

Chicago Signal Transduction Symposium 2001



May 24, 2001, Northwestern University
Chicago Campus, Thorne Hall, Lake Shore Drive & Chicago Ave

SYMPOSIUM ORGANIZING COMMITTEE

Mary Hunzicker-Dunn, Northwestern University, Chairperson
Nava Segev, University of Illinois @ Chicago, Co-Chairperson
Richard Longnecker, Northwestern University, Fund Raising Coordinator

Andy Andres, Northwestern University
Neil Clipstone, Northwestern University
Linda Hicke, Northwestern University
Marlene Hosey, Northwestern University
Jack Lee, Loyola University Medical Center
Anning Lin, University of Chicago
Daniel Linzer, Northwestern University
Jon Lomasney, Northwestern University
Azrar Malik, University of Illinois @ Chicago
Jeff Nye, Northwestern University
Paula Stern, Northwestern University
Mark Rasenick, University of Illinois @ Chicago
Marsha Rosner, University of Chicago
Andrew Schenker, Northwestern University
Wei-Jen Tang, University of Illinois @ Chicago
Tatyana Voyno-Yasenetskaya, University of Illinois @ Chicago
Richard Ye, University of Illinois @ Chicago

ORGANIZATIONAL SUPPORT: The organizing committee gratefully thanks Andrena Logan and Laurie Daniels of the Dept of Molecular Pharmacology & Biological Chemistry, Northwestern University and Gigi Abogado, Northwestern University Institute for Neuroscience, for superb managerial assistance. Finally, we thank members of our laboratories for their assistance with organizational matters.

SPECIAL THANKS to Mark Marjaval, Antibes, France, for contributing the drawing for this year's poster.

T-SHIRTS are for sale in the lobby; proceeds benefit the symposium fund!

LUNCH AND POSTERS: PLEASE NOTE!! Lunches will be distributed in the Main Lounge of Lake Shore Center, 850 N. Lake Shore Drive. Seven tables have been reserved for the Student and Postdoc "Lunch with the Speakers". Additional seating is available in the Law School Lobby (adjacent to the auditorium). The Poster Session will be held in the Law School Atrium.

THIS SYMPOSIUM WAS MADE POSSIBLE IN PART BY SUPPORT FROM:

The University of Chicago Committee on Cancer Biology

The University of Chicago, NRSA Grant for Training in Molecular & Cellular Biology

Northwestern University, Training in Drug Discovery Research

Northwestern University Office of the Vice President for Research

Northwestern University, NRSA Grant for Training in Cellular & Molecular Basis of Disease

Northwestern University, Training Program in Signal Transduction and Cancer

Northwestern University Robert H. Lurie Cancer Center

Northwestern University Feinberg Cardiovascular Research Institute

Northwestern University Center for Endocrinology, Metabolism and Molecular Medicine

Northwestern University Institute for Neuroscience

Northwestern University Center for Reproductive Sciences

Northwestern University, Medical Toxicology Training Program

Northwestern University, Medical Scientist Training Program

Northwestern University, Avon Products Foundation Breast Cancer Care and Research
Program at the Robert H. Lurie Cancer Center

Northwestern University, Multidisciplinary Visual Sciences Training Program

Northwestern University, Post Graduate Program in Cutaneous Biology

Northwestern University, Department of Molecular Pharmacology & Biological Chemistry

University of Illinois at Chicago, Training in Signal Transduction and Cellular Endocrinology

University of Illinois at Chicago, Department of Pharmacology

University of Illinois at Chicago, Department of Molecular Genetics

University of Illinois at Chicago, Department of Biological Sciences

BD Biosciences Cytometry/PharMingen/Transduction Labs

Biorad

Calbiochem-Novabiochem

Corning-Costar

Fisher Scientific and BioWhitaker

Perkin Elmer Life Sciences

Promega Corporation

TAP Holdings

We gratefully acknowledge these sponsors and thank them for their continued support of this symposium.

