

THE FOLLOWING GENEALOGIES WERE PREPARED BY
THE ORGANIZATIONS LISTED BELOW AND DISPLAYED
FOR ALUMNI VIEWING DURING THE NIH FIRST
ALUMNI REUNION, APRIL 19-20, 1975:

NATIONAL CANCER INSTITUTE (NCI)

NATIONAL HEART AND LUNG INSTITUTE (NHLI)

NATIONAL INSTITUTE OF DENTAL RESEARCH (NIDR)

NATIONAL INSTITUTE OF ARTHRITIS, METABOLISM AND DIGESTIVE DISEASES (NIAMDD)

NATIONAL INSTITUTE OF NEUROLOGICAL AND COMMUNICATIVE DISORDERS AND STROKE (NINCDS)

NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES (NIAID)

NATIONAL INSTITUTE OF CHILD HEALTH AND HUMAN DEVELOPMENT (NICHD)

NATIONAL INSTITUTE ON AGING (NIA)

NATIONAL EYE INSTITUTE (NEI)

DIVISION OF COMPUTER RESEARCH AND TECHNOLOGY (DCRT)

CLINICAL CENTER (CC)

BUREAU OF BIOLOGICS (BOB)

NATIONAL INSTITUTE OF MENTAL HEALTH (NIMH)

NCI

NATIONAL CANCER INSTITUTE

MEDICINE BRANCH 1954-Present

The Medicine Branch conducts clinical studies in evaluating new and established anticancer drugs. Laboratory research includes physiologic disposition, metabolism and excretion of antitumor agents; cellular kinetics of animal and human tumors; effects of chemotherapeutic agents on the normal host bone marrow; interaction of steroid hormones with mammalian cells; and identification of tumor-associated markers in breast cancer patients.

Current Staff			
Oliver Alabaster	Daniel C. Ithde	Larry Norton	James A. Strauchen
Frederick R. Appelbaum	James N. Ingie	Charles K. Osborn	Barry L. Strauss
Richard A. Bender	Henry O. Kaplan	Marlin W. Oster	Douglass C. Torney
Albert M. Bernath, Jr.	Lary J. Kilion	Philip A. Pizzo	Robert D. Warren
Joan M. Bull	Geraldine S. Konior	James O. Reynolds, Jr.	Paul V. Woolley
Paul A. Bunn	Max E. Lipgman	Richard A. Robinson	Robert C. Young
Steven E. Come	William P. McGuire	Augustin J. Schwartz	
Susan Hubbard	Robert L. Nelson	Ronald G. Stotler	

RADIATION ONCOLOGY BRANCH 1954-Present

The Radiation Oncology Branch conducts comprehensive studies of human cancer. For each of the forms of cancer under investigation, efforts are made to improve methods of diagnosis, evaluate patients already diagnosed, define the natural history of the disease, develop new therapeutic approaches, and rehabilitate patients (when necessary) from the consequences of their disease and/or therapy.

Current Staff	
Harmar D. Branton	Jules R. Lodish
Dwight W. Glenn	John M. Marshall, Jr.
Frank A. Greco	Thomas C. Pomeroy
Ralph E. Johnson*	Ursula Ruhl
John D. Lambert	Harvey Zimber

Present Affiliation ALUMNI

Richard Ames-- Tom Anderson-- James C. Ansseau-- Charles M. Bagley--Seattle Paul B. Bataillon-- Nathaniel I. Berlin--Northwestern U. Cancer Ctr., Chicago Jerome B. Block--Harbor Gen. Hosp., Los Angeles Gerald P. Bodley--M. D. Anderson Hosp. & Tumor Inst., Houston Dane R. Boggs--U. of Pittsburgh Sch. of Med. David A. Bray-- James H. Bredner-- Clyde O. Brodeur--VA Ctr., Johnson City, Tennessee Clarence Brown-- Robert S. Brown-- Leonard N. Brubaker--U. of Missouri Med. Ctr., Columbia John H. Bryan-- Dean Buckner-- George P. Canellis--NCI Paul P. Carbone--NCI Richard L. Casella--U. of Missouri Med. Ctr., Columbia Thomas P. Clancy-- Martin J. Cline--U. of California, S.F. Med. Ctr. Marlin H. Cohen--VA Hosp., Washington, D.C. Philip Cohen-- Richard Cooper--U. of Pennsylvania Hosp., Philadelphia Vincent T. DeVita, Jr.--NCI Maurice A. Dutt-- Charles F. Duvell-- Harmon J. Eyring--U. of Utah Med. Ctr., Salt Lake City John L. Fahry--U.C.L.A. Sch. of Med., Los Angeles Howard J. Falter-- Leroy Foss--Long Beach Arnold Faller-- Leonard Fanning-- Michael Field-- William N. Fishbein-- Gary P. Fisher-- Arnold L. Flick-- Emil Frei, III--Sidney Farber Cancer Ctr., Boston	Emil J. Fraireich--M.D. Anderson Hosp. & Tumor Inst., Houston Richard D. Fritz-- S. Futunawa-- Robert E. Gallager--NCI Robert C. Gallo--NCI Leonard Garren-- Lawrence A. Gaydos-- John H. Gilchrist-- Herman A. Godwin, Jr.-- G. Leonard Gold--D.C. Gen. Hosp., Washington Im M. Goldstein-- Brian Goodell-- Kenneth L. Graf-- Robert G. Gray, Jr.--NCI Frank G. Gray-- Roger H. Halterman--NCI Charles Haskell--U.C.L.A. Ctr. for the Health Sciences, Los Angeles Edward S. Henderson--Roswell Park Mem. Inst., Buffalo Patrick H. Henry--U. of Missouri Med. Ctr., Columbia Flor de Maria Herrera-- Evan M. Herish--M.D. Anderson Hosp. & Tumor Inst., Houston Geoffrey Herzig--NCI John D. Heywood-- Yezhar Hirsch--Mam. Sloan-Kettering Cancer Ctr., New York James F. Holland--M.I. Sinal Sch. of Med., New York Edgar Hull--Louisiana State U. Sch. of Med., New Orleans Ralph E. Johnson--NCI Robert C. Kane-- Myron Karon--deceased Daniel E. Kaim-- William B. Kramer-- Montague Lane--Baylor U. Col. of Med., Durham John Leszio--Duke U. Sch. of Med., Durham Brigid G. Levantini--NCI Myron J. Levin-- Arthur S. Levine--NCI Alexander A. Levitan-- Allan H. Levy--	Donald Liegler-- David Litten--U. of Arizona Col. of Med., Tucson William J. Logan-- N.P. Lohmann-- Ralph J. Mabry-- John C. Marsh--Yale U. Sch. of Med., New Haven Richard C. Mechanic--Mt. Sinal City Hosp. of Elmhurst, New York Charles E. Mengel--U. of Missouri Med. Ctr., Columbia David P. Miller-- D.K. Mirza-- John Mastley-- Peter S. Mueller-- Paul E. Nelman-- Boyd A. Niss-- James Nordlund-- John D. Northup-- Joost J. Oppenheim-- Leo E. Orr-- Jose Lazaro Pardo-- Richard Patton-- Seymour Perry--NIH George H. Porter, III--Ochsner Clinic & Foundation, New Orleans Harvey Priester-- Aron Primack--VA Hosp., Washington, D.C. Robert A. Ralph-- David H. Riddick-- Peter J. Rosen-- Stephen H. Rosenoff-- Wendell F. Rosse-- Arthur R. Rothman-- George Roush-- Joel Rubenstein-- Robert Rubin-- Seymour M. Sabin-- Kenneth L. Sacks-- Richard Samaha--U. of Missouri Med. Ctr., Columbia Gerald S. Sandier-- Lowell E. Schnipper-- Leslie R. Schoeder--	Alan D. Scribner--U. of Pennsylvania Hosp., Philadelphia Stanley A. Schwartz-- Eugene Van Scott--Temple U., Philadelphia Oleg S. Selawry--Comp. Cancer Ctr. of Greater Miami Stewart Sessoms-- Michael M. Shapiro-- Richard K. Shaw--U. of California at Davis Sch. of Med. Bruce I. Shandler--Georgetown U. Sch. of Med., Washington, D.C. Dean Silber-- Stuart Siegel--Children's Hosp. of Los Angeles Harold R. Silberman--Duke U. Sch. of Med., Durham Richard T. Silver--Cornell Med. Ctr., New York Roland Smeal--Yale U. Sch. of Med., New Haven Richard G. Smith-- Joseph Snyder-- Jerry L. Spivak-- Robert W. Spontz--Albany Med. Ctr. & Hosp., New York James R. Strabens-- Neil H. Staigbiger--Montefiore Hosp. & Med. Ctr., Bronx Jesse Steinfield--VA Hosp., Long Beach Marc J. Strauss--NCI Umberto Tavel-- Jerry S. Trier-- John Tuohy-- Charles L. Vogel--Emory U. Sch. of Med., Atlanta T. Philip Washes--NCI Thomas J. Waldman-- Peter Wasserman-- Donald M. Watkins-- Robert W. Weliger-- John Wenker-- Yvonne Wawarka--Luz A.F. Williams-- Stanley H. Winokur-- Ralph T. Wroth-- Ronald A. Yanase-- Berton Zbarski--NCI John L. Ziegler--NCI Theodore S. Zimmerman--
---	---	---	--

EPIDEMIOLOGY BRANCH 1955-Present

The Epidemiology Branch tests ideas concerning the origins of cancer through epidemiologic studies based on medical knowledge and experience and on an awareness of resources best available at the national or international level. Emphasis is placed on epidemiologic research based on important new information from laboratory investigations at NCI and elsewhere.

Current Staff	
William A. Blattner	Thomas J. Mason
Victor E. Archer	Frank W. McKay
Richard B. Everson	Robert W. Miller*
Joseph F. Fraumeni, Jr.	John J. Mulvihill
Charles M. Carpenter--	Kalra Ohmi
Benjamin E. Carroll--	Thomas W. Pondergrass
John J. Chabalko--Shaker Heights, Ohio	William A. Priester
William T. Chen--Washington, D.C.	Frederick P. Li
Edward T. Creagan--Rochester, Minnesota	
Terry Cruthirds--U. of Tennessee Med. Units, Memphis	
John E. Dunn, Jr.--California Dept. of Pub. Health, Berkeley	
Anna L. Faldstein--Ann Arbor, Michigan	
Alexander O. Gilliam--	
Andrew G. Glass--Health Services Research Ctr., Portland, Oregon	
Quodon W. Grundy--New Haven, Connecticut	
Marion Hight--	
Samuel Ingraham, II--	
Robert D. Jensen--Chico, California	
Andrew J. Kaper, Jr.--	
Raymond F. Kalser--California Dept. of Pub. Health, Berkeley	
Pope A. Lawrence--	

Present Affiliation ALUMNI

Edward Adelstein--U. of Missouri Sch. of Med., Columbia	J. William Lloyd--NIOSH
Victor E. Archer--	Frank E. Lundin, Jr.--Food and Drug Adm.
Reuben Bogdanoff--Bethesda	Richard Malmgren--
Jess Brown--	Miriam D. Manning--
Fred H. Burbenk--	Winifred Mendez--Phoenix, Arizona
Charles M. Carpenter--	Banno K. Milmore--California Dept. of Pub. Health, Berkeley
Benjamin E. Carroll--	Samir Naguib--
John J. Chabalko--Shaker Heights, Ohio	Arthur Olanick--Portland, Oregon
William T. Chen--Washington, D.C.	James A. Palera--NCI
Edward T. Creagan--Rochester, Minnesota	Clayton Phelan--
Terry Cruthirds--U. of Tennessee Med. Units, Memphis	George W. Robinson--Tuskegee Inst., Alabama
John E. Dunn, Jr.--California Dept. of Pub. Health, Berkeley	Michael B. Shimmitt--U. of California, S.D.
Anna L. Faldstein--Ann Arbor, Michigan	Donald A. Smith--
Alexander O. Gilliam--	Charles R. Slack--Reston, Virginia
Andrew G. Glass--Health Services Research Ctr., Portland, Oregon	Gloria Stova--
Quodon W. Grundy--New Haven, Connecticut	Michael S. Teitelbaum--Ford Foundation, New York
Marion Hight--	Richard A. Tjajma--NCI
Samuel Ingraham, II--	Roger Vander Zwag--
Robert D. Jensen--Chico, California	Joseph K. Waggoner--NIOSH
Andrew J. Kaper, Jr.--	Jesse Wagstaff--Food and Drug Adm.
Raymond F. Kalser--California Dept. of Pub. Health, Berkeley	Mary Walton--Phoenix, Arizona
Pope A. Lawrence--	Wladimir Wierzecki--Med. Col. of South Carolina, Charleston

LABORATORY OF CHEMICAL PHARMACOLOGY 1955-Present

The Laboratory of Chemical Pharmacology conducts research on the pharmacological properties of potential and established anticancer agents. This includes the disposition, mechanism of action, mechanism of resistance, structure-activity relationships, toxicity reversal, rational design, and dosage-response relationships, of anticancer drugs and other model compounds in

laboratory animals and man. The knowledge gained from such studies, when considered together with biochemical, toxicologic and cytotoxic data, is directed toward design by the clinician of drug dose-levels and schedules for more effective therapeutic use of agents against human cancers.

Current Staff		
Richard H. Adamson*	Samuel Jacobs	Ronald Stotler
Bruce A. Chabon	David G. Johns	Steven Strum
Richard L. Cysyk	F. John Krollkowski	Peter Sullivan
Robert B. Dasilo	Quana B. Lakings	T. Phillip Waalkes
Susan S. Fabro	Charles C. Myers	Mary K. Wolpert
Paul E. Gormley	Harbert M. Pinedo	Yemon Wong
Kenneth Hande	Jacqueline Plowman	Daniel S. Zaharko

Present Affiliation ALUMNI

James R. Althaus--Midwest Research Inst., Kansas City, Missouri	Larry G. Hart--Nat. Inst. of Environmental Health Sciences	William C. Mohler--Div. of Computer Research & Technology
James I. Ausman--	Michael M. Hart--George Washington U. Sch. of Med., Washington, D.C.	Peter T. Mora--NCI
Morris Balbin--	Shepard L. Hayes--Ft. Miles VA Hospital, San Francisco	Michael B. Mosher--Beverly Hills, California
Richard A. Bender--NCI	Edward S. Henderson--Park Mem. Inst., Buffalo	Margaret Kelley O'Gara--deceased
Warner A. Bleyer--Children's Hosp. & Med. Ctr., Seattle	Elton R. Homan--Environmental Protection Agency	Vincent T. Oliverio--NCI
Jerome B. Block--Harbor Gen. Hosp., Los Angeles	George B. Humphrey--U. of Oklahoma, Oklahoma City	W. Walter Oppelt--deceased
Vincent H. Bono, Jr.--NCI	Ralph E. Johnson--NCI	George H. Porter, III--Ochsner Clinic & Foundation, New Orleans
Howard W. Buckman--Mt. Sinal Hosp., New York	Herbert E. Kano--NCI	David P. Rall--Nat. Inst. of Environmental Health Sciences
George P. Canellis--NCI	Kurt W. Kohn--NCI	Richard Riesbach--
Michael A. Chirigos--NCI	Maurice Landy--	Richard R. Rosenthal--Johns Hopkins U. Col. of Med., Baltimore
Thomas P. Clancy--Stanford Hosp., California	Montague Lane--Baylor U. Col. of Med., Houston	Robert C. Rubin--Albert Einstein Col. of Med., Bronx
Jack D. Davidson--Duke U., Durham	Carl M. Leventhal--Food and Drug Adm.	William R. Shapiro--
C. Norman Coleman--Teaneck, New Jersey	Victor A. Levin--	Murray J. Shear--retired
O. Michael Colvin--Johns Hopkins U., Baltimore	Norman S. Lichtenstein--Massachusetts Gen. Hosp., Boston	Stephen B. Shohet--U. of California Med. Ctr., S.F.
Richard H. Creach--American Oncologic Hosp., Philadelphia	David Liegler--U. of Miami Med. Sch., Florida	Alan L. Snyder--Boulder, Colorado
Jack D. Davidson--Duke U., Durham	Donald G. Liegler--	Robert W. Spontz--Albany Med. Col., New York
Vincent T. DeVita, Jr.--NCI	David L. Litten--U. of Arizona Col. of Med., Tucson	Neal H. Staigbiger--Montefiore Hosp. & Med. Ctr., Bronx
Robert L. Dixon--Nat. Inst. of Environmental Health Sciences	T. Li Loo--M.D. Anderson Hosp. & Tumor Inst., Houston	Wesley M. Vitzke--U. of Connecticut Sch. of Med., Farmington
Michael Emmer--Bethesda	David R. Mahulu--U. of Rochester, Genesee Hosp., Rochester	Michael D. Walker--NCI
Joseph D. Fenstermacher--NCI	John A.R. Mead--NCI	Thomas Winter--Atlanta
Abraham Gold--Med. Col. of Virginia, Richmond	Charles E. Mengel--U. of Missouri, Columbia	Robert F. Zagar--Roseland, New Jersey
I. David Goldman--Med. Col. of Virginia, Richmond		
Anthony M. Guarino--NCI		

*Chief

NATIONAL CANCER INSTITUTE

LABORATORY OF PHYSIOLOGY 1938— Present

The Laboratory of Physiology conducts research on the physiological and biochemical properties of the growing tumor and its impact on the host. The research effort includes differences in nucleic acids and metabolism between normal and tumor cells, molecular and biological effects of radiation, mechanisms of thyroid hormone release and maintenance of iodine levels, and regulation and energy expenditures of metabolic and behavioral responses to tumors.

Current Staff	
Elizabeth P. Anderson	Marco Rabinovitz
Saburo Ayukawa	Janice C. Reid
Nathaniel I. Berlin *	Peter Riezz
Theodore R. Breitman	Jean Rothenham
Andre Håbberli	Walter C. Schneider
Jean-Pierre Herreg	Willie W. Smith
Shiro Komizami	Seymour H. Wollman
Seona D. Morrison	Joseph D. Zelig
Theodore T. Otani	

Present Affiliation ALUMNI
George Andros—North Hollywood, California
Peter Battile—
Harold F. Blum—Princeton U.
Orice D. Cannon
Lawrence R. Draper—
Mortimer M. Elkind—Argonne Natl. Lab., Argonne, Ill.
Henry Harris—
George R. Hoelz—
Herbert Kahler—deceased
Joseph E. Loewenstein—
Charles R. Maxwell—retired
Florence K. Miller—NCI
Beverly Peterkofsky—NCI
Clinton C. Powell—California Dept. of Public Health, Berkeley
Arnold W. Pratt—Division of Computer Research & Tech.
Joseph Shach—retired
Herbert S. Waxman—
Julius White —Montgomery Col., Rockville
Milton Winitz—

LABORATORY OF BIOLOGY 1938— Present

The Laboratory of Biology conducts research on carcinogenesis in the broad biological sense. Projects are primarily in the areas of virology and biochemical genetics. The mammary tumor virus of the mouse and its relation to the host genome receive special emphasis.

Current Staff
Charles K. Ghiesbregt
Walter E. Heston *
Harold A. Hoffman
David O. Longfellow
Gilbert H. Smith
Kenneth V. Speeg
Kurt J. Stromberg
Charles K. Whitcomb III

Present Affiliation ALUMNI	
Howard B. Anderson—retired	Michael Klein—NCI
Glen Aigler—deceased	Lloyd W. Law—NCI
Ettore Appella—NCI	Marica D. Litwack—NCI
Margaret K. Barrett—Registry of Experimental Cancer	Gerald Meckler—U. of Pennsylvania Hosp., Philadelphia
Morris K. Barrett—deceased	Robert A. Manaker—NCI
M. Ben-David—Hebrew U., Jerusalem	K. Robert McIntire—NCI
Howard Bond—Electro-Nucleonics Lab.	Ruth Marwin—NCI
Henry Browning—M.D. Anderson Hosp. and Tumor Inst., Houston, Tex.	Katherine Sanford Millin—NCI
W. Ray Bryan—retired	John Mitchell—New York State U.
Jay Bryani—retired	John B. Moloney—NCI
Peter Bentzen—Netherlands Radiobiological Inst., Amsterdam, Netherlands	Hector Montes de Oca—Argentina
Harold Chalkley—retired	J. Frederick Mushinski—NCI
Richard Cornell—Harvard U., Cambridge	Charles S. Nicoll—U. of California, Berkeley
Albert J. Dalton—NCI	Ram Parshad—Howard U., Washington, D.C.
Esther Daniels—retired	Richmond Pehr—Inst. of Cancer Research, Philadelphia
George Daniels—retired	Michael Polter—NCI
Wilton R. Earle—deceased	Carolyn Quinn—Michigan
Virginia J. Evans—retired	Frank J. Rauscher, Jr.—NCI
Cecil Fox—NCI	Marvin D. Reuber—
Raymond Ganti—NCI	Emma Shilkin—NCI
Dale Granner—U. of Iowa, Iowa City	Marilyn J. Taylor—NCI
Clifford Grobstein—U.C.L.A.	William G. Taylor—NCI
William T. Hall—Electro-Nucleonics Lab.	Robert Tucker—NCI
Arthur Hansen—	Benton Westfall—retired

LABORATORY OF BIOCHEMISTRY 1938— Present

The Laboratory of Biochemistry investigates the molecular mechanisms of cellular regulation and viral replication, macromolecular biochemistry, cellular development and immunology, and the physiology of the cancer process in laboratory systems.

Current Staff			
Ragbir S. Athwal	T. V. Gopalakrishnan	Akio Matsukage	Yoshihiro Sakae
Elizabeth Barbehenn	Sandra L. Handelman	O. Wesley McBride	Katherine K. Santoro
Francesco Biasi	Ryuzichiro Hata	Marilyn B. Meyers	Shobhana Seal
John W. Burch	Joseph Highland	Kathleen P. Mullins	Emma Shelton
Jonathan Crane	Paolo Izzo	Jan M. Oranstein	Maxine F. Singer
Roger D. Dewley	Claude E. Kline	Miles Clyde Oley	Marilyn J. Taylor
Mollie R. Dhwale	Edward L. Kuff	Beverly Peterkofsky	William G. Taylor
Carlotta Evans	Donald J. LeBlanc	Elbert A. Peterson	Edward B. Thompson
Warren H. Evans	Kira Lueders	Julio Pila	Robert W. Tucker
Cecil H. Fox	Linda B. Lyons	Floyd M. Price, Jr.	Tilva Yegor
R. Raymond Gant	Michael G. Mage	Koteswara Rao	Waldemar Welskam
Robert Goldberger *	Dante Mariani	Rani B. Rao	Samuel H. Wilson

Present Affiliation ALUMNI			
S. Akabori—Osaka U., Japan	David L. Edwards—	Eric S. Holdsworth—U. of Tasmania Med. Sch., Hobart	James V. Miller—U. of New Mexico Med. Sch., Albuquerque
Elizabeth P. Anderson—NCI	F. Egami—Mitsubishi-Kasei Inst. of Life Science, Tokyo, Japan	Freesia Liao Huang—NICHHD	Joseph A. Mitchell—U. of California, Berkeley
Ramados M. Azeiteiro	Richard W. Edes—Massachusetts Gen. Hosp., Boston	John Hunter—NICHHD	Vittal B. Mittal—
Oreva Arly—Weizmann Inst. of Science, Rehovot, Israel	Michael Feldman—Weizmann Inst. of Science, Rehovot, Israel	Wesley C. Hymers—Pennsylvania State U., U. Park	Toru Miyagi—Kobe, Japan
Carl O. Baker—Great Falls, Va.	W. Guy Flatau—Mem. Hosp., Cumberland, Md.	Nobuo Itsumiya—Kyushu U., Fukuoka, Japan	Thomas B. Moore—deceased
Edward A. Barker—U. of Washington Sch. of Med., Seattle	Edmond Fischer—U. of Washington, Seattle	Laurence H. Kedes—Peter Bent Brigham Hosp., Boston	Harold P. Morris—Howard U., Washington, D.C.
Edwin A. Barton—Walter Reed Army Inst. of Research, Washington, D.C.	Berta Flizer-Szafar—Institut du Radium, Orsay, France	Garson Kagelas—U. of Connecticut, Storrs	Joseph Nordman—Surgical Clinic of the Salpêtrière, Paris, France
George Winston Bates—Texas A&M U., College Station	William S. Forbes—deceased	William R. Kidwell—NCI	John Roseworthy, Jr.—Highland View Hosp., Cleveland, Ohio
Michael A. Bean—Mem. Sloan-Kettering Cancer Cntr., New York	S.C. Joseph Fu—Col. of Med. and Dentistry of New Jersey, Newark	Ruth K. Kieley—deceased	Einosuke Omura—Takeda Pharmaceutical Co., Osaka-Fu, Japan
R. M. Behl—	K. Fusa—U. of Tokyo, Japan	Richard A. Knazek—NCI	Theodore T. Otani—NCI
Leonard E. Besada—	Thomas O. Garvey, III—Massachusetts Gen. Hosp., Boston	Richard R. Laxer—NICHHD	Richard R. Pasternak—Paris, France
William I. Beecher—Harvard U. Press, Cambridge	Thomas P. Gassner—West Virginia U. Med. Cntr., Morgantown	Charles W. Lees—Tulane U. Med. Sch., Boston	Harvey L. Ozer—Worcester Foundation for Exper. Biology, Shrewsbury, Mass.
L. Benoit—	Karl Gilger—	Stephen A. Lerner—U. of Chicago Med. Sch.	Woon Kai Pak—Temple U. Sch. of Med., Philadelphia
Sanford M. Blumberg—retired	James Gillbert—U. of Wisconsin, Madison	Guy Lelieur—	J. R. Penh—Glasgow Lab., Ltd., Middlesex, England
Thomas J. L. Blanch—U. of Padua, Italy	Michael A. Gimbrone—NCI	Leon Levinson—U. of California Med. Sch., S.F.	Vincent E. Price—NICMS
Leah Blöchl—Frankenthal	Jane M. Gitlin—U. of Pennsylvania Sch. of Dental Med., Philadelphia	Steven R. Lexton—Boston	Pradman K. Qasba—NCI
Osamu Burk—Naval Med. Research Inst., Bethesda	José Goncalves—U. of Sao Paulo, Brazil	Alexander S. Liacouras—NCI	K. Rangonatha Rao—Osmania Med. Col., Hyderabad, India
Thomas P. Butler—Georgetown U. Med. Sch.	Robert E. Greenfield, Jr.—St. Vincent Hosp., Worcester, Mass.	Harry J. Lipner—Florida State U., Tallahassee	Miloslaw Reichgigl, Jr.—Agency for International Development, Wash., D.C.
Angelo Caraboni—	Jesse P. Greenstein—deceased	Max Lippman—NCI	James C. Reid—NCI
Gerardo Casillas—Natl. Acad. of Med., Buenos Aires, Argentina	Charles K. Ghiesbregt—NCI	David Livingston—Children's Cancer Hosp., Boston	Nelson Roberts—Roche Inst. of Molecular Biology, Nutley, N.J.
Yoon Sang Cho—Chung-NCI	Pietro M. Giulino—NCI	Robin Marshall—St. Mary's Hosp. Med. Sch., London, England	Donald Robinson—Oxford U., England
Joseph E. Clandi—NIDR	Frederick J. Guille—Division of Research Grants	Adela Martinez-Casaveri—Natl. Acad. of Med., Buenos Aires, Argentina	Daniel Rosenblum—Jewish Hosp., St. Louis, Mo.
Robert A. Colyer—Johns Hopkins Med. Sch., Baltimore	Douglas Hamer—Norton Moore, Stockport, Cheshire, England	Mary E. Haver—retired	James C. Schlesselman—Harvard Med. Sch., Boston
Norman A. Cummings—NIDR	Poul Ama Hansen—deceased	Alton Meister—Cornell U. Med. Col., N.Y.	Walter C. Schneider—NCI
Charlotte Damon—	John Harrington—	Kimjyo Michi—Japan Women's U., Tokyo	
Richard K. Deszer—U. of Chicago Hosp.	Robert W. Hartley, Jr.—NIAMDD		
J. P. DuRoi—McGill U., Montreal	S. Ralph Himmelhoch—Rockville		
Helen M. Dyer—Washington, D.C.	Paul Hochstein—U. of Southern California, L.A.		
			Joseph F. Seltz—Inst. for Hematology and Blood Transfusion, Leningrad
			Lawrence Skogerson—
			John R. Smatman—Roche Inst. of Molecular Biology, Nutley, N.J.
			Herbert A. Sobel—deceased
			Prina Spilnik-Eilon—Weizmann Inst. of Science, Rehovot, Israel
			Matthys Stachelin—U. of Basel, Switzerland
			Marjory Stambuk
			Georgiasmas C. Stalaktos—
			Takashi Sugimura—Natl. Cancer Cntr. Research Inst., Tokyo, Japan
			Kazuo Suzuki—Utsunomiya U., Japan
			Claude Walters—Center d'Etude du Radium, Orsay, France
			Vincent A. Tarantola—
			Edith Townsend—U. of Alberta, Edmonton, Canada
			Ray Wade—Sussex, England
			Edith Townsend—U. of Alberta, Edmonton, Canada
			Elizabeth K. Walsburger—NCI
			John H. Walsburger—American Health Foundation, New York
			E. Weiss—
			Kent Wright—retired
			Milton Winitz—Phase Three Group, Milton, Fla.
			Robert E. Winitz—Mem. Sloan-Kettering Cancer Cntr., New York
			Marshall A. Wolf—Peter Bent Brigham Hosp., Boston
			Mark W. Woods—retired
			Elizabeth Work—London, England
			Arich Yaron—Weizmann Inst. of Science, Rehovot, Israel
			Leonidas Zervas—U. of Athens, Greece

NATIONAL CANCER INSTITUTE

METABOLISM BRANCH 1961 — Present

The Metabolism Branch conducts research directed toward definition of host factors that result in a high incidence of cancer and toward determination of physiological and biochemical effects that a tumor produces on the metabolism of the host.

