveland Clinic Foundation, Cleveland, OH

Yu Dou
Monash Inst of Medical Research, Clayton, VIC Australia

Amos Douvdevani
Soroka Med Ctr & Ben-Gurion Univ Negev, Beer-Sheva, Israel

Chee-Mun Fang
Johns Hopkins Univ, Baltimore, MD

David Farrar
UT Southwestern Medical Center, Dallas, TX

Paulo Ferreira
Federal Univ of Minas Gerais, Belo Horizonte, Minas Gerais Brazil

Alexander Gabain
Intercell AG, Vienna, Austria

Padmaja Gade
University of Maryland, Baltimore, MD

Doina Ganea
Temple Univ, Philadelphia, PA

Rimma Gatich
Gamaleya Inst for Epidem & Micribiology, Moscow, Russia

Kate Goossens
CSIRO, Geelong, VIC Australia

Elizabeth Grimm
Univ of Texas M.D Anderson Cancer Ctr, Houston, TX

Ismar Haga
Ludwig Inst for Cancer Research, Sao Paulo, Brazil

Kristan Hagan
Univ of Texas Southwestern Med Ctr, Dallas, TX

Joshua Heiber
Univ of Miami, Miami, FL

Philippa Hillyer
US Food and Drug Administration, Bethesda, MD

Alexander Ischenko
Inst of Highly Pure Biopreparations, St. Petersburg, Russia

Vladimir Jurisic
Univ of Kragujevac, Kragujevac, Serbia and Montenegro

Pranay Khare
Neuro Science Inc., Osceola, WI

Kevin Kotredes
Temple Univ, Philadelphia, PA

Arun Kumar
Univ of Helsinki, Haartman Inst, Helsinki, Finland

Julie Legrand
CNRS, Villejuif, France

Lei Li
Univ of Chicago, Chicago, IL

Uta Mellert
Swedish Orphan International GmbH, Langen, Hessen Germany

Yasuhiro Nagai
Tohoku Univ, Sendai, Japan

Scheglovitova Nikolaevna
The Gamaleya Inst of Epidem & Microbiology, Moscow, Russian Federation

Shubin Ning
Univ of Miami, Miami, FL

Patrick Parisien
Northwestern Univ, Evanston, IL

Danielle Pastor
Penn State Univ, Hershey, PA

Mira Patel
NICHD, Bethesda, MD

Irina Poleska
The Gamaleya Inst for Epidem & Micribiology, Moscow, Russia

Ryan Roberts
Children's Hospital of Orange County, Orange, CA

Sujayita Roy
Johns Hopkins Univ, Baltimore, MD

Bruce Rychlik
J Robert Scott, Boston, MA

Paramananda Saikia
Cleveland Clinic Foundation, Cleveland, OH

Mohammad Sohail
Univ of California-Riverside, Riverside, CA

David Sternlieb
Shapiro and Sternlieb, LLC, Englishtown, NJ

Bandar Suliman
Monash Inst of Medical Research, Clayton, VIC Australia

Ce Tang
Univ of Tokyo, Tokyo, Japan

Nina Vardanyan
The Gamaleya Inst for Epidem & Micribiology, Moscow, Russia

Evgenia Vizhlova
The Gamaleya Inst for Epidem & Micribiology, Moscow, Russia Moscow, Russia

Ellen Witte
Univ Hospital Charite, Berlin, Germany

Kerstin Wolk
Univ Medicine Charite, Berlin, Germany

Haixia Xu
Hospital for Special Surgery, New York, NY

Michifumi Yamashita
Cleveland Clinic Foundation, Cleveland, OH

Xiang-Lei Yang
The Scripps Research Inst, La Jolla, CA

Yiting Yu
Albert Einstein College of Medicine, Bronx, NY

Chanyu Yue
Temple Univ, Philadelphia, PA

Ao Zhang
Cleveland Clinic Foundation, Cleveland, OH

Xing Zhang
SAIC-Frederick Inc NCI-Frederick, Frederick, MD

New Member MINIBIOs *Contributed by Thomas Tan*

Andrew G. D. Bean
Project Leader
Vaccine and Therapeutics
CSIRO AAHL
Private Bag 24,Geelong, 3220, VIC
AUSTRALIA.
http://www.csiro.au/places/aahl.html

Andrew Bean heads the Vaccines and Therapeutics project within Innovative Disease Control research Stream at CSIRO's specialised biocontainment facility, the Australian Animal Health Laboratory (AAHL), in Geelong, Victoria, Australia. AAHL is a national centre of excellence in disease diagnosis, research and policy advice in animal health and provides diagnostic services, enhanced surveillance and the capability to respond to emerging and exotic diseases. Andrew's team works in the area of 'One Health' and the team's research focus is on enhancing animal and human health by identifying new antiviral strategies and by developing better therapeutic and vaccine approaches.

Elizabeth A. Grimm, Ph.D.
Professor, Departments of Experimental Therapeutics and Melanoma Medical Oncology
Deputy Division Head – Research Affairs, Division of Cancer Medicine
Frances King Black Memorial Professorship of Cancer Research
The University of Texas M. D. Anderson Cancer Center

Dr. Grimm is a Professor at the University of Texas MD Anderson Cancer Center Department of Experimental Therapeutics, as well as Deputy Head of Division of Cancer Medicine. Her research is divided into two major areas: (a) fundamental cancer biology related to cytokine expression and inflammation in apoptosis resistance pathways which are based on her findings of endogenous constitutive nitric oxide in production in the tumor cells patients with the worst prognosis; and (b) translational studies developing new therapies and validating prognostic markers in human melanoma. Dr. Grimm is also a Professor of two University of Texas educational programs; one in the Immunobiology of Cancer, and the second in Cancer Biology Program at the Graduate School of Biomedical Sciences. She successfully organized and was awarded the first NIH T32 Training Grant supporting the Cancer Biology graduate program and administered the program as the PI of the training grant for a decade. She has personally mentored and supervised numerous fellows, graduate and postdoctoral students, including those from the MD/PhD program which two are currently completing their PhD research in her laboratory.

Her pioneering research in the 1980's at the NCI on human cytokines, particularly IL-2, led directly to its development as approved agent for melanoma therapy. More recently, in an attempt to reveal mechanisms of IL-2 resistance, her research has led to a focus on "carcinogenic inflammation" which is associated with melanoma expression of various deleterious inflammatory markers, particularly inducible nitric oxide synthase (iNOS) which is proposed as a marker of poor prognosis, as well as a target for therapy.

Dr. Grimm has received continuous peer-reviewed NIH funding for over 20 years since arriving at MDACC, and most recently successfully organized and was awarded the first NCI SPORE dedicated completely to Melanoma, in 2004. Dr. Grimm has authored and co-authored over 160 publications in peer-reviewed journals, and over 60 book chapters, and served on NIH and ACS peer review and executive councils, as well as lead AACR and ASCO annual meeting programs in immunology and melanoma. Dr. Grimm is in demand as a speaker and organizer at national and international conferences and symposia.

Pranay D. Khare, Ph.D.
Scientific Director
NeuroScience, Inc.
Osceola, WI USA

Dr. Pranay Khare's educational background is Life Science with a major in Immunology. He finished his Ph.D. work in Viral Immunology from King George Medical College, Lucknow, India, where he identified and characterized a novel receptor for a dengue virus specific cytokine. Later, he strengthens his training in Molecular Immunology and Gene Therapy field at Mayo Clinic, Rochester, MN, Fukuoka University, Japan, National Institute of Immunology, New Delhi, India. Since the beginning of his research career, Dr. Khare's main focus is to understand the pathophysiology of the disease state and to identify the novel drug target molecules for therapeutic strategy. Further, he followed his passion on the discovery of novel drug molecules and target receptors by including molecular approaches and developed a novel eukaryotic display library technology. Dr. Khare further patented this technology and moreover, he showed the proof-of-principle studies that could be used to identify the novel drugs, receptors, biomarkers, peptides, antibodies and ligands. He has generated more than a dozen possible drug candidates that have been successfully tested in pre-clinical and Phase-1 clinical studies. After finishing his post-doctoral training Dr. Khare began his professional career with small and large biotechnology companies.

Dr. Khare has published more then dozen peer-reviewed publications and has several patents. He is a member of several different international organizations (AACC, ISICR, AAST, ASGT etc.) and has been invited to present his scientific research at several international platforms. Dr. Khare has received funding for his grant proposals from the National Institute of Health (NIH), Susan G. Komen Breast Cancer Foundation, Leukemia Research Foundation, Sasakawa Health Science Foundation, Japan, Lady Tata Memorial Research Foundation, Mumbai, India and the Council of Scientific and Industrial Research, New Delhi, India. Dr. Khare has presented his research in more then forty international and national scientific meetings and has presented twenty oral presentations. He has been selected for the Member Grant Review Committee for the Susan G. Komen Breast Cancer Foundation and was chosen to review several research articles for different publication groups.

Dr. Pranay Khare is presently the Scientific Director at NeuroScience, Inc. where his primary role is to direct the company's overall scientific direction including clinical scientific collaborative studies, publication of peer-reviewed articles, opportunities for external funding, identification of clinical relevant immunology and molecular biology based laboratory test and biomarkers analysis, and development of novel drug candidates.

Maurice Pelsers PhD. MSc. BSc (Hons)
Medical Science Manager Randox
Keerweg 4, 6176 BN Spaubeek, The Netherlands
t: +31 (0) 655 746 327
m: +49 (0) 163 537 0624
maurice.pelsers@randox.com

Maurice Pelsers did his Masters in Food Metabolism and Exercise at the Maastricht University, Netherlands. In Maastricht (2004) he also obtained his PhD on Fatty Acid Binding protein as Cardiac Marker and did a 2 year post doc in the Department of Movement Sciences on the effects of Exercise on fatty acid metabolism in Diabetes. He is author of over 50 peer reviewed publications. After traineeship as clinical Chemist (2009) he joined Randox Laboratories as Medical Science Manager. His portfolio includes Randox biochip technology which allows the multiple measurements of up to 35 cytokines (5 different arrays) in only one sample. He currently is chair of the European Task force on Cardiovascular Disease of EDMA (European Diagnostic Manufacturers Association).

New Member MINIBIOs *Continued*

Alexander von Gabain
Strategic Advisor to the Management and Supervisory Boards
of Intercell AG,
Founder Intercell AG
Campus Vienna Biocenter 3
Vienna, Austria

Andrew Bean heads the Vaccines and Therapeutics project within Innovative Disease Control research Stream at CSIRO's specialised biocontainment facility, the Australian Animal Health Laboratory (AAHL), in Geelong, Victoria, Australia. AAHL is a national centre of excellence in disease diagnosis, research and policy advice in animal health and provides diagnostic services, enhanced surveillance and the capability to respond to emerging and exotic diseases. Andrew's team works in the area of 'One Health' and the team's research focus is on enhancing animal and human health by identifying new antiviral strategies and by developing better therapeutic and vaccine approaches.