The 15th annual Chicago Signal Transduction Symposium will be held on Thursday, May 23, 2002! Watch for information on our web site: <http://www.pharm.nwu.edu/signal/info.html>

PROGRAM

**8:00 AM REGISTRATION & COFFEE (Thorne Hall)
POSTER SET-UP (Law School Lobby)**

9:00 AM Introductory Remarks

Session Chair: Daniel Linzer

9:05 AM Judah Folkman, Discovery and Characterization of Endostatin

9:40 AM Donald Ingber, Cellular Mechanotransduction

**10:15 AM Peter Devreotes, How Do Eukaryotic Cells Sense
Chemoattractants?**

10:50 AM Coffee Break

Session Chair: Nava Segev

11:20 AM Philip Beachy, Hedgehog Signaling in Development and Disease

11:55 AM Dafna Bar-Sagi, Ras Signaling and Growth Control

12:30 PM LUNCH (Lake Shore Center)

1:30 PM Poster Session (Law School Lobby)

Session Chair: Mark Rasenick

**3:00 PM Nahum Sonenberg, Translation Initiation Factors: Targets of the
PI3K/
AKT/FRAP Signaling Pathway**

3:35 PM Charles Rubin, Targeting of Intracellular Signals Carried by cAMP

4:05 PM Joseph Takahashi, Circadian Clock Genes

4:30 PM CLOSING REMARKS

Poster Session 2001

Number	Authors	Title of Abstract	Institution
1	P. Nuzzi, Yimin Fang, Montserrat Vilella-Bach, Jie Chen	Regulation of FRAP (FKBP12-Rapamycin Associated Protein) by Phosphorylation	University Illinois at Urbana-Champaign
2	P. Zhoa, A.M. albsoul-Younes, P.M. Sternweis, H. Nakata, S. Nakajimal, Y. Nakajima, T. Kozasa	Interaction Sites of Gbeta with Brain GIRK	University of Illinois Chicago, Dept Anatomy & Cell Biology & University of Texas Southwestern Med Cntr, Dept of Pharmacology
3	A.M.S. Mayer, S.P. Gunasekera, S.A. Pomponi, S.H. Sennett	Inhibition of LPS-Primed Rat Barin Microglia Superoxide and Thromboxane B2 Generation by the marine Manzamines	Midwestern University, Dept Pharmacology & Harbor Branch Oceanographic Institution
4	M.T. Wilson, K.L. Reid, B.K. Burnett, A.L. Claxon, J.K. Stevenson	Western Array Analysis of Protein Expression in Apoptotic Fibroblasts	BD Transduction Laboratories & BD Biosciences
5	W. Tang, C. Drum, A. Bohm, S. Yan, Z. Grabarek	A Novel Mechanism for Calmodulin to Modulate its Target Enzyme, Adenylyl Cyclase from Bacillus Anthrax	Ben-May Institute For Cancer Research & University of Chicago & Boston Biomedical Research Institute
6	D. Freymann, S. Padmanabhan	The GMPPNP complex of an SRP GTPase: Implications of an 'Inactive' Binding Mode	Northwestern University Medical School, Dept of Molecular Pharmacology & Biological Chemistry
7	E. Bar, A. Ellicott, D.E. Stone,	Association Between Rhol and G-beta-gamma Links the Mating Response and the Cell Integrity Pathways	University of Illinois at Chicago
8	J. Allen, J. Choi, T. Diemer, J. Cale, I.M. Bird, D.B. Hales	Nitric Oxide (NO) and Reactive Oxygen Species (ROS) Mediate Inflammation -Association Inhibition of Leydig Cell Steroidogenesis	University of Illinois Chicago, Dept of Physiology & Meriter Hospital Dept of OB/GYN
9	T. Lertsburapa, S. Nahas, G.H., DeVries	Axonal Contact as a Determinant of Schwann cell Secretion of Anti-Angiogenic Factors.	Hines VA Hospital & Loyola University Medical Center
10	R. Vaiskunaite, T. Kozasa, T. Voyno-Yasenetskaya	The role of Hsp90 in Galpha12 signaling	University of Illinois at Chicago
11	N.C. Shenoy, G.J. Gleich, L.L. Thomas	Eosinophil Granule Major Basic Protein (MBP) Stimulates Neutrophil Superoxide (O ₂) Production by A P13Kinase-Dependent Mechanism	Rush University, Dept of Microbiology
12	T. Hornberger	Signal Transduction and the Regulation of Stretch Induced Protein Synthesis in C2C12 Myotubes	University of Illinois at Chicago
13	P.A. Lucchesi, J. Fan, K.L. Byron	PYK2 Tyrosine Kinase Activation and Phosphorylation of K ⁺ Channels in the Stimulation of Ca ²⁺ spiking by Vasopressin in A7r5 Vascular Smooth Muscle Cell	University of Alabama at Birmingham & Loyola University Chicago