Current Staff	
R. Michael Blasee	Andrew V. Muchmore
Samuel Broder	David L. Nelson
Joseph J. Cohen	S. Peter Nisley
Atsushi Ito	James M. Phang
Edward M. Kowaloff	Howard E. Pitchon
Rangali S. Rakauer	Warren Sirober
C. Richard Magnusson	Donald P. Tachy
Giuliano Mariani	Thomas A. Waldmann

Present Affiliation ALUMNI	
Habeeb Bacchus—Riverside Gen. Hosp., California	Harvey S. Mayer—deceased
Peter V. Barnett—Harbor Gen. Hosp., Torrance, California	Robert S. Mandelsohn—Michael Reese Hosp., Chicago
Werner F. Barth—Washington Hosp. Ctr., Washington, D.C.	Matthew Manktelow—New Brunswick, New Jersey
Paul O. Berk—NIH/MD	R. Peter Mangelin—Massachusetts Gen. Hosp., Boston
Nathanial L. Berlin—Northwestern U. Cancer Ctr., Chicago	Peter S. Mueller—Rutgers Med. Sch., Piscataway, New Jersey
Terrence F. Blaschko—U. of California, S.F.	David G. Nathan—Children's Hosp. Med. Ctr., Boston
Joseph R. Bloomer—Yale Med. Sch., New Haven	Daniel Nathans—Johns Hopkins U., Baltimore
Herbert L. Bonkowsky—Dartmouth Med. Sch., Hanover, New Hampshire	Robert New—Massachusetts Gen. Hosp., Boston
Robert M. Bruce—Washington U. Sch. of Med., St. Louis	Mark O. Parfitt—Stanford U. Hosp., California
Martin J. Cline—U.C.L.A. Ctr. for Health Sciences, Los Angeles	Paul R. Reich—Harvard Med. Sch., Boston
John D. Clough—Cleveland Clinic, Ohio	Loce E. Rosenberg—Yale U. Sch. of Med., New Haven
John Fahey—U.C.L.A. Sch. of Med., L.A.	Wendell F. Ross—Duke U. Med. Ctr., Durham
Gerald Finerman—U.C.L.A. Ctr. for Health Sciences, L.A.	Bruce F. Scharaschmidt—NIH/MD
Norman G. Forgas—Children's Hosp. Med. Ctr., Boston	Paul J. Schwab—Des Plaines, Illinois
Benjamin R. Givritz—New Jersey Col. of Med., Newark	Alan Solomon—U. of Tennessee, Knoxville
Mehran Goulani—U. of California, La Jolla	Jeffrey A. Stein—Columbia Presbyterian Med. Ctr., New York
Theodore J. Hahn—Barnes Hosp., St. Louis	Jesse Steinfeld—VA Hosp., Long Beach
Charles J. Heller—Columbia Presbyterian Med. Ctr., New York	David L. Vella—Johns Hopkins U., Baltimore
Emanuel S. Hellman—Beth Israel Hosp., Boston	Alan Waxman—IBM Scientific Ctr., Los Angeles
Harold J. Hofstrand—Eden Prairie, Minnesota	Donald M. Watkins—Washington, D.C.
Charles S. Hollander—New York U. Med. Ctr.	Paul L. Welden—Providence Hosp., Seattle
Robert B. Howe—U. of Minnesota Hosp., Minneapolis	Bernard J. Weinstein—Columbia U., New York
Arthur N. Kales—U. of Chicago	Ira W. Weiss—Peter Bent Brigham Hosp., Boston
Edgar H. Levin—Silver Spring, Maryland	Sherman M. Weissman—Yale U. Sch. of Med., New Haven
Joel B. Levine—Massachusetts Gen. Hosp., Boston	Frederick H. Weland—deceased
Arthur L. Levy—Yale Med. Sch., New Haven	R. Dean Wochney—St. Louis, Missouri
Marvin Lewis—Chicago	

CARCINOGEN METABOLISM AND TOXICOLOGY BRANCH 1961 — Present

The Carcinogen Metabolism and Toxicology Branch conducts research on the identification and metabolism of various classes of chemical carcinogens, toxicology of carcinogens in selected animal systems, correlation of chemical and toxicological data for the selection and screening of chemical carcinogens, biological and biochemical methods for identification of reactive carcinogenic metabolites, and metabolic activation of carcinogens by bacteria in the digestive tract.

Current Staff
Oliver P. Straub
William D. Hoyle
Robert M. Kras
Larry K. Kohn
James A. Miller
Robert F. Miller
Elizabeth P. Walsburger

Present Affiliation ALUMNI
Ladislav Baha—Cancer Research Inst., Bratislava, Czechoslovakia
Christian Decker—Inst. de Cancer, Louvain, Belgium
Howard M. Frankel—Huntington Beach, California
Nguyen Ba Duong—Col. of France, Paris
Robert M. Glass
Thirayudh Olingkum—Faculty of Science, Bangkok, Thailand
John Koris—Long Island Col. Hosp., Long Island
Robert M. Kras—Rijks Inst. voor de Kanker, Groningen, The Netherlands
Taijiro Matsushima—Nat. Cancer Ctr. Research Inst., Tokyo
Sushasta R. Pal—Tata Mem. Ctr., Bombay, India
Yoshihiko Shirasu—Inst. of Environmental Toxicology, Tokyo
Kazuo Suzuki—Utsunomiya U., Japan
David Szalay—Inst. de Radiop. Orsay, France
John H. Walsburger—American Health Foundation, New York
Gary M. Williams—Temple U. Sch. of Med., Philadelphia
J. Richard Williams, Jr.—Odessa, Texas

DRUG DEVELOPMENT BRANCH 1962 — Present

The Drug Development Branch is responsible for securing both synthetic materials and natural products for evaluation as potential anticancer drugs and for use in toxicological and clinical studies. Research includes new drug design and synthesis, natural products isolation and structure determinations, and experimental parenteral drug formulation.

Current Staff		
John A. Balster	Jonathan L. Hartwell	Katsuhide Okada
Feng-ia E. Chou	George F. Hazard	Fritz R. Quinn
James C. Craddock	Gifford H. Hewitt	Sidney Richman
J. Paul Davignon	Robert B. Ing	James E. Shannon
John D. Douros	Alice B. Kallow	Maria Szekeres
John S. Driscoll	Leonard H. Kaddis	Samuel M. Takahashi
Robert R. Engle	Helen R. Lomas	Paul J. Van
Mary T. Flisher	Harry B. Wood, Jr.	

Present Affiliation ALUMNI
Howard W. Bond
C. Vane Bowen
Sang-Ling W. Chu
Sou-yei Chou—Liggett Co., Chicago
Robert M. Cooper
David M. Fraser
Charles H. Grogan
Igor B. Higbee—retired
Tedashi Hirata—Kyowa Hakko Kogyo Ltd., Tokyo
Ernest M. Hodnett
A. Hamed Khan—Southwest Research Inst., San Antonio
Thayalayaaki Krishnamurthy
Ashwani Malhotra—Mt. Sinai Hosp., New York
Victor E. Marquez—Lab. Cosmo, Caracas, Venezuela
Igor J. Masny—NCI
Chi-wee Ock—Korean Natl. Inst. of Health, Seoul
Arnold E. Osterberg—retired
Kenneth D. Pauli—Starks Assoc., Buffalo
Geoffrey Pang—U. of Illinois Med. Ctr., Chicago
Ronald B. Ross
Alfred R. Stanley
Li-enig Twanmoh—Huchow U., Taipei, Taiwan

DRUG EVALUATION BRANCH 1962 — Present

The Drug Evaluation Branch conducts and coordinates extramural and intramural programs for evaluation of potential anticancer drugs; investigation of drug actions at the biological, biochemical and pharmacological levels; recommendation of new drugs for preclinical toxicology and clinical trial; and solution at the laboratory level of problems arising during toxicological examination or clinical trials of new drugs.

Current Staff		
Betty J. Abbott	Ruth I. Geran	Rhoda R. Mancher
David Abraham	Nathanial H. Greenberg	Nannette R. Matnick
Marlo C. Baratta	Muriel M. Lippman	John M. Venditti
Vincent H. Bone, Jr.	Mary M. Macdonald	Florence R. White
Emanuela Coronati		

Present Affiliation ALUMNI
Angelo Bianco
Anne R. Bourke—Dir. of Research Grants
Thomas Bresciani
Michael A. Chirigos—NCI
David A. Cooney—NCI
Paul S. Ebert—NCI
John P. Flynn—deceased
Arthur I. Goldberg—Mem. Sloan-Kettering Cancer Ctr., New York
Abraham Goldin—NCI
Charles H. Grogan
Barry L. Halpern
David P. Houchens—NCI
Ryohel Kojima—Tokyo
Joseph Lelieur—Natl. Library of Med.
Maryn L. Lurie
Richard W. March
John A. R. Mead—NCI
Moreswar V. Nadkarni—NCI
Angelo Nicolini—Inst. di Farmacologia, Milan, Italy
Samuel M. Peley—retired
Subba Reddy
Joel Sandberg
Saul A. Schepparts—NCI
Anthony W. Schrecker
Marc Straus—VA Hosp., Washington, D.C.
Eric M. Wagshal

IMMUNOLOGY BRANCH 1964 — Present

The Immunology Branch conducts clinical and laboratory research on antigens on surfaces of normal and cancerous cells. Laboratory studies include characterization of antigens, determination of the structure and function of antibodies and cell surface receptors, and investigation of genetic control of immune responses. Clinical studies include immunotherapy of cancer, transplantation immunology, and laboratory tests correlating with immunity in disease states and during therapy.

Current Staff			
Elsine L. Alexander	Robert S. Greenberg	John R. Haefl, Jr.	Ann-Marie Schmitt
Robert D. Arbell	Pierre A. Henkart	Terry G. Rahn	Ogvid M. Segal
Samuel Ben-Sasson	Richard J. Hodas	John E. Bicks	Ogne M. Shkarar
Essay W. Coje, III	Hillel S. Koren	G. Nicholas Rogentia, Jr.	David Signimutter
Susan E. Cullen	Dean L. Mano	Paula J. Romano	William D. Tarry
Howard B. Dickler	Jane L. Miljer	John L. Ryan	John R. Wundenich
Arnold E. Eggers	Carl F. Nathan	David H. Sachs	Marjion Zeit
C. Garrison Fathman			

Present Affiliation ALUMNI		
Newton F. Adkinson, Jr.—Johns Hopkins U., Baltimore	Walter Hughes	David Rowe—WHO Immunoglobulin Labs, Switzerland
Francis Paul Alspa	George L. Irwin, III	Jay H. Sanders
Susan Blumberg	Howard E. Levin—San Jose Mgt. Clinic, California	Bila Schechter—Weizmann Inst., Rehovot, Israel
Tibor Boros—Weizmann Inst., Rehovot, Israel	Ronald Levy—Weizmann Inst., Rehovot, Israel	Israel Schechter—Weizmann Inst., Rehovot, Israel
Eugene C. Lozner—Fairfax Hosp., Virginia	Eugene C. Lozner—Fairfax Hosp., Virginia	Ronald H. Schwartz—NIH
John S. MacDonald	John S. MacDonald	Elizabeth Simpson—Clinical Research Ctr., England
Michael R. Mandel, Jr.	Michael R. Mandel, Jr.	David M. Shearer
William J. Martin—NCI	William J. Martin—NCI	Richard W. Smith—New England Med. Ctr., Boston
Michael T. McNamara	Michael T. McNamara	Jerzslaw A. Sniogowski—Postgrad. Med. Sch., Poland
Andreas Morell	Andreas Morell	Harold C. Sox, Jr.
Christopher B. Merrill	Christopher B. Merrill	Sidney F. Stein—U. of Washington Sch. of Med., Seattle
Edward Miller	Edward Miller	Chou-Chik Ting—NCI
Mark E. Oren	Mark E. Oren	Neal Warner
Manuel Ortiz de Landazuri	Manuel Ortiz de Landazuri	Ronald M. Weintraub
Stephen H. Polmar	Stephen H. Polmar	Israel Yust—Ichilov Hosp., Tel Aviv, Israel
Herbert J. Rapp—NCI	Herbert J. Rapp—NCI	
Joseph D. Robinson	Joseph D. Robinson	
Eugene B. Rosenberg	Eugene B. Rosenberg	
Steven A. Rosenberg—NCI	Steven A. Rosenberg—NCI	
Charles M. Helms	Charles M. Helms	
Leroy E. Hood	Leroy E. Hood	

VIRAL LEUKEMIA AND LYMPHOMA BRANCH 1966 — Present

The Viral Leukemia and Lymphoma Branch conducts research designed to elucidate the role of viruses in the causation of human cancers, particularly leukemias, lymphomas and sarcomas.

Current Staff		
Dharam V. Ablashi	Peter J. Fischinger	Ruth M. Marwin
Taduo Aoki	Clarice E. Gayford	Shigeo Nomura
Robert H. Bassin	Adi F. Gesser	Herbert R. Osie
Rouf E. Benveniste	Brenda I. Garwin	Etsuo Okazaki
Phyllis B. Brandchaft	Jean Guagan	Paul T. Peebles
George J. Burton	Daniel K. Haggala	Leo A. Phillips
Robert Callahan	Sergio A. LaSca	E. J. Plata
Martine Canivet	Paul H. Levine	Edward M. Scolnick
Joseph E. DeLarco	Josef Lutzraier	Bernard Talbot
C. Duran-Trotte	W. J. Martin	George J. Todaro
John M. Easton		

Present Affiliation ALUMNI
Mary A. Fink—NCI
Vincent Hollis—NIH
David Livingston—Sidney Farber Cancer Ctr., Boston
John B. Moloney—NCI
Timothy E. O'Connor—NCI
Frank J. Rauscher, Jr.—NCI

VIRAL BIOLOGY BRANCH 1966 — Present

The Viral Biology Branch conducts research on virus and host factors related to carcinogenesis and on the development and evaluation of measures for cancer control in experimental systems.

Current Staff	
Angelo P. Andres	Stephen J. O'Brien
Richard Asalone	Thomas W. Orme
Charles W. Boone	Takis Pappas
Michael A. Chirigos	Meera S. Paranjpe
Stephen Davis	Gary R. Pearson
Paul S. Ebert	John W. Pearson
George Economou	Jean-Marie Prevost
Martin J. Filigstein	Robert C. Reisinger
Bette J. Graham	William G. Robey
Marion Gravell	Josephine A. Simonds
Maurice L. Guss	Noriohshi Takechi
Robert A. Mansaker	George F. Vande Woude
Stephen J. Mohr	Wilma A. Woods

Present Affiliation ALUMNI
Dharam V. Ablashi—NCI
Harish C. Chopra—NCI
Albert J. Dalton—NCI
Virginia C. Donkin—NCI
Minoru Harada—Shionogi Research Lab., Osaka, Japan
Ursula Helms—NCI
Walter Holder—Duke U., Durham
W. A. Hoek—NIH
N. Karyalata—St. Savas Hosp., Athens, Greece
B. Lodo—U. of Perugia, Italy
R. W. March—Lederle, Inc., Pearl River, New York
Ruth M. Marwin—NCI
John B. Moloney—NCI
Timothy E. O'Connor—NCI
D. Schwartz—Children's Health Ctr., San Diego
Gilbert H. Smith—NCI
Sarah E. Stewart—Georgetown U., Washington, D.C.
Willie Turner—Howard U. Med. Sch., Washington, D.C.

NATIONAL CANCER INSTITUTE

VIRAL CARCINOGENESIS BRANCH 1968 — Present

The Viral Carcinogenesis Branch is engaged in laboratory and field studies to define the role of the type C RNA viruses and the effect of viral and chemical carcinogens in the etiology of induced and spontaneous cancers of man and animals.

Current Staff		
Stuart A. Aaronson	Cirilo Cabradilla	Gary J. Kelloff
Paul Amstein	S.G. Devare	Wade P. Parks
Gurmit S. Aulakh	James T. Duff	Franklin H. Portugal
Mariano Barbacid	Berge Hamper	Padman S. Sarna
William I. Benzinger	Shiguo Hino	John R. Stephenson
Ashley M. Brown	Robert J. Huebner*	Steven R. Trenick

Present Affiliation ALUMNI
Charles W. Boone—NCI
Joel S. Greenbarber—Harvard Med. Sch., Boston
Jay A. Levy—U. of California, S.F.
Douglas R. Levy—Yale Med. Ctr., New Haven
Theodore Piccus—Sloan-Kettering Mem. Inst., New York
Thomas G. Prellow—U. of Alabama, Birmingham
Kenneth H. Rand—Stanford U., Palo Alto, California
David A. Stevens—U. of California, L.A.
Josephine A. Simonds—NCI
George J. Todaro—NCI
Daniel Tverzitz—Frederick Cancer Research Ctr., Maryland
Daniel W. Verwee—Vet. Research Inst., Pretoria, South Africa
Victor H. Zeev—NCI

LABORATORY OF MOLECULAR PHARMACOLOGY 1968 — Present

The Laboratory of Molecular Pharmacology conducts fundamental studies of the mechanisms of drug action on mammalian cells, particularly involving nucleic acids and related structures. A major interest is the question of how chemotherapeutic agents are able to produce selective toxicity against cancer cells.

Current Staff
Matthews O. Bradley
Leonard C. Erickson
Albert J. Fornace
Kurt W. Kahn*

Present Affiliation ALUMNI
Vincent H. Bond, Jr.—NCI
Michael Colvin—South Baltimore Street Hosp., Baltimore
Charles A. Friedman—Boston
I. David Goldsman—Med. Col. of Virginia, Richmond
David Guillou—San Francisco
Benjamin G. Humphrey—U. of Minnesota, Minneapolis
Zalzar Iqbal—Case Western Reserve U. Sch. of Med., Cleveland
Harbert E. Kann, Jr.—Emory U. Sch. of Med., Atlanta
Richard Rosenthal—Logan Island Jewish Med. Ctr., New York
Lawrence Wilder—Washington, D.C.
Paul V. Woolley—NCI

LABORATORY OF TOXICOLOGY 1969 — Present

The Laboratory of Toxicology conducts research to elucidate unusual manifestations and mechanisms of the toxic activities of drugs used against cancer. The Laboratory also supervises the extramural toxicity testing of drugs developed by the NCI Drug Research and Development Program.

Current Staff
Richard G. Cable
David A. Cooney
Theodore E. Gram
Anthony M. Guarino*
Charles L. Lillard
Benjamin Taylor, Jr.
Jerrold M. Ward
David M. Young

Present Affiliation ALUMNI
James R. Alfhus—Midwest Research Inst., Kansas City, Missouri
Howard W. Bruckner—Mt. Sinai Sch. of Med., New York
Robert L. Olson—NIH
Eliot R. Horan—Environmental Protection Agency
H. N. Jayaram—Downstate Med. Ctr., Brooklyn
I. P. Lee—NIH
J. McLaughlin—NIH
W. Olson—Ohio State U. Col. of Vet. Med., Columbus
D. J. Prieur—Washington State U., Pullman
R. Rosenbluth—U. of Pennsylvania Hosp., Philadelphia

LABORATORY OF MOLECULAR BIOLOGY 1970 — Present

The Laboratory of Molecular Biology investigates gene function and other regulatory mechanisms in animal and bacterial cells. Studies are devoted to identifying factors that regulate cellular behavior and alter gene expression. One molecule of particular interest that controls the behavior of both bacterial and animal cells is cyclic AMP.

Current Staff			
Sankar Adhya	Roberto Di Lauro	Richard Musco	Martin Rosenberg
F. S. Ambesi-Impimbatò	Maxwell E. Gottesman	John Neill	Marc Shulman
Wayne Anderson	Sandra Hillier	Kenneth Olden	David Wallach
Donald Court	Bruce Howard	Ira Pastan*	Mark Willingham
Ash Das	George Johnson	Jacques Poussegur	Kenneth Yamada
Benoit de Crombrughe	Zachary Miller	Oscar Reyes	

Present Affiliation ALUMNI
Mordechai Aboud—Weizmann Inst. of Science, Rehovot, Israel
G. Andros—North Hollywood, California
L. H. Bernstein—McGill U., Ottawa, Canada
G. B. Canham—Rockville, Maryland
Richard Carchman—Med. Col. of Virginia, Richmond
Beatrice Chan—Frederick Cancer Research Ctr., Maryland
Massimo D'Armentio—Centro di Fisiologia Tiroidea, U. of Rome
G. B. Eagleton—Willingboro, New Jersey
R. Ekholm—U. of Göteborg, Sweden
Susan Gottesman—Massachusetts Inst. of Tech., Cambridge
Andre Haeblerl—NCI
Kenneth Krall—Food and Drug Adm.
R. Rosenbluth—U. of Pennsylvania Hosp., Philadelphia
Shigetada Nakashima—Kyoto U., Japan
P. Nevé—Lab. de Med. Experimentale, Brussels, Belgium
W. S. Newcomer—Oklahoma State U., Stillwater
Peter Haskaly—NCI
Richard Gulland—Barnes & Wohl Hosp., St. Louis
Jacques Oliner—Sch. of Med., Brussels, Belgium
David Oyer—Massachusetts Gen. Hosp., Boston
John Parks—Children's Hosp. of Philadelphia
Charles V. Peery—Med. Col. of Virginia, Richmond
Thomas Russell—U. of Miami Sch. of Med.
Willi J. Schrenk—U. of California, Santa Barbara
Kazuo Shimada—Kyushu U. Sch. of Med., Fukuoka, Japan
Harold E. Varmus—San Francisco Med. Ctr.

LABORATORY OF CELL BIOLOGY 1970 — Present

The Laboratory of Cell Biology investigates mechanisms of cancer causation at the cellular and subcellular levels, including research in viral carcinogenesis, immunology, immunocytochemistry, protein and enzyme chemistry, electron microscopy and somatic cell genetics.

Current Staff											
William Adams	Changming Chang	Javier Coll	Barry Fembach	Lloyd W. Law	Samuel Luborsky	K. Robert McInire	J. Frederic Mushinski	Michael Rogers	Sidney Shifrin	Mark Vrana	
Ettore Appella	Kenneth Chang	Hayden Coon	Ole Hamrison	Wu-Tae Liu	Harry Match	Peter Mdra	Michael Potter	Stuart Rudikoff	David Trifiro	S. S. Yang	

Present Affiliation ALUMNI		
Hewes Agnew—Johns Hopkins Hosp., Baltimore	H. Duc-Nguyen—	Robert K. Oldham—NCI
A. C. Allison—Clinical Research Ctr., Middlesex, England	Moshe Glaser—NCI	Robinson Parkman—Children's Hosp., Boston
Paul Anderson—Johns Hopkins Sch. of Med., Baltimore	Ronald B. Herberman—NCI	Phillip Perlman—George Washington U. Sch. of Med.
Guy D. Bonnard—NCI	Howard T. Holden—NCI	A. Precarenzi—U. of Buenos Aires, Argentina
Ray Bradley—U. of Melbourne Sch. of Med., Australia	Holger Kirchner—NCI	Maya Ran—Tel Aviv, Israel
Nelson Burstein—Beth Israel Hosp., Boston	Eva Leckband—Mem. Sloan-Kettering Cancer Ctr., New York	June Wakelind—England
Joseph E. Ciardi—NIH	Raphael Lavey—Children's Hosp., Boston	Peter Wright—Fred Hutchinson Cancer Ctr., Seattle
James Cohen—Mt. Sinai Hosp., New York	J. F. A. P. Miller—Royal Melbourne Hosp., Australia	T. H. Yoshida—Nat. Inst. of Genetics, Sizuoka-shi, Japan
Mark Drapkin—Massachusetts Gen. Hosp., Boston	Elaine A. Neale—NICHHD	Mason Smith—East Carolina U., Greenville, North Carolina

LABORATORY OF THEORETICAL BIOLOGY 1972 — Present

The Laboratory of Theoretical Biology conducts theoretical research in several areas: biophysics of membranes, developmental biology, kinetics of metabolic systems, and mathematical and computational methodology related to modeling. Some related experiments are also carried out in the laboratory.

Current Staff	
Moses Berman*	Elizabeth A. McGuire
Robert P. Blumenthal	Robert A. McGuire
Shanwood C. Chu	Florence K. Miller
Robert W. Coebel	Hanz S. Rendell
Marshall Hall, III	Shuzon C. Szu
Robert L. Jamigan	Kenneth K. Traber
Stuart A. Kaufman	Paul Van Cerdwegh
Claude L. Malmendier	

Present Affiliation ALUMNI
Andre T. Dubois—NIAMDD
Paulo R. Leme—Hosp. do Servidor Publico do Estado, Sao Paulo, Brazil

OFFICE OF ASSOCIATE DIRECTOR FOR EXPERIMENTAL THERAPEUTICS 1973 — Present

The Office of the Associate Director for Experimental Therapeutics, in addition to an overall administrative responsibility for four Laboratories, conducts research in the exchange of various physiological and pharmacological substances between blood, cerebrospinal fluid, and brain extracellular and intracellular fluids. Other research concerns the biochemical pharmacology of anticancer drugs in experimental systems.

Current Staff	
Ronald G. Blasberg	David A. Margilith
Manford C. Castle	John A. R. Mead
Joseph D. Fenstermacher	Lakshmi C. Mishra
John A. Kessler	Vincent T. Oliverio*

Present Affiliation ALUMNI
Alan L. Cowles—U. of Missouri, Columbia
Walter W. Eckman—London, Ontario, Canada
Warren E. Lux—New York U. Med. Sch.

LABORATORY OF EXPERIMENTAL CHEMOTHERAPY 1973 — Present

The Laboratory of Experimental Chemotherapy conducts fundamental studies pertaining to the action of anticancer agents, including research on sensitivity differences and control mechanisms in the cell cycle, effects of drugs on the immune system, properties of enzymes involved in biochemical control mechanisms, and biochemical lesions produced within interacting pathways by deficiencies of essential nutrients and by inhibitors.

Current Staff	
David Baseman	David P. Houchens
Enzo Bonmassa	Toshio Inouye
Franca Campanella	Randall K. Johnson
Manik Chintia	Arturo Ovejera
Lucio Crino	Iwao Umetsawa
Abraham Goldin*	

Present Affiliation ALUMNI
Steven C. Cohen—
Sigrid T. Garbjanjan—

LABORATORY OF PATHOPHYSIOLOGY 1973 — Present

The Laboratory of Pathophysiology conducts research on the biological properties of solid tumors and in particular on the mechanism of regression of mammary tumors.