Kerstin Wolk, Ph.D.
Research Team Leader
Molecular Immunopathology Department
University Hospital Charité
Berlin, Germany

Kerstin Wolk is an immunologist and works as a research team head in the Molecular Immunopathology Department at the University Hospital Charité in Berlin, which is an interdisciplinary department of the Charité's Institute of Immunology and Clinic of dermatology. She obtained both a diploma (5-year degree) in Biopharmacology from the University of Greifswald, Germany, and a diploma in Environmental Toxicology from the University of Metz, France. She later graduated with a Ph.D. from the University of Greifswald (supervisors: Reinhard Walter, M.D., Ph.D., Institute of Biochemistry of the University Hospital Greifswald and Hans-Dieter Volk, M.D., Ph.D., Institute of Medical Immunology of the University Hospital Charité, Berlin, Germany). For her thesis she worked on endotoxin tolerance as a model of post-inflammatory immunodepression in critically ill patients. Afterwards, she accepted a postdoctoral position at Schering, Inc., Berlin, in the Department of Dermatology. With her research team in the Molecular Immunopathology Department (director: Robert Sabat) at the Charité in Berlin, she currently investigates the role of interleukin (IL)-10 family cytokines, such as IL-22 and IL-28/IL-29.

Clinical Trials

Anti-Interleukin-1 in Diabetes Action (AIDA)
ClinicalTrials.gov Identifier: NCT00711503
Sponsor: Steno Diabetes Center
Locations: Steno Diabetes Center, multiple European locations
Contact: Thomas R. Mandrup-Poulsen, MD, DMSc +45 4443 9101 tmpo@steno.dk; Linda MS Pickersgill, MD +45 4442 1867 lpgi@steno.dk
Study Chair: Thomas R Mandrup-Poulsen, MD, DMSc Steno Diabetes Center

Interleukin-7 in Treating Patients With Metastatic Melanoma or Locally Advanced or Metastatic Kidney Cancer
ClinicalTrials.gov Identifier: NCT00492440
Sponsor: Cytheris SA
Location: Warren Grant Magnuson Clinical Center - NCI Clinical Trials Referral Office Bethesda, MD
Contact: Clinical Trials Office - 888-NCI-1937
Study Chair: Steven A. Rosenberg, MD, PhD NCI - Surgery Branch

Safety of Interleukin-7 in HIV Infected People Currently Taking Anti-HIV Drugs
ClinicalTrials.gov Identifier: NCT00492440
Sponsor: National Institute of Allergy and Infectious Diseases (NIAID)
Location: Case Western Reserve University Cleveland, Ohio, other US locations
Contact: University of California, Davis Medical Center Sacremento, CA 916-914-6263
Study Chair: Irini Sereti, MD National Institute for Allergy and Infectious Diseases, National Institutes of Health; Michael M. Lederman, MD Case Western Reserve University, University Hospitals of Cleveland

Efficacy and Safety of IL-11 in DDAVP Unresponsive (IL-11 DDAVP Un)
ClinicalTrials.gov Identifier: NCT00994929
Sponsor: University of Pittsburgh
Location: University of Pittsburgh, Pittsburgh PA
Contact: Margaret V. Ragni, MD, MPH (412) 209-7288, ragni@dom.pitt.edu
Study Chair: Margaret V. Ragni, MD

Vaccine Therapy Plus Interleukin-12 in Treating Patients With Metastatic Prostate Cancer That Has Not Responded to Hormone Therapy
ClinicalTrials.gov Identifier: NCT00015977
Sponsor: University of Chicago
Location: University of Chicago Cancer Research Center Chicago, IL
Study Chair: Thomas F. Gajewski, MD, PhD University of Chicago

A Phase I Study of Intravenous Recombinant Human IL-15 in Adults With Refractory Metastatic Malignant Melanoma and Metastatic Renal Cell Cancer
ClinicalTrials.gov Identifier: NCT01021059
Sponsor: National Cancer Institute (NCI)
Location: Warren Grant Magnuson Clinical Center - NCI Clinical Trials Referral Office Bethesda, MD
Contact: NCI Referral Office 1-888-NCI-1937 ncicssc@mail.nih.gov
Study Chair: Thomas Waldmann, MD NCI

First Time in Human Study of Intravenous Interleukin-18 Antibody (A18110040)
ClinicalTrials.gov Identifier: NCT01035645
Sponsor: GlaxoSmithKline
Location: GSK Investigational Site, Cambridge, UK CB2 2GG
Contact: US GSK Clinical Trials Call Center 877-379-3718
Study Chair: GSK Clinical Trials, GlaxoSmithKline

Clinical Trials *Continued*

Combination Study Of SB-485232 (Interleukin 18) And Doxil For Advanced Stage Epithelial Ovarian Cancer

ClinicalTrials.gov Identifier: NCT00659178
Sponsor: GlaxoSmithKline
Location: GSK investigational sites – Stanford, CA, Philadelphia, PA, Miami, FL
Contact: US GSK Clinical Trials Call Center 877-379-3718

Interleukin-21 in Treating Patients With Metastatic or Recurrent Malignant Melanoma

ClinicalTrials.gov Identifier: NCT00514085
Sponsor: NCIC Clinical Trials Group
Locations: Edmond Odette Cancer Centre at Sunnybrook Toronto, Ontario, Canada, M4N 3M5, other Canadian Hospitals
Study Chair: Teresa M. Petrella Edmond Odette Cancer Centre at Sunnybrook

Interferon-alpha Lozenges for Prevention of Relapse in Hepatitis C

ClinicalTrials.gov Identifier: NCT00695019
Sponsor: Amarillo Biosciences, Inc.
Location: Taiwan, Chiayi County Dalin Buddhist Tzu Chi General Hospital Recruiting Dalin, Chiayi County, Taiwan, multiple other locations in Taiwan
Contact: An-Liang Chou, MD andrewn.chou@msa.hinet.net

Evaluation of Birdshot Retine Choroidopathy Treatment by Either Steroid or Interferon alpha2a (BIRDFERON)

ClinicalTrials.gov Identifier: NCT00508040
Sponsor: Assistance Publique - Hôpitaux de Paris
Location: Hopital La Pitie Salpetriere Recruiting Paris, France
Contact: Christine Fardeau, MD +33(0)1 42 16 32 07 christine.fardeau@psl.aphp.fr
Study Chair: Christine FARDEAU, MD Assistance Publique - Hôpitaux de Paris

Natalizumab De-escalation With Interferon Beta-1b

ClinicalTrials.gov Identifier: NCT01144052
Sponsor: Ospedale Civico, Lugano
Location: Neurocenter of Southern Switzerland, Ospedale Civico Lugano, Lugano, Ticino, Switzerland
Contact: Claudio Gobbi, Dr med. +41 811 91 6479 claudio.gobbi@eoc.ch; Chiara Zecca, Dr med. +41 811 91 6604 chiara.zecca@eoc.ch
Study Chair: Claudio Gobbi, Dr med. Neurocenter of Southern Switzerland, Ospedale Civico Lugano

Interferon-Gamma With Interferon Alpha and Ribavirin for Hepatitis C Non-Responders

ClinicalTrials.gov Identifier: NCT00538811
Sponsor: Aga Khan University
Location: The Aga Khan University Hospital, Karachi, Pakistan
Contact: Zaigham Abbas, FCPS, FACG +92-21-4930051 zaigham@akunet.org; Javed Yakoob, PhD +92-21-4930051 yakoobjaved@hotmail.com
Study Chair: Zaigham Abbas, FCPS, FACG The Aga Khan University Hospital

A Pilot Study of Aerosol Interferon-Gamma for Treatment of Idiopathic Pulmonary Fibrosis

ClinicalTrials.gov Identifier: NCT00563212
Sponsor: New York University School of Medicine
Location: Division of Pulmonary & Critical Care Medicine, NYU School of Medicine, New York, NY
Contact: Rany Condos, MD 212 263 7951 Rany.Condos@nyumc.org; Sheryl R Goldyn, MD, MPH 212 263 6479 goldys01@med.nyu.edu
Study Chair: Rany Condos, MD NYU School of Medicine

REVIEWS OF INTEREST

Chon TW, Bixler S. **Interferon-τ: Current Applications and Potential in Antiviral Therapy.** *J. Interferon & Cytokine Res.,* 30(7): 477-485, 2010

Cua DJ, Tato CM. **Innate IL-17-producing cells: the sentinels of the immune system.** *Nature Rev Immunology* 10(7), 479-489, 2010 Corrected online: 25 June 2010

Curtsinger JM, Mescher MF. **Inflammatory cytokines as a third signal for T cell activation.** *Current Opin Immunology* 22(3): 333-340, 2010

Danese S, Mantovani A. **Inflammatory bowel disease and intestinal cancer: a paradigm of the Yin-Yang interplay between inflammation and cancer.** *Oncogene* 29 (23): 3313-3323, 2010

Dinarello CA. **Anti-inflammatory Agents: Present and Future.** *Cell* 140(6): 935-950, 2010

Dooms H, Abbas AK. **Revisiting the role of IL-2 in autoimmunity.** *Eur J Immunol.* 40(6):1538-1540, 2010

Gougeon ML, Chiodi F. **Impact of gamma-chain cytokines on T cell homeostasis in HIV-1 infection: therapeutic implications.** *J Intern Med.* 267(5):502-514, 2010

Grivennikov SI, Karin M. **Dangerous liaisons: STAT3 and NFκB collaboration and crosstalk in cancer.** *Cytokine & Growth Factor Rev.* 21(1): 11-19, 2010

Hashmi MH, Van Veldhuizen PJ. **Interleukin-21: updated review of Phase I and II clinical trials in metastatic renal cell carcinoma, metastatic melanoma and relapsed/refractory indolent non-Hodgkin's lymphoma.** *Expert Opin Biol Ther.* 10(5):807-817, 2010

Henderson C, Goldbach-Mansky R. **Monogenic IL-1 mediated autoinflammatory and immunodeficiency syndromes: finding the right balance in response to danger signals.** *Clin Immunol.* 135(2): 210-222, 2010

Lumachi F, Basso SMM, Orlando R. **Cytokines, thyroid diseases and thyroid cancer.** *Cytokine* 50 (3): 229-233, 2010

Mazurek M, Jereb J, Vernon A, LoBue P, Goldberg S, Castro K; IGRA Expert Committee; Centers for Disease Control and Prevention (CDC). **Updated guidelines for using Interferon Gamma Release Assays to detect Mycobacterium tuberculosis infection - United States, 2010.** *MMWR Recomm Rep.* 59(RR-5): 1-25, 2010

Savitsky D, Tamura T, Yanai H, Taniguchi T. **Regulation of immunity and oncogenesis by the IRF transcription factor family.** *Cancer Immunology Immunotherapy* 59(4): 489-510, 2010

Silverman RH, Nguyen C, Weight CJ, Klein EA.**The human retrovirus XMRV in prostate cancer and chronic fatigue syndrome.** *Nat Rev Urol.* 2010 Jul;7(7):392-402. Epub 2010 Jun 1.