14	L.I. Brueggemann, L.L. Cribbs, K.L. Byron	The role of T-type calcium channels in vasopressin- stimulated calcium spiking in A7r5 vascular smooth muscle cells	Loyola University Medical Center, Dept of Medicine/Cardiovascular
15	I. Pesce, J.I. Sznajder	Isoproterenol phosphorylates the p70s6k in alveolar epithelial cells: Possible role in translational regulation of the Na,K-ATPase	Northwestern University, Pulmonary and Critical Care Dept of Medicine
16	R. Stevens-Truss, M.A. Marletta, K. Bronlow	Calmodulin Binds Differently to Neuronal & Inducible Nitric Oxide Synthase: Role of Calcium in the Interactions	Kalamazoo College & University of Michigan
17	L.E. Wadland, W. Loescher	Seasonal Fluctuations of Carbohydrate Metabolizing Enzyme Activities throughout Tart Cherry Fruit Development	Kalamazoo College, Dept of Biology & Michigan State University, Dept of Horticulture
18	L.P. Carter, L.R. McMahon, C.P. France	Evaluation of Zolpidem (Ambien) as a Selective Benzodiazepine Agonist in a Primate Model	Kalamazoo College, Dept of Biology & University of Texas Health Science Center, Dept of Pharmacology
19	S. Syed, C. Ershain, J. Soares, , M. Masana, M. Dubocovich	Role of MT1 Melatonin Receptor in Reproduction	Kalamazoo College, Dept of Biology & Northwestern University Medical School, Dept of MPBC
20	S. Mandrekar, K. Leach	Characterization of SEQ-9, an Orphan G Protein-Coupled Receptor Corporation	Kalamazoo College, Dept of Biology & Pharmacia
21	K. Meisel, W. Backes	A Study of Cytochrome P450's Level Method of Response to the Common Environmental Compound Ethylbenzene	Kalamazoo College, Dept of Biology & Louisiana State University Health Science Center
22	J. Jackson, M.R.I. Young	Protein Phosphatase-2A Regulates Tumor Cell Adherence, Motility and the Phosphotyrosine Content of Paxillin	Loyola University Medical Center & Hines VA Hospital
23	S.Z. Yan, J. A. Beeler, Y. Chen, R.K. Shelton, W.J. Tang	The Regulation of Type 7 Adenylyl Cyclase by its Clb Region and E. Coli Peptidyl Isomerase, SlyD	University of Illinois Chicago
24	J.S. Popova, A. Greene, J. Wang, M.M. Rasenick	Interaction of tubulin with phosphatidylinositol 4,5-bisphosphate modifies the cytoskeleton and PLCbeta signaling	University of Illinois College of Medicine, Dept of Physiology and Biophysics, Dept of Psychiatry
25	G. Soff	Angiostatin-Induced Apoptosis	Northwestern University Medical School
26	J.Z. Yu, M. Rasenick	Real-time visualization of a fluorescent Galphas: dissociation of activated G protein from the plasma membrane	University of Illinois at Chicago College of Medicine
27	T. Sarma, M.M. Rasenick	Differentiation of PC12 pheochromocytoma cells promotes colocalization of tubulin and G proteins	University of Illinois at Chicago College of Medicine

28	R. Donati, C.S. Thukral, and M.M Rasenick	Chronic Antidepressant Treatment Alters the Cellular Localization of Gs-Alpha	University of Illinois , Dept of Physiology and Biophysics & Dept of Psychiatry
29	J.M. Radeff, Z. Nagy, P.H. Stern	Role of Small G Proteins in Parathyroid Hormone Signaling in UMR-106 Osteoblasts	Northwestern University Medical School, Dept of MPBC
30	T. Orenic, J. Fetting, C. Kwon	Patterning of Drosopila leg sensory organs through integration of the Hedgehog, Decapentaplegic and Wingless signaling pathways	University of Illinois at Chicago
31	F.E. Utama, D.R. Echlin, M.J.. Dorsey, E.J Taparowsky	Isolation and Characterization of OS-9 as a Novel Myc-interacting Protein	Purdue University
32	M. Digman, H. Melowic, W. Cho	Regulatory Domain of novel PKCs with conventional PKCs: Origin of Differential Activation	University of Illinois at Chicago
33	S. Kulkarni, W. Cho	In Vitro and In vitro Characterization of N-Terminal C2 Like Domain of Human 5-Lipoxygenase	University of Illinois at Chicago
34	R. Bhattacharyya, P.H. Stern	Differential Regulation of Cell Proliferation and Differentiation by MAP Kinase in Neonatal Mouse Calvaria Stimulated by LNCaP Prostrate Cancer Cells of Conditioned Media	Northwestern University Medical School, Dept of MPBC
36	R. Allada, K. Keegan, B. Stewart, M. Emery-Le, M. Rosbash	Molecular Genetics of Circadian Clocks	Northwestern University
37	B. Hendey, s. Greenstein, C. Zhu	Protein kinase C delta mediates Fas induced reduction of neutrophil adhesion to endothelial cells	Rush University Chicago, Dept of Pharmacology
38	J.M. Lee, R. Mariyappa, K. Williams, N.A. Muma	Levels of Gq protein and RGS4 are lower in parietal but not frontal cortex Alzheimeris disease	Loyola University Chicago Medical Center
39	M. Kharas, P.E. Funk, J. Malachinski, D. Robison	Definition of Death Signaling Regions Avian chB6 Alloantigen	in the DePaul University, Dept of Biology
40.	S. Das, W. Cho	Differential Roles of the Ionic Hydrophobic and the Phosphorylated Residues in the Interfacial Catalysis of the Cytosolic Phospholipase A2	University of Illinois at Chicago
41	A.L. Bayer, A.G. Ferguson, A.M. Samarel	PYK2 Expresion and Phosphorylation in Neonatal and Adult Cardiomyocytes	Loyola University Chicago