Current Staff	
Jeffrey S. Bodwin	William R. Kidwell
Steven Briem	Richard A. Krasak
Yoon Sang Cho-Chung	Maurice Rouleau
Herbert L. Cooper	Pradman Qasba
Pietro M. Gullino*	Pon Nyong Yi
Shelby B. Jakoby	

Present Affiliation ALUMNI
Thomas P. Butler—Georgetown U. Hosp., Washington, D.C.
Michael A. Gimbrone, Jr.—Peter Bent Brigham Hosp., Boston

CARCINOGEN BIOASSAY AND PROGRAM RESOURCES BRANCH 1973 — Present

The Carcinogen Bioassay and Program Resources Branch implements a coordinated research program to test chemical and physical agents for cancer-causing activity by standard bioassay methods, and to develop selected animal models for carcinogenesis research. The Branch also provides animal, chemical and information resources and data analysis to the NCI Carcinogenesis Program.

Current Staff
Thomas P. Cameron
Cipriano Custo, Jr.
Norbert P. Page*
Sidney Siegel

LABORATORY OF IMMUNODIAGNOSIS 1974 — Present

The Laboratory of Immunodiagnosis conducts research on tumor-associated antigens and other cell surface antigens on cancer cells, and on the immune response to these antigens including, in particular, their role in host resistance against tumor growth and their possible applications in cancer diagnosis. Other research concerns various assay systems for immune responses and the usefulness of each assay for the diagnosis of cancer and the monitoring of therapy in cancer patients.

Current Staff
Guy Bonnard
Darrell Campbell
Moshe Glaser
Ronald B. Herberman*
Howard T. Holden
Holger Kirchner
Ivan P. Law
Robert K. Oldham
Chou-Chik Ting

NATIONAL CANCER INSTITUTE

LABORATORY OF PATHOLOGY 1939 — Present

The Laboratory of Pathology conducts research on cancers in laboratory animals and also is responsible for necropsies, surgical pathology and exfoliative cytology for the entire NIH Clinical Center. Each pathologist or group of pathologists has a special field of research interest. Active areas of investigation include chemical and viral carcinogenesis, tumor immunology, cytodifferentiation, cellular effects of viral infections, molecular pathology, comparative oncology, and classification and clinicopathologic correlation of a wide variety of human diseases.

Current Staff

Richard W. Balisa	Elizabeth W. Chu	Choster J. Herman	Koji Nanba	Betty J. Sanders	Maria M. Tomaszewski
William G. Banfield	Josa C. Costa	Elaine S. Jaffe	Michael M. Orlando	Meeri F. Stanton	Timothy J. Triche
Costan W. Baran	Clyde J. Dawe	Bernard L. Kastan, Jr.	Ralph D. Powell, Jr.	Robert Stern	Nathaniel A. Young
Raul C. Braylan	Donald E. Hanson	Jerry Kolins	Alan S. Rabson	Louis B. Thomas*	

Present Affiliation ALUMNI

Joseph M. Albrecht— Elihu C. Alvord—U. of Washington Md. Sch., Seattle Kristen Amason— Tsuneo Baba—Cancer Inst., Tokyo Peter M. Banks—Duke U. Med. Ctr., Durham Rolf F. Barth—U. of Kansas Med. Ctr., Kansas City Frank O. Bastian—Saint Luke's Episcopal Hosp., Houston Jeanne Bateman—George Washington U. Med. Sch., Washington, D.C. Victor Bedoya—Universidad de Antioquia, Medellin, Colombia James O. Bennett—Fifield Sanatorium, Seattle I. Benardum—Weizmann Inst. of Science, Rehovot, Israel T. P. Bharadwaj—S. M. S. Med. Col., Jaipur, India Hugh Bonner—U. of Pennsylvania Med. Sch., Philadelphia Robert Borland—U. of Cambridge, England Rowan C. Boylan—Good Samaritan Hosp., San Jose Daniel W. Bruce—Clinical Center, NIH Louis M. Buga—U. of Texas Health Science Ctr., Dallas Robert W. Chambers—Georgetown U. Hosp., Washington, D.C. Rajendra K. Chatterjee— Ely Chaves—Hosp. Laureano, Joao Pessoa-Parabiba, Brazil Allen W. Cheever—NIAD Raymond D. Christensen—Atomic Bomb Casualty Com., San Francisco Charles Congdon—Oak Ridge Natl. Laboratory, Tennessee Franklin D. Curt—Providence Hosp., Portland, Oregon Joseph M. Davis—Washington U. Med. Sch., St. Louis Harold J. DeBlanc—U. of Utah Sch. of Med., Salt Lake City	Ronald A. DeLellis—Tufts U. Med. Sch., Boston Stephen Dity—Johns Hopkins Hosp., Baltimore George W. Douglas—Pittsfield General Hosp., Pittsfield, Massachusetts I. N. Dublin—Med. Col. of Pennsylvania, Philadelphia Lucia J. Dunham—retired Thelma B. Dunn—retired Oscar N. Duque—Universidad de Antioquia, Medellin, Colombia Thomas F. Dutcher—Beaumont General Hosp., Royal Oak, Michigan John M. Easton—Frederick Cancer Research Ctr., Frederick, Maryland John Edgcomb—Gorgas Mem. Laboratory, Balboa Heights, Canal Zone Jesse E. Edwards—Charles T. Miller Hosp., St. Paul M. Nabi El-Bolkainy—Cancer Inst. of Cairo, Egypt Rosita Estable—Laval U. Sch. of Med., Quebec Willard H. Eyston—U. of Missouri Sch. of Vet. Med., Columbia Hardin I. Firminger—U. of Maryland, Baltimore Leslie Foulds—Colchester, England Frederick A. Fox—El Camino Hosp., Mountain View, California Robert M. Friedman—NIAMDD James D. Gallup—Honolulu Med. Group Philip H. Geisler—deceased Albert H. Gelderman—U. of West Virginia Sch. of Med., Morgantown Reni Gerard-Marchant—Institut Gustave-Roussy, Villejuif, France Hugh Grady—Seaton Hall Sch. of Med., Newark, New Jersey Giuseppe Grampa—Istituto di Anatomia e Istologia Patologica, Milan, Italy Philip M. Grimley—New York State Dept. of Health, Albany Mary Anne Guggenheim—Bethesda William V. Hare—U. of Mississippi Med. Ctr., Jackson Katherine McD. Harrod—retired Martin D. Hicklin—Ctr. for Disease Control, Atlanta Albert W. Hillberg—Natl. Acad. of Sciences, Washington, D.C.	Takahiro Hirano—Takeda Chem. Ind., Ltd., Japan Helen A. Horn—High Point Mem. Hosp., North Carolina Andrew E. Horvath—Presbyterian Hosp., Albuquerque Show Wen How—U. Hosp. of Taiwan U., Taipei, Taiwan Ismail Kamel—Cairo, Egypt Choo Soung Kim—Catholic Col. Sch. of Med., Seoul, Korea William R. Kisham—USAF Hosp., Tinker AFB, Oklahoma Hiroshi Kobayashi—Hokkaido U. Sch. of Med., Sapporo, Japan Gerhard R. Krueger—U. of Cologne Med. Faculty, West Germany Rajendra Kumar—U. of Illinois, Urbana, Ill. Jack T. Lasersohn—Valley General Hosp., Renton, Washington Joseph Leighton—Med. Col. of Pennsylvania, Philadelphia Judith G. Levin—NICHD Irene T. Liu—New York, New York Thomas J. Liddy—Roche Clin. Labs., West Caldwell, New Jersey Stuart W. Lippincott—Med. Col. of Virginia, Richmond Louise Lombard—U. of Chicago Michael J. Lutz—Clinical Ctr., NIH Prosper Loustali—Ciba Ltd., Basle, Switzerland Robert Love—NCI Ross G. MacCarrle—deceased James D. MacLeary—Clinical Ctr., NIH James H. P. Main—U. of Toronto Sch. of Dent. Med. Susuma Majima—Tohoku U. Sch. of Med., Sendai, Japan Richard A. Malmgren—retired Howard J. Martz—Washington U. Sch. of Med., St. Louis Robert E. McCullough—Armed Forces Inst. of Path., Washington, D.C. Hidaki Miyaji—Nishinomiya, Japan Toru Miyaji—Osaka U. Med. Sch., Osaka, Japan	Pablo Mori-Chaves—Universidad Peruana, Lima, Peru F. K. Hosioli—Armed Forces Inst. of Path., Washington, D.C. Calum S. Muir—Int. Agency for Cancer Research, Lyon, France Ambadas S. Mulya—retired Nubia Munoz— Edwin Murphy—Jackson Laboratory, Bar Harbor, Maine Takao Nagayo—Aichi Cancer Center Research Inst., Nagoya, Japan William Ober—Beth Israel Hosp., New York Gregory T. O'Connor—NCI Shigeyoshi Oda—Natl. Inst. of Hygienic Sciences, Tokyo Roger O'Gara—deceased Masaki Ohmori—Okayama U. Med. Sch., Okayama, Japan Peter D. Olich—Natl. Library of Med. John W. Orr—U. of Birmingham Med. Sch., England Hiashi Otsuka—Tokushima U. Sch. of Med., Tokushima, Japan Maia Penttinen—Turku, Finland Robert L. Peters—John Wesley County Hosp., Los Angeles Theodore Pincus—Stanford U. Sch. of Med., Palo Alto, California M. Polak—Sch. of Med. Sciences, La Plata, Argentina Deborah F. Powell—Georgetown U. Sch. of Med., Washington, D.C. Edward B. Price—Armed Forces Inst. of Path., Washington, D.C. John Pruitt—St. Petersburg, Florida Giancarlo Rabotti—College de France, Paris Graciela Ramirez—Instituto de Enfermedades Neoplasicas, Lima, Peru Malvin D. Reul—U. of Maryland Sch. of Med., Baltimore William C. Reynolds—NHU Ricardo Ros. Amador—VA Hosp., San Juan, Puerto Rico Joel A. Roth—Overlook Hosp., Summit, New Jersey G. Rudolf—Foundation Curie, Paris	Seymour M. Sebesin—U. of Tennessee, Memphis Teruyo Sakakura—Aichi Cancer Ctr. Research Inst., Nagoya, Japan Erkki Saxen—U. of Helsinki, Finland Zsuzsa Schaff—Semmelweis Med. U., Budapest Samuel H. Schlyman—Rutherford, New Jersey Herschel Sidransky—U. of South Florida Col. of Med., Tampa Katherine C. Snell—retired William T. Sparrow—Drs. Ganzalez, Hammet & Lightfoot Lab., Tyler, Texas C. H. Stellas—Highsmith-Rainey Mem. Hosp., Fayetteville, North Carolina Harold L. Stewart—retired R. Gerald Sushkind—Frederick Cancer Research Ctr., Maryland Victor Swann—Wilhelmina Gasthuis, Amsterdam, Netherlands Richard L. Swann—Hoffman-LaRoche, Inc., Nutley, New Jersey Alexander Symeonidis—Aristotelian U. Sch. of Med., Athens Shozo Takayama—Cancer Inst., Tokyo Andrew S. Tegeris—Pharmacopoeia Research Lab., Laurel, Maryland Jean E. Todd—Southampton, Hampshire, England Yuri Vasiliev—Inst. of Exper. & Clinical Oncology, Moscow Clarence A. Valat—High Point Mem. Hosp., High Point, North Carolina Thomas N. Warren—U. S. Marine Hosp., Sialon Island Monica A. Weinberger—FDA Paul T. Wentz—St. Barnabas Med. Ctr., Livingston, New Jersey Jacqueline Whang-Pang—NCI Joseph T. Wilson—Jonesboro, Arkansas Frank G. Wilgus—Clinical Ctr., NIH Louis D. Wright—McLeod Infirmary, Florence, South Carolina Tsutomu Yamamoto—Atomic Bomb Casualty Com., Hiroshima City Taik Koo Yun—Radiological Research Inst., Seoul, Korea
---	--	--	---	---

SURGERY BRANCH 1952 — Present

The Surgery Branch conducts a clinical program concerned with the development and evaluation of improved methods of diagnosis and treatment for a number of types of cancer. This clinical activity is integrated with experimental studies of factors important in the induction, spread and control of cancer.

Current Staff

John C. Alexander	Ernest V. deMoss	James J. Reilly
Demetrius H. Bagley	Edward L. Felix	Steven A. Rosenberg*
Alan R. Baker	Nasser Javadpour	Peter T. Scardino
Robert M. Bazley	J. Millburn Jessup	Richard N. Scott
Murray F. Brennan	Daniel E. Kenady	Henry F. Sears
Paul B. Chretien	George S. Leight	Norman A. Silverman
Max H. Cohen	James P. Neifeld	William F. Sindelar
Charles B. Cuvono	George A. Parker	Howard G. Smith
David N. Danforth	Claude Polvin	Robert J. Spence

Present Affiliation ALUMNI

Roy Axson—Children's Hosp. Med. Ctr., Boston Nile L. Albright—Harvard Surgical Service, Boston Marvin S. Arons—Yale Med. Sch., New Haven Jerry W. Balms—Phoenix, Arizona David S. Bales—U. of Florida Col. of Med., Gainesville Stephen H. Bennett—Johns Hopkins Hosp., Baltimore J. H. Bloch—Peoria Sch. of Med., Illinois Willis E. Brown, Jr.—U. of Minnesota, Minneapolis James F. Burdick—Massachusetts Gen. Hosp., Boston William J. Catalano—Johns Hopkins Hosp., Baltimore Alfred M. Cohen—Massachusetts Gen. Hosp., Boston Donald R. Cole—New York, New York Paul V. Conner—U. of Connecticut Hosp., Hartford Robert B. Couch—Baylor Col. of Med., Houston Robert C. Davis—U. Hosp., Boston Peter J. Deckers—Boston U. Med. Ctr. Evanston F. Cox—U. of Miami, Florida Lester M. Cramer—Temple U. Health Sciences Ctr., Philadelphia D. Thomas Crawford—Franklin Square Hosp., Baltimore Jean B. DeKamion—Sepulveda VA Hosp., California A. Lee Dalton—Johns Hopkins Hosp., Baltimore John S. Dillon—Georgetown U. Sch. of Med., Washington, D.C. Glenn W. Gethaad—George Washington U. Med. Ctr., Washington, D.C. Harold R. Garner, Jr.—Emory U., Atlanta Ruben F. Gitlin—U. Hosp., U. of California, S.D. John P. Grant—Duke U. Hosp., Durham William G. Hammond—Sepulveda VA Hosp., California John D. Harral—Charleston Mem. Hosp., West Virginia Alvin H. Harris—Brooklyn Chester Z. Haverbeck—Bethesda	Peter B. H'Doubler—Springfield, Missouri Horace Harbman—Downstate Med. Ctr., Brooklyn James M. Holland—Northwestern U. Med. Sch., Chicago E. Carmack Holmes—U.C.L.A. Med. Ctr., Los Angeles Robert C. Hovey—St. Louis U. Sch. of Med., Farmington, Missouri George L. Irvin, III—U. of Miami Sch. of Med., Florida Robert H. Johnson, Jr.—Med. Col. of Georgia, Augusta William L. Joseph—George Washington U. Med. Ctr., Washington, D.C. James R. Jude—St. Francis Hosp., Miami Alfred S. Keicham—U. of Miami, Florida William S. Kiser—Cleveland Clinic Foundation, Ohio Lester A. Klein—Beth Israel Hosp., Boston William M. Kramer—St. Mary's Hosp., Richmond William T. Lammon, Jr.—Doctors Hosp., Philadelphia Randall J. Lewis—Hosp. for Special Surgery, New York Bruce R. MacPherson—U. of Vermont, Burlington Robert E. Madden—New York Med. Col., New York John R. Marshall—Harbor Gen. Hosp., Torrance, California Edward D. McLaughlin—Jefferson Med. Hosp., Philadelphia Robert A. Mitch—Paul, Marwick, Mitchell & Co., Washington, D.C. William M. Kramer—St. Mary's Hosp., Richmond Ross M. Miller, Jr.—U.C.L.A. Med. Ctr., Compton John P. Minion—U. Hosp., Columbus, Ohio Donald L. Morion—U.C.L.A. Med. Ctr., L.A. Fitzhugh Mullins—U. of Louisville Sch. of Med., Kentucky George H. Myers, Jr.—U. of Alabama Med. Ctr., Birmingham Richard S. Myers—Raleigh Surgical Assoc., Inc., Raleigh, North Carolina Leo Nakayama—Harbor Gen. Hosp., Long Beach Seymour C. Nash—Miami Beach, Florida H. Bryan Neal III—Mayo Clinic, Rochester, Minnesota S. Kirby Orma—Boise, Idaho	David F. Paulson—Duke U. Med. Ctr., Durham Ben Z. Pilch—Massachusetts Gen. Hosp., Boston Yosef H. Pilch—Harbor Gen. Hosp., Torrance, California Marvin Pomerantz—Denver Gen. Hosp., Denver John F. Potter—Lombardi Cancer Ctr., Washington, D.C. Howard M. Radwin—U. of Texas Health Science Ctr., San Antonio Kenneth P. Ramming—U.C.L.A. Med. Ctr., Los Angeles Alan B. Reiss—New England Med. Ctr. Hosp., Boston Richard S. Riggles—U. of California Sch. of Med., Davis Marvin M. Romsdahl—M.D. Anderson Hosp. & Tumor Inst., Houston James J. Ryan—Massachusetts Gen. Hosp., Boston William F. Sampson—U.C.L.A. Ctr. For the Health Sciences, Los Angeles Robert R. Smith—LaGrange, Georgia Mark S. Soloway—U. Hosp. of Cleveland, Ohio Frank C. Sparks—U.C.L.A. Med. Ctr., Los Angeles Ian J. Spence—Washington, D.C. Evelyn V. Surabaker—M.D. Anderson Hosp. & Tumor Inst., Houston John L. Tarpley—Johns Hopkins Hosp., Baltimore J. Kent Trinkle—U. of Texas Health Sciences Ctr., San Antonio William S. Tunner—Richmond, Virginia Patrick L. Twomey—U. of California Med. Ctr., S.F. John H. Wallie—Earl K. Long Hosp., Baton Rouge John A. Washington, II—Mayo Clinic, Rochester, Minnesota Wade S. Weems—Ft. Lauderdale Samuel A. Wells, Jr.—Duke U. Med. Ctr., Durham John T. West—Enoch Callaway Cancer Clinic, LaGrange, Georgia Robert H. Wilkins—Scott and White Clinic, Temple, Texas William C. Wood—Massachusetts Gen. Hosp., Boston
--	---	--

*Chief

DERMATOLOGY BRANCH 1953 — Present

The Dermatology Branch conducts basic and clinical research into the structure and function of normal and diseased skin with an emphasis on skin cancer. The branch also serves as dermatologic consultant to all other services at the NIH Clinical Center.

Current Staff

Alan D. Andrews	William R. Lewis
Frank W. Barry	Mervin A. Lutzner*
Peggy S. Crawford	Gary L. Peck
Richard L. Edelson	John A. Powell
Weslaw Gliniski	Jay H. Robbins
Isabelle J. Gonn	Paul I. Schneiderman
Vincent J. Hearing, Jr.	Peter M. Steinert
Kenneth C. Hartz	Arthur R. Ugel
Stephen I. Katz	Bruce K. Wetzal
Walter G. Klingler	Hideo Taito

Present Affiliation ALUMNI

Robert A. Auerbach—New York U., New York W. Kenneth Blaylock—Med. Col. of Virginia, Richmond Peter G. Burk—Montefiore Hosp., Bronx Gary W. Cagle—Georgetown U., Washington, D.C. William E. Clendenning—Dartmouth Med. Sch., Hanover, New Hampshire Joseph D. Croft—Georgetown U., Washington, D.C. Robert G. Crouse—U. of North Carolina, Chapel Hill Arthur Z. Eisen—Washington U., St. Louis, Missouri Peter M. Elias—U. of California, S.F. Marvin L. Engel—U. of California, S.F. Ervin N. Epstein, Jr.—U. of California, S.F. B. Allen Flaesman—Brown U., Providence Alvin E. Friedman—Klein—New York U. Phillip Frost—Mt. Sinai Medical Ctr., Miami Beach Sheldon K. Gattlieb—Bethesda Stephen B. Guss—Massachusetts General Hosp., Boston Harley A. Haynes—Massachusetts General Hosp., Boston James W. Hobbs— Douglas J. Key—Portland, Oregon Carl E. Klemm—Yuba City, California Kenneth A. Kramer—U. of Miami Carl C. Levy—Baltimore Cancer Research Ctr. A. Edgar Miller—Pompano Beach, Florida Thomas P. Miga—Washington Hosp. Ctr., Washington, D.C. Arnold C. Ratner—Bethesda Richard P. Reinerson— Simon Rothberg—Medical Col. of Virginia, Richmond Robert G. Scoggins—Richmond, Virginia Arthur J. Strauss— Eugene J. Van Scott—Temple U., Philadelphia Donald S. Waldorf—New York U. Gerald D. Weinstein—U. of Miami
--

NHLLI

NATIONAL HEART AND LUNG INSTITUTE

LABORATORY OF
CHEMISTRY OF NATURAL PRODUCTS
1952-1963

LABORATORY OF
METABOLISM
1956-1963

LABORATORY OF
CHEMISTRY
1963-Present

This was originally established as The Laboratory of Chemistry of Natural Products. Dr. E. C. Horning, the first chief, was succeeded by Dr. William Wilkman. The laboratory was for a time a Section on Chemistry in the Laboratory of Metabolism under Dr. Daniel Steinberg.

Current Staff

H. M. Fales *
R. J. Highet
H. A. Lloyd
G. W. A. Milne
J. Silverton

LABORATORY OF
BIOCHEMICAL GENETICS

Current Staff

Tom Marshall	Urel Bachrach
Sue Ellen Martin	Stuart Brown
Hiroshi Matsuzawa	William Casteral
John D. Milne	Matthew Daniels
Marshall Hirenberg*	Mary De Long
Perola Zaltzman Hirenberg	Fernando De Mello
Alan Peierlsfortky	Jonas Gasper
Chandon Prasad	Jose E. Gonzalez
Steven Sabot	James Harwood
Shail Sharma	Eshau Halidman
Zvi Vogel	William Klein
Ronald Yasbin	Richard Lemons

Present Affiliation ALUMNI

Catherine Allende-Chile	Philip Leder
Jorge E. Allende	Judith Levin
Takashi Ameno	Silvén Levinson
Frank Anderson	Uri Littaur-Israel
Sam Barondes	Marcia Litwack
William Blatt	Thomas Marks
Arthur Braudet	Jane Marmer
Morton Bamfield	Richard Marshall
Arthur Joel Blume	Heinrich Matthaei
Kandra Brookfield	Gregory Milman
Richard Bromcombe-Germany	Junnosuke Nishii
Raymond Bryne	Charles O'Neal
Thomas Caskey	Ruth Perzel
Agnes Chlascensis	Sidney Posiba
Brian Clark	Frank Portugal
Rena Cukier	Elliott Richelson
David Elson	Ira Rosen
John Farber	Roger Rosenberg
Maurice Fourrier	Martin Rosman
David Gershon-Israel	Fritz Rotman
Alfred Gilbert	Winford B. Ruffner
Frances Gillin	Bruce Schrier
Alfred Gitman	Edward Seelich
Jonathan Glass	Nicholas Seeds
Joseph Goldstein	William Stein
George Jones	Michael Shalanski
Lloyd A. Greene	Paul Simpson
William Groves	Jiri Smrt-Czechoslovakia
Bernad Harfprecht	Arthur Synkowski
Dolph Hatfield	Edward Thompson-London
Herbert Jable	Richard Tompkins
George H. Jones	Joel Trupin
Donald Kellogg	Michael Wilcox-England
William Jones	Sam Wilson

Present Affiliation ALUMNI

T. Akiyama-U. of Tokyo, Japan	D. Hom-CSIRO, Melbourne, Australia	D. Pedder-ICI, England
T. Azevedo-City Col. of New York	E. C. Horning-Baylor, Texas	A. Panitta-OY Medica, Finland
D. Bate-U. of Liverpool, England	A. Itakawa-Shimadzu, Japan	W. Peacock-
S. S. Benjamin-Rose Polytech, Indiana	T. Inubushi-U. of Kyoto, Japan	J. Pierce-NHLI
R. Bishop-U. of W. Indies, Jamaica	R. Jaakonmaki-U. of Turku, Finland	G. Peggak-U. of California, L. A.
C. Brooks-U. of Glasgow, Scotland	G. Jones-U. of Keele, England	V. Stromberg
J. W. Cornforth-Milstead Lab., Kent, England	H. Kisman-	C. C. Sweeley-U. of Michigan
J. C. Craig-U. of California, S.F.	S. Laitio-Turku, Finland	W. Tallant
J. Crocker-England	T. Leikkonen-U. of Helsinki, Finland	S. Uyen-U. of Kyoto, Japan
M. Edwards-U. of Connecticut	G. Lytle-U. of New Hampshire	W. VanDen Houvel-Merck, Rahway, New Jersey
M. Fish-NIH	J. C. N. Ma-U. of Hong Kong	O. R. Walker-CIBA, New Jersey
N. Galbraith-CSIRO, Australia	L. Mason-	E. Warnhoff-U. of W. Ontario, Canada
W. Garland-Sandoz, New Jersey	Motya-U. of Tokyo	W. Widaman-Iowa State U.
F. Greenberg-SUNY, New York	E. Moscatelli-Merck, New Jersey	B. Wilsep-NIAMD
E. Goodwin Smith-Oak Ridge	R. Nicholson-NSP	H. Wood-NIH
P. Gordon-CSIRO, Australia	G. Perold-Witwatersrand U., South Africa	
E. Naashii-Red Cross, Finland	J. Patrick-	

CARDIOLOGY BRANCH

Current Staff

Robert E. Altschtein
Chester E. Clark
Stephen E. Epstein*
Walter L. Henry
Samuel B. Hirschfeld
Kenneth M. Kent
Edward Lebowitz
Barry J. Mayon
Alan S. Peasman
David R. Redwood
Daniel D. Savage
Howard J. Smith
Richard Shulman

Present Affiliation ALUMNI

Maurice M. Argen-Israel	Thomas P. Graham, Jr.	William H. Plauth, Jr.-Boston Children's Hosp., Mass.
George D. Bales-St. Catherine Hosp., East Chicago, Indiana	Geonard Gruen-New Haven, Conn.	Peter Pool-U. of California Sch. of Med., S.D., La Jolla
Michael A. Berman-Yale U. Med. Sch.	Joseph C. Greenfield-	Christell J. Posner-
Eugene Braunwald-Peter Bent Brigham Hosp., Boston	Clifford A. Hall-	Kirk H. Prindle, Jr.-Portland, Oregon
Robert A. Buccino-Yale Sch. of Med.	Donald C. Harrison-Stanford U. Sch. of Med., Palo Alto, Calif.	Nathaniel Reichak-Hosp. of the U. of Pennsylvania, Philadelphia
Charles A. Childsey-U. of Colorado Med. Sch.	Lawrence M. Higgs-	Douglas R. Rosing-George Washington U., D.C.
Richard L. Clancy	John W. Hirshfeld-Hosp. of the U. of Pennsylvania, Philadelphia	John Ross, Jr.-U. Hosp., California, S.D.
Lawrence S. Cohen-Yale U. Sch. of Med.	Richard L. Kahler-Scrpps Clinic, California, S.D.	Richard Shepard-Portland, Oregon
Lawrence Sanford Cohen-Mt. Sinai Hosp., Miami	Garrod A. Kaiser-	Charles L. Shelton-U. of South Western Med. Sch., Dallas, Texas
Henry N. Coleman-Mayo Clinic, Rochester, Minn.	Richard B. Karsh-U. of Colorado Med. Cntr., Denver	Burton E. Sobel-U. of St. Louis Med. Sch., Missouri
James W. Cowell-U. Hosp., California, S.D.	David T. Kelly-Johns Hopkins U. of Sch. of Medicine, Baltimore	Edmund H. Sonnenblick-Peter Bent Brigham Hosp., Boston
Peter J. Dempsey-Duke U. Hosp.	Francis J. Klocka-U. of Buffalo Sch. of Med., N.Y.	Eldon Smith-Victoria Gen. Hosp., Halifax, Nova Scotia
Gary Farnham-California, S.F.	Karen B. Kuehl-	James F. Spann, Jr.-Tulane Med. Sch., Philadelphia, Pa.
Samuel M. Fox, III-George Washington U. Sch. of Med., Wash., D.C.	Costas T. Lambrew-The New York Hosp.	Henry M. Spontini-P & S Hosp., New York
William F. Friedman-U. Hosp., California, S.D.	Gerald S. Levey-U. of Miami Sch. of Med.	Morris Stamper-Bronx Municipal Hosp., N.Y.
Peter Frommer-NIH	George E. Lindenmayer-	Roger R. Taylor-Royal Perth Hosp., Western Australia
James Gault-	Melvin Marcus-Jews U. Hosp.	Herbert Tanenbaum-Washington, D.C.
Luke D. Glancy-Louisiana State U. Med. Cntr., New Orleans, La.	Dean T. Mason-U. of California at Davis	Charles Urschel-Peter Bent Brigham Hosp., Boston
Gerald Glick-Michael Reis Inst., Chicago, Ill.	Joel Manganroth-Hosp. of the U. of Pennsylvania, Philadelphia	Andrew Wechsler-Duke U. Sch. of Med.
Harman K. Gold-Massachusetts Gen. Hosp., Boston	Richard W. Myer-California, S.F.	Robert F. Zella-Hershey, Pa.
Alan Goldblatt-	Kevin P. O'Brien-Australia	
	William W. Pamley-Moffitt Hosp., California, S.F.	