Yang L, Pang Y, Moses HL. **TGF-β, and immune cells: an important regulatory axis in the tumor microenvironment and progression.** *Trends in Immunology* 31(6): 220-227, 2010

Zhao Q. **Dual targeting of CCR2 and CCR5: therapeutic potential for immunologic and cardiovascular diseases.** *J Leukocyte Biology* 88(1): 41-55, 2010

WWW

CORUM: the comprehensive resource of mammalian protein complexes

http://mips.helmholtz-muenchen.de/genre/proj/corum/index.html

The CORUM database provides a resource of manually annotated protein complexes from mammalian organisms. Annotation includes protein complex function, localization, subunit composition, literature references and more. All information is obtained from individual experiments published in scientific articles, data from high-throughput experiments is excluded.

DBTSS: Database of Transcriptional Start Sites

http://dbtss.hgc.jp/

DBTSS is a database which contains precise positional information for transcription start sites (TSSs) of eukaryotic mRNAs. In this update, we included additional 328 million TSS tag data, which were generated by massively sequencing analysis of the full-length cDNAs in humans and mice. The TSS tags were collected from a total of 33 different cell types or cultured conditions. Also, differential usages of the TSSs depending on the cellular circumstances are made retrievable and viewable by a series of newly implemented interfaces. The retrieved promoter information is further linked to the comparative genomics viewer to study evolutional turnover of the TSSs. By accommodating unprecedented amount of TSS data, the updated DBTSS represents, for the first time, the dynamically changing nature of the TSSs of mammalian genes, depending on cellular circumstances and in the course of evolution.

EMMA-mouse mutant resources for the international scientific community

http://www.emmanet.org/

The European Mouse Mutant Archive – EMMA is a non-profit repository for the collection, archiving (via cryopreservation) and distribution of relevant mutant strains essential for basic biomedical research.The laboratory mouse is the most important mammalian model for studying genetic and multi-factorial diseases in man. Thus the work of EMMA will play a crucial role in exploiting the tremendous potential benefits to human health presented by the current research in mammalian genetics. EMMA is supported by the partner institutions, national research programmes and by the EC's FP7 Capacities Specific Programme.

EuPathDB: a portal to eukaryotic pathogen databases

http://eupathdb.org/eupathdb/

EuPathDB Bioinformatics Resource Center for Biodefense and Emerging/Re-emerging Infectious Diseases is a portal for accessing genomic-scale datasets associated with the eukaryotic pathogens *(Cryptosporidium, Encephalitozoon, Entamoeba, Enterocytozoon, Giardia, Leishmania, Neospora, Plasmodium, Toxoplasma, Trichomonas and Trypanosoma).*

GenomeRNAi: a database for cell-based RNAi phenotypes

http://rnai2.dkfz.de/GenomeRNAi/

About GenomeRNAi

The database contains phenotypes from cell-based RNA interference (RNAi) screens in Drosophila and Homo sapiens. In addition, the database provides an updated resource of RNAi reagents and their predicted quality that are available for the Drosophila and the human genome.

H-DBAS - Human-transcriptome DataBase for Alternative Splicing

http://h-invitational.jp/h-dbas/

H-DBAS offers unique data and viewer for human Alternative Splicing (AS) analysis

- Genome-wide representative alternative splicing variants (RASVs) identified from following datasets
  - H-Inv full-length cDNAs: H-Invitational cDNA dataset
  - H-Inv all transcripts: Published human mRNA dataset
  - Mouse full-length cDNAs: Mouse cDNA dataset
- RASVs affecting protein functions such as protein motif, GO, subcellular localization signal and transmembrane domain
- Conserved RASVs compared with mouse genome and the full-length cDNAs (H-Inv full-length cDNAs only)

- AS Viewer as user-controllable Java applet and the followings are product requirments:
  - Java: JRE 1.5.0_17
  - OS: WindowsXP/Vista or Mac10.4 (Windows is recommended)
  - Browser: IE6/7 (Windows) or Safari (Mac)
  - Screen resolution: 1280 x 1024

Immunological Genome Project

http://www.immgen.org/

The Immunological Genome Project (ImmGen) is a collaborative scientific research project that is currently building a gene-expression microarray database for all characterized immune cells in the mouse. The overarching goal of the project is to computationally reconstruct the genetic regulatory network in immune cells. All data generated as part of ImmGen are made freely and publicly available.

The ImmGen project began in 2008 as a collaboration between several immunology and computational biology laboratories across the United States. The project has several phases, and is expected to take about three years to complete. Currently, raw data from the first phase (mouse) is being released as it is generated.

Innate DB

http://www.innatedb.ca/

InnateDB is a publicly available database of the genes, proteins, experimentally-verified interactions and signaling pathways involved in the innate immune response of humans and mice to microbial infection. The database captures an improved coverage of the innate immunity interactome by integrating known interactions and pathways from major public databases together with manually-curated data into a centralised resource. The database can be mined as a knowledgebase or used with our integrated bioinformatics and visualization tools for the systems level analysis of the innate immune response.

Going Beyond Innate Immunity: Although InnateDB curation focuses on innate immunity-relevant interactions and pathways, InnateDB also incorporates detailed annotation on the entire human and mouse interactomes by integrating data (115,000+ interactions & 3,000+ pathways) from the several of the major public interaction and pathway databases.

InnateDB has been developed as part of two major projects, the Genome Canada-funded Pathogenomics of Innate Immunity Project (PI2) and a project funded under the Grand Challenges in Global Health Initiative - Novel Therapeutics that Boost Innate Immunity To Treat Infectious Diseases.

Please cite: Lynn et al, InnateDB: facilitating systems-level analyses of the mammalian innate immune response. Molecular Systems Biology 2008; 4:218.

IntAct

http://www.ebi.ac.uk/intact/main.xhtml

IntAct provides a freely available, open source database system and analysis tools for protein interaction data. All interactions are derived from literature curation or direct user submissions and are freely available.

JASPAR 2010: the greatly expanded open-access database of transcription factor binding profiles

http://jaspar.genereg.net/

The JASPAR CORE database contains a curated, non-redundant set of profiles, derived from published collections of experimentally defined transcription factor binding sites for eukaryotes. The prime difference to similar resources (TRANSFAC, etc) consist of the open data acess, non-redundancy and quality.

When should it be used? When seeking models for specific factors or structural classes, or if experimental evidence is paramount.

Milstein Award

http://www.milstein-award.org/

This is a new website for the Milstein Award, highlighting past recipients and the significance of the Award in the field of Interferon Research.

MouseBook

http://www.mousebook.org/index.php

Mousebook provides free access to all the data from MRC Harwell. This includes mouse stocks in FESA (Frozen Embryo and Sperm Archive), mutants from the mutagenesis screen, the ENU DNA archive, standardized phenotyping procedures, imprinting genes and chromosome anomalies.

WWW

Continued

Mouse Genome Database

http://www.informatics.jax.org/

The Mouse Genome Database is the authoritative source for mouse gene, allele and strain nomenclature and for phenotype and functional annotations of mouse genes. MGD contains comprehensive data and information related to mouse genes and their functions, standardized descriptions of mouse phenotypes, extensive integration of DNA and protein sequence data, normalized representation of genome and genome variant information including comparative data on mammalian genes. NAR 38: D586-D592 Suppl. 1 JAN 2010

TransmiR: a transcription factor-microRNA regulation database

http://202.38.126.151/hmdd/mirna/tf/

TransmiR provides a user-friendly interface by which interested parties can easily retrieve TF miRNA regulatory pairs by searching for either a miRNA or a TF.
(NAR 38: D119-D122 Suppl. 1 JAN 2010)

Welcome to *UTRdb*

http://utrdb.ba.itb.cnr.it/

The 5' and 3' untranslated regions of eukaryotic mRNAs play crucial roles in the posttranscriptional regulation of gene expression through the modulation of nucleo-cytoplasmic mRNA transport, translation efficiency, subcellular localization and message stability. UTRdb is a curated database of 5' and 3' untranslated sequences of eukaryotic mRNAs, derived from several sources of primary data. Experimentally validated functional motifs are annotated and also collated as the *UTRsite* database where more specific information on the functional motifs and cross-links to interacting regulatory protein are provided. In the current update the UTR entries have been organized in a gene-centric structure to better visualize and retrieve 5' and 3'UTR variants generated by alternative initiation and termination of transcription and alternative splicing. Experimentally validated miRNA targets and conserved sequence elements are also annotated. The integration of UTRdb with genomic data has allowed the implementation of an efficient annotation system and a powerful retrieval resource for the selection and extraction of specific UTR subsets.

Summary:

UTRef section
UTRef contains a total of 473,330 5'UTR and 527,323 3'UTR entries, respectively, from 483,605 genes in 79 species. A total of 788,370 UTRsite motifs are annotated (317,767 in the 5'UTRs and 470,603 in the 3'UTRs), 20,191 experimentally validated miRNA targets, and 242,773 conserved regions.

UTRfull section
For human, the UTRfull section is also available, including UTRs deriving from full length transcripts collected in ASPicDB. Overall, UTRfull contains 124,345 and 194,503 5' and 3' UTRs respectively (3.37/gene) and 3'UTRs (5.18/gene), with 348,412 annotated UTRSite motifs, 649,679 conserved elements and 105,209 experimentally validated miRNA targets.

ViralORFeome

http://pbildb1.univ-lyon1.fr/viralorfeome/index.php

Academic groups from INSERM, Institut Pasteur-CNRS, PRABI and a bioinformatic company (Modul-Bio) have joined their efforts to build the ViralORFeome database.
Built on genome sequences retrieved from public databases, this web interface can be used to (i) design appropriate PCR primers to clone viral encoding sequences (ORFs), and (ii) to visualise annotations through an integrated genome browser.

The ViralOrfeome database is comprised of a reference collection of ORFs established into a recombination-based versatile cloning system that facilitates the transfer of viral ORFs from the collection into different expression vectors suitable for proteomic analyses (such as yeast two-hybrid, mass spectrometry, GFP-tagging, fusion protein...).

Clones containing viral ORFs can be requested from ORFeotheque (orfeotheque@inserm.fr), an academic non-for-profit repository dedicated to the distribution of this virus ORF collection (charges applied when ordering plasmids are only a contribution we ask for the maintenance of the collection and the shipping of the plasmids).

INSERM and Institut Pasteur groups are also engaged in the large scale mapping of viral-host protein interactions (Infection MAPping project: I-MAP project).

Please cite: ViralORFeome: an integrated database to generate a versatile collection of viral ORFs. Nucleic Acids Res., 2010 Jan;38(Database issue):D371-8. Epub 2009 Dec 8.