42	I. Gal, T.T. Glant, K. Mikecz	Cell attachment to immobilized CD44-substrata and consequential adhesion signaling	Medical Center at Rush University
43	J.A. Kalina, M.C. Heidkamp, D.M. Eble A.M. Samarel	Overexpression of GFP-FRNK Fusion Protein Inhibits Endothelin-Induced FAK Phosphorylation in Neonatal Rat Ventricular Myocytes	The Cardiovascular Institute, Loyola University Medical Center
44	B.C. Barnhart, A.H. Stegh, , J^rg Volkland, A. Algeciras-Schmich, M.E. Peter	Sequestration of caspase-8 active subunits to mitochondria of bcl-xL expressing MCF7-Fas cells	University of Chicago
45	L. Dada, N. Chandel, J. Sznajder	Short term hypoxia-mediated inhibition of alveolar Na,K - ATPase is associated with its endocytosis	Northwestern Universtiy, Dept of Pulmonary and Critical Care
46	T. Hartman, H. Mansour, D. Motlagh,. S Boateng, T. Desai, B. Russell	Mechano-signal transduction in cardiac cells using a new microtextured culture system	University of Illinois at Chicago, Dept of Physiology
47	R. Prasad, N. Selvaraj, J. Venkatasubramanian, M.C. Rao	Taurodeoxycholate Signaling in Colonic Epithelia	University of Illinois at Chicago, Dept of Physiology & Biophysics
48	G. Liu, P. Kopp, J. Monroe, A. Shenker	Comparative Function of Glycoprotein Hormone Receptors Containing an Activating Aspartate to Histidine Substitution in Transmembrane Helix 6	Northwestern University Med Sch, Dept of Pediatrics & Children's Memorial Institute for Education and Research , Chicago IL, NU Med Sch/Center for Endocrinology, Metabolism, and Molecular Medicine
49	B. Ananthanarayanan, W. Cho	Different PLC-delta isoforms----different c2 domains	University of Illinois at Chicago
50	P.S. Riggins, N.A. Clipstone	T Cell Activation Signals Upregulate CBP-Dependent Transcriptional Activity	Northwestern University
51	D.L. Porras, T.C. Tai, S. Russell, T. Waypa, S. Herrera, R.A. Graves	Molecular Analysis of a Tissue-Specific Enhancer from the Brown Adipocyte-Specific UCP1 Gene	University of Chicago
52	J.M. Soares, C. Ersahin, M.I. Masana, M.L. Dubocovich	Characterization of Melatonin Receptors in Rat Ovarian Tissue	Northwestern University, Dept of MPBC - Drug Discovery Program
54	A. Algeciras-Schmich, L. Shen, B.C. Barnhart, A.E. Murmann, J.K. Burkhardt M.E. Peter	Molecular ordering of the initial signaling events of CD95	Ben May Institute of Cancer Research & University of Chicago, Dept of Medicine & Dept of Pathology
55	EJ Dell, E Stebbins, J Connor, NP Skiba, D Mochly-Rosen, HE Hamm	The interaction of two wd40 repeat proteins: the beta/gamma subunit of heterotrimeric G proteins and the receptor for activated C kinase (RACK1)	Northwestern University Medical School, Dept of MPBC, and Stanford Univ, Dept of Molec Pharm