NATIONAL HEART AND LUNG INSTITUTE

LABORATORY OF CELLULAR PHYSIOLOGY & METABOLISM

1950 — 1962

Section on Metabolism 1959 — 1962

Joel Avigan
James H. Baxter
Jacob E. Berger
Daniel Daykin
Jean Pierre Dustin
Eugene B. Feigelson
Donald S. Fredrickson
DeWitt Goodman
Howard C. Goodman
Robert S. Gordon
Richard Havel
Alan F. Holmann
Albert I. Holtz
Simeon Margolis
Charles M. Radding
Akira Tanaka
Martha Vaughan
Malcom H. Whyte

Section on Cellular Physiology 1958 — 1962

James C. Allen
Christian B. Anlinsen
Arieh Berger
Irwin H. Billick
Stanley Bradley
Joseph H. Bragdon
Ramsey Brook
Edward Bynum
Robert E. Canfield
Michael J. Crumpton
William J. Dreyer
P. F. Duggan
Walter Englander
Charles Epstein
Donald S. Fredrickson
Ann Ginsburg
Jamie Godfrey
Robert Goldberger
Robert S. Gordon
Edgar Haber
William F. Harrington
Richard Hendler
Marjorie Horning
John P. Hummel
Wayne W. Kieley
Edward O. Korn
Arthur Marin

O. Wesley McBride
Thomas C. Merigan
Elmer Mihalyi
James Olson
Joseph Parks
John T. Potts
Robert Redfield
Francis J. Reithel
Charles M. Radding
Marlin Rodbell
Rudolf Schmid
Michael Sela
Elazer Shafir
Parker A. Small
Earl R. Stadman
Theresa C. Stadman
Daniel Steinberg
Junkichi Tani
Trygve Tuve
Martha Vaughan
Robert Weinberg
Frederick H. White, Jr.
Barbara Wright
Tatshuhira Yamashita
David M. Young
Michael Young

Section on Enzymes 1958 — 1962

Allred Alberts
Roscoe O. Brady
Elmer Brown
Robert Burton
Herman Eggerer
Martin Flavin
Howard Goldfine
Peter Goldman
Isaac Harary
John K. Hardman
Hugh Hayward
Emory Herman
Marjorie Horning
Steven Kinsky
Seymour Korke
Edward Kravitz
Nicola Krichevsky
Kazuoki Kuratomi
Mark Levitch
Donald Martin
Todd Miles
Ira Pastan
Michael Poston
Werner Seubert
William V. Shaw
William Sly
Pauline Z. Smyrniotis
Earl R. Stadman
Theresa C. Stadman
J. Szulmajster
Lin Tsai
P. Roy Vagelos
Conrad Wagner
Frederick H. White
Charles Wittenberger
Barbara Wright

Section on Cellular Biochemistry & Ultrastructure

Schmuel Balzri
Blair Bowers
Dorr Dearborn
Edward O. Korn
Ann Lees
Hiroshi Maruta
Thomas Olivecrona
Thomas Pollard
Antoinette Rytter
Susan Simmons
Frank R. Smith
Sharon Smith
Andrew G. Ussamer
Edward J. Victoria
Robert Weising
Mary G. Weisel

Section on Cellular Physiology 1962 — Present

Robert Adelstein
Armando Albert
Stephen Chock
Frank Davidoff
John Eisele
Evan Eisenberg
Michael E. Friedmann
Richard W. Hendler
Leonard Jarrett
Wayne W. Kieley
Masami Kimura
Edward D. Korn
W. Michael Kuehl
O. Wesley McBride
Elmer Mihalyi
Sally Mulhern
Michael Pereira
Thomas D. Pollard
Takamitsu Sekine
Raymond Scharff
Frank R. Smith
Andrew Ussamer
Robert Weising
Robert A. Weisman
Mary G. Weisel
Frederick H. White, Jr.
Tatshuhira Yamashita

LABORATORY OF BIOCHEMISTRY

1962 — Present

Section on Enzymes

Stuart Adler
Alfred Alberts
Wayne B. Anderson
Bernard M. Babior
John J. Baker
Eugene M. Barnes
Wolfgang Barz
Mary Anne Berberich
Richard Berlin
J. V. Bhat
Leroy Blankenship
Barbara Blaylock
Clive Bradbeer
Richard Bray
Albert Brown
Michael S. Brown
Carlos Caban
Lauren Cagen
Steven Cederbaum
P. Boon Chock
Joseph E. Clardi
Thomas F. Deuel
Edgar Engleman
Martin Flavin
Sharon Francis

Walter Fredricks
Richard Fulks
Lamont W. Gaston
Ann Ginsburg
Peter Goldman
Margaret Ann Grant
Steven Guggenheim
Peter Hambright
David Hammond
John K. Hardman
Donald R. Harkness
S. Barbara Hennig
Louis Hersh
John S. Holcenberg
Alan Horwitz
Charles Huang
Jerry S. Hubbard
John Hunt
Aryeh Hurwitz
H. Ronald Kaback
Barry H. Kaplan
Marshal Kaplan
Douglas Kerr
Henry Kingdon
Collette Klutchko
H. F. Kung

Kazuoki Kuratomi
David Luteran
Giulio Magni
John Mangum
Donald Martin
Richard E. Miller
Larry Milner
Collin G. D. Morley
Sadamu Nagai
Cynthia Oliver
Eugene Oliver
Joy Hochstadi Ozer
Robert Park
Ira Pastan
D. M. Pehike
Barry Posner
Michael Poston
Donald M. Powers
Thomas H. Price
Stanley B. Prusiner
Daniel Purich
Daniel Raybin
Paul Renz
Sue Goo Rhee
Michael Savin
Arnold Schwarz

Amiel Segal
Peter Senior
Belinda Seto
Bennett M. Shapiro
William Shaw
James Shih
Andrew F. Shrake
William Sly
Pauline Z. Smyrniotis
Earl R. Stadman
Theresa C. Stadman
Keith Summers
Robert L. Switzer
Richard Timmons
Steven Tronick
Lin Tsai
David C. Turner
P. Roy Vagelos
Valentine
Christian van der Drift
Takehiko Watanabe
Clifford Woolfink
Jen Yeh

Section on Intermediary Metabolism & Bioenergetics 1974 — Present

Joyce Cone
Belinda Seto
Theresa C. Stadman
Lin Tsai

Section on Comparative Biochemistry 1964 — 1966

Gerard P. Allhaud
Alfred Alberts
Peter Bally
Nicole Baumann
Allan Larrabee
Philip Majerus
P. Roy Vagelos

Section on Cellular Differentiation 1970

André Lazdunski
Claude Lazdunski
Bennett M. Shapiro
Antonio G. Siccardi

LABORATORY OF CELLULAR BIOCHEMISTRY

1974

Current Staff Section on Cellular Biochemistry & Ultrastructure

Blair Bowers
David Gordon
Edward Korn
Hiroshi Maruta
Antoinette Rytter
Sharon Smith

Current Staff Section on Cellular Physiology

Stephen Chock
Evan Eisenberg
Richard W. Hendler
Wayne W. Kieley
Elmer Mihalyi
Sally Mulhern
Raymond Scharff
Frederick H. White, Jr.

Current Staff Section on Intermediary Metabolism & Bioenergetics 1974

Joyce Cone
Belinda Seto
Theresa C. Stadman
Lin Tsai

Current Staff Section on Enzymes

Stuart Adler
Mary Anne Berberich
P. Boon Chock
Edgar Engleman
Martin Flavin
Sharon Francis
Richard Fulks
Ann Ginsburg
Cynthia Oliver
Robert Park

D. M. Pehike
Michael Poston
Donald M. Powers
Daniel Raybin
Sue Goo Rhee
Andrew Shrake
Pauline Z. Smyrniotis
Earl R. Stadman
Keith Summers

Present Affiliation ALUMNI OF LABORATORY OF BIOCHEMISTRY

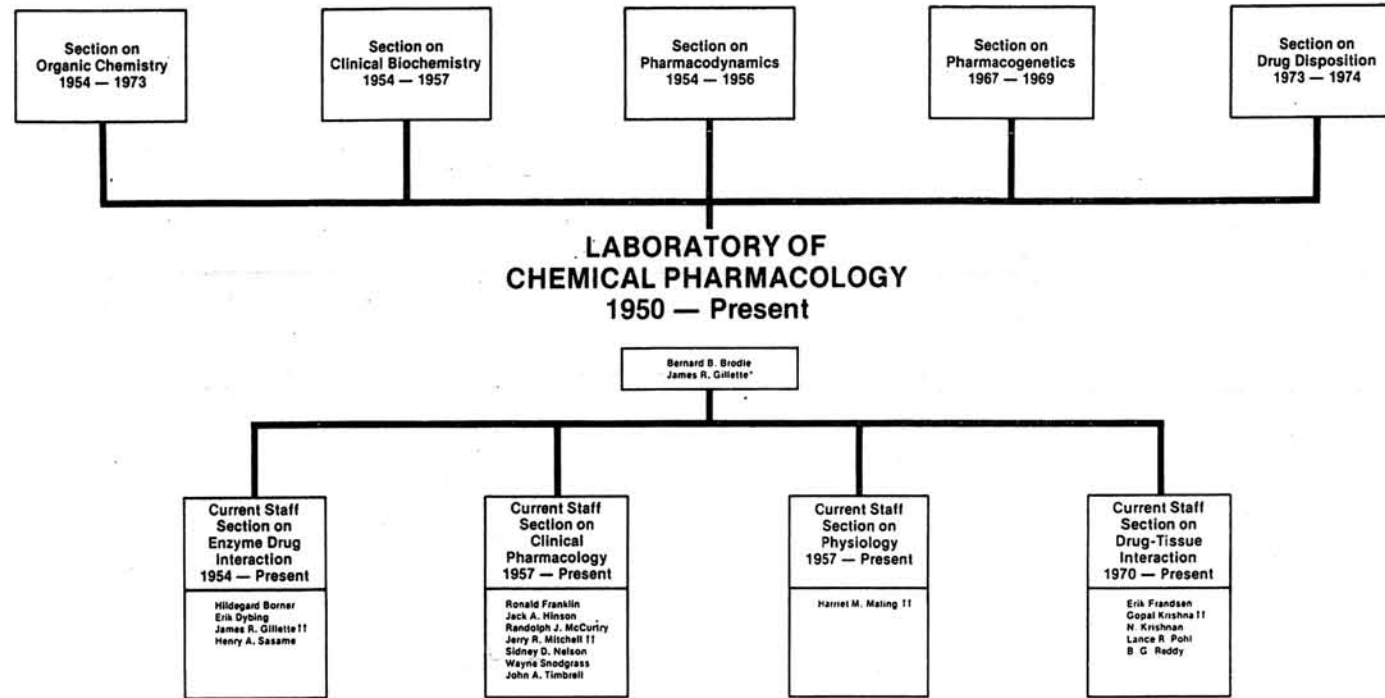
1. Stuart Adler—Current Staff
2. Gerard P. Allhaud—Univ. of Nice
3. Alfred Alberts—Wash. Univ., St. Louis
4. Wayne B. Anderson—NCI, NIH
5. Bernard M. Babior—Tufts Univ.
6. John J. Baker—Lifton Biometrics
7. Pater Bally—Univ. of Bern, Switz.
8. Eugene M. Barnes—Roche Institute
9. Nicole Baumann—France
10. Mary Anne Berberich—Current Staff
11. Richard Berlin—Harvard
12. J. V. Bhat—Kasturba Med. Col., India
13. Leroy Blankenship—ARS, Athens, Ga.
14. Barbara Blaylock—Bethesda, Md.
15. Clive Bradbeer—Univ. of Va.
16. Roscoe O. Brady—NINDS, NIH
17. Richard Bray—
18. Albert Brown—Univ. of Conn.
19. Elmer Brown—Wash. Univ., St. Louis
20. Michael S. Brown—Univ. Texas
21. Robert Burton—Wash. Univ., St. Louis
22. Carlos Caban—Current Staff
23. Lauren Cagen—NHLI, NIH
24. Steven Cederbaum—
25. P. Boon Chock—Current Staff
26. Joseph E. Clardi—NIDR, NIH
27. Joyce Cone—Current Staff
28. M. Drué Denton—Univ. Cincinnati
29. Thomas F. Deuel—Univ. Chicago
30. Herman Eggerer—Univ. Regensburg, W. Germ.
31. Edgar Engleman—Current Staff
32. Marlin Flavin—Current Staff
33. Sharon Francis—Current Staff
34. Walter Fredricks—Marquette Univ.
35. Richard Fulks—Current Staff
36. Lamont W. Gaston—Univ. of Mo., Columbia
37. Ann Ginsburg—Current Staff
38. Howard Goldfine—Univ. of Penn.
39. Peter Goldman—Harvard
40. Margaret Ann Grant—deceased
41. Steven Guggenheim—Univ. Colorado
42. Peter Hambright—Univ. of Cal., Berkeley
43. David Hammond—Private Practice, St. Louis
44. Isaac Harary—VA Hosp., Long Beach, Cal.
45. John K. Hardman—Johns Hopkins Univ.
46. Donald R. Harkness—Univ. of Miami
47. Hugh Hayward—Bethesda, Md.
48. S. Barbara Hennig—Max Planck Inst., Tubingen
49. Emory Herman—Emogene Bassett Hosp., Cooperstown, N. Y.
50. Louis Hersh—Southwestern Med. Sch., Dallas
51. John S. Holcenberg—Univ. of Wash., Seattle
52. Marjorie G. Horning—Baylor, Houston
53. Alan F. Horwitz—Univ. Penn., Phila.
54. Charles Huang—Dow Chemical Co., Zionsville, Indiana
55. Jerry S. Hubbard—Cal. Tech., Pasadena
56. John Hunt—Catholic Univ.
57. Aryeh Hurwitz—Univ. Kan., Kansas City
58. H. Ronald Kaback—Roche Institute
59. Barry H. Kaplan—Bronx Municipal Hosp. Center
60. Marshal Kaplan—Tufts Univ.
61. Douglas Kerr—Western Reserve
62. Henry Kingdon—
63. Steven Kinsky—Wash. Univ., St. Louis
64. Collette Klutchko—CNRS, Paris
65. Seymour Korke—deceased
66. Edward Kravitz—Harvard
67. Nicola Krichevsky—NIDR, NIH
68. H. F. Kung—Roche Institute
69. Kazuoki Kuratomi—Tokyo Med. Coll.
70. Herbert R. Kwasnik—
71. Allan Larrabee—Memphis St. Univ.
72. André Lazdunski—Univ. Strasbourg
73. Claude Lazdunski—CNRS, Marseille
74. Mark Levitch—Meharry Med. Coll.
75. David Luteran—
76. Giulio Magni—Univ. di Camerino, Italy
77. Philip Majerus—Wash. Univ., St. Louis
78. John Mangum—Brigham Young Univ.
79. Donald Martin—Harvard
80. Todd Miles—NIAMDD, NIH
81. Richard E. Miller—Univ. Cal., La Jolla
82. Larry Milner—Univ. Penn., Phila.
83. Collin G. D. Morley—Univ. of Chicago
84. Sadamu Nagai—Toneyama Inst. for Tuberculosis Research, Osaka
85. Cynthia Oliver—Current Staff
86. Eugene Oliver—NIDME, NIH
87. Joy Hochstadi Ozer—Worcester Foundation
88. Robert Park—Current Staff
89. Ira Pastan—NCI, NIH
90. J. Michael Poston—Current Staff
91. Donald M. Powers—Current Staff
92. Thomas H. Price—Univ. of Wash., Seattle
93. Stanley B. Prusiner—Univ. Cal., San Francisco
94. Daniel Purich—Univ. Cal., Santa Barbara
95. Daniel Raybin—Current Staff
96. Paul Renz—Univ. Hohenheim, Stuttgart
97. Sue Goo Rhee—Current Staff
98. Michael A. Savin—Univ. of Wash., Seattle
99. Arnold Schwarz—
100. Amiel Segal—
101. Peter Senior—Univ. Hull, England
102. Belinda Seto—Current Staff
103. Werner Seubert—Univ. Göttingen, W. Germ.
104. Bennett M. Shapiro—Univ. Wash., Seattle
105. William Shaw—Mill Hill, London
106. James Shih—Flow Laboratories
107. Andrew F. Shrake—Current Staff
108. Antonio G. Siccardi—Inst. Di Genetica, Pavia, Italy
109. William Sly—Wash. Univ., St. Louis
110. Pauline Z. Smyrniotis—Current Staff
111. Earl R. Stadman—Current Staff
112. Theresa C. Stadman—Current Staff
113. Keith Summers—Current Staff
114. Robert L. Switzer—Univ. Illinois, Urbana
115. J. Szulmajster—CNRS, Gif-sur-Yvette
116. Richard Timmons—Catholic Univ.
117. Steven Tronick—NCI, NIH
118. Lin Tsai—Current Staff
119. David C. Turner—Eidgenössische Tech. Hochschule, Zurich
120. P. Roy Vagelos—Wash. Univ., St. Louis
121. Christian van der Drift—Univ. Nijmegen, The Netherlands
122. Conrad Wagner—VA Hospital, Nashville
123. Takehiko Watanabe—Osaka Univ., Japan
124. Frederick White—NHLI, NIH
125. Charles Wittenberger—NIDR, NIH
126. Clifford Woolfink—Univ. Cal., Irvine
127. Barbara Wright—Retina Foundation, Boston
128. Jen Yeh, Wistar Institute, Phila.

Present Affiliation ALUMNI OF THE SECTIONS ON CELLULAR BIOCHEMISTRY & ULTRASTRUCTURE, CELLULAR PHYSIOLOGY, & METABOLISM

1. Robert Adelstein—NHLI, NIH
2. Armando Albert—Inst. Quim. Fisica, Madrid
3. James C. Allen—SUNY, Buffalo
4. Christian B. Anlinsen—NIAMDD, NIH
5. Joel Avigan—NHLI, NIH
6. Schmuel Balzri—NIAMDD, NIH
7. James H. Baxter—NIH
8. Arieh Berger—Weizmann Inst. Rehovoth
9. Jacob E. Berger—Roswell Park Mem. Inst.
10. Irwin H. Billick—
11. Blair Bowers—Current Staff
12. Stanley Bradley—Columbia Univ.
13. Joseph H. Bragdon—deceased
14. Ramsey Brook—Univ. of York, England
15. Edward Bynum—NIDMS, NIH
16. Robert E. Canfield—Columbia Univ.
17. Stephen Chock—Current Staff
18. Michael J. Crumpton—
19. Frank Davidoff—Univ. Conn. Med. School
20. Daniel Daykin—Boston VA Hosp.
21. Dorr Dearborn—Case Western Reserve
22. William J. Dreyer—Cal. Inst. Tech.
23. P. F. Duggan—
24. Jean Pierre Dustin—
25. John Eisele—Univ. Hosp., Cleveland
26. Evan Eisenberg—Current Staff
27. Walter Englander—Univ. Penn.
28. Charles Epstein—Univ. Cal. Med. School
29. Eugene B. Feigelson—Columbia Univ.
30. Donald S. Fredrickson—Nat. Acad. Med. (NAS)
31. Michael E. Friedmann—Auburn Univ.
32. Ann Ginsburg—Current Staff (Enz. Section)
33. Jamie Godfrey—Johns Hopkins
34. Robert Goldberger—NCI, NIH
35. DeWitt Goodman—Columbia Univ.
36. Howard C. Goodman—WHO, Geneva, Switz.
37. David Gordon—Current Staff
38. Robert S. Gordon—Clinical Center, NIH
39. Edgar Haber—Harvard (MGH)
40. William F. Harrington—Johns Hopkins
41. Richard Havel—Univ. Cal., San Francisco
42. Richard W. Hendler—Current Staff
43. Alan F. Holmann—Mayo Med. School, Rochester
44. Albert I. Holtz—
45. John P. Hummel—deceased
46. Leonard Jarrett—Washington Univ., St. Louis
47. Wayne W. Kieley—Current Staff
48. Masami Kimura—Nat. Inst. Indust. Health, Japan
49. Edward D. Korn—Current Staff
50. W. Michael Kuehl—Einstein Col. Med.
51. Ann Lees—Mass. Inst. Tech.
52. Simeon Margolis—Johns Hopkins
53. Arthur Martin—
54. Hiroshi Maruta—Current Staff
55. O. Wesley McBride—
56. Thomas C. Merigan—Stanford U.
57. Elmer Mihalyi—Current Staff
58. Sally Mulhern—Current Staff
59. Thomas Olivecrona—Umea Univ., Sweden
60. James A. Olson—Mahidol U., Bangkok
61. Joseph Parks—
62. Michael Pereira—N. Y. Blood Center
63. Thomas D. Pollard—Harvard
64. John T. Potts—Harvard (MGH)
65. Robert Redfield—deceased
66. Charles M. Radding—Yale
67. Francis J. Reithel—Univ. of Oregon
68. Marlin Rodbell—NIAMDD, NIH
69. Antoinette Rytter—Current Staff
70. Takamitsu Sekine—Juntendo Univ., Tokyo
71. Raymond Scharff—Current Staff
72. Rudolf Schmid—Univ. Cal. Med. Ctr.
73. Michael Sela—Weizmann Inst. Sci., Rehovoth
74. Elazer Shafir—
75. Susan Simmons—VA Hospital, Boston
76. Parker A. Small—U. Florida Col. Med.
77. Frank R. Smith—Columbia Univ.
78. Sharon Smith—Current Staff
79. Daniel Steinberg—U. Cal., San Diego
80. Akira Tanaka—
81. Junkichi Tani—Toneyama T. B. Res. Hosp., Osaka
82. Trygve Tuve—deceased
83. Andrew G. Ussamer—Consumer Products Protection Commission
84. Martha Vaughan—NHLI, NIH
85. Edward J. Victoria—U. Cal., San Diego
86. Robert Weising—Worcester Foundation
87. Robert Weinberg—
88. Robert A. Weisman—Univ. of Texas
89. Mary G. Weisel—Bethesda, Md
90. Frederick H. White, Jr.—Current Staff
91. Malcom H. Whyte—Univ. Sydney, Australia
92. Tatshuhira Yamashita—Juntendo Univ., Tokyo
93. David M. Young—NCI, NIH
94. Michael Young—Harvard (MGH)

NATIONAL HEART AND LUNG INSTITUTE

LABORATORY OF CLINICAL BIOCHEMISTRY 1957 — 1968



Sidney Udenfriend*

ALUMNI

- Jack Barchas--Stanford Med. Sch.
- Vida Beaven--DHEW
- Nathan Brody--Roche Inst. of Molecular Biology
- Cyrus Creveling--NIAMD
- Rugina Cukier--
- Wallace Dairman--Roche Inst. of Molecular Biology
- Herbert Dickerman--Johns Hopkins U.
- Robert J. Enzel--U. of Pittsburgh
- Leonard A. Fahien--U. of Wisconsin
- Theodore Friedmann--
- James Walley Gibb--U. of Utah
- Kenneth Gibson--Cornell U.
- Frederick Goodwin--NIMH
- James Goodwin--U. of New Mexico
- Robert Gordon--Wallace Labs.
- A. Arthur Gottlieb--Rutgers U.
- David M. Greenberg--U. of California
- Paul Greengard--Yale U.
- Terence J. Gribble--Stanford U.
- Gordog Guroff--NICH
- John P. Machmann--U. of Wisconsin
- William H. Harrison--Rush Med. Sch.
- Boyd K. Hartman--Washington U.
- Sidney M. Hess--Squibb Inst.
- John J. Mutton, Jr.--U. of Kentucky
- Takeo Ito--Nihon U.
- John E. Japson--Middlesex Hosp. Med. Sch.
- Oliver W. Jones, Jr.--U. of California
- Edward Kalz--Georgetown U.
- Judith Levin--NICH
- Sven Tawald Lindstedt--Karolinski Inst.
- Morris Lipton--U. North Carolina
- Arnold Marglin--
- Richard E. Marshall--U. of Washington
- Karel Masak--
- Larry S. Milner--U. of Pennsylvania
- Chozo Mitoma--Stanford Research Inst.
- Toshiharu Nagatsu--U. of Nagoya
- Terumi Nakajima--U. of Tokyo
- E. Mussini--Inst. di Ricerche Farmacologiche "Mario Negri"
- Branišlav Nikodijević--U. of Shople
- Ogja Nikodijević--U. of Shople
- Marshall Nirenberg--NHLI
- Perola Nirenberg--NHLI
- David Perlman--U. of Wisconsin
- Sidney Pestka--Roche Inst. of Molecular Biology
- Beverly Peterkofsky--NCI
- Eline Prado--Escola Paulista de Medicina
- J. Leal Prado--Escola Paulista de Medicina
- Betsy G. Redfield--Roche Inst. of Molecular Biology
- Robert E. Rhoads--U. of Kentucky
- Martin Rosman--
- Carlos Spears--Roche Inst. of Molecular Biology
- Zeno Tamura--U. of Tokyo
- Takehori Tanimura--U. of Tokyo
- Robert T. Taylor--Lawrence Livermore Labs.
- A. L. Tappel--U. of California
- Sidney Udenfriend--Roche Inst. of Molecular Biology
- Herbert Weissbach--Roche Inst. of Molecular Biology
- Carolyn Whitfield--U. of Michigan
- Delcho Krastev Zheljizkov--U. of Sofia