NEW FEATURE: SCIENTIFIC APPS

Scientific Apps for use with iPhone/iTouch/iPads are now starting to appear. In this issue and future issues I will list those (mostly the free ones) that might be worth downloading. Please send me any that you have found useful. **I would appreciate feedback on the App developed for this meeting (created by Blue Pane Studios,** http://www.bluepanestudio.com/**) as we hope it will be a continuing feature of the yearly ISICR/ICS meeting.**

BioLegend - BioLegend has an App with the mouse and human CD charts. Very handy for those who can't remember what a specific CD stands for. They have also just released one on cytokines & chemokines.

ImmGen – the Immunology Genome Project has an app with the relative mouse gene expression data for a number of different leukocyte subsets

BioGene and Gene Index – 2 different Apps for gene information

Genetic Code – includes Codon picker, Codon table, Codon circle, Codon alignment, etc

PubMed Lite – the free version that lists 10 publications for the query, the paid version has no such limits. Of course you can go into Safari and access the NLM PubMed site.

New England Biolabs – Everything you wanted to know about restriction enzymes

Promega- numerous molecular biology tools

EMD – the Periodic Table of the Elements

CYTOKINES IN THE NEWS

GENENTECH LICENSES ANTIBODY FROM SWISS COMPANY

San Francisco Business Times - by Ron Leuty

Genentech Inc. is licensing a human monoclonal antibody for autoimmune diseases. Financial terms and other aspects of the deal between the South San Francisco-based unit of Swiss drug maker Roche and NovImmune of Switzerland were not disclosed. Genentech will get access to an anti-IL-17 fully humanized monoclonal antibody and backup antibodies, the companies said. The antibody is in late-stage development by NovImmune researchers, the company said.

IL-17, or Interleukin 17, is a protein molecule secreted by immune system cells that appears to promote inflammation by advancing the production of more cytokines. That pathway could be used to treat diseases like rheumatoid arthritis, multiple sclerosis and asthma.

"We are hopeful that (the antibody) has the potential to benefit patients across a range of autoimmune diseases," James Sabry, vice president of Genentech partnering, said in a news release.

INTERFERON ALPHA-2B:
Injectable to Topical

.

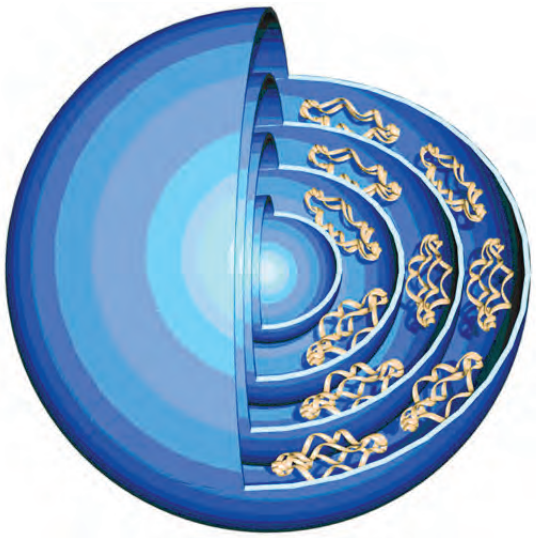


Figure 1. Biphasix mulitlamellar microvesicle. (Source: Helix BioPharma Corp.)

John Docherty, MSc, Chief Operating Officer, Helix BioPharma Corp., Aurora, ON, Canada
Drug Discovery & Development - May 01, 2010

Interferon alpha-2b is an anti-viral drug originally approved as an injection in the mid-1980s (Intron A, Schering Corporation). It is currently approved for indications including melanoma, hepatitis C, and ano-genital warts (AGW)—a condition caused by human papilloma virus (HPV). Interferon alpha-2b injection can lead to serious systemic neuropsychiatric, autoimmune, ischemic, and infectious side effects. Fear of adverse events or the injection itself can negatively impact patient compliance and, in the case of AGW, intralesional injection into sensitive genital tissues is rarely prescribed.

Helix BioPharma Corp. has applied its Biphasix topical drug delivery technology to simplify administration, thus reducing side effects and accessing new dermatological indications for interferon alpha-2b. Biphasix is a proprietary technology developed by Helix that enables the topical administration of large hydrophilic or lipophilic molecules that would normally have to be injected. Interferon alpha-2b is encapsulated in multilamellar vesicles, which are then incorporated into a cream matrix (Figure 1). The matrix is theorized to help increase skin solubility and allow the drug payload to permeate the outer layer of the skin. Topical administration of interferon alpha-2b aims to target diseased epidermal tissues locally, thereby limiting systemic exposure and increasing patient compliance.

Helix has focused on certain HPV-induced conditions as the initial indications for topical Interferon alpha-2b. HPV is a common sexually-transmitted infection that affects approximately 20 million Americans, with 6 million more infected each year.1 Two of the most common clinical manifestations of HPV infection are cervical dysplasia and AGW. Women with abnormal cervical cells must be closely monitored as the condition can progress to cervical cancer. Surgical intervention is required if the condition does not regress because there are no pharmacological interventions to treat cervical dysplasia. AGW can be treated with intralesional injections of Intron A or via topical administration of imiqumod. Unfortunately, both options have administration and tolerability issues.

Topical Interferon alpha-2b is currently in Phase 2 trials for both cervical dysplasia and AGW. A Phase 2 trial was completed in patients with cervical dysplasia and a Phase 2 trial for AGW has achieved last-patient-out status. In the completed cervical dysplasia trial, about 47% of the women treated with Topical Interferon Alpha-2b had their Pap smears revert back to normal after 12 weeks, compared to 16% of control patients.2

Topical Interferon alpha-2b could be the first pharmacological treatment for HPV related cervical dysplasia and a more tolerable alternative to currently available agents for the treatment of AGW. Topical Interferon alpha-2b may have applications for treating other dermatological diseases including forms of skin cancer. Biphasix is a unique enabling technology capable of reformulating other old injectable drugs for new topical purposes.

References

1. Centers for Disease Control and Prevention. Genital HPV Infection – CDC Fact Sheet. Sexually Transmitted Diseases. Accessed on May 17, 2010. Available at http://www.cdc.gov/STD/HPV/STDFact-HPV.htm.

2. Helix BioPharma Corp. Topical Interferon Alpha-2b." Annual Report: 2008 Annual Report. Accessed on May 17, 2010. Available from http://www.helixbiopharma.com/Portals/0/investors/AnnualReport/English/HelixAR2008_SedarFile_Final.pdf.

This article was published in Drug Discovery & Development magazine: Vol. 13, No. 4, May 2010, p. 22.

New Test for Food Allergies

Source: http://www.labnews.co.uk/laboratory_article.php/5602/2/new-test-for-food-allergies-

An allergic reaction to milk, peanuts, eggs and soy can be life-threatening, but current allergy tests can be unreliable so a chemical engineer from MIT has developed a test to screen individual immune cells for allergic responses. The test involves screening for cytokines – small proteins produced by T cells when an allergic response is initiated. Blood must be drawn from the patient, and white blood cells – including T cells – are isolated from the sample. The cells are exposed to potential allergens and placed into 100,000 individual wells arranged in a lattice on a soft rubber surface. Using a technique called microengraving, researchers make prints of the cytokines produced by each cell on the surface of a glass slide. The amount of cytokine produced by each individual cell can be measured precisely. The cytokines of most interest are IL4, IL5 and IL9. Christopher Love – who developed the test – hopes it could allow doctors to diagnose food allergies with a simple blood test which is faster and more reliable than current tests. "With a large number of diagnoses, it ambiguous," he says, "A lot of times it's almost circumstantial whether you're allergic to one thing or another."

Current testing involves placing potential allergens under the skin of a patient's arm; if they have antibodies specific to that allergen, immune cells in that area will release histamines causing itching and redness. However, these tests can be unreliable – the patient may not be allergic to the particular allergen even if there is an immune response.

Food allergies occur when the body's immune system mistakes a protein in food for something harmful and triggers immune responses – such as rashes, hives, difficulty breathing or gastrointestinal distress. Some allergies can provoke life-threatening anaphylactic shock.

Love is now working with Dale Umetsu, professor of paediatric immunology at Children's Hospital Boston on a project to pinpoint the relationship between cytokine activity and allergic reactions by tracking the response of cells of children with milk allergies as they undergo desensitising treatment.

ImmunoCellular Therapeutics Announces Licensing Agreement with Targepeutics for Worldwide Intellectual Property Rights to Validated Immunotherapy Target

Wednesday June 22, 2010 9:34 am ET, LOS ANGELES, CA -- (BUSINESS WIRE) –

ImmunoCellular Therapeutics, Ltd. (OTC.BB: IMUC) , a clinical-stage biotechnology company focused on developing new immune-based products to treat cancer, today announced it has entered into an exclusive licensing agreement with Targepeutics, Inc. for ImmunoCellular's acquisition of Targepeutics' worldwide intellectual property rights surrounding the **IL-13 receptor, alpha 2 (IL13Ra2)**. The agreement includes Targepeutics' rights under an issued U.S. patent and under certain other issued or pending patents and applications.

IL-13Ra2 is abundantly expressed in a number of malignancies, including cancers of brain, ovary and prostate, and is a target of ICT-107, ImmunoCellular's lead active immunotherapy candidate for the treatment of glioblastoma multiforme, the most prevalent and aggressive form of brain cancer.

"This licensing agreement further enhances our intellectual property estate of more than 40 patents and patent applications relating to active immunotherapy and monoclonal antibodies," said Manish Singh, Ph.D., president and CEO of ImmunoCellular Therapeutics. "IL-13Ra2 is one of the clinically validated targets for ICT-107, which we look forward to further investigating in a multicenter Phase II study in glioblastoma planned for later this year. Acquisition of these licensed rights is a major step for us in establishing our rights to commercialize this product candidate."

Sil Lutkewitte, President of Targepeutics, shares Dr. Singh's enthusiasm. "We have been working towards targeting the IL-13Ra2 receptor in the clinic for some time and this validation based on phase I data seen so far has given us hope for advances in brain cancer treatment that have not been seen in the past."

About ImmunoCellular Therapeutics

IMUC is a Los Angeles-based clinical-stage company that is developing immune-based therapies for the treatment of brain and other cancers. The Company recently completed a Phase I trial of its lead product candidate, ICT-107, a dendritic cell-based vaccine targeting multiple tumor associated antigens for glioblastoma. The Company is planning to initiate a multicenter phase II study in the second half of 2010. The Company's "off the shelf" therapeutic vaccine product candidate (ICT-121) targeting cancer stem cells for multiple cancer indications is targeted by IMUC to enter clinical trials for glioblastoma during the second half of 2010. IMUC has entered into a research and license option deal with the Roche Group for one of the Company's monoclonal antibody product candidates for the diagnosis and treatment of ovarian cancer and multiple myeloma, which provides for potential licensing and milestone payments of $32MM and royalties if the Roche Group exercises its option and commercializes this antibody technology for multiple indications. IMUC is in pre-clinical development of another monoclonal antibody product candidate for the treatment of small cell lung cancer and pancreatic cancer, and is also evaluating its platform technology for monoclonal antibody discovery to target cancer stem cells. To learn more about IMUC, please visit www.imuc.com.