Present Affiliation ALUMNI

- | | | | |
|---|--|--|--|
| <p>Louis Aronow--Stanford U.</p> <p>Khusheed Asghar--FDA</p> <p>Ibrahim Aykac--Ataturk U., Turkey</p> <p>Julius Axelrod--NIMH</p> <p>Alexander I. Balakieravsky--Grodno Med. Inst., USSR</p> <p>Michael A. Beaven--NHLI</p> <p>Marcel Bickel--U. of Bern, Switzerland</p> <p>Martin Black--Temple U.</p> <p>David A. Blake--Johns Hopkins U.</p> <p>Thomas P. Blaszkowski--NHLI</p> <p>Donald F. Bogdanski--NHLI</p> <p>Luigie Bonanomi--Zambon Res. Labs., Italy</p> <p>Luciano Bonomi--Clinica Oculistica, Italy</p> <p>David Boulton--U. of Oxford, England</p> <p>Henry R. Bourne, Jr.--U. of California</p> <p>Bernard B. Brodie--retired, Bethesda</p> <p>Ellis Am Brown--NHLI</p> <p>Alan Burkhalter--U. of California</p> <p>John J. Burns--Hoffmann-LaRoche, Inc.</p> <p>Milton T. Bush--Vanderbilt U.</p> <p>Arvid Carlsson--U. of Gothenburg, Sweden</p> <p>Joan Booth Cass--Chester Beatty Res. Inst., England</p> <p>Rosemary Cass--deceased</p> <p>José A. Castro--Zelrislagu y Varata, Buenos Aires</p> <p>Chang Chun-Chung--Nat'l. Taiwan U., China</p> <p>Theodore Cheshkin--New York State Psychiatric Inst.</p> <p>Gasiano Di Chiara--U. of Cagliari, Italy</p> <p>Colin F. Chignell--NHLI</p> <p>Arthur K. Cho--U. of California</p> <p>Glen M. Christensen--U. of Minnesota</p> <p>Basil J. Christie--U. of Adelaide, Australia</p> <p>George A. Clay--Searle Labs.</p> <p>Victor H. Cohn, Jr.--George Washington U.</p> <p>Water Conway--State U. of New York</p> <p>Allan H. Conney--Hoffmann-LaRoche, Inc.</p> <p>Jack R. Cooper--Yale U.</p> <p>Giovanni U. Corasini--U. of Cagliari, Italy</p> <p>Erminio Costa--NIMH</p> <p>Marion DeV. Cotten--Journal of Pharm. and Exper. Therapeutics</p> <p>Cyrus R. Creveling--NIAMD</p> <p>Stephen H. Curry--London Hosp. Med. Col., England</p> <p>Donald S. Davies--Royal Postgrad. Med. Sch., England</p> <p>James Islayn Davies--U. Col. of North Wales</p> <p>Donald C. Davis--Emory U.</p> <p>James M. Davis--Duke U.</p> <p>Clark Davison--Sterling-Winthrop Res. Inst.</p> <p>Peter Dayton--Emory U.</p> <p>Hans J. Dengler--Universitätsklinik, Bonn</p> <p>André DeSchampderyn--U. of Ghent, Belgium</p> <p>James V. Dingell--Vanderbilt U.</p> <p>Bruce R. Ditzion--P., v. Bent Brigham Hosp.</p> <p>Antonín Džabac--U. of Praha, Czechoslovakia</p> <p>Edward L. Docks--U.S. Borex Research</p> <p>Daniel E. Duggan--Merck Inst. Therap. Res.</p> <p>William A. Duncan, Scotland</p> <p>Daniel H. Efron--deceased</p> <p>Fritz Michel Eichebaum--Universitätsklinik, Bonn</p> | <p>T. N. Elliott--U. of Malaya</p> <p>Franc Edžec--U. of Jjubljana, Yugoslavia</p> <p>Ronald H. Erlich--McNeill Labs.</p> <p>Dennis R. Feller--Ohio State U.</p> <p>Jerome H. Fleisch--Lilly Research Labs.</p> <p>Kenneth F. Fingar--U. of Florida</p> <p>Javier Forn--U. of Barcelona, Spain</p> <p>James R. Fouts--NIEHS</p> <p>Ian M. Fraser--Loma Linda U.</p> <p>Zeljko Fuka--U. of Sarajevo, Yugoslavia</p> <p>Leo E. Gaudette--New England Nuclear Corp.</p> <p>Gian Gessa--U. of Cagliari, Italy</p> <p>Robert H. Gibbs--</p> <p>Phillippe Gilgen--U. of Bern, Switzerland</p> <p>Alfred Gilgen--U. of Zurich, Switzerland</p> <p>Jan Gorski--U. of Białystok, Poland</p> <p>Theodore E. Gram--NCI</p> <p>Frank E. Grassie--Pennsylvania State U.</p> <p>Anthony Guarino--NCI</p> <p>Wolfgang Hammer--deceased</p> <p>Maynard Hamrick--Auburn U.</p> <p>Larry G. Hart--NIEHS</p> <p>William M. Hart--Washington U.</p> <p>James P. Harwood--NHLI</p> <p>Masahisa Hashimoto--Dainippon Pharmaceutical Co., Ltd., Japan</p> <p>Dean R. Haubrich--Squibb Inst. for Med. Res.</p> <p>Zbigniew Herman--Silesian Sch. of Med., Poland</p> <p>Sidney M. Hess--Squibb Inst. Med. Research</p> <p>Shusuke Hirano--Tokyo U., Japan</p> <p>Alice Hogue--deceased</p> <p>Jordon Holtzman--VA Hospital, Minneapolis</p> <p>Vaclav Horak--Georgetown U.</p> <p>Zdenka Horakova--NHLI</p> <p>Howard B. Hucker--Merck Inst. for Therap. Res.</p> <p>Sistua Hynile--Charles U., Czechoslovakia</p> <p>Louis J. Ignaro--Tulane U.</p> <p>Kenneth F. Ileri--U. of Western Australia</p> <p>Charles E. Inturrisi--Cornell U.</p> <p>Yedy Izaola--U. of Toronto, Canada</p> <p>Sten Jacobsen--U. of Oslo</p> <p>John J. Jeffrey--Washington U.</p> <p>Howard L. Johnson--Stanford U.</p> <p>David J. Jollow--Med. U. of So. Carolina</p> <p>Werner R. Jonsson--U. of Cambridge, England</p> <p>Julian Kanter--E. K. Shriver Ctr.</p> <p>Hilla Tapio Karki--U. of Helsinki</p> <p>Ryūichi Kato--Fujisawa Pharmaceutical Co., Ltd., Japan</p> <p>Peter M. Keen--U. of Bristol, England</p> <p>Haruo Kitagawa--U. of Chiba, Japan</p> <p>Theodore Koppang--Georgetown U.</p> <p>Jozef Krawczak--Poland</p> <p>Marija C. Krzan--U. of Ljubljana, Yugoslavia</p> <p>Ronald Kuntzman--Hoffmann-LaRoche, Inc.</p> <p>Harvey J. Kupferberg--NINDS</p> <p>Hermann Kurz--Pharmakol Inst., Germany</p> <p>Bert N. La Du--U. of Michigan</p> | <p>Robert C. Lanman--U. of Missouri</p> <p>Marie-Jeanne Lascho--</p> <p>Lemuel C. Leeper--Riverton Labs</p> <p>Frederick H. Lutz--Indiana U.</p> <p>Joao Garcia Leme--</p> <p>Yen-Hoong Loo--New York State Inst. for Basic Research</p> <p>Roger P. Mackel--Indiana U.</p> <p>Luciano Manara--Inst. Di Ricerche Farmacologiche, "Mario Negri, Italy</p> <p>George R. Martin--NIDR</p> <p>Charles Matsumoto--Lilly Research Labs.</p> <p>N. Matusek--Max Planck-Institut, Munich</p> <p>Steven E. Mayer--U. of California</p> <p>J. A. R. Meag--NCI</p> <p>Raymond H. Menard--Rhode Island Hosp.</p> <p>I. Arthur Michaelson--U. of Cincinnati</p> <p>Francis Miller--Indiana U.</p> <p>Roberto Montanari--Italy</p> <p>Nori C. Moran--Emory U.</p> <p>Minoru Morita--Toray Ind. Inc., Japan</p> <p>Jay Moskowitz--NHLI</p> <p>Charles W. Nash--U. of Alberta, Canada</p> <p>P. K. Nayak--Charles Pfizer and Co.</p> <p>Norton H. Neff--NIMH</p> <p>Wendel L. Nelson--U. of Washington</p> <p>Panayotis A. Ness--Georgetown U.</p> <p>Karl J. Netter--U. of Mainz, Germany</p> <p>Ogja Nikodijević--U. of Skopje, Yugoslavia</p> <p>F. Barbara Orlandi--RG DIR</p> <p>Winfried L. Pachas--Sandoz Ltd., Switzerland</p> <p>John G. Page--Eli Lilly and Co.</p> <p>Rodolfo Paoletti--U. Degli Studi, Italy</p> <p>N. Papadopoulos--Nat'l. Hellenic Res. Foundation, Greece</p> <p>George L. Pauk--U. of Texas</p> <p>Michael I. Paul--U. of California</p> <p>Stanley C. Penzotti--Wyeth Labs</p> <p>Jorge Perez-Cruel--McGill U., Canada</p> <p>Pincus Payer--New England Nuclear Corp.</p> <p>Alfred Pletscher--Hoffmann-LaRoche, Inc., Switzerland</p> <p>Herbert Posner--NIEHS</p> <p>William Z. Potter--NIMH</p> <p>Leon D. Prokop--U. of S. Florida</p> <p>Robert Pulver--Ciba, Switzerland</p> <p>Edward Quenca--U. of Barcelona, Spain</p> <p>Gerturde P. Quin--Ciba-Geigy Corp.</p> <p>Alvin Revin--Fed. Aviation Agency</p> <p>Gopal Subba Rao--American Dental Assoc.</p> <p>Watson D. Reid--Reston-Georgetown Med. Ctr.</p> <p>Marcel Robertroid--U. Catholique de Louvain, Belgium</p> <p>Richard Salvador--Hoffmann-LaRoche, Inc.</p> <p>Norman P. Salzman--NIAMD</p> <p>Lewis S. Schanker--U. of Missouri</p> <p>Peter S. Schonhofer--Inst. für Pharmakologie, Hannover, Germany</p> <p>David H. Schroeder--Bouroughs Wellcome and Co.</p> <p>Herbert Schumacher--Children's Hosp., Cincinnati, Ohio</p> <p>Richard Schuyler--State of New York Dept. of Mental Hygiene</p> <p>Elliott Schiffmann--NICR</p> <p>Jens Schou--U. of Copenhagen</p> | <p>John W. Severinghaus--U. of California</p> <p>Parkhurst A. Shere--U. of Texas, Dallas</p> <p>Stanley L. Silver--private practice</p> <p>Marvin S. Siperstein--U. of California</p> <p>I. Glenn Sipes--U. of Arizona</p> <p>Poonam Chand Sisodia--Osmania Med. Col., India</p> <p>F. G. Folke Sjogqvist--Karolinska Inst., Sweden</p> <p>Ian Frederick Skidmore--Imperial Chem. Ind. Ltd., England</p> <p>Robert L. Smith--St. Mary's Hosp. Med. Sch., England</p> <p>Thomas E. Smith--U. of California</p> <p>Sydney Spector--Roche Inst. of Molecular Biology</p> <p>Herbert Spiegel--Hoffmann-LaRoche, Inc.</p> <p>Francisco J. E. Stefano--Inst. de Invest. Farmacologicas, Buenos Aires</p> <p>Maurice Stupfel--Val de Grace Hosp., France</p> <p>Amin Suria--NIMH</p> <p>Fridolin Suter--Vanderbilt U.</p> <p>Howard M. Sussman--Stanford U.</p> <p>Harvey M. Solomon--Johns Hopkins Hosp</p> <p>Harold H. Smookler--deceased</p> <p>Ryo Tabai--Japan</p> <p>Alexandro Tagliamonte--U. of Cagliari, Italy</p> <p>Paola Tagliamonte--U. of Cagliari, Italy</p> <p>Eigo Takabatake--Nagasaki U., Japan</p> <p>Clyde A. Takeguchi--NHLI</p> <p>Palmer Taylor--U. of California</p> <p>Annunay Thitaphandha--Mahidol U., Thailand</p> <p>Snorri Thorgeirsson--NICH</p> <p>Umar Thorgeirsson--George Washington U.</p> <p>Elizabeth Tibball--George Washington U.</p> <p>Anja Helena Tisari--U. of Helsinki</p> <p>Elwood O. Tilus--NHLI</p> <p>Yoshihiro Tachino--Shinogi Res. Lab., Japan</p> <p>Gordon M. Tomkins--U. of California</p> <p>Thomas N. Tozer--U. of California</p> <p>Vaclav Trcka--U. of Praha, Czechoslovakia</p> <p>Sidney Udenfriend--Roche Inst. of Molecular Biology</p> <p>Elliot S. Vesell--Pennsylvania State U.</p> <p>Wolfgang H. Vogel--Thomas Jefferson U.</p> <p>Klausmarin Voigt--U. of Uim, Germany</p> <p>Ladislav Volcenc--Boston U.</p> <p>Robert Pulver--Ciba, Switzerland</p> <p>R. T. Williams--St. Mary's Hosp. Med. Sch., England</p> <p>Martin G. Weigert--Salk Inst. for Biological Studies</p> <p>Marjuri Weihe--State Hosp. of Torshavn, Denmark</p> <p>Gopal Subba Rao--American Dental Assoc.</p> <p>Herbert Weissbach--Roche Inst. of Molecular Biology</p> <p>Erk Westermann--Medizinische Hochschule, Hannover, Germany</p> <p>Robert A. Wiley--U. of Kansas</p> <p>Cedric W. M. Wilson--Trinity Col., Ireland</p> <p>Thomas Wuntch--U. of Texas</p> <p>James B. Wyngarden--Duke U.</p> <p>Kazuo Yamada--U. Tokyo, Japan</p> <p>Nicola G. Zampaglione--Schering Corp.</p> <p>Vincent Zannoni--U. of Michigan</p> <p>Uriel Zor--U. of Pittsburgh</p> |
|---|--|--|--|

* Chief
† Section Head

NATIONAL HEART AND LUNG INSTITUTE

LABORATORY OF CELLULAR METABOLISM 1974 - Present

The Laboratory studies the mechanisms, hormonal and otherwise, that control the cyclic nucleotide content of mammalian cells and the biochemical processes through which cyclic AMP and cyclic GMP influence specific aspects of cellular metabolism and function.

The Laboratory was formed in 1974 from the Section on Metabolism, Molecular Disease Branch, Chief, Daniel S. Fredrickson, M. D. (1966 - 1974) who is currently President, Institute of Medicine, National Academy of Sciences. The Section on Metabolism was formed in 1968 from the Laboratory of Metabolism, Chief, Daniel Steinberg, M. D., Ph. D. (1962 - 1968) who is currently Professor of Medicine, University of California, San Diego. The Laboratory of Metabolism was formed in 1962 from the Section on Metabolism, Laboratory of Cellular Physiology and Metabolism, Chief, C. B. Anfinsen, Ph. D. (1952 - 1962) who is currently Chief, Laboratory of Chemical Biology, NIAMDD. Alumni from these several units are included in the following list.

Current Staff	
Joel Avigan	Joel Moss
James H. Baxter	Jeffrey A. Sandler
Ronald I. Clyman	Su-Chen Tsai
C. J. Lovell-Smith	Martha Vaughan**
Vincent C. Manganelli	

* Chief

MOLECULAR DISEASE BRANCH 1966 - Present

The Section on Chemistry (Molecular Disease Branch) became the Laboratory of Chemistry October 20, 1969. The Section on Molecular Hematology (Molecular Disease Branch) became the Molecular Hematology Branch April 26, 1973. The Section on Metabolism (Molecular Disease Branch) became the Laboratory of Cellular Metabolism March 22, 1974.

The Chief of the Branch from 1966 to 1974 was Dr. Donald Fredrickson, currently President, Institute of Medicine, National Academy of Sciences.

Research in the Molecular Disease Branch is directed toward elucidation of the biochemical and physical nature of plasma lipoproteins as well as their metabolism and functions in health and disease.

Current Staff	
Zafarul H. Beg	Eugene Passamani
Conrad Blum	John M. Richardson
John Brensike	Kunjilata Shah
H. Bryan Brewer, Jr.	Richard S. Shulman
Donald S. Fredrickson	Howard R. Sloan
L. Omar Henderson	Fairwell Thomas
Peter N. Herbert	Martha Vaughan**
Robert I. Levy	

** Acting Chief

LABORATORY OF KIDNEY AND ELECTROLYTE METABOLISM 1950 - Present

This laboratory has investigated kidney function, cellular and transepithelial transport, and hormonal regulation, providing basic insights in these areas. Dr. Robert Berliner, currently Dean of Yale School of Medicine, was Chief from 1950 to 1962. Dr. Jack Orloff, currently Director, Division for Inhereditary Research, NHLI, was Chief from 1962 to 1975. The alumni listed below, are now leaders in these fields. Among them are more than 30 full and associate professors in medical schools in the United States alone.

Current Staff	
Dennis Ausiello	Jack Orloff
Maurice Burg*	Dianne Robble
Stephen Hajdu	Robert Rosen
Joseph Handler	Larry Stoner
Floyd Kregenow	Gordon Strewler
Bruce Leslie	David Warnock

* Chief

Present Affiliation ALUMNI OF LABORATORY OF CELLULAR METABOLISM	
James C. Allen--Johns Hopkins Sch. of Med.	Claude L. Matmender--Hôpital Universitaire, Brussels
Joel Avigan--Current Staff	Vincent C. Manganelli--Current Staff
James H. Baxter--Current Staff	Simeon Margolis--Johns Hopkins U.
Per Billrage--U. of Lund	Alvin Markowitz--La Rabida Jackson Park Sanitarium, Chicago
Alvin Markowitz--La Rabida Jackson Park Sanitarium, Chicago	Robert J. Mason--Cardiovascular Research Inst., S.F.
Roseline Berlin--Paris	A. Michajlik--
Sam J. Bhatnaga--VA Hosp., Washington, D.C.	Charles E. Mize--Southwestern Med. Sch.
John P. Blase--U. of California, L.A.	B. Mosinger--INH, Prague
Edwin Boyle--Med. Coll. of S. Carolina	Joel Moss--Current Staff
Joseph H. Bragdon--deceased	Ferid Murad--U. of Virginia Med. Sch.
James R. Carter, Jr.--Harvard Med. Sch.	Paul J. Nestle--Australian Natl. U., Canberra
David R. Chellomier--Indiana U. Med. Ctr.	Meda M. Oliveira--
Ronald I. Clyman--Current Staff	Hans H. Ott--Medizinische Klinik Id. Burgerhospital, Stuttgart
Stephen R. Cresslin--Barnes Hosp., St. Louis	Leonard G. Pawlson--U. of Washington Med. Sch.
Richard M. Dexter--Indiana U. Med. Ctr.	Ray C. Pittman--U. of California, S.D.
Daniel Daykin--Beth Israel Hosp., Boston	Charles M. Radding--Yale U.
Jean-Pierre Dustin--	Herbert G. Rose--VA Hosp., Bronx
Phillip R. Eaton--U. of New Mexico Sch. of Med.	Bengt Samuelsson--Karolinska Institutet, Sweden
Howard A. Eden--Albert Einstein Coll. of Med.	Jeffrey A. Sandler--Current Staff
Eugene Felgelson--Columbia Presbyterian Med. Ctr.	Eliezer Shafir--Hadassah Med. Sch., Jerusalem
Arthur Frank--OEO, Washington, D.C.	Arthur A. Specior--U. of Iowa Hosp.
Peter Goldman--Harvard Med. Sch.	Winifred Stafford--U. of Edinburgh Med. Sch.
DeWitt S. Goodman--Columbia Presbyterian Med. Ctr.	Daniel Steinhilber--U. of California, S.D.
Howard C. Goodman--W.H.O., Geneva	John Thomas--U. of California, S.F.
R. S. Gordon, Jr.--CC	Thomas P. Siosse--Children's Hosp. Med. Ctr., Boston
William B. Greenough--Johns Hopkins U.	S. O. Strand--deceased
Alisa B. Gutman--Hadassah Med. Sch., Jerusalem	Barry S. Strauch--Arlington, Va.
Richard J. Havel--Cardiovascular Inst., S.F.	Karl E. Suszpan--Diabetes Foundation Inc., Boston
James H. Hamdon, Jr.--Southwestern Med. Sch.	Akiba Tanaka--NINS, Tokyo
Alan Hofmann--Mayo Med. Sch.	Su-Chen Tsai--Current Staff
Matthias Hollmann--Medizinische Universitätsklinik, Heidelberg	Marilena Usardi--Istituto di Farmacologia, Milano
Albert I. Holtz--U. Hosp., Baltimore	Martha Vaughan--Current Staff
L. Horlick--U. of Saskatchewan	Hugh Voerman--Agriculture Research Ctr., Belleville
Arthur Karmen--Albert Einstein Coll. of Med.	Frederic O. Vroom--J. Hillis Miller Health Ctr., Gainesville
A. N. Kilmon--Inst. of Experimental Med., Leningrad	Malcolm Whyte--Kanemitsu Mem. Inst., Sydney
David M. Kornhauser--Vanderbilt U.	F. Peter Woodford--Ciba Foundation
Philippe Laudat--Inst. Natl. de la Santé et de la Recherche Médicale, Paris	
Robert S. Lees--M.I.T.	
Sven Lindstedt--Karolinska Sjukhuset, Sweden	
C. J. Lovell-Smith--Current Staff	

Present Affiliation ALUMNI OF MOLECULAR DISEASE BRANCH	
Gerd Assmann--Kliniken der Universitätsklinik Köln	Robert I. Levy--Current Staff
Zafarul H. Beg--Current Staff	Samuel E. Lux--Children's Hosp., Boston
David W. Bilheimer--Southwestern Med. Sch.	Joel Morgenthau--U. of Pennsylvania
Maria Blumberg--Northwestern U.	Hugh David Hall--Massachusetts Gen. Hosp.
Conrad Blum--Current Staff	Jeffrey L. H. O'Riordan--Middlesex Hosp., London
John Brensike--Current Staff	Walter Crawford Owen--Birmingham
Jan L. Breslow--Children's Hosp., Boston	Eugene Passamani--Current Staff
H. Bryan Brewer, Jr.--Current Staff	John T. Potts, Jr.--Massachusetts Gen. Hosp.
W. Virgil Brown--U. of California, S.D.	Steven Quarfordt--VA Hosp.--Durham, N.C.
Richard Buckle--London	John M. Richardson--Current Staff
Leonard J. Dellos--U. of California, La Jolla	Alan Kent Rider--Stanford U. Coll. of Med.
Sumana Devi--NIH	Basil Rilland--NHLI
Shlomo Eisenberg--The Hebrew U., Jerusalem	Nancy M. Risser--
Gary S. Farnham--San Francisco Gen. Hosp.	Cecilia Santana--Hosp. Universitario, Caracas
Joseph Fastow--Washington, D.C.	Kunjilata Shah--Current Staff
Donald S. Fredrickson--Current Staff	Richard S. Shulman--Current Staff
Charles J. Glueck--Cincinnati Gen. Hosp.	Howard R. Sloan--Current Staff
Antonio M. Gotto, Jr.--Baylor Coll. of Med.	Nell J. Stone--Northwestern Mem. Hosp.
Barry H. Greenberg--Yale U. Med. Sch.	George E. Thibault--Massachusetts Gen. Hosp.
Heiner Green--Medizinische Universitäts-Klinik, Heidelberg	Fairwell Thomas--Current Staff
L. Omar Henderson--Current Staff	Martha Vaughan--Current Staff
Peter N. Herbert--Current Staff	Lee A. Witters--Massachusetts Gen. Hosp.
Ronald Mirz--U. of California, Orange County Med. Ctr.	
Antonio Jover--Tome River, Paseo de la Concha, S. Agaro, Gerona	
Henry T. Keutmann--Massachusetts Gen. Hosp.	
Ronald M. Krauss--U. of California, S.F.	
Peter O. Kwoleczak, Jr.--Johns Hopkins U. Hosp.	
Terry Langer--U. of Pennsylvania Med. Sch.	
John La Ross--George Washington U.	
Michael R. Lee--Radcliffe Infirmary, Oxford	
Robert Lees--M.I.T.	
Robert I. Levy--Current Staff	
Samuel E. Lux--Children's Hosp., Boston	
Joel Morgenthau--U. of Pennsylvania	
Hugh David Hall--Massachusetts Gen. Hosp.	
Jeffrey L. H. O'Riordan--Middlesex Hosp., London	
Walter Crawford Owen--Birmingham	
Eugene Passamani--Current Staff	
John T. Potts, Jr.--Massachusetts Gen. Hosp.	
Steven Quarfordt--VA Hosp.--Durham, N.C.	
John M. Richardson--Current Staff	
Alan Kent Rider--Stanford U. Coll. of Med.	
Basil Rilland--NHLI	
Nancy M. Risser--	
Cecilia Santana--Hosp. Universitario, Caracas	
Kunjilata Shah--Current Staff	
Richard S. Shulman--Current Staff	
Howard R. Sloan--Current Staff	
Nell J. Stone--Northwestern Mem. Hosp.	
George E. Thibault--Massachusetts Gen. Hosp.	
Fairwell Thomas--Current Staff	
Martha Vaughan--Current Staff	
Lee A. Witters--Massachusetts Gen. Hosp.	

Present Affiliation ALUMNI OF LABORATORY OF KIDNEY AND ELECTROLYTE METABOLISM	
Maurice Abramow--Free U. of Brussels	Floyd Kregenow--Current Staff
William Albers--Mass. Eye & Ear Infirmary	Edward Leonard--Natl. Cancer Inst.
William Argy--Georgetown U.	Bruce Leslie--Current Staff
Philip Askase--Yale U.	Norman Levinsky--Boston U.
Knut Auktang--U. of Bergen	Herbert Lubowitz--Washington U.
Dennis Ausiello--Current Staff	Michael Lutz--U. of California, S.D.
Carlos Ayers--U. of Virginia	Dennis Martin--U. of Louisville
Wilms Ball--Johns Hopkins U.	T. J. Maxium--Rocky River, Ohio
Claves Bennett--U. of California, L.A.	Stanley Mendoza--U. of California, S.D.
Robert Berliner--Yale U.	Trefor Morgan--Princess Alexandra Hosp., Australia
Peter Binnion--	Rodney Omachi--U. of California, S.F.
Jean-Francois Boudry--Hosp. Cantonal U.	Michael Olschney--
George Bray--U. of Connecticut	Jack Orloff--Current Staff
Louis Brenes--Hosp. San Juan de Dios	John Parker--U. of N. Carolina
Barry Brenner--U. of California, S.F.	George Peters--Lousanne Med. Sch.
Torrey Brown--Johns Hopkins U.	Maxim Petrasen--
Maurice Burg--Current Staff	Christian Posner--Los Angeles County Hosp.
Jean Cardinal--U. of Montreal	Dianne Robble--Current Staff
Charles Carpenter--Case Western Reserve	Jerzy Rogulski--Med. Sch. of Poland
William Cirkse--Georgetown U.	Robert Rosen--Current Staff
James Clapp--Duke U.	Alan Rosenthal--NIAMD
Irving Cooperstein--	Hubert Ryan--Dublin U.
Ernest Colloff--deceased	Fuminori Sakai--Tokyo U.
Douglas Davidson--San Diego	Irene Scholtz--Hga-Franck Inst.
Bernard Davis--U. of Pittsburgh	Victor Sider--Albert Einstein U.
James Davis--U. of Missouri	Jeffrey Stoff--Harvard U.
Vincent Dennis--Duke U.	Larry Strauch--Arlington, Va.
John Dirks--McGill U.	Gordon Strewler--Current Staff
Edward Dunham--	Minoru Sugita--Osaka U.
Laurence Earley--U. of Texas Health Science Ctr.	Massao Tadokoro--Tokyo U.
Kenneth Falchuk--Harvard U.	Daniel Tosteson--Duke U.
Douglas Ferguson--Cambridge U.	Bruce Tunc--Stanford U.
Arthur Finn--U. of N. Carolina	Shigeharu Urakabe--Osaka U.
Gustavo Frinoli--Catholic U. of Chile	John Urquhart--Alza Corp.
Jay Goodkind--U. of Pennsylvania	Dominique Villey--Hosp. Necker-Enfants Malades
Melvin Gottlieb--NIAMDD	MacKenzie Walker--Johns Hopkins U.
Jared Grantham--U. of Kansas	Dennis Waring--Johns Hopkins U.
Stephen Hajdu--Current Staff	David Warnock--Current Staff
Joseph Handler--Current Staff	Fred Wright--Yale U.
Erich Heinz--W. Goethe U.	Henry Wagner--Johns Hopkins U.
Sandy Helman--U. of Illinois	Nicholas Yankopoulos--U. of California, L.A.
James Higgins--Indiana U.	Stephen Zgliczynski--U. of Warsaw
Joseph Hoffman--Yale U.	
Adrian Hogben--U. of Iowa	
Michael Horster--U. of Munich	
Stuart Howards--U. of Virginia	
David Howell--U. of Miami	
Robert Hyatt--Mayo Clinic	
Leon Isaacson--U. of Cape Town	
John Jaenika--U. of Rochester	
Rea Jamison--Stanford U.	
C. Johnston--Monash U., Australia	
Melvin Kahn--Mt. Sinai Med. Sch.	
Robert Kempwells--George Washington U.	
Hans Kettel--Ortha-Cynol Labs	
Thomas Kennedy--Natl. Acad. of Sciences	
Franklyn Knox--Mayo Graduate Sch. of Med.	
Juha Kokko--U. of Texas Southwestern Med. Sch.	

NATIONAL HEART AND LUNG INSTITUTE

HYPERTENSION - ENDOCRINE BRANCH 1953 — Present

Frederic C. Bartter*
Harry Keiser**

Current Staff Steroid and Mineral Metabolism Section
Frederic C. Bartter* Arthur E. Broadus Manuel Dominguez John R. Gill, Jr. Angelo A. Licata Nezam Radfar Addison A. Taylor John Yun

Current Staff Experimental Therapeutics Section
Robert E. Bowden Veldemar Hial David Horvitz Harry R. Keiser Joseph M. Vinci Gilbert M. Wilcox Robert Hankin

Current Staff Biochemical Pharmacology Section
Donald F. Bogdanski Ingelborg Nanbauer Walter M. Lovenberg Robert C. Rosenberg Jay S. Sklyar

Current Staff Physiological Chemistry Section
Lauren M. Cagen Jorge A. Gumaraes Henry C. Knutsch Hirosaki Nakamura Jack V. Pierce John J. Pisano Hidenobu Takahashi Marion E. Webster

Present Affiliation ALUMNI Experimental Therapeutics Section	
Wayne R. Alexander—Duke U. Med. Ctr., Durham, N.C. Floyd L. Atkins—New Haven, Connecticut Hans Baumgarten—DDR, Hamburg, W. Germany Steven Baylin—Baltimore Vida Beaven—NIH Richard Bensinger—Washington U., St. Louis Gerrit H. Besselius—Merck, Sharp & Dohme Research Lab., Rahway, N.J. Frank A. Catalano—U. of Connecticut, Farmington Bradley V. Cline—Schmidl—Merck, Sharp & Dohme, West Point, Pa. I. Kaiman Cohen—Med. Col. of Virginia, Richmond John T. Corral—Upjohn Co., Kalamazoo, Michigan J. Richard Croul—FDA, Rockville, Maryland John D. Davidson—Hosp. of U. of Pennsylvania, Philadelphia Joseph A. Fontana—Yeadon, Pennsylvania Ronald C. Gatten—NIH Louis Gillespie, Jr.—Washington, D.C. Eugene Giroux—Merrell Int'l. Research Ctr., France Leon I. Goldberg—U. of Chicago, Illinois James S. Goodman—U. of New Mexico, Albuquerque William C. Goveier—Ciba Pharmaceuticals, Summit, N.J. Perry V. Halusha—U. of S. Carolina, Charleston Edward D. Harris, Jr.—Dartmouth Med. Sch., Hanover, New Hampshire Bernard Haverback—U. of California Med. Sch., L.A. James V. Hodges—Med. Res. Council of New Zealand, Dunedin Osamu Iimura—Sapporo Med. Col., Japan Toshio Imamura—Faculty of Pharm. Sciences, Tokyo Richard L. Jackson—Baylor Col. of Med., Houston Eric Jaeger—Hospital Nestlé, Switzerland Toku Kaku—Med. U. of S. Carolina, Charleston Carville E. LaRoy—Presbyterian Hosp., New York Robert J. Levine—Yale U. Med. Sch., New Haven Loetler—U. of N. Carolina, Chapel Hill	William J. Louis—Austin Hosp., Melbourne, Australia Clark Lum—NIH Harry S. Margolis—Med. U. of S. Carolina, Charleston Kenneth L. Matson—U. of California Med. Ctr., S.F. Yumiko Nagai—Japan Kjell Nustad—Det. Norske Radiumhospital, Oslo, Norway John A. Oates—Vanderbilt U., Nashville Sachiko Oh-ishi—Kitazato U., Kanagawa-Ken, Japan Rafael Ortega-Mata—Jimenez Dias Foundation, Madrid, Spain William A. Patinger—SW Med. Sch., Dallas Barry F. Portney—Hollywood, Florida Neihaku Prakash—Merrell Int'l. Research Ctr., Strasbourg, France Darwin J. Prochop—Philadelphia Gen. Hosp., Pennsylvania John V. O. Reid—U. of N. Carolina Med. Sch., Chapel Hill, S. Africa Donald S. Robinson—U. of Vermont, Burlington Masaki Sato—Sagamihara, Kanagawa, Japan Tatsuo L. Sato—Tohoku U., Sendai, Japan Paul J. Schechter—Merrell Int'l. Res. Ctr., France Albert Sjoerdsma—Merrell Int'l. Research Ctr., France Milan Slavic—NCI Burton E. Sobel—U. of California, S. D. Sydney Spector—Hoffman-LaRoche, Nutley, N.J. H. David Stein—Leitchmont, New York Kyo Tabei—Kyoto U., Kyoto, Japan Takemasa Teramoto—U. of Tokyo, Japan Luther Terry—University Assoc., Inc., Washington, D.C. Aado Wendt—Falun, Sweden Stephen J. Victor—Columbia Presbyterian Med. Ctr., New York Wilfried Von Studnitz—West Germany T. Philip Wailes—NCI Hirohiko Yamabe—Tenri Hosp., Nara, Japan Yukio Yamori—Kyoto U., Japan Hisanobu Yoshida—U. of Hiroshima, Japan Walter H. Ziegler—Zurich, Switzerland

Present Affiliation ALUMNI Endocrinology Section	
Roy Alexander—Hillcrest Med. Ctr., Tulsa, Oklahoma Eric Aving—Cherry Chase, Maryland William Au—U. of Rochester, N.Y. Benjamin Barbour—U. of S. California, L.A. Joan Barbour—Bronx Municipal Hosp., N.Y. Norman Bell—VA Hosp., Indianapolis Roland Bernheim—Hosp. Laennec, Paris Edward Biglieri—San Francisco Gen. Hosp., California Emmanuel Bravo—Research Div., Cleveland, Ohio George Broyer—U. of Texas, Galveston Lawrence Burwell—Univ. Hosp. of Cleveland, Ohio Albert Carr—Med. Col. of Georgia, Augusta Darwin J. Prochop—Philadelphia Gen. Hosp., Pennsylvania John V. O. Reid—U. of N. Carolina Med. Sch., Chapel Hill, S. Africa Donald S. Robinson—U. of Vermont, Burlington Masaki Sato—Sagamihara, Kanagawa, Japan Tatsuo L. Sato—Tohoku U., Sendai, Japan Paul J. Schechter—Merrell Int'l. Res. Ctr., France Albert Sjoerdsma—Merrell Int'l. Research Ctr., France Milan Slavic—NCI Burton E. Sobel—U. of California, S. D. Sydney Spector—Hoffman-LaRoche, Nutley, N.J. H. David Stein—Leitchmont, New York Kyo Tabei—Kyoto U., Kyoto, Japan Takemasa Teramoto—U. of Tokyo, Japan Luther Terry—University Assoc., Inc., Washington, D.C. Aado Wendt—Falun, Sweden Stephen J. Victor—Columbia Presbyterian Med. Ctr., New York Wilfried Von Studnitz—West Germany T. Philip Wailes—NCI Hirohiko Yamabe—Tenri Hosp., Nara, Japan Yukio Yamori—Kyoto U., Japan Hisanobu Yoshida—U. of Hiroshima, Japan Walter H. Ziegler—Zurich, Switzerland	Bernard Kilman—Massachusetts Gen. Hosp., Boston Anthony Kurze—Central Middlesex Hosp., London Sidney Levin—Duke Med. Ctr., Jacksonville, Florida Grant Liddle—Vanderbilt U., Nashville Myron Lotz—Alexandria, Virginia Walter J. Meyer III—Johns Hopkins Hosp., Baltimore Stewart Middle—Mt. Sinai Hosp., Los Angeles Walter Miller—U. of California Sch. of Med., S.F. Ivor Mills—Addenbrooke's Hosp., Cambridge, England Heber Hampton Newsome, Jr.—Med. Col. of Virginia, Richmond Robert Ney—U. of N. Carolina Med. Ctr., Chapel Hill Masahiro Ohta—U. of Tokyo, Japan Charles Pak—U. of Texas S.W. Med. Sch., Dallas Maurice Pechet—Research Inst. for Med. and Chem., Cambridge, Mass. Pactia Penney—Potomac, Maryland William Rahill—Brooklyn, N.Y. Alfonso Rivera—deceased Alan Ross—Leeds, England Larry Saxe—Ohio State U. Hosp., Columbus Guy Saucier—Quebec, Canada Harold Schell—U. of Iowa, Iowa City Artemis Simopoulos—Natl. Academy of Science, Washington, D.C. Frederic Simpson—U. of Otago Med. Sch., Dunedin, New Zealand Jeremy D. H. Slater—Middlesex Hosp., London Corry Stokes—Sydney Hosp., Australia Picton Thomas—Royal Infirmary, Cardiff, Wales Ib Transbol—Gentofte Hosp., Copenhagen Joseph Walton—U. of N. Carolina, Chapel Hill Jacobus Wortman—Univ. Hosp., Iowa City, Iowa Michael Willis—Royal Free Hosp., London Elias Zisman—Hosp. Universitario de Caracas, Venezuela Terukazu Kawasaki—Kyushu U., Fukuoka, Japan

MOLECULAR HEMATOLOGY BRANCH

Current Staff	
Sherill Adams W. French Anderson* Jane Baker Albert Dessererich Ann Huang Michèle Lloyd Judith Kantor William Merrick Thomas Musliner	Arthur Neuhuis Brian Sater Alan Siegler Max-Lee Swenberg Ray Valez Gary Weiss Golder Wilson Robert Winslow

Present Affiliation ALUMNI
John Comstock—Baylor Col. of Med., Houston Ronald Crystal—NIH Norton Elson—NIH Amy Falvey—George Washington U., Washington, D.C. Jeffrey Gilbert—Massachusetts Gen. Hosp., Boston Herman Graf—Institut Physiologie, Munchen, Germany Jerold Last—Harvard U. David Laycock—U. of South Alabama, Mobile Dante Picciano—Dow Chemical, Freeport, Texas Philip Pritchard—Med. Col. of Georgia, Augusta Alta Rosenfield—U. of California, Berkeley David Scheffritz—Albert Einstein Hosp., Bronx Abigail Thornton—Ctr. for Health Svcs., UCLA, L.A. Joel Vavich—Huntington Beach, California

LABORATORY OF TECHNICAL DEVELOPMENT

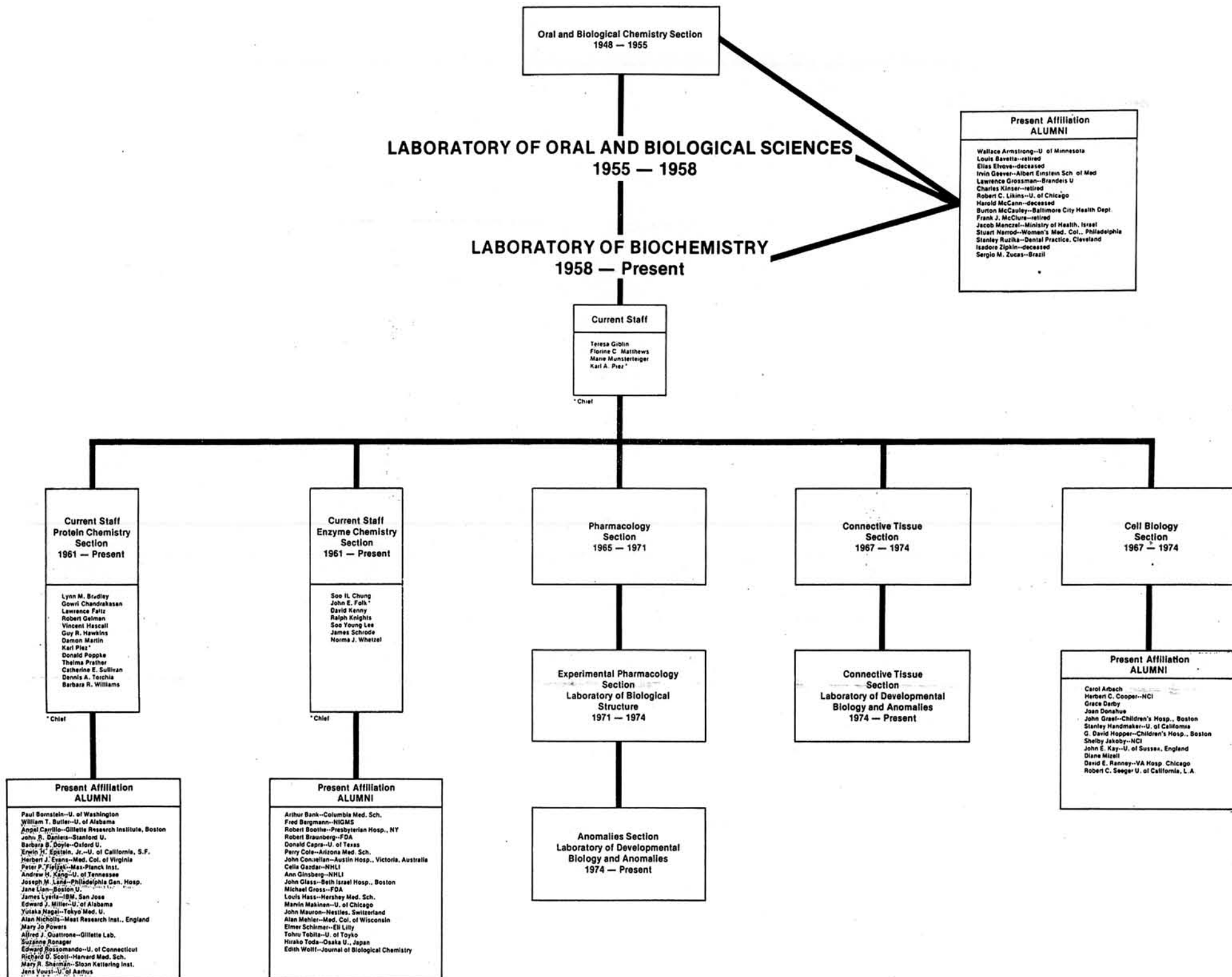
Current Staff	
Ronald Atkinson Robert Berger Robert L. Bowman* Peter Carmack Raymond Chan Yoshio Ho Theodor K. Johnson Ysewold A. Svec	Donald Lappe Frank Noble Edwige Panik Michael Stern Edward Stool Jacques Susskauer Gerard Vurek

Present Affiliation ALUMNI
Kenneth Abel—Becton-Dickinson, Raleigh, N.C. Bohdan Balho—Boston U., Massachusetts Philip Blum—U. of Minnesota Hosp., Minneapolis Bert Boone—Salem, Massachusetts David Christopher—Denver, Colorado Peter Cook—IBM, Pleasantville, N.Y. Norman Davis—Pennsylvania State U., Univ. Park, Pa. Robert Dutton—U. of California Med. Ctr., S.F. Murray Eden—MIT, Cambridge, Massachusetts Walter Forrest—Wine Inst., Adelaide, Australia Jack Goldstein—Amencan Inst. Co., Silver Spring, Maryland Laura Guiffida—FDA, Washington, D.C. Fusakazu Hayano—Asahi Chem. Ind. Co., Tokyo Arthur Karmann—Albert Einstein Hosp., Bronx, N.Y. John Karmann—U. of Dundee, Scotland Harold Morowitz—Yale U. Gerald Moskowitz—Peter Bent Brigham Hosp., Boston Roger Spragg—University Hosp., San Diego Arthur Tull—Garden Grove, California Alfred Weisler—FDA, Washington, D.C. Kazuo Yasuda—Hitachi Ltd., Ibaraki, Ken, Japan Warren Zapol—Massachusetts Gen. Hosp., Boston

* Chief
** Deputy Chief

NIDR

NATIONAL INSTITUTE OF DENTAL RESEARCH



NATIONAL INSTITUTE OF DENTAL RESEARCH

OFFICE OF ASSOCIATE DIRECTOR
IN CHARGE OF RESEARCH
1961 — 1966

F. J. Kendrick

Research Services Section
1963 — 1968

W. C. Murphy, III*

OFFICE OF THE DIRECTOR
OF INTRAMURAL RESEARCH
1967 —

G. E. Garrington
Y. Michael

Current Staff

W. D. Armstrong*	E. C. Lambert
R. S. Callitt	J. M. Mabry
J. Coleman, Jr.	I. O. Miller
H. J. Goodman	A. S. Nalley
R. C. Grulich	D. Peterson
M. W. Harding	J. L. Wistfield
F. Hunley	V. A. Whitehurst
J. Johnson	

Physiology Section
1963 — 1968

B. M. Dow J. M. Tanzer

OFFICE OF THE
CLINICAL DIRECTOR

Neural
Mechanisms
Section
1968 — 1973

R. H. Friedman
B. J. Sessle
S. Starkman
W. D. Thompson

Computer
Processing
& Analysis
Section
1971 — 1974

W. I. Wood

Environmental
Mechanisms
Section
1968 — 1974

NEUROBIOLOGY &
ANESTHESIOLOGY
BRANCH
1974 —

R. Sumino

Current Staff

R. E. Bellef
J. M. Binck
F. J. Brown
H. W. Burris
R. Dubner*
S. Gelfman
S. Oebel
R. H. Gracely
J. W. Hu
R. Harris
M. Iadorola
D. D. Price
M. B. Purvis
E. C. Welty

Current Staff
Data Processing
Systems and
Analysis Section
1974 —

P. S. Arnold
E. R. Coley
B. B. Cox
S. A. Fitts
D. J. Karamian
J. R. Lee
T. P. Madlin
N. D. Miller
S. Robbins
M. S. Robinson
R. Ruben
S. A. Taylor
J. J. Wilson*
V. A. Wright

Current Staff
Microbial
Systematics unit
1974 —

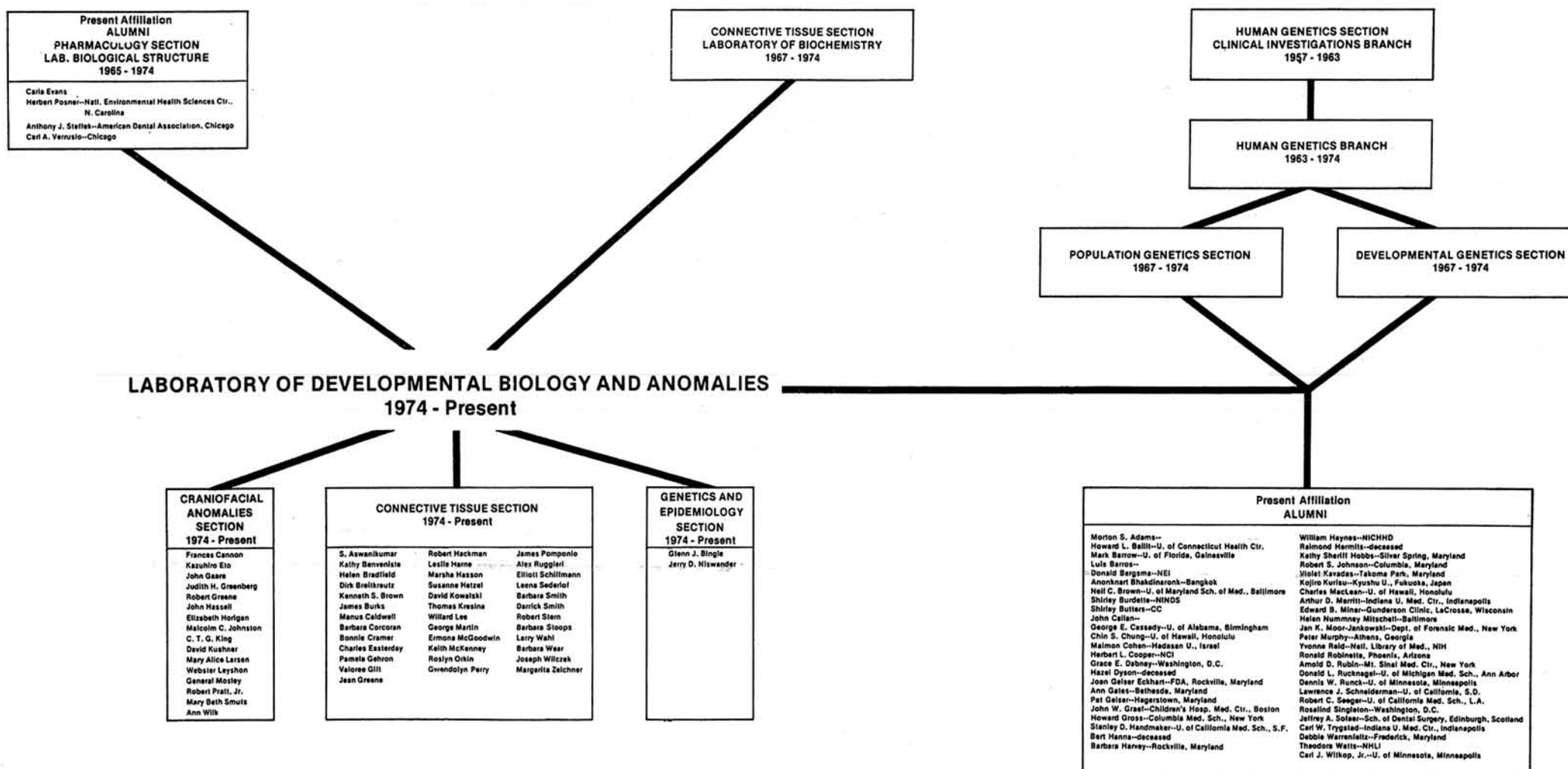
W. A. Jiles
M. I. Krichevsky*
L. L. Lora
C. Walczak

Present Affiliation
ALUMNI

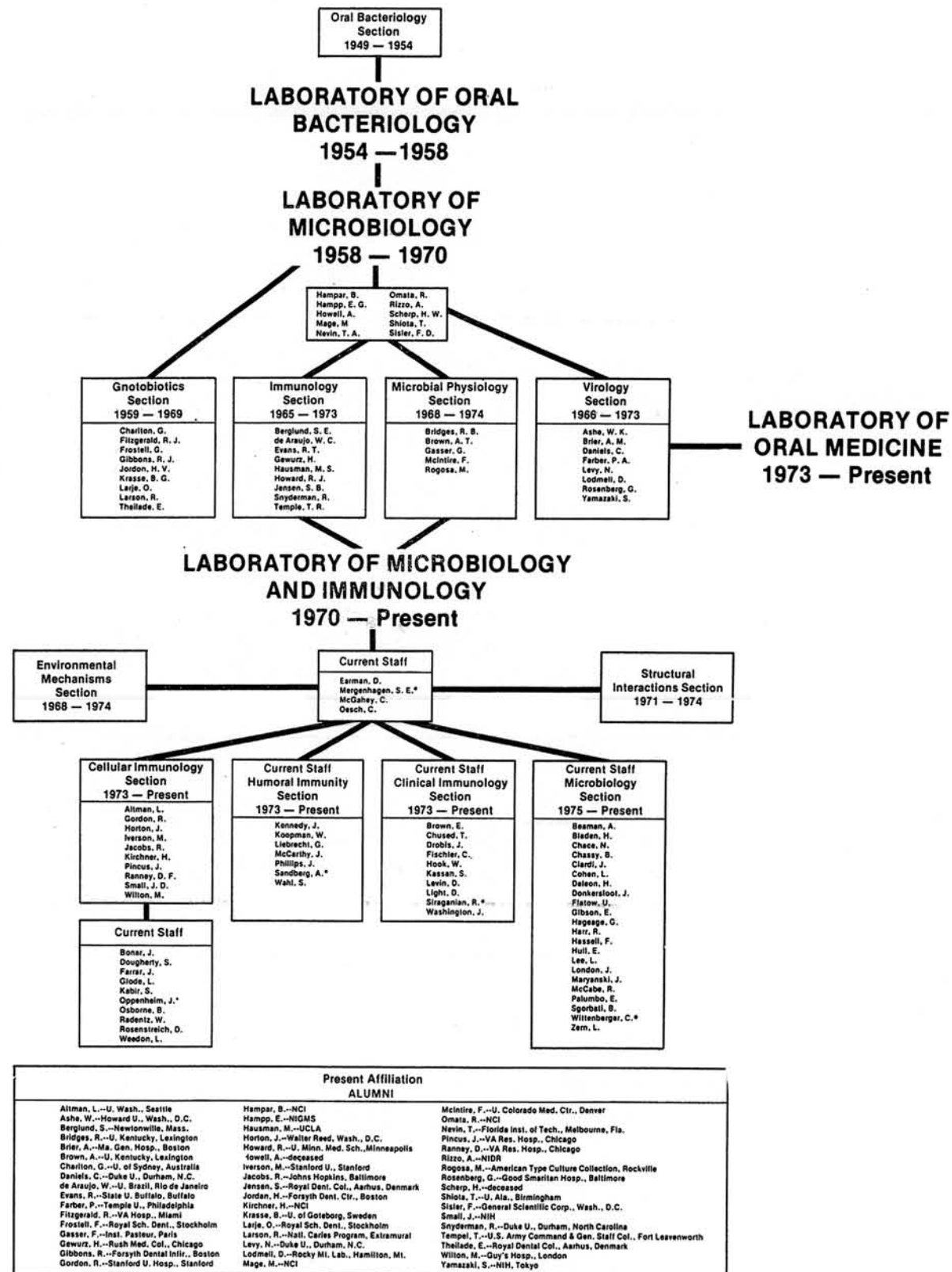
B. M. Dow--NEI	S. Starkman--Columbia U., N. Y.
R. H. Friedman--Roslyn Heights, N. Y.	R. Sumino--Tokyo Med. and Dental U.
G. E. Garrington--U. of Florida, Gainesville	J. M. Tanzer--VA Hosp., Newington, Conn.
F. J. Kendrick--NIH	W. D. Thompson--N. Miami, Florida
W. C. Murphy, III--deceased	W. I. Wood--Harvard U.
B. J. Sessle--U. of Toronto	