About Targepeutics, Inc.

Targepeutics is a biopharmaceutical company that is actively developing numerous targeted molecular therapies for a variety of diseases. Targepeutics is based in Hershey, PA and is privately held. For more information, please contact: Sil Lutkewitte, President, at slutkewitte@targepeutics.com.

Forward-Looking Statements

This press release contains certain forward-looking statements that are subject to a number of risks and uncertainties, including without limitation, the risks associated with the potential inability to obtain licenses from third parties that may be needed to commercialize ICT-107 in many major commercial territories; the potential inability to secure a partner for ICT-107; the risk that future trials of ICT-107, if any, do not confirm the safety and efficacy data generated in the Phase I trial; the need to satisfy performance milestones to maintain the vaccine technology licenses with Cedars-Sinai; the risks associated with obtaining a patent that provides commercially significant protection for ICT-107; and the need for substantial additional capital to fund development of product candidates beyond their initial clinical or pre-clinical stages and to continue IMUC's operations. Additional risks and uncertainties are described in IMUC's most recently filed SEC documents, such as its most recent annual report on Form 10-K, all quarterly reports on Form 10-Q and any current reports on Form 8-K. IMUC undertakes no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

Contact Information:
ImmunoCellular Therapeutics, Ltd.
CEOcast, Inc.
Gary Nash
Investor Relations
Tel: (212) 732-4300
Email: Gnash@ceocast.com
Source: ImmunoCellular Therapeutics, Ltd.

Idera Pharmaceuticals Announces Issuance of New Patents for Its Toll-like Receptor-Targeted Compounds

CAMBRIDGE, Mass., Jul 08, 2010 -- (BUSINESS WIRE) --

Idera Pharmaceuticals, Inc. /quotes/comstock/15*!idra/quotes/nls/idra (IDRA 3.48, +0.06, +1.75%) today announced the issuance of patents covering compositions and methods of using its synthetic immune modulatory oligonucleotides targeted to Toll-like receptors (TLRs). The Company's intellectual property portfolio currently contains over 500 patents and patent applications worldwide and includes claims for TLR-targeted compounds, second-generation antisense chemistry, and oral delivery of certain oligonucleotides.

"We are pleased to have had five new U.S. patents issued that expand the protection of our novel TLR-targeted compounds and their use in generating an immune response," commented Steve Ritter, Ph.D., J.D., Vice President of Intellectual Property and Contracts. "The claims of these recently issued patents are the result of our expertise in making novel chemical modifications to oligonucleotide-based compounds that lead to specific changes in the immune modulatory activity of such compounds."

The recently issued U.S. patents for immune modulatory oligonucleotides include:

-- US 7,749,975, entitled "Modulation of Immunostimulatory Properties of Oligonucleotide-Based Compounds by Optimal Presentation of 5'-ends."
-- US 7,632,833, entitled "Modulation of Immunostimulatory Properties of Oligonucleotide-Based Compounds by Utilizing Modified Immunostimulatory Dinucleotides."
-- US 7,700,570, entitled "Oligonucleotide Mediated Specific Cytokine Induction and Prophylaxis and Treatment of Viral Infection in a Mammal."
-- US 7,709,617, entitled "Synergistic Stimulation of the Immune System Using Immunostimulatory Oligonucleotides and/or Immunomer Compounds in Conjunction with Cytokines and/or Chemotherapeutic Agents or Radiation Therapy."
-- US 7,713,535, entitled "Modulation of Immunostimulatory Properties by Small Oligonucleotide-Based Compounds."

In addition to the patents for immune modulatory oligonucleotides, the following U.S. patent for antisense oligonucleotides also was recently issued:

-- US 7,671,035, entitled "Epidermal Growth Factor Receptor Antisense Oligonucleotides."

In addition to the recently issued U.S. patents, the Company was granted: AU 2004241093, corresponding to U.S. Patent No. 7,569,554, entitled "Synergistic Treatment of Cancer Using Immunomers in Conjunction with Therapeutic Agents;" AU 2005222909, corresponding to U.S. Patent Application No. 11/078,654, entitled "Enhanced Activity of HIV Vaccine Using a Second Generation Immunomodulatory Oligonucleotide;" JP 4443810, corresponding to U.S. Patent No. 6,815,429, entitled "Modulation of Oligonucleotide CpG-Mediated Immune Stimulation by Positional Modification of Nucleosides;" and MK 903127, corresponding to U.S. Patent Application No. 11/153,054, entitled "Immunostimulatory Oligonucleotide Multimers."

About Immune Modulatory Oligonucleotide (IMO(R)) Technology Patent Portfolio

This portfolio holds over 290 patents and patent applications worldwide owned by Idera covering Idera's IMO technologies and includes claims covering novel agonists of TLRs 7, 8, and 9, and antagonists of TLR7 and TLR9. These patents and patent applications include claims covering IMO-2055, IMO-2125, IMO-2134, and IMO-3100.

About Antisense Technology Patent Portfolio

This portfolio includes over 220 patents and patent applications worldwide owned or licensed by Idera covering novel antisense compounds and methods of their use. These patents and patent applications include claims covering second-generation antisense chemistry, oral delivery of second-generation antisense compounds, and certain genes, antisense sequences, and therapeutic targets (including various TLRs and signaling molecules).

As of June 2010, the Company has been recognized nine times in the past three years by the Patent Board(TM) as one of the top 35 companies in the biotechnology field based on its technology and intellectual property advances. The Patent Board(TM) is an independent group that tracks and analyzes intellectual property and technology assets across 17 industries globally and publishes its results in the Wall Street Journal.

Please visit http://www.iderapharma.com/science/intellectual_property.php for more information about Idera's intellectual property portfolio.

THE VILCEK FOUNDATION

VILCEK FOUNDATION NAMES RECIPIENTS OF 2010 ANNUAL PRIZES CELEBRATING IMMIGRANT ACHIEVEMENT IN BIOMEDICAL SCIENCE AND ARTS

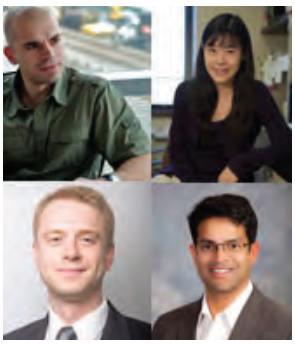
Biomedical Pioneer Alexander Varshavsky and
Culinary Innovator José Andrés Honored for Lifetime Achievement;
Harmit Malik and Varin Keokitvon Recognized for Demonstrating Creative Promise


Alexander Varshavsky


José Andrés


Harmit Singh Malik


Varin Keokitvon


Clockwise: Iannis Aifantis; Jin Zhang; Vamsi Mootha; Rustem Ismagilov


Clockwise: Yoshinori Ishii; Boris Portnoy; Nandini Mukherjee; Michael Cheng

The Vilcek Foundation is pleased to announce the 2010 winners of its annual prizes for biomedical science and the arts. The Vilcek Prize for Biomedical Science is awarded to prominent Russian-born biochemist Dr. Alexander Varshavsky, whose research has elucidated the process of protein degradation, presenting the potential for cancer treatments with reduced side effects; he is currently the Howard and Glen Laurie Smits Professor of Cell Biology at the California Institute of Technology. The Vilcek Prize for the Arts, this year bestowed in the field of culinary arts, is awarded to celebrated Spanish-born chef and culinary pioneer José Andrés, credited with bringing Spanish culture to the forefront of American cuisine while pushing the boundaries of food as both a sensory experience and vital component of well-being. The prizes consist of $50,000 and a unique award sculpture created by noted designer Stefan Sagmeister to reflect the winners' personal journeys as immigrants.

The Vilcek Prizes epitomize the mission of the Vilcek Foundation, which was formed by Jan and Marica Vilcek to honor the contributions of foreign-born individuals in the United States. "Immigration is central to the spirit of our country and has played a major role in securing America's leadership position in the world," said Dr. Jan T. Vilcek, President of the Foundation. "Our prizewinners are excellent examples of how immigrants continue to fuel innovation and enrich our society."

The accomplishments of Dr. Varshavsky and Chef Andrés reverberate beyond national and cultural boundaries. Dr. Varshavsky's research on the ubiquitin system led to the discovery of "the Achilles heel of cancer cells" – deletions of DNA segments that are specific to cancer cells. This abnormality holds the potential for selective treatments that target only cancerous cells. Dr. Varshavsky's groundbreaking work has wider implications for research on the causes of birth defects, neurodegenerative syndromes, and immune disorders as well. Dr. Varshavsky's prize will be presented by Nobel Laureate Dr. David Baltimore, whose co-discovery, with Howard Temin, of the reverse transcriptase created the essential framework for understanding the nature of viruses such as HIV.

Deemed a "food philosopher" by NPR and dubbed "Mr. Spain" by the culinary vanguard, Chef Andrés's emphasis on the link between culture and cuisine reflects the Vilcek Foundation's values of enriching American society through the infusion of immigrant culture and talent. Chef Andrés is the founder of ThinkFoodGroup, which operates groundbreaking restaurants such as Jaleo and minibar by josé andrés in Washington D.C., and The Bazaar in Los Angeles. As the Host and Producer of Made in Spain, the PBS food and travel series, Chef Andrés brought the various regions of his beloved homeland to American culture. Chef Andrés has also championed the role of chefs in the national discussion on hunger and nutrition issues. Dana Cowin, Editor-in-Chief of Food & Wine magazine, will present his award.

The prizewinners were selected by panels of experts after months of research and deliberation. The biomedical jury includes noted scientists from prestigious institutions such as the New York University School of Medicine, the Massachusetts Institute of Technology, and the Memorial Sloan-Kettering Cancer Center, and former Vilcek Prize winners such as Joan Massagué, Rudolf Jaenisch and Inder Verma. The culinary arts jury is comprised of prominent culinary experts including Ruth Reichl, former Editor-in-Chief of Gourmet magazine; Dan Barber, Executive Chef and co-owner of Blue Hill and Blue Hill at Stone Barns; and Susan Ungaro, President of the James Beard Foundation.

The Foundation also recognizes the accomplishments of younger immigrants who have achieved notable success with the Vilcek Prizes for Creative Promise. Dr. Harmit Malik, originally from India and currently an Associate Member at the Seattle-based Fred Hutchinson Cancer Research Center, will receive the Vilcek Prize for Creative Promise in Biomedical Science for his research on the co-evolution of humans and diseases. The Vilcek Prize for Creative Promise in the Arts is awarded to Laos-born pastry-chef Varin Keokitvon; a Chef Instructor for the Seattle-based FareStart, he trains homeless and struggling individuals for careers in the culinary arts. In addition, four finalists from each category will be honored. Dr. Malik and Chef Keokitvon will each receive a cash award of $25,000.