NATIONAL INSTITUTE OF DENTAL RESEARCH

LABORATORY OF DEVELOPMENTAL BIOLOGY AND ANOMALIES, NIDR, GENEALOGY

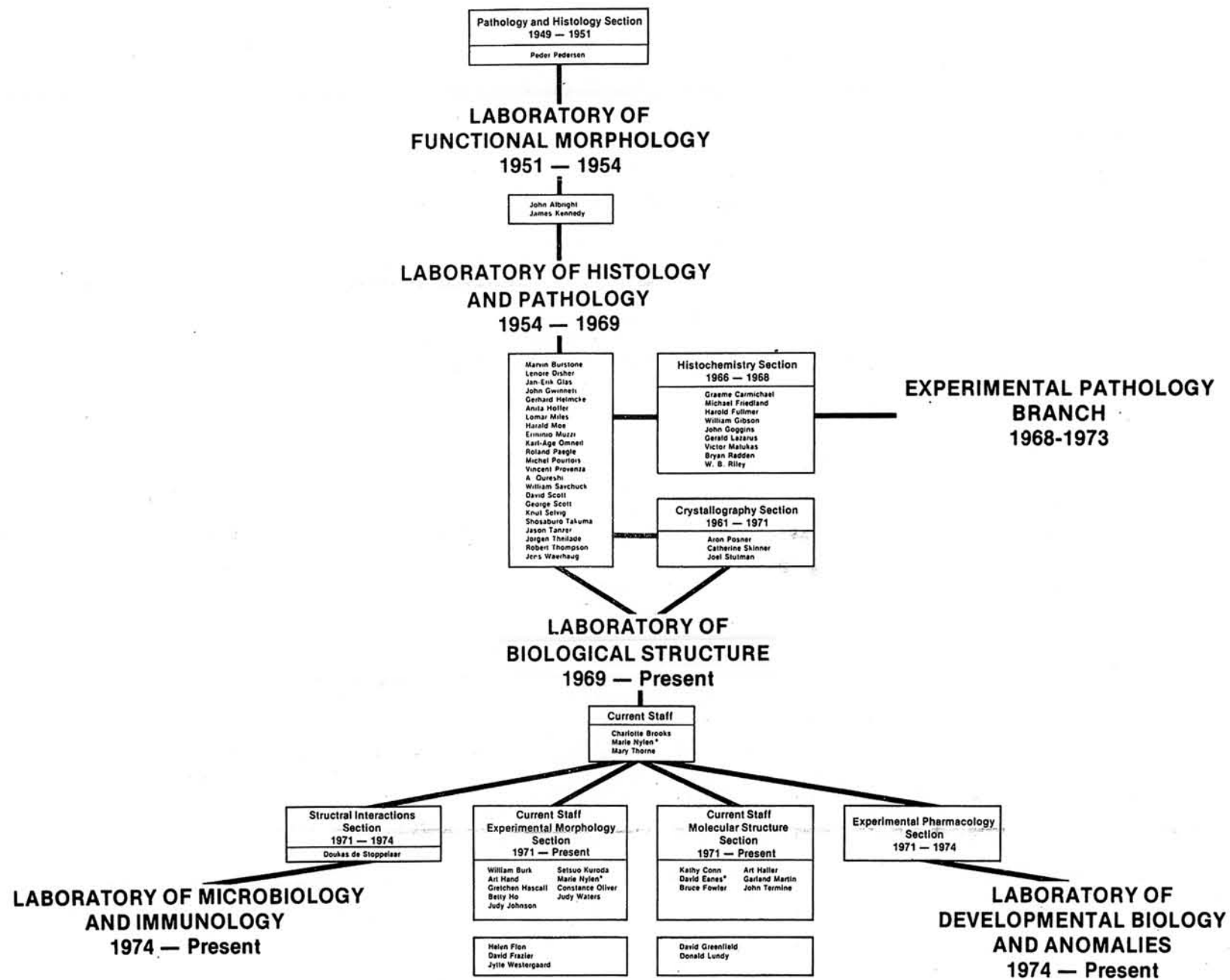


NATIONAL INSTITUTE OF DENTAL RESEARCH



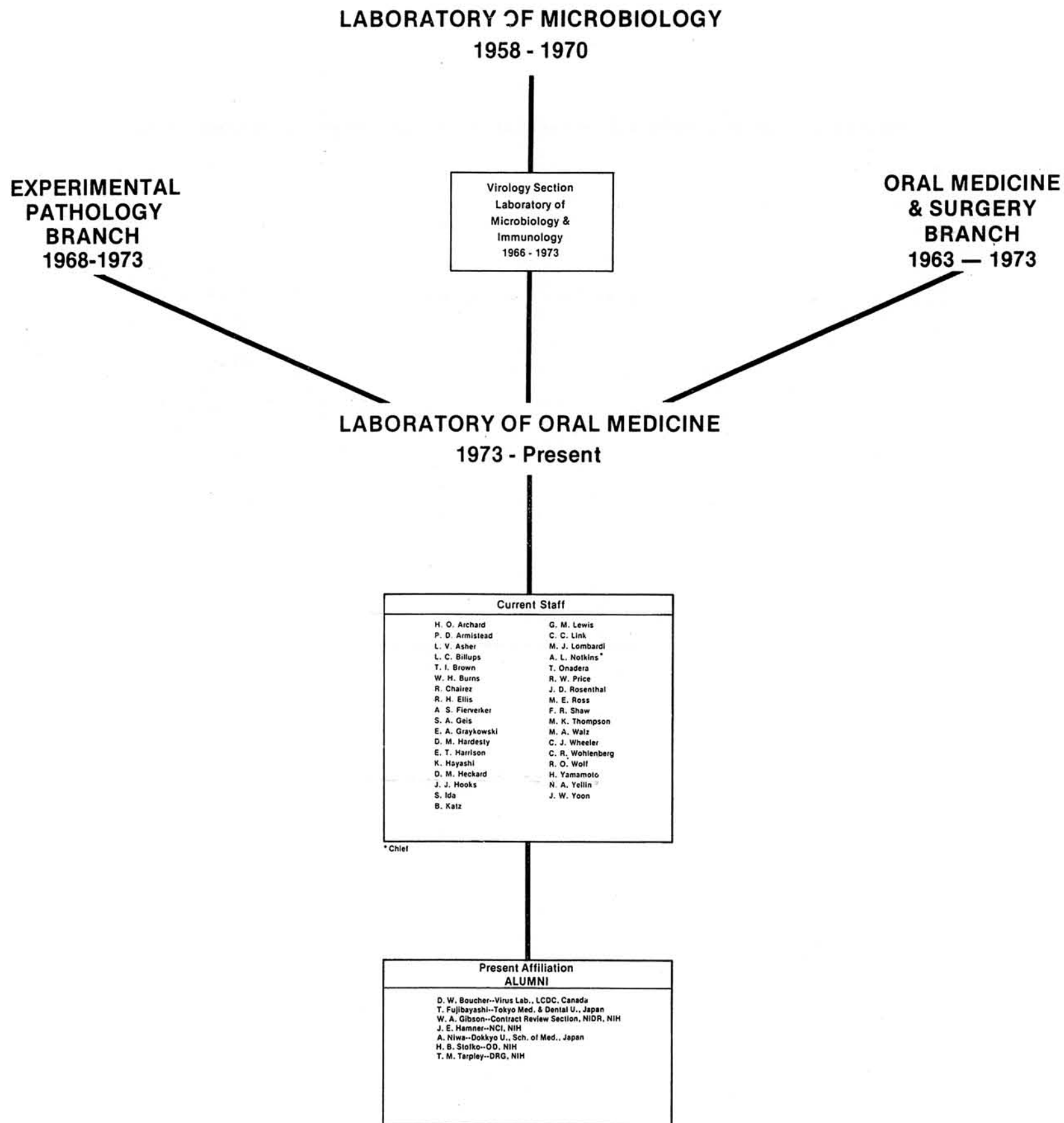
* Chief

NATIONAL INSTITUTE OF DENTAL RESEARCH

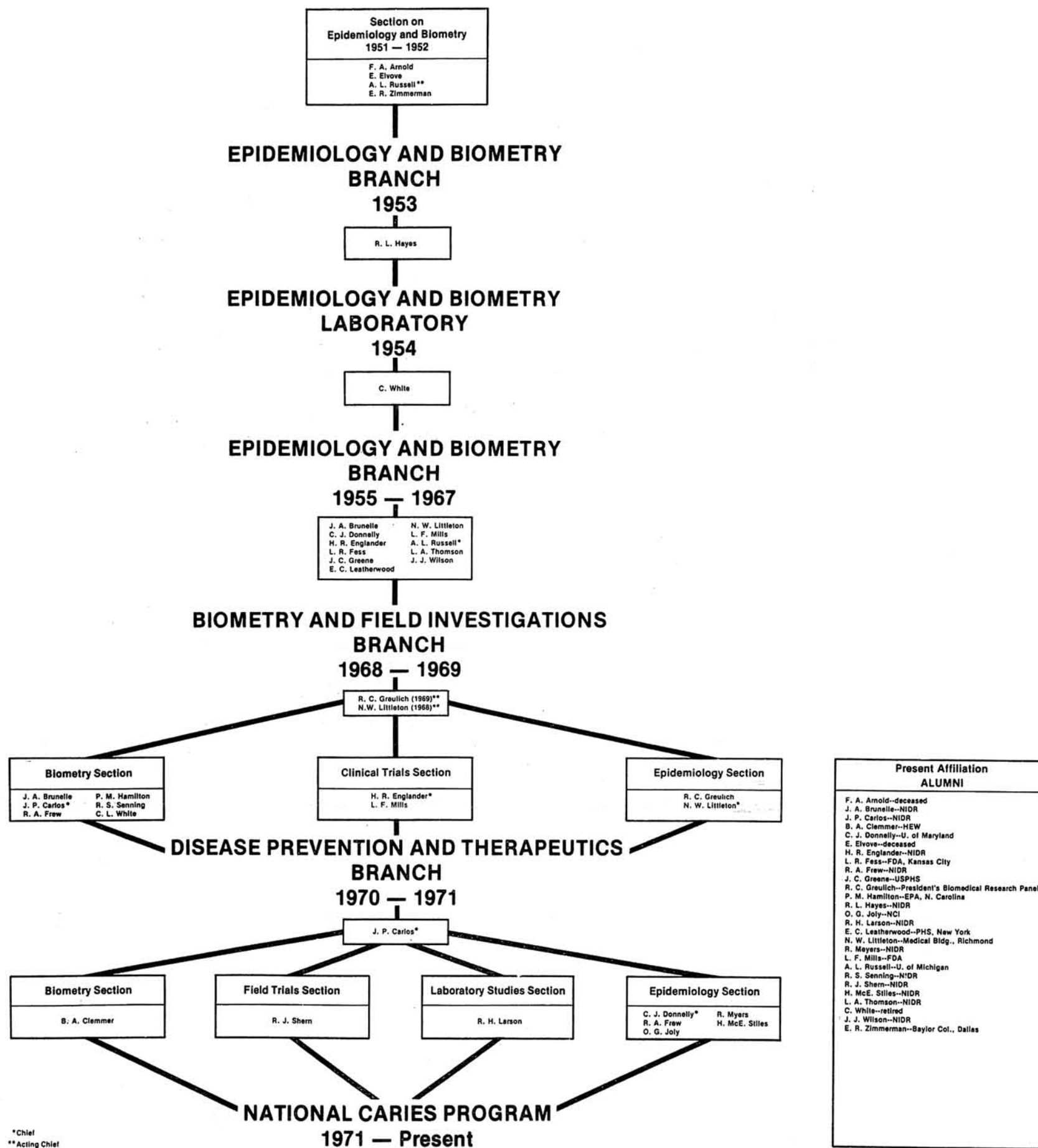


Present Affiliation		
ALUMNI		
J. T. Albright—Boston U.	A. P. Holler—Harvard U.	B. G. Radden—Col. of Dentistry, Melbourne, Australia
M. S. Burstone—deceased	J. J. Kennedy—deceased	W. B. Riley
G. Carmichael—Inst. of Med. and Vet. Research, Adelaide	G. L. Lazarus—Albert Einstein Col. of Med., Bronx	W. B. Savchuck—NIH
J. D. de Stoppelaar—U. of Utrecht, Holland	D. R. Lundy—Washington, D. C.	D. B. Scott—Case Western Reserve U. Dental Sch., Cleveland
L. S. Disher	V. J. Matukas—U. of Alabama	H. Schraa—Penn. State U., University Park
H. Flon—deceased	A. E. W. Miles—London Hosp. Med. Col., England	G. S. Scott—private practice
P. D. Frazier—NIDR	H. Moe—U. of Copenhagen, Denmark	K. A. Selvig—Sch. of Dentistry, U. of Bergen, Norway
M. L. Friedland—Miriam Hosp., Providence	E. Muzzi—Naples, Italy	C. H. Skinner—Yale U.
H. M. Fullmer—U. of Alabama, Birmingham	K. A. Omnell—Lund U., Malmo, Sweden	J. M. Stutman—Downstate Med. Col., Brooklyn
J. E. Glas—U. of Uppsala, Sweden	R. D. Paegle—USPHS, N.Y.	S. Takuma—Tokyo Dental Col., Japan
W. A. Gibson—NIH	P. O. Pedersen—Royal Dental Col., Copenhagen, Denmark	J. Thellade—Royal Dental Col., Aarhus, Denmark
J. F. Goggins—NIDR	A. S. Posner—Cornell U., N.Y.	R. C. Thompson—private practice
D. J. Greenfield—Case Western Reserve U., Cleveland	M. R. Pouridis—Brussels Sch. of Med., Belgium	J. Westergaard—Inst. of Odontology, U. of Oslo, Norway
A. J. Gwinnett—State U. of N. Y., Stony Brook	D. V. Provenza—U. of Maryland Dental Sch., Baltimore	J. Westergaard—Royal Dental Col., Copenhagen, Denmark
J. C. Helmcke—Technical U., Berlin, W. Germany	A. Qureshi	

NATIONAL INSTITUTE OF DENTAL RESEARCH



NATIONAL INSTITUTE OF DENTAL RESEARCH

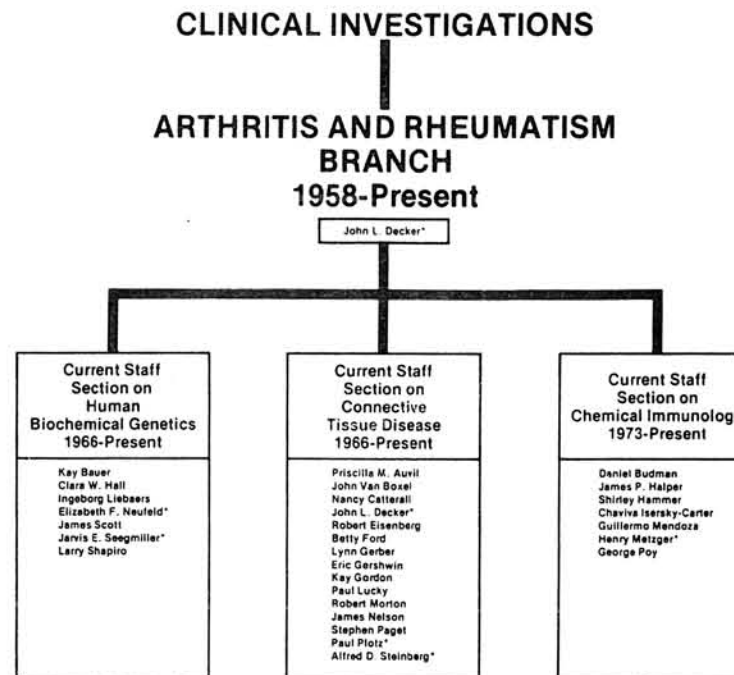


Present Affiliation
ALUMNI
F. A. Arnold--deceased
J. A. Brunelle--NIDR
J. P. Carlos--NIDR
B. A. Clemmer--HEW
C. J. Donnelly--U. of Maryland
E. Elvove--deceased
H. R. Englander--NIDR
L. R. Fess--FDA, Kansas City
R. A. Frew--NIDR
J. C. Greene--USPHS
R. C. Greulich--President's Biomedical Research Panel
P. M. Hamilton--EPA, N. Carolina
R. L. Hayes--NIDR
O. G. Joly--NCI
R. H. Larson--NIDR
E. C. Leatherwood--PHS, New York
N. W. Littleton--Medical Bldg., Richmond
R. Meyers--NIDR
L. F. Mills--FDA
A. L. Russell--U. of Michigan
R. S. Senning--NIDR
R. J. Shern--NIDR
H. McE. Stiles--NIDR
L. A. Thomson--NIDR
C. White--retired
J. J. Wilson--NIDR
E. R. Zimmerman--Baylor Col., Dallas

*Chief
**Acting Chief

NIAMID

NATIONAL INSTITUTE OF ARTHRITIS, METABOLISM AND DIGESTIVE DISEASES



**Present Affiliation
ALUMNI**

F. Paul Alapa	George L. Cohen	Norton M. Hadler	Stephen Malawista	Jarvis E. Seegmiller
Jens-Olaf Alexander	Stanley N. Cohen	James P. Halper	Mark Mannik	William W. Singleton
Robert F. Ashman	Alexander Deutsch	Scott G. Hickman	Frederick Miller	David N. Soghor
Philip W. Askenase	Paul A. di Sant'Agnese	R. Rodney Howell	Sheldon Milstein	Parker J. Staples
Robert G. Aptekar	Robert A. Eisenberg	Michael E. Jacobs	William O'Brien	Marvin J. Stone
Werner F. Barth	Robert S. Ennis	John S. Johnson	Robert K. Ockner	Albert L. Sullivan
Karl E. Becker	James Finkelstein	William Jones	Neil S. Otchin	Norman Tatal
Peter H. Bennett	L. Frederick Fenster	Henry B. Kalreider	J. Charles Pallavicini	Elliott S. Vesell
Mark W. Bilensky	Theodore Friedmann	Allen P. Kaplan	Leroy M. Parker	Thomas C. Washburn
Roger L. Black	Willfred Y. Fujimoto	William N. Kelley	Mark A. Peppercorn	Richard W. E. Watts
Kurt J. Bloch	Leonard Garren--deceased	Daniel V. Kimberg	Arthur P. Richardson	Elliott Wesser
Brauch S. Blumberg	Bertram Geisner--deceased	James R. Klinenberg	Saul W. Rosen	James T. Willerson
Joseph E. Bunim--deceased	Edward J. Goetzl	John H. Klippel	Frederick M. Rosenbloom	Martin J. Wohl
Thomas A. Burch	Stephen E. Goldfinger	Anthony Kulczycki, Jr.	Kent W. Sallisbury	K. Lamone Yielding
Dennis A. Carson	Peter Goldman	Bert N. LaDu, Jr.	Jerry A. Schneider	Vincent G. Zannoni
Bruce W. Chesebro	Arthur J. Grayzel	Leonard Laster	Joseph D. Schulman	
Thomas M. Chused	Martin L. Greene	Timple Wee Lim	William E. Seaman	

* Chief

NATIONAL INSTITUTE OF ARTHRITIS, METABOLISM AND DIGESTIVE DISEASES

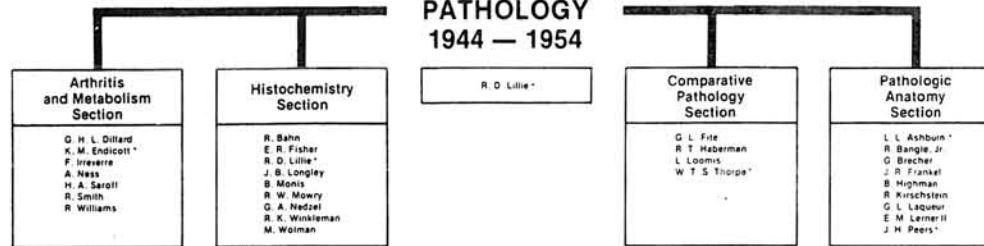
DIVISION OF PATHOLOGY AND BACTERIOLOGY 1930 — 1944

L. L. Ashburn
B. Highman
R. D. Lillie
George W. McCoy
A. Nelson
Th. Perrin
T. Tomimasa

DIVISION OF PHYSIOLOGY 1937 — 1948

EBMI
1948 — 1950

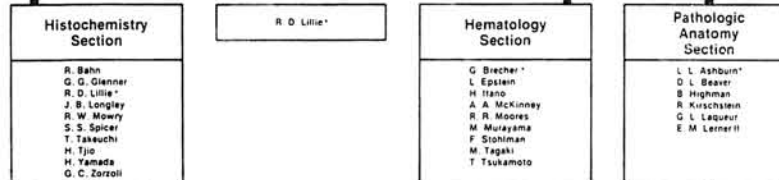
LABORATORY OF PATHOLOGY 1944 — 1954



LABORATORY OF NUTRITION AND ENDOCRINOLOGY 1950 — Present

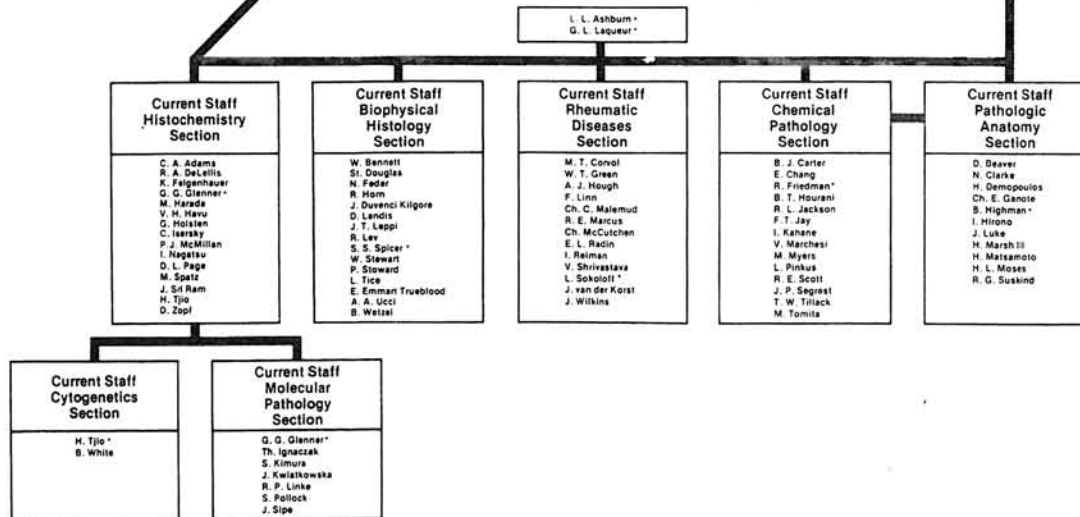
Current Staff Section on Endocrinology
E. J. Blanchette-Mackie
S. Charnick
G. Devora
R. O. Scott
P. Spooner
A. Ucci

LABORATORY OF PATHOLOGY AND HISTOCHEMISTRY 1954 — 1960



ALUMNI		
E. Anderson--	C. Esanu--Romania	R. A. Melick--Australia
A. Angel--Canada	A. J. Evans--Scotland	C. L. Mendelson--
G. D. Aurbach--	J. N. Fain--Brown U.	S. Milorovic--Yugoslavia
P. Bally--Switzerland	C. Farrell--	E. Murokami--Japan
R. W. Bates--retired	Y. Fontain--France	M. Novak--Czechoslovakia
P. Berendsen--	D. J. Galton, Jr.--UK	J. L. H. O'Riordan--UK
F. A. Bieberdorf--Texas	R. J. Gardiner--Canada	S. L. Potti--Tulsa U.
L. Birnbaum--Argentina	M. Hamesh--Israel	J. G. Rauch-Strooman, Germany
E. J. Blanchette-Mackie	B. Noussay--Argentina	M. Roodbell--
C. M. Clark--Indiana	K. Knowlton--	D. Rodgers--
P. Conditille--	V. Kovacs--Yugoslavia	E. Urgolli--Argentina
G. C. deCingolani--Argentina	H. M. J. Kraus--Netherlands	H. Wilson--
N. Ditcheneil--Germany	C. Linder--Brazil	O. Zinder--

LABORATORY OF EXPERIMENTAL PATHOLOGY 1960 — Present



LABORATORY OF BIOCHEMISTRY AND METABOLISM. 1947 — Present

Gilbert Ashwell*

Mission of the Laboratory: To elucidate the pathways of intermediary metabolism and the mechanism of enzyme action in normal and pathological systems.

Current Staff Section on Enzymes and Cellular Biochemistry
Gilbert Ashwell
James A. Brantz
Enrico Cabirol
Tsujiyuki Chai
A. Duran
John Foulds
William H. Habig
Jean Hickman
William Jakobov

Current Staff Section on Intermediary Metabolism
Frank Eisenberg, Jr.
Collette Freeman
Paul Goldsmith
Milton Kern
Irwin Leder
Arum Lahiri Majumder
Takami Oka

ALUMNI		
John W. Abrell--United States	Edward C. Heath--United States	Barbara O'Brien--United States
Martin Alexander--United States	Leon A. Heppel--United States	Michael J. Pabst--United States
Robert H. Allen--United States	Howard H. Hiatt--United States	Paul M. Packman--United States
Bruce N. Ames--United States	Randall K. Holmes--United States	Jack Prais--United States
Yasuhiro Anzaki--Japan	Bernard L. Horecker--United States	Jesse C. Rabinowitz--United States
Anita J. Aspen--United States	Robert L. Hudgin--Canada	Lucia B. Rothman-Danes--United States
Horace A. Barker--United States	Ronald E. Hurbert--United States	William Schae--United States
Kenneth I. Bama--United States	Jerald Hurwitz--United States	Edward M. Scott--United States
Robert W. Brockman--United States	Herman M. Kalcher--United States	J. Edwin Seegmiller--United States
Neil C. Brown--United States	Julian N. Kanfer--United States	Louis Shuster--United States
Debi Burma--India	Henry S. Kaplan--United States	Robert C. Shuster--United States
Robert M. Burton--United States	Fred Keller--United States	James O. Smiley--United States
William L. Byrne--United States	Har Gobind Khorana--United States	Charles R. Steinman--United States
James J. Casile--United States	Kenneth P. Klatt--United States	Audrey Stevens--United States
Beatrice Chen--United States	David Kom--United States	Jack L. Strominger--United States
Julia K. Clark--United States	Arthur Kormberg--United States	Paul K. Stumpf--United States
Morris A. Cyprin--United States	Rosalind H. Kornfeld--United States	Murray R. Summers--United States
Götz Domag--Germany	Stuart Kornfeld--United States	Yasuyuki Takagi--Japan
Bruce Duncan--United States	Kyoshi Kurahashi--Japan	Natalie M. Thanassi--United States
Vladimir Farkas--Czechoslovakia	Allan Lipton--United States	George Tolbert--United States
Othmar Gabriel--United States	Arnold Lissio--United States	Lee Van Lenten--United States
Arthur P. Grollman--United States	David M. Logan--United States	Wesley A. Volk--United States
Marlaine Grunberg-Manago--France	Paul A. Marks--United States	Albert T. Wahba--Canada
Donald R. Harkness--United States	Robert M. Mayer--United States	Arthur Weissbach--United States
Osamu Hayashi--Japan	Robert E. Moses--United States	James Winkelman--United States
	Harold C. New--United States	Jonathan B. Wilensberg--United States
	Jane S. Norton--United States	Esther W. Yamada--Canada

ALUMNI	
Gideon Bach--Israel	Hans M. Kresse--German
Robert W. Barton--United States	Dean H. Lockwood--United States
Ben Bloom--United States	Jacqueline Millet--France
George W. Brown--United States	Elinor Mills--United States
John H. Bryant--United States	Glen E. Mortimore--United States
Michael J. Cantle--Germany	Walter L. Nelson--United States
Piotr Chenczynski--Poland	Ko Okumura--Japan
Harvey J. Cohen--United States	Leroy A. Pasch--United States
Jules Cohen--United States	Gabriel H. Schwartz--United States
Richard P. D'Amico--United States	Ernest R. Simon--United States
Ephrem Eggermont--Belgium	Ernst Simon--deceased
T. David Elder--United States	Guillermo Soberon--Mexico
Joel J. Elias--United States	Frank E. Stockdale--United States
Daniel W. Foster--United States	Robert M. Swenson--United States
Sylvia K. Friedberg--United States	Earl W. Sutherland, III--United States
Esther M. Goudsmit--United States	Michel G. Tondeur--Belgium
Eugene A. Greber--United States	Jesus Torres-Gaitardo--Mexico
Shizomo Hestrin--deceased	Roger Turkelton--United States
Yoshimi Imai--Japan	Kostas Viassopoulos--Greece
William G. Jurgens--United States	Anthony E. Voytovich--United States
Howard M. Kaiten--United States	Daniel H. Zimmerman--United States
William H. Kettley--United States	

*Chief

*Chief

NATIONAL INSTITUTE OF ARTHRITIS, METABOLISM AND DIGESTIVE DISEASES

LABORATORY OF CELLULAR PHYSIOLOGY AND METABOLISM 1950 — 1962

LABORATORY OF BIOCHEMISTRY 1962 — Present

Earl Stadman*

LABORATORY OF CELLULAR METABOLISM 1962 — Present

Martha Vaughan*

The Laboratory of Cellular Physiology and Metabolism was concerned with the study of a variety of physiological systems at both the enzyme and cell level. Projects included research on relationship between the structure and function of proteins, the mechanism of muscular contractions, lipid/protein metabolism with specific reference to the process of atherogenesis and the genetics and chemistry of bacteriophages.

Current Staff

SEE NHLI LISTS

Present Affiliation ALUMNI

Ray K. Brown--United States	Arnold Katz--United States
Robert E. Canfield--United States	Thomas Merigan--United States
J. Michael Crumpton--England	John Potts--United States
William J. Dreyer--United States	Francis Reithel--United States
Walter Englander--United States	Michael Sela--Israel
Edgar Haber--United States	Parker A. Small, Jr.--United States
William Harrington--United States	Daniel Steinberg--United States
Marjane Horning--United States	D. Michael Young--United States

METABOLIC DISEASES BRANCH 1965 — Present

The mission of the branch is to conduct laboratory and clinical investigations on the nature, pathogenesis, diagnosis, natural history and biochemical mechanisms and disorders of metabolism, particularly those concerned with endocrine control of cyclic AMP, hormone secretion and mineral metabolism. Current studies include application of radioimmunoassays for diagnosis and localization of parathyroid adenomas and application of cyclic nucleotide determinations to clinical medicine. In the laboratory, studies are being conducted on specific cell receptors for parathyroid hormone, calcitonin and beta-adrenergic catecholamines and how these interactions influence ion transport in specific target cells.

Current Staff

G. D. Aurbach*
Edward M. Brown
Stephen J. Marx
Allen M. Spiegel

Present Affiliation ALUMNI

James W. Benson--U. of Wash., Seattle	Lawrence E. Mallette--VA Hosp., Houston, Texas
John P. Bilazikan--Columbia U., New York	Robert A. Marcus--VA Hosp., Sepulveda, California
Stanley J. Birge--Jewish Hosp. of St. Louis, Missouri	Paul Marks--Columbia U., New York
Elsworth R. Buskirk--Pennsylvania State U., University Park	Roger A. Melick--U. of Melbourne, Victoria, Australia
Gary W. Cagin--Bethesda, Maryland	Glenn L. Melton, II--Wash. U. Sch. of Med., Manchester, Missouri
Lewis R. Chase--Wash. U. Sch. of Med., St. Louis, Missouri	Richard Moore--retired
Ted Clemens, Jr.--Oklahoma City	B. E. C. Nordin--The Gen. Infirmary, Leeds, England
Bernard Desbuquois--INSERM, Paris	J. L. H. O'Riordan--The Middlesex Hosp., London
Michael J. Droller--Stanford U. Med. Cntr., Stanford, California	William A. Pack--U. of Rochester Sch. of Med., New York
F. G. Ebaugh, Jr.--Boston U. Med. Sch., Boston	Ralph E. Peterson--New York Hosp. Cornell Med. Cntr., New York
Maurice Fox--Palo Alto Med. Clinic, Palo Alto, California	Gerald P. Rodnan--U. of Pittsburgh Sch. of Med., Pennsylvania
Thomas F. Frawley, Jr.--St. Louis U. Med. Cntr., Missouri	Jay R. Shapiro--Wash. Hosp. Cntr., Wash., D.C.
Hillel J. Gitelman--U. of North Carolina Sch. of Med., Chapel Hill	Shomo Shibolet--Tel Aviv Med. Sch., Israel
Daniel Hauser--Sandoz Ltd., Basle, Switzerland	Armen H. Tashjian, Jr.--Harvard Sch. of Dental Med., Boston
Robert P. Heaney--Creighton U., Omaha, Nebraska	David D. Thompson--New York Hosp. Cornell U., New York
David A. Heath--Queen Elizabeth Hosp., Birmingham, England	Mario Wernli--George Wash. U. Hosp., Wash., D.C.
Johannes N. M. Heersche--Academische Ziekenhuis, Leiden, The Netherlands	Arnold White--U. of Missouri, Columbia
H. H. Hiatt--Beth Israel Hosp., Boston	Richard N. Winickoff--Harvard Community Health Plan, Boston
Henry T. Keilmann--Massachusetts, Boston	Sidney M. Wolfe--Coordinator Health Group, Wash., D.C.
Leo Lutwak--VA Hosp., Sepulveda, California	

LABORATORY OF CHEMICAL BIOLOGY 1963 — Present

Christian B. Anfinsen*

Study of relationship between covalent structure of proteins and their 3-dimensional structure and biological function. Research has also been carried out on the regulation of protein synthesis and on the mechanism of reversible repression of synthesis in microorganisms.

Current Staff

A. Seetharama Acharya	Dalia Guirai-Rolman
Jay Berzofsky	Roy Hanigan
Sikta Bose	Urs Ruegg
John Curt	Alan Schachter
Rich Davis	Edward Stears
Paola Di Natale	Hiroshi Tanuchi
Dan Eilat	Neal Young
John Geff	

Present Affiliation ALUMNI

Generoso Andria--Italy	David Giroi--Israel	David Ontjes--United States
Antonio Ballesteros--Spain	Robert Goltsberger--United States	Indu Parikh--United States
Robert Barton--United States	R. Gordon Gould--United States	Theodore Peters--United States
Janine Besson--France	John Griffin--United States	James Phang--United States
Mary Anne Berberich--United States	Hanspaul Hagenmeier--Germany	Sydney Pollack--United States
Francesco Biasi--Italy	James Heins--United States	Harvey Pollard--United States
Robert Colman--United States	Nanette Henderson--United States	David Richardson--United States
Gary Craven--United States	David Herzog--United States	David Sachs--United States
Pedro Cuatrecasas--United States	Gennaro Illiano--Italy	Gilbert Sanchez--United States
Robert Cusumano--United States	Ikumoshu Kato--Japan	Sheldon Schaff--United States
Warren Davis--United States	Henry Kronenberg--United States	Peter Schiller--United States
Robert Deeley--United States	Simon Leach--Australia	Oliver Smith--United States
Francesco De Lorenzo--Italy	Floyd Kragenow--United States	Marco Soria--United States
Carlo Di Ballo--Italy	Henry Kronenberg--United States	Robert Suriano--United States
Ben Dunn--United States	Albert Light--United States	Peter Tishler--United States
David East--England	Loren Lipson--United States	Agnes Ullmann--France
Charles Epstein--United States	Sally Marchesi--United States	Pai Venclianer--Hungary
Henry Epstein--United States	Michael Margolis--United States	Tziva Vogel--Israel
Robert Erickson--United States	Ladislav Moravak--Czechoslovakia	Meir Wiczak--Israel
Waldo Fisher--United States	Kathleen Mullins--United States	Bernard Wildi--United States
Theodore Friedman--United States	Motomun Ohno--Japan	Kerry Yasunobu--United States
Sara Fuchs--Israel	Gilbert Omenn--United States	Allen Zeiger--United States

NATIONAL INSTITUTE OF ARTHRITIS, METABOLISM AND DIGESTIVE DISEASES

CLINICAL ENDOCRINOLOGY BRANCH 1955 — Present

Jacob Robbins*

The Branch was organized to pursue research in endocrinology at all levels, from basic chemical studies to applied clinical investigation. The assembly of a staff with training and interests covering this wide spectrum has provided for efficient interchange between basic and clinical scientists, to their mutual advantage. Originally oriented around the subject of thyroid biochemistry, the scope of research gradually expanded to include the polypeptide hormones, diabetes and disorders of metabolism. It has included such varied topics as organic chemical reaction mechanisms, protein physical chemistry, enzyme chemistry, membrane chemistry and biology, mechanisms of hormone secretion and action, hormone-protein interactions, control of protein synthesis, clinical diagnosis techniques, therapy of endocrine diseases and radiation biology. This varied approach has also provided a fertile training ground for biomedical scientists interested in endocrinology, with the opportunity for chemists to become oriented in the biological and medical fields, for physicians to become involved in basic research, and for training in biochemically-oriented clinical research.

With the establishment of a more intensive program in diabetes research, the Section on Endocrine Biochemistry was organized to continue the earlier directions and aims of the Branch; i.e., thyroid research, proteins and polypeptide hormones, and basic endocrine biochemistry.

Current Staff Section on Endocrine Biochemistry 1966 — Present	
Motomori Izumi	Jacob Robbins*
Charles G. Lewallen	Jean-Louis Baulieu
Jeffrey M. Lieblich	Bhabatarak Bhattacharyya
Michael R. McClung	Alan Burkhardt
James C. Osborne, Jr.	Hans J. Cahnmann
Giuseppe Palumbo	Sheu-yann Cheng
Saul W. Rosen	Harold Edelhoch
Bruce D. Wainraub	Marvin C. Gershengorn
Mair Wilchek	Daniel Glinoer
Jan Wolff	Erik L. Hewlett
Kenneth C. Ingham	

The Section on Diabetes and Intermediary Metabolism was established to expand intramural research in diabetes and related topics. Emphasis was placed on the polypeptide hormones including insulin, with studies on the mechanism of hormone action on cells, on diseases of the pituitary gland and the endocrine pancreas and on obesity and other metabolic disorders.

Section on Diabetes & Intermediary Metabolism 1966 — 1974
Stanton Segal*
Jesse Roth

Diabetes Branch

PEDIATRIC METABOLISM BRANCH 1960 — Present

Current Staff

Paul A. di Sant'Agnes*
Lawrence F. Cohen
Philip M. Farrell
David W. Lundgren

Present Affiliation ALUMNI

Thomas F. Boat—Rainbow Babies & Children's Hosp., Cleveland, Ohio
Lewis E. Gibson—Children's Mem. Hosp., Chicago
Richard J. Grand—Children's Hosp. Med. Cntr., Boston
Edouard Gugler—Aarau Pediatric Clinic, Aarau, Switzerland
Stuart Handwerker—Duke U. Med. Cntr., Durham, North Carolina
John Katswikel—U. of Virginia Sch. of Medicine, Charlottesville
Allen Lapey—Massachusetts Gen. Hosp., Boston
J. Charles Pallavicini—Chevy Chase, Maryland
Georges Peter—Brown U., Providence, Rhode Island
Veijo Rautio—U. of Oulu, Oulu, Finland
Irene Schurz—Max Planck Inst., Frankfurt, West Germany
Robert H. Schwartz—U. of Rochester Med. Cntr., New York
Richard C. Talamo—Johns Hopkins Hosp., Baltimore, Maryland
Lynn M. Taussig—Arizona Med. Cntr., Tucson
Simo Virtanen—U. of Turku, Turku, Finland
Ulrich Wiesmann—U. of Bern, Switzerland
Robert E. Wood—Rainbow Babies & Children's Hosp., Cleveland, Ohio

MATHEMATICAL RESEARCH BRANCH 1957 — Present

The mission of the Mathematical Research Branch, NIAMDD, is to conduct research on the mathematical and theoretical aspects of biological problems, including specific problems and development of formal methodology and treatment of general classes of biological problems and to provide consultative and collaborative services throughout NIH, on application of mathematical techniques.

Current Staff

John Z. Hearon*
Susie Alta
Jose Gonzalez-Fernandez
Richard Gordon
Maurice Klee
Wilfrid Rall
John Rinzel

Present Affiliation ALUMNI

John W. Evans—U. of California, San Diego
Steven Goldstein—Johns Hopkins U. Med. Sch., Baltimore
Wayne P. London—St. Elizabeth's Hosp., Washington, D.C.
David Shames—U. of California, San Francisco

Present Affiliation Alumni of Clinical Endocrinology Branch

W. Donald Alexander—Western Infirmary, Glasgow, Scotland
Sven Almqvist—Karolinska Hosp., Stockholm, Sweden
Mario Andreoli—U. of Rome, Italy
Samuel H. Barondes—U. of California Sch. of Medicine, S.D.
Mehru Bharucha-Cooper—Minneapolis, Minnesota
Italo Corvelli—U. of Naples, Italy
John C. Crowley—Royal Victoria Hosp., Montreal
Benot de Crombrughe—NCI
Pedro Cuatrecasas—Johns Hopkins U. Sch. of Medicine, Baltimore
Daniel Federman—Stanford U. Sch. of Medicine, California
James B. Field—U. of Pittsburgh, Pennsylvania
Leonard Garren—deceased
Walter Ginsmann—NICHD
Heskel M. Haddad—New York Med. Col.
Nicholas S. Halimi—Iowa State U., Iowa City
Annemarie Hofer—New York Med. Col.
John S. Holczenberg—U. of Washington Sch. of Med., Seattle
Harry Keen—Guy's Hosp., London
Yoichi Kondo—Gunma U., Maebashi, Japan
P. Reed Larsen—Peter Bent Brigham Hosp., Boston
David R. London—U. of Birmingham, England
Roberta Macchia—U. of Naples, Italy
Vincenzo Macchia—U. of Naples, Italy
Roberta Macchia—Naples, Italy
Kingsley M. Mann—Upjohn Co., Kalamazoo, Michigan
Teruo Matsuda—Kyoto U., Japan
W. Eugene Mayberry—Mayo Clinic, Rochester, New York
Henry Metzger—NIAMDD
Daniel Mintz—U. of Miami Sch. of Med., Florida
Carl E. Mondon—Menlo Park, California
Glenn E. Mortimore—Pennsylvania State U. Col. of Med., Harrisburg
Phillippe de Nayer—U. of Louvain, Leuven, Belgium
Akira Nishinaga—Kyoto U., Japan
Ito Pastan—NCI
Robert T. Periman—Harvard Med. Sch., Boston
Peter Pluderer—Oak Ridge Natl. Laboratory, Tennessee
Rosalind Pitt-Rivers—U. Col., London
Mitchell T. Rabbin—Beth Israel Hosp., Boston
Dankwart Reinwein—Medizinische Akademie, Dusseldorf, Germany
Samuel Rose—VA Hosp., Buffalo, New York
Henry Roth—Bethesda, Maryland
Gaetano Salvatore—U. of Naples, Italy
Marisa Salvatore—U. of Naples, Italy
Sheldon Schaff—Jefferson Med. Col., Philadelphia
Peter B. Schneider—Beth Israel Hosp., Boston
Leonard Schwartzman—Los Angeles
Stanton Segal—Philadelphia Children's Hosp.
Tetsuo Shibe—Osaka U. Sch. of Science, Japan
Samuel Thier—Yale U. Sch. of Med., New Haven
Koji Toi—Ajinomoto Co., Kawasaki, Japan
Nobuo Uti—Gunma U., Maebashi, Japan
Andreas Van Zyl—U. of Stellenbosch, Bellville, South Africa
Giancarlo Vecchio—U. of Naples, Italy
Panu Vilkin—Turku U., Finland
Wallace Wegner—deceased
Arnold M. Weinberg—Harvard Med. Sch., Boston
Hibbard T. Williams—San Francisco Gen. Hosp.
James B. Wyngaarden—Duke U. Med. Cntr., Durham, North Carolina

Present Affiliation Alumni of Section on Endocrine Biochemistry

Silvatore M. Alogi—U. of Naples, Italy
Charles E. Becker—San Francisco Gen. Hosp.
Robert S. Berstein—St. Luke's Hosp., New York
James M. Blisard—Food and Drug Admin., Rockville, Maryland
Hubert Bonnet—U. of Lyon Fac. of Med., France
William T. Branch, Jr.—Peter Bent Brigham Hosp., Boston
Harold E. Carlson—Wadsworth VA Hosp., Los Angeles
Nicole Citanova—U. of Paris Fac. of Med.
Robert Ferguson—Philip Morris Research Cntr., Richmond
Luigi Fratini—U. of Perugia, Italy
Kuzuhisa Funahashi—Kyushu U., Fukuoka, Japan
Monte A. Green—U. of Oregon Med. Sch., Portland
Eric Gustanson—Massachusetts Inst. of Tech.
John T. Gwynne—U. of North Carolina Sch. of Med., Chapel Hill
Andre Haberli—U. of Bern Sch. of Med., Switzerland
Pieter P. van Jaarsveld—U. of Stellenbosch, Bellville, South Africa
Richard S. Lord—Miller Pharmacal Co., Chicago
P. Gordon Moran—Middlesex Hosp., London
Raymond Michel—U. of Paris
Fabrizio Monaco—U. of Rome
Wayne V. Moore—Kansas U. Med. Cntr., Kansas City
Peter S. Nissley—NCI
Hirosi Ogawara—Natl. Inst. of Health, Tokyo
Robert A. Pagan—Philip Morris Research Cntr., Richmond
Lucy A. Pantun—Howard U. Med. Col., Washington, D.C.
Robert J. Pollitt—U. of South Florida, Tampa
Alan D. Rogol—Johns Hopkins Hosp., Baltimore
Guido Rossi—U. of Naples, Italy
Richard A. Sechson—Dallas
Giovanni Salabe—U. of Rome
Helga Salabe—U. of Rome
Arthur B. Schneider—Michael Reese Hosp., Chicago
Gerald S. Sevey—U. of Miami Sch. of Med.
Maria Straub—Bethesda, Maryland
Robert J. Temple—Food and Drug Admin., Rockville, Maryland
Alfred Tenore—Children's Hosp. of Philadelphia
Harold E. Varmus—San Francisco Med. Cntr.
Stelio Varrone—U. of Naples, Italy
John A. Williams—U. of California Sch. of Med., S.F.

Present Affiliation Alumni of Section on Diabetes and Intermediary Metabolism

Juanita A. Archer—Howard U. Sch. of Med., Washington, D.C.
Colin G. Beardwell—Royal Infirmary, Cheshire, England
Angelo Raffaele Bianco—U. of Naples, Italy
Michael Emmer—Bethesda, Maryland
Pierre Freychat—Hosp. St. Antoine, Paris
James R. Gavin—Duke U. Sch. of Med., Durham, North Carolina
Ira D. Goldfine—VA Hosp., San Francisco
Robert J. Lefkowitz—Duke U. Sch. of Med., Durham, North Carolina
William L. McGuffin—Duke U. Sch. of Med., Durham, North Carolina
Gary L. Robertson—VA Hosp., Indianapolis
Barry M. Sherman—U. of Iowa Sch. of Med., Iowa City
Arthur Sobel—Massachusetts Gen. Hosp., Boston
Andrew M. Solt—Harbor Gen. Hosp., Torrance, California
Oscar D. Taunton—Fitzsimmons Gen. Hosp., Denver
Eugene E. Thompson—Mount Sinai Hosp., New York
Charles A. Wells—HEW, Rockville, Maryland

NINOCDS

NATIONAL INSTITUTE OF NEUROLOGICAL AND COMMUNICATIVE DISORDERS AND STROKE

NINCDS DIRECTORS 1950—Present

Pearce Bailey--retired
Richard L. Masland--Col. of P & S, Columbia
Edward F. MacNichol, Jr.--Woods Hole
Donald B. Tower--NINCDS

COLLABORATIVE AND FIELD RESEARCH ASSOCIATE DIRECTORS 1965—Present

William Caveness--NINCDS
Eldon L. Eagles (Acting)--NINCDS
Warren Huber--VA-D.C.
Leo Fox--retired
J. Kiffin Penry (Acting)--NINCDS

TO
INTRAMURAL
RESEARCH
(see Adjacent Chart)

EPIDEMIOLOGY BRANCH 1959—Present

Current Staff
R. Eldridge** W. Horton

Present Affiliation ALUMNI
B. Abrams--Kansas City
M. Allen--V.A., Minneapolis
J. Allen--Montreal Children's Hosp.
F. Anderson--MGH, Boston
A. Bobowick--Conn.
J. Brody*
K. Chen--Taipei, Taiwan
R. Darrell--
D. Dunne--
T. Elizan--Mt. Sinai, NYC
A. Fens--
R. Goldberg--Rockville
T. Henson--Boise, Idaho
A. Hirano--Montaliore, NYC
P. Hoffman--California
D. Holden--L.A.
M. Koch--V.A., Wash., D.C.
R. Krooth--N.Y.C.
T. Kurland*
S. Lessell--
R. Merush--
K. Mathai--
C. Morris--
L. Neel--Indianapolis
G. Nemo--NINCDS
C. Plank--MGH, Boston
C. Plato--
J. Schurz--Mass.
J. Schwartz--
R. Scott--
A. Stasio--V.A., Washington, D.C.
R. Stern--Mass.
C. Van Nuis--Grand Rapids
D. VarLee--Flint, Mich.
M. Whiting--
G. Williams--Ann Arbor
E. Wilner--D.C.
D. Young--N.Y. Hosp.

OFFICE OF BIOMETRY 1960—Present

Current Staff	
A. L. Beadle Ta-Chuan Chen S. Z. Edelstein J. H. Ellenberg K. A. Eisner E. C. Jackson B. H. Kroll	R. Maitmont R. Richter D. Rubinstein D. Sadovsky S. A. Scialaberrasi A. J. Talbert W. Weiss*

Present Affiliation ALUMNI
S. Ambler--
G. Dall'Ossa--
H. Goldstein--N.Y.
C. H. Hawkins--
H. Henley--
G. Inada--Maryland
R. C. Jacobson--
J. Johnson--
A. Lewis--
H. Moorhaad--
J. Mosimann--
D. Quade--U. of N.C., Chapel Hill
P. W. Shaughnessey--Denver
D. C. Smith
R. Widner--

PERINATAL RESEARCH BRANCH 1961—Present

Current Staff		
L. Bea S. Berman L. Brenetti J. Drape* R. Feinberg B. Ferguson C. Fisher	J. Hill S. Katz P. LaBenz M. Marques H. Marsden A. Mersereau N. Myrsantopoulos A. Naylor	K. Nelson P. Nichols J. Oliver J. Pomeroy S. Smith D. White, Jr. B. Williams

Present Affiliation ALUMNI
P. Aitken--Bethesda
O. Aparicio--
L. Barbosa--NINCDS
G. Bartlett--Cleveland
H. Berendes--NICHHD
G. Birnbaum--
R. Burkli--Switzerland
J. Carleton--Florida
E. Cowan--
V. Cowie--England
C. Chung--Hawaii
J. Churchill--Detroit
E. Cusumano--NINCDS
A. Davies--Israel
D. Datzman--Seattle
S. C. Edmondson--
T. Elizan--New York
A. Fabiyi--Nigeria
G. Fanchel--Nashville
B. Fox--NCI
L. Froelich--Bethesda
D. Fucillo--NINCDS
T. Fujikura--Pittsburgh
L. Gershon--Calif.
D. Henson--Bethesda
R. Hildebrandt--Hershey, Pa.
R. Holden--Providence
H. Hollis--Birmingham
S. Kramer--
M. Leavitt--Fogarty Intl. Ctr.
C. Leventhal--FDA, D.C.
A. Litten--Tucson, Ariz.
L. Lipkin--NCI
W. Little--Florida
W. London--NINCDS
K. McCabe--Bethesda
D. Madden--NINCDS
J. Marmol--Florida
M. Mendelson--Silver Spring
M. Monti--Florida
S. Newman--
A. Rosenbaum--Calif.
S. Schwartz--New York
A. Scriggins--Vermont
J. Sever--NINCDS
Z. Shakhshiri--NINCDS
J. Todaro--D.C.
R. Voltman--Switzerland
M. Weinberger--U. of Colorado
L. Willerman--Austin, Tex.

APPLIED NEUROLOGIC RESEARCH BRANCH 1972—Present

Current Staff	
J. Cereghino H. Kuperberg R. Krall J. Lacy J. Laurent G. Molinari J. Pency*	R. Porter V. Ruch S. Sato D. Simon L. D. Smith B. White A. Wolf, Jr.

Present Affiliation ALUMNI
T. R. Browne--Boston
E. Ehrenberg--Pa.
D. Goode--U. of Chicago
J. Mosley--Santa Monica
R. Rapoport--Seattle
S. Rose--Lexington, Ky.
A. J. K. Smith--Minneapolis
J. Wolpaw--Vermont

INFECTIOUS DISEASES BRANCH 1972 TRANSFERRED TO IR 1973

Current Staff	
L. Barbosa M. Dubois D. Fucillo R. Johannes J. Kurent W. London	D. Madden F. Moder M. Murphy A. Palmer J. Sever*

Present Affiliation ALUMNI
G. Blinbaum--New York Hosp.
C. Cusumano--Galvestone
D. Datzman--Seattle
G. Glinick--Calif.
R. Hildebrandt--Hershey, Pa.
Q. McCracken--U. of Texas, Dallas
E. Matthew--San Antonio
G. Monti--Galvestone
S. Newman--Rockville, Md.
J. Overall--Salt Lake City
J. Rowe--Seattle
S. Schacter--New York
O. Schill--U. of Cincinnati
Jane Todaro--Children's Hosp., D.C.
Lon White--NINCDS

* Chief
** Acting Chief

NATIONAL INSTITUTE OF NEUROLOGICAL AND COMMUNICATIVE DISORDERS AND STROKE

NINCDS DIRECTORS 1950—Present

Pearce Bailey--retired
Richard L. Masland--Col. of P & S, Columbia
Edward F. MacNichol, Jr.--Woods Hole
Donald B. Tower--Present

INTRAMURAL RESEARCH DIRECTORS 1951—Present

Seymour Kety--Harvard
Robert Livingston--California
G. Milton Shy--deceased
Karl Frank (Acting)--NINCDS
Henry Wagner--Australia Natl. U., Canberra
Thomas Chase--Present

LABORATORY RESEARCH ASSOCIATE DIRECTORS 1975

Richard Irwin**

TO
ADDITIONAL
LABORATORY
RESEARCH
(see Adjacent Chart)

LABORATORY OF BIOPHYSICS 1954 — Present

Current Staff
W. Adelman, Jr. A. Hobbs
D. Alkon H. Lacer
L. Binstock P. Mueller
K. S. Cole F. Sachs
G.H. Ehrenstein J. Shaw
R. Fitzhugh R. Taylor
R. French J. Weinstein
D. Gilbert

Present Affiliation ALUMNI
A. Shamoo--U. of Rochester, New York

LABORATORY OF PERINATAL PHYSIOLOGY 1956 — Present

Current Staff
W. Blank M. Yamaguchi
H. Kirshner S. Yamaguchi
R. E. Myers*

Present Affiliation ALUMNI
A. Brann, Jr.--Mississippi
F. Damsche--New York
M. Ginsberg--Pennsylvania
B. Kohn--Toronto
G. Kogel--Massachusetts
M. Labence--Florida
D. Minis--Tennessee
A. Rivera, Jr.--NH
D. Selkoe--Massachusetts
H. Shapiro--Pennsylvania
W. Windle--Ohio

LABORATORY OF NEUROPATHOLOGY AND NEUROANATOMICAL SCIENCES 1968 — Present

Current Staff
C. Brandon B. Morsella J. Schwartz
M. Brightman M. Murray M. Spatz
R. Broadwell A. Nelson T. Tabira
J. Rubie J. Passonneau H. Webster
J. Cammermeyer T. Reese H. Yellin
M. Cullen P. Reier
T. Fujimoto K. Renkawek
L. Kleiter*

Present Affiliation ALUMNI
F. Benson--Massachusetts Eye & Ear Infirmary, Boston
S. Billings--U. of Massachusetts Sch. of Med., Worcester
J. Costa--NIMH
R. Crowell--MGH, Boston
E. Farkas--Bergsten--U. of Paris
K. Go--U. of Groningen, Holland
L. Guth--NINCDS
J. Heuser--U. of California, S.F.
M. Horii--Osaka U. Hosp., Japan
K. Hozzemann--Max Planck Inst., Germany
U. Ito--Tokyo Med. & Dent. U.
B. Johansson--U. of Goteborg, Sweden
E. Leskowiak--Quain & Ramstad Clinic, North Dakota
D. Long--Johns Hopkins
D. McDonald--U. of California, S.F.
K. Milkovic--U. of Zagreb, Yugoslavia
J. Miquel--Ames Research Ctr., California
M. Mossakowski--Polish Acad. of Science, Warsaw
S. Nishikawa--Kyoto U. Med. Sch., Japan
Y. Olsson--U. of Uppsala, Sweden
R. Ozernak--S. Patey--Harvard U.
A. Pirau--Belgium
J. Prokop--Dept. of Neuros., New York Hosp.
Z. Rap--Polish Acad. of Science, Warsaw
G. Rasmussen--Maryland
L. Rasmussen--Washington State U., Pullman
H. Reulen--U. of Mainz, Germany
K. Richardson--Siema, Mele
D. Rotenberg--Cornell Med. Ctr., New York
F. Sell--VA Hosp., California
R. Sidman--Boston
D. Smith--U. of Pennsylvania, Philadelphia
O. Steinwall--U. of Goteborg, Sweden
G. Szumanska--Polish Acad. of Science, Warsaw
H. Vatanabe--Juntendo U., Tokyo
E. Westergaard--U. of Copenhagen, Denmark
W. Windle--Ohio
H. Wisniewski--U. of New Castle, England
A. Zaleski--NINCDS

LABORATORY OF NEUROCHEMISTRY 1961 — Present

Current Staff
R. W. Albers** L. Rodichok
G. Creswell A. Swann
S. Goldman E. Trams
L. Guth H. Yellin
D. Jean O. Young
T. Oh A. Zaleski
W. Reichen

Present Affiliation ALUMNI
B. Agranoff--U. of Michigan Med. Sch.
R. Bourke--Roswell Park Mem. Inst., Buffalo
R. Burton--Washington U. Sch. of Med., St. Louis
C. Dingman--NCI
S. Fahn--U. of Pennsylvania, Philadelphia
T. Gill--Oregon
N. Kanter--