In addition to the two Creative Promise Prize winners, the Foundation is also pleased to recognize the work of four finalists in each category. The finalists for Biomedical Science are Dr. Iannis Aifantis, Dr. Rustem Ismagilov, Dr. Vamsi Mootha, and Dr. Jin Zhang. The finalists for the Culinary Arts are Michael Cheng, Yoshinori Ishii, Nandini Mukherjee, and Boris Portnoy. Together, these finalists represent a wide range of talents and achievements: they have pushed academic boundaries, established their own laboratories and restaurants, and introduced innovative new ways of thinking about cuisine and research. The finalists will each receive a cash award of $5,000.

The Foundation's fifth annual awards presentation dinner was held at the Mandarin Oriental in New York City on Wednesday, April 7, 2010.

9 WAYS **CHOCOLATE** BOOSTS HEALTH

By Sylvia Booth Hubbard

The Aztecs believed chocolate was stolen from paradise by their god Quetzalcoatl, and cocoa was used as a medicine in both Aztec and Mayan cultures for hundreds of years.

Modern man, however, has considered chocolate a tasty indulgence and often regarded it as a "guilty pleasure." That view is changing as scientists discover the ancient cultures were right all along. They've found that chocolate is packed with flavonoids that have powerful antioxidant effects. Dark chocolate, according to the Chocolate Manufacturers Association, contains eight times the polyphenol antioxidants found in strawberries.

Recent studies have shown that chocolate provides many health benefits — as long as you don't overindulge. Check out what chocolate can do for you:

- Reduce the risk of heart attack and stroke. A recent study found that small doses of chocolate every day — about one square of a bar of chocolate — could decrease the risk of heart attack and stroke by 39 percent. Another study found that people who ate the equivalent of a small chocolate bar each week reduced their risk of dying following a stroke by 46 percent. Heart attack survivors who eat chocolate two or three times a week slashed their risk of dying from heart disease threefold. Studies suggest that chocolate has a low dose aspirin-like effect that could help prevent both heart attacks and strokes.
- Boost brain function. British researchers found that a specially formulated cocoa with high flavanols increases blood flow to the brain, perhaps boosting brain function and delaying age-related decline.
- Treat cirrhosis of the liver. Dark chocolate kept dangerous abdominal pressure, which can lead to the rupture of blood vessels, at bay in patients with liver cirrhosis. In the future, chocolate could actually be prescribed for people with liver cirrhosis, say Spanish researchers.
- Keep wrinkles at bay. Dark chocolate can help protect skin from wrinkle-causing UV damage, and may even lower the risk of skin cancer, according to researchers at European Dermatology London.
- Fight stress. A clinical trial published in American Chemical Society's Journal of Proteome Research found that eating an ounce and a half of dark chocolate daily for two weeks reduced the levels of stress hormones in people who felt highly stressed.
- Enhance mood. Chocolate contains a chemical called phenylethylamine (PEA) — the "happy"chemical that enhances mood. Chocolate also contains serotonin, a neurotransmitter that acts as an antidepressant.
- Extend life. A Harvard study found that people who ate chocolate at least three times a month lived more than a year longer than those who ate junk food.
- Fight cavities. New research shows that theobromine, a compound found in chocolate, may be as effective as fluoride at hardening tooth enamel.
- Suppress coughs. Researchers at Imperial College London, found that theobromine is almost one-third more effective at stopping coughs than codeine, which is currently considered the best medicine to suppress coughs.

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 ISICR Slide Repository. Members can now go in and post slides that they have developed or download slides that others have provided to the membership. 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.

Recently added – two sets of slides appropriate for courses: **Cytokines 101**, courtesy of Dr. Beverly E. Barton, Department of Surgery/Division of Urology UMDNJ-NJMS and **Macrophages and Innate Immunity**, courtesy of Dr. Siamon Gordon, Oxford Univ.

ISICR Members in the News

Christine Czarniecki received the NIH Director's Award on July 15, 2010. The award was made as a group award in recognition of "The NIAID response to the H1N1 Influenza Pandemic". The citation for the group award is: "For leading a coordinated response to the H1N1 influenza pandemic"

George Stark has been selected to give the 2011 ASBMB Tabor Lecture at the ASBMB Annual Meeting

Bob Silverman is an invited speaker in the Twelfth Annual Norman P. Salzman Memorial Symposium in Virology on Friday November 5, 2010 at the NIH Bethesda, MD campus

Giorgio Trinchieri is receiving the "Lifetime Honorary Membership Award" from the International Cytokine Society.

INTERFERON AROUND THE WORLD

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

1. interferoon
2. интерферон
3. 干擾素
4. interferoni
5. אינטרפרון
6. ÈÓÙÂÚÊÂÚfiÓË
7. インターフェロン
8. สารโปรตีนชนิดหนึ่งจากเซลล์
9. interfferon
10. l'interféron
11. interferó
12. مضاد للفيروسات
13. 인터페론
14. entèrferon
15. interferone
16. इंटरफेरॉन

NIH INTRAMURAL RESEARCH PROGRAM IS RECRUITING"EARL STADTMAN INVESTIGATORS"

The National Institutes of Health, the nation's premier agency for biomedical and behavioral research, is pleased to announce a new call for top-tier tenure-track candidates to become "NIH Earl Stadtman Investigators." We have multiple positions to offer.

We are looking for creative and independent thinkers eager to take on high-risk, high-impact research. Regardless of your expertise — in the field or in the lab (wet or dry), within a discipline well established or on the frontiers of science — please consider the NIH for your career development. Areas of active recruitment include sensory biology and the neurosciences, symptoms research, systems biology, stem cells, infectious diseases and bioinformatics.

Who we are: Among our approximately 1,200 principal investigators and 4,000 trainees actively engaged in research are world-renowned experts in immunology, cancer, rare diseases, genetics, translational research, imaging, vaccine development, health disparities, systems biology, sensory biology, structural biology, computational biology, neurosciences, and development, to name but a few scientific areas. Our strength is our diversity in pursuit of a common goal, to alleviate human suffering.

The intramural program includes the NIH Clinical Center, the world's largest hospital entirely devoted to biomedical research, as well as the National Library of Medicine and PubMed, the Vaccine Research Center, and the International Centers for Excellence in Research working in the field in sub-Sahara Africa, South America and Asia. We constitute the world's largest training facility for the biomedical and behavioral sciences. Our researchers include numerous members of the National Academy of Sciences and the Institute of Medicine, Searle Scholars, winners of the Lasker Award, Nobel Prize, the National Medal of Science and the Presidential Early Career Awards, and recipients of many other high honors. Among us are the editors of top journals, the writers of some of the most highly cited papers in the biomedical sciences, and generators of licenses and patents yielding nearly $100 million in annual royalties. We are on the cutting edge of new discoveries and their application to the clinic. We perform work in labs, in clinics, out in the field, and on nearly every continent; and every day we advance the state of science to improve the quality of life.

What we seek: To maintain our position at the cutting edge, we seek the continued infusion of a diverse and creative staff. The Earl Stadtman Investigator recruitment is an opportunity to explore the limits of your productivity and your independence from preconceived research objectives. Please share with us your ideas for a novel research program and career aspirations and how they contribute to the NIH mission.

Qualifications/eligibility: Candidates must have an M.D., Ph.D., D.D.S./D.M.D., D.V.M, D.O., R.N./Ph.D., or equivalent doctoral degree and have an outstanding record of research accomplishments as evidenced by publications in major peer-reviewed journals. Preference will be given to applicants who are in the early stages of their research careers; only non-tenured applicants will be considered. Candidates in any area of biomedical, translational and behavioral research are invited to apply. Appointees may be U.S. citizens, resident aliens or non-resident aliens with, or eligible to obtain, a valid employment-authorization visa.

Salary: Successful candidates are offered competitive salaries commensurate with experience and qualifications, and they are assigned ample research space, supported positions and an operating budget. Our scientists focus entirely on their research with ample opportunities to mentor and train outstanding fellows at all levels.

How to apply: Complete applications must be received by October 1, 2010. Interested applicants must submit a curriculum vitae, a three-page research plan, a one-page description of their vision for their future research and its potential impact, and contact information for three professional references through our online application system at http://tenuretrack.nih.gov/apply. Letters of recommendation will be requested automatically when you submit your application. No paper applications will be accepted.

What to expect: Search committees of subject-matter experts will review and evaluate applicants based on the following criteria: publication record, potential scientific impact of current and proposed research, scientific vision, demonstrated independence, and awards. The committees will identify the most highly qualified candidates to invite to the NIH for a lecture open to the NIH scientific staff in December 2010 and for interviews with the search committees. Top candidates then will be nominated as finalists for Earl Stadtman tenure-track positions.

The Scientific Directors, who lead our 23 intramural programs, and the search committee chairs will work together to identify the finalists to be recruited as Earl Stadtman Investigators. Candidates not selected as Stadtman finalists can be considered for other open NIH research positions. The entire process from application review to job offer may take several months, depending on the volume of applications.

The inspiring story of Earl and Thressa Stadtman's research is at http://history.nih.gov/exhibits/stadtman. More information about the NIH Intramural Research Program is at http://intramural.nih.gov/search and http://sourcebook.od.nih.gov/sci-prgms/sci-prgms-toc.htm. Specific questions regarding this recruitment effort may be directed to Dr. Roland Owens, Assistant Director, NIH Office of Intramural Research at owensrol@mail.nih.gov.

The NIH Intramural Research Program, with its extensive infrastructure and critical mass of expertise well established, has a crucial role in both maintaining America's research excellence and advancing treatments and cures. Come join the team whose hallmarks are stable funding, intellectual freedom, shared resources and broad expertise.

DHHS and NIH are Equal Opportunity Employers.

Desserts & You

If all of the eight desserts listed below were sitting in front of you, which would you choose (sorry, you can only pick one)! Trust me...this is very accurate. Pick your dessert, and then look to see what psychiatrists think about you on the followng page.

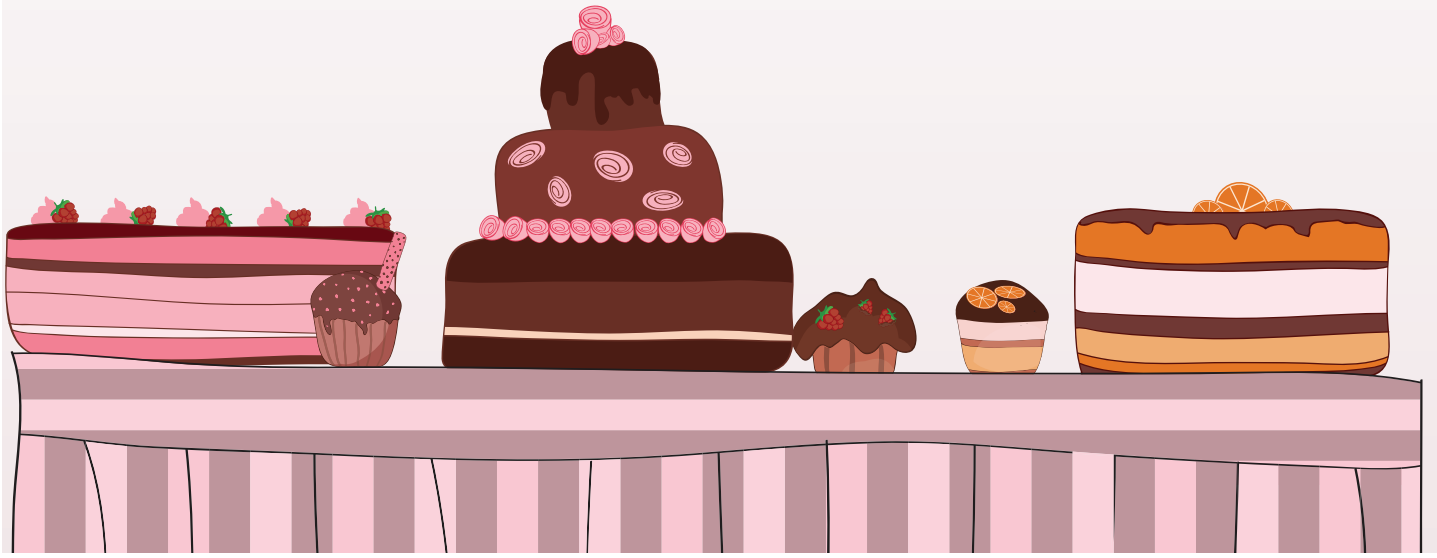
REMEMBER - No Cheating. Make your choice before you check the meaning.

Here are your choices:

1. Angel Food Cake
2. Brownies
3. Lemon Meringue Pie
4. Vanilla Cake With Chocolate Icing
5. Strawberry Short Cake
6. Chocolate Cake With Chocolate Icing
7. Ice Cream
8. Carrot Cake

No, you can't change your mind once you turn the page, so think carefully about what your choice will be.

OK - Now that you've made your choice, this is what the researchers say about you...GO TO THE NEXT PAGE - No Cheating!



Desserts & You *Continued*

1. Angel Food Cake
Sweet, loving, cuddly. You love all warm and fuzzy items. A little nutty at times. Sometimes you need an ice cream cone at the end of the day. Others perceive you as being childlike and immature at times.

2. Brownies
You are adventurous, love new ideas, and are a champion of underdogs and a slayer of dragons. When tempers flare up you whip out your saber. You are always the oddball with a unique sense of humor and direction. You tend to be very loyal.

3. Lemon Meringue Pie
Smooth, sexy, & articulate with your hands, you are an excellent caregiver and a good teacher. But don't try to walk and chew gum at the same time. A bit of a diva at times, you set your own style because you do your own thing. You shine when it comes to helping others and have many friends.

4. Vanilla Cake With Chocolate Icing
Fun-loving, sassy, humorous, not very grounded in life; very indecisive and lacking motivation. Everyone enjoys being around you, but you are a practical joker. Others should be cautious in making you mad. However, you are a friend for life.

5. Strawberry Short Cake
Romantic, warm, loving. You care about other people, can be counted on in a pinch and expect the same in return. Intuitively keen. You can be very emotional at times but a true person in every way. You like to do things for yourself and help others learn about themselves.

6. Chocolate Cake With Chocolate Icing
Sexy; always ready to give and receive. Very creative, adventurous, ambitious, and passionate. You can appear to have a cold exterior but are warm on the inside. Not afraid to take chances. Will not settle for anything average in life. Love to laugh...

7. Ice Cream
You like sports, whether it be baseball, football, basketball, or soccer. If you could, you would like to participate, but you enjoy watching sports. You don't like to give up the remote control. You tend to be self-centered and high maintenance.

8. Carrot Cake
You are a very fun loving person, who likes to laugh. You are fun to be with. People like to hang out with you. You are a very warm hearted person and a little quirky at times. You have many loyal friends. You were meant to lead and teach others. A wonderful role model.

INTERFERON AROUND THE WORLD **ANSWERS**

Answers to "Can you guess the language?" from page 28

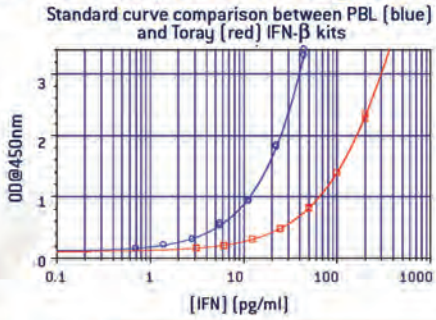
1. Estonian
2. Russian or Bulgarian
3. Chinese (Traditional)
4. Finish
5. Hebrew
6. Greek
7. Japanese
8. Thai
9. Welsh
10. French
11. Catalan
12. Arabic
13. Korean
14. Haitian Creole
15. Italian
16. Hindi

pbl interferon source

There are few things more sensitive than our kit. One of them is the housefly.

The VeriKine-HS™ Human Interferon-Beta Serum ELISA kit from PBL InterferonSource

While true, this kit is great too!



The *VeriKine-HS™* Human IFN-β Serum ELISA kit sets new standards for sensitivity and reliability in the measurement of Human Interferon-Beta (IFN-β) levels in different sample matrices, such as serum, plasma, and cell culture supernatants. Additionally, this kit:

- Detects as little as 1.5 pg/ml (0.5 IU/ml)
- Maintains <8% inter- and intra-assay CV
- Exhibits a high signal-to-noise ratio
- Does not react with heterophilic antibodies, clotting factors, or serum proteins minimizing false positive results.

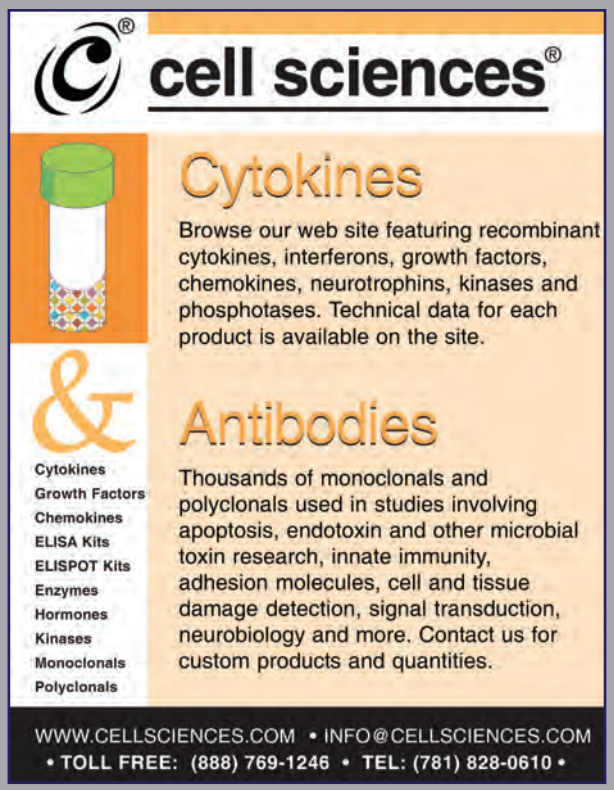
This increased sensitivity allows the detection and quantification of basal human IFN-β enabling greater insight into the early immune response.

See what the buzz is all about.
Call now +1.732.777.9123 or visit us at Beta.InterferonSource.com for more information

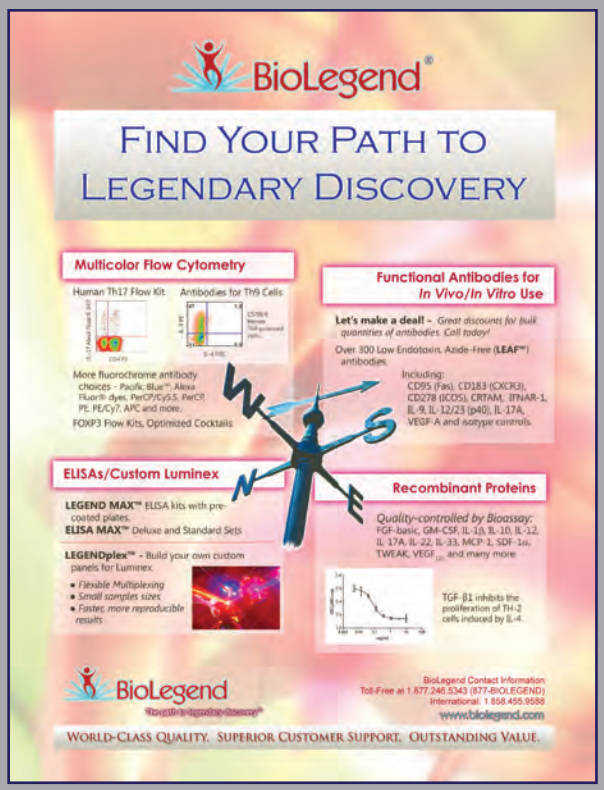
The house fly can sense rotting flesh from two miles away!

ISICR

Silver Sponsors



CELL SCIENCES
www.CellSciences.com



BIOLEGEND
www.Biolegend.com

The ISICR and ICS thank the following Meeting Sponsors for their support of our 2010 meeting

Platinum
Biogen Idec

GOLD
PBL-Interferon Source
Bristol-Myers Squibb

Silver
BD Biosciences
Merck Serona
Quansys Biosciences
Randox
R&D
Thermo Fisher
Xoma

Bronze
BioLegend
Diaclone (Division of Gen Probe)
Invitrogen
Mary Ann Liebert Publications
Meso Scale
Peprotech
Siloam Biosciences
Stem Cell Technologies
ZymoGenetics

Other
Amgen
Genentech
Jan Vilcek

National Cancer Institute
NIH

Sponsor
Abbott Laboratories
Cell Signaling
eBioscience
Humanzyme
Millipore
Miltenyi Biotec
Nanotech
Neogen
Orf Genetics
RayBiotech
Rules Based Medicine
Symansis

Special thanks to **Hannah Nguyen** for her many years as Associate Editor for the ISICR newsletter. We welcome any ISICR members who would like to help with the newsletter and we do need help!!! Please contact Howard Young at younghow@mail.nih.gov

Chicago Trivia **Facts**

http://chicago-trivia.blogspot.com/2007/09/interesting-facts.html

Chicago: Its not a political hub like Washington D.C., not a financial capital like New York, doesn't have the glitz of Hollywood & is proudly not close to the sin-city Las Vegas ... However it's a city of superlatives – highest, largest, biggest, busiest, hungriest & first !!! This modest city has a lot to boast about .....

- Chicago is the number-five spot on TripAdvisor's 2010 Travelers' Choice list of the Top 10 Food & Wine Destinations in the World
- It is the birthplace of "Deep-Dish" pizza
- Hosts world's largest free outdoor food festival "The Taste of Chicago"
- It is also the birthplace of fast food giant - McDonalds, chewing gum giant -Wrigley's & also cell phone giant Motorola
- Chicago stages world's biggest free blues, jazz and gospel festivals
- It has world's busiest airport - O'Hare
- America's most trafficked highway - Dan Ryan Expressway [I-90/I-94]
- Chicago is the birthplace of skyscrapers ...
- It has North America's tallest building "Sears Tower", [110 floors] and from its Sky-deck at 103rd floor; you can see all the way to neighboring states of Michigan, Indiana and Wisconsin … 40 to 50 miles ...
- America's highest indoor swimming pool is on the 44th floor of the "John Hancock Center"[100 floors]
- It is home to the largest building in the United States (excluding the Pentagon): the "Merchandise Mart" spread over 90 acres of floor space ...
- Highest steeple in the world – United Methodist Church
- "Buckingham Fountain" in Grant Park; is one of the world's largest fountains.
- "The Millennium Park "has one of worlds' largest sculptures the "Cloud Gate": 66 feet long and 33 feet wide.
- World's largest public library is located here … the "Harold Washington Library Center" … houses about 2 million books
- The "Art Institute", has the largest collection of French Impressionist paintings outside of Paris, France
- "Chicago Cultural Center" has the largest Tiffney stained glass dome in the world
- "Shedd Aquarium" is the largest indoor aquarium in the world, home to beluga whales, eels, penguins & leaping dolphins
- Next door to the aquarium is the "Adler Planetarium & Astronomy Museum"; which is the first ever planetarium built in the Western Hemisphere.
- Close to the acquarium is the "Field Museum"; with 9 acres of exhibition space. In 1997 it purchased "Sue", the world's largest and most complete Tyrannosaurus-Rex [T-Rex] skeleton ...
- Lincoln Park Zoo, just north of downtown, is the world's largest admission-free zoological garden
- Chicago made a $110-million investment to move an eight-lane freeway to create a "Museum Campus" connecting three world-class museums – [1] the Field Museum of Natural History, [2] the Adler Planetarium, and [3] the John G.Shedd Aquarium and Oceanarium.
- Chicago also has the only river in the world that flow backwards. Engineers reversed the Chicago River in 1900 for sanitary purposes.
- Al Capone ... The street gangster ... made Chicago his home ...
- Hometown of Oprah Winfrey – the best talk-show hostess & also Jerry Springer – host of the worst talk show on TV
- Hometown of Hollywood biggies – Harrison Ford, John Cusack, Charlie Kaufmann, Jim Beluchi , Bill Murray …
- Chicago based firm – " R.S. Owens and Company" makes The Oscar statues and thousands of awards and for everything from sports and corporate awards to music like the Emmys & the MTV awards,
- Movies filmed in Chicago … I-Robot, Chicago, Untouchables, My Best Friend's Wedding, The Negotiator, The Fugitive, What Woman Want, American Beauty, Chain Reaction, When Harry met Sally, Sixteen Candles, Ocean's 11 & 12; Home Alone- I, II & III; Barbershop, Ferris Bueller's Day off, Bad Boys, A league of their own ...
- Another interesting fact - Chicago also has the largest Polish population outside of Warsaw, Poland!

Restaurants????

Head to the **Magnificent Mile** or neighborhoods like Lincoln Park and Lakeview for the most upscale restaurants. For a more eclectic meal, try Rogers Park in the North Side (for a wide array of Indian restaurants) or the West Loop (Greek cuisine). South Side is home to Chinatown, where Chinese restaurants and stores dominate. Pilsen, another South Side neighborhood, is where Mexican cuisine reigns supreme. If you have room left over, try an authentic Chicago hot dog (don't forget the pickles, tomatoes, peppers and onions) at **Hot Doug's Inc.**, west of Wrigleyville.

- There's a rational price-geography correlation in Chicago: the closer you eat to downtown, the more you pay. But venture into the residential neighborhoods and you not only dine well but reasonably." -- Fodor's

- Head to Bucktown or Wicker Park for intimate cafés, Andersonville for heartland Scandinavian food, or Devon Street for a surplus of authentic Indian restaurants. And don't leave the city without chowing down on a supremely meaty hot dog from the Wiener's Circle." --Concierge.com
- If one-of-a-kind meals and splashy settings aren't your style, Chicago is still a meat-and-potatoes kind of town. Comfort food remains a staple of many local restaurant menus, from the beyond-tender ribs at Carson's to the Southern catfish at Wishbone." -- Frommer's
- While Chicago-style deep dish pizza might be worth experiencing once to say you've tried it, if you want to get more of sense of what most Chicagoans are ordering on Friday nights go somewhere you can try Chicago's take on the thin crust pizza. Our thin crust also has a regional flair of its own, and tends to have a thinner, crispier crust than its New York counterpart." --About.com

(Above is from the US News and World Report Travel site.)

Rick Bayless, chef of Frontera Grill and Topolobampo, won the "top chef" competition and his restaurants have won top international and US awards (including a number of James Beard awards) for best Mexican food. Food author Patricia Wells named Frontera Grill the third best casual restaurant in the world.

9TH JOINT MEETING OF ICS-ISICR CYTOKINES AND INTERFERONS: FROM THE BENCH TO THE BEDSIDE FLORENCE, ITALY

October 9-12, 2011, Firenze Fiera
CHAIRMAN: Santo Landolfo (Turin, Italy)

LOCAL ORGANIZING COMMITTEE:

Filippo Belardelli (Rome, Italy)
Ferdinando Dianzani (Rome, Italy)
Santo Landolfo (Turin, Italy)
Enrico Maggi (Florence, Italy)

SCIENTIFIC PROGRAM COMMITTE:

Chair: **Alberto Mantovani** (Milan, Italy)
Santo Landolfo (Turin, Italy)
Nancy Reich (New York, USA)
Nancy Ruddle (Yale, U.S.A.)
John Schrader (Vancouver, Canada)
Michael Tovey (Inserm, France)
Giorgio Trinchieri (Frederick, USA)
David Wallach (Rehovot, Israel)
Kathryn C. Zoon (Bethesda, USA)

We are pleased to invite you to the 9th Joint Meeting of the International Cytokine Society (ICS) and the International Society for Interferon and Cytokine Research (ISICR).

The overall theme for this Conference is "Cytokines and Interferons: from the bench to the bedside". We are excited about the prospect of hosting up to 1000 international and local participants at this Joint Meeting in Florence. An outstanding international schedule consisting of Plenary Sessions, Symposia, Workshops, and Poster Sessions has been arranged to bring together leading research workers in cytokine biology, cancer, immunology, virology and infectious diseases in a forum that emphasizes the intersection of these expanding fields. The topics at this conference will cover a full spectrum from basic science to clinical, biotechnological and pharmaceutical research. Research in this area of immunology has been directly responsible for the development of growth factors and their application in hematology, for new treatments in oncology, for a new generation of anti-inflammatory drugs, and for treatments for multiple sclerosis, hepatitis and viral syndromes. Leading scientists have already agreed to participate in this conference. The International Advisory Committee is committed to focusing on biomedical advancements and their application in the areas of inflammation, infectious diseases, oncology, neurology and immunology. The programme emphasis is on integrating the major themes of the Conference, and to provide molecular insights into the development of innovative therapies for human disease. Scientific themes range from new cytokines and new technologies, to the roles of cytokines in tumor immunology, cell cycle control, inflammation, host defense, and angiogenesis. The clinical impact of cytokines in cancer, inflammatory diseases, viral syndromes and the use of cytokines as therapeutics will also be a major focus of the meeting. Fundamental research topics will include signal transduction, apoptosis, gene regulation, and cytokine structure-function. Scientists in academic institutions, biotechnology, and pharmaceutical industries will be represented as plenary speakers. Senior scientists, young investigators, physician-scientists, post-doctoral fellows, and students will all benefit from the perspectives that are brought together at this unique international conference. We would like to invite you to participate and we look forward to seeing you in Florence!

International Society for Interferon & Cytokine Research

INTERNATIONAL SOCIETY FOR INTERFERON AND CYTOKINE RESEARCH
9650 Rockville Pike, Bethesda, Maryland 20814-3998 USA
Telephone: (301) 634-7250 • Fax: (301) 634-7099
WEBSITE: http://www.isicr.org • EMAIL: ISICR@faseb.org

2011 MEMBERSHIP APPLICATION: New Renewal

Name _____ _____ _____
First Middle Last

Department _____

Organization _____

Address _____

_____ _____ _____ _____
City State/Province Zip Country

Note: Street address and zip+4 now required by Postal Service for delivery (US Only)

Telephone _____ Fax _____

E-Mail address:_____

PLEASE RETURN THIS APPLICATION WITH YOUR REMITTANCE

U.S. Currency ONLY (checks to be drawn on a U.S. Bank)

Make checks payable to: ISICR or International Society for Interferon and Cytokine Research

For Credit Card payments, see below.

ISICR Federal Tax ID #: 59-2471233

Dues payments entitle a member to receive the annual Directory of Members, Newsletters, annual meeting program, and all meeting announcements.

MEMBERSHIP DUES	ONE-YEAR	TWO-YEAR	THREE YEAR	FIVE YEAR
Regular Member (2011)	$50.00	$90.00	$120.00	$200.00
Emeritus Member (2011)	$20.00	$35.00	$45.00	N/A
Student and/or Postdoctoral Fellow Member (2011)	N/A	N/A	$30.00	

(Students/post-docs please complete box on lower portion of form)

Life Member (Must be over 55) $500.00

JOURNAL OF INTERFERON AND CYTOKINE RESEARCH

2011 Member Rates	$313.00 (USA Print)	$313.00 (Foreign Print)
	$375.00 (USA Print & Online)	$375.00 (Foreign Print & Online)
	$313.00 (USA Online Only)	$313.00 (Foreign Online Only)

TOTAL PAYMENT $_____

Online questions, contact the Publisher (Mary Ann Liebert) directly at (914) 740-2100.
To assure proper crediting of dues and processing of Journals, please remit dues promptly.

CREDIT CARD INFORMATION (PLEASE TYPE OR PRINT LEGIBLY)

American Express VISA Master Card Discover

Card Number_____ Name on Card_____

Expiration Date_____AuthorizedSignature_____

NOTE: Credit Card Charges will be processed by the Federation of American Society for Experimental Biology.

STUDENT/FELLOW MEMBERSHIP (PLEASE TYPE OR PRINT LEGIBLY)

I certify that _____is a candidate for an advanced degree or a post-doctoral fellow in a field related to Interferon and Cytokine Research

Institution_____Department_____

_____

(Signature of applicant's major research advisor)

Courtesy of Nick D. Kim http://www.lab-initio.com/index.html
Reproduced with permission

REMEMBER TO **JOIN** THE ISICR OR **RENEW** YOUR **ISICR MEMBERSHIP** FOR 2011 OR BEYOND (3 AND 5 YEAR MEMBERSHIPS ARE AVAILABLE)

Signals

ISICR

International Society for Interferon & Cytokine Research

9650 Rockville Pike
Bethesda, MD 20814-3998
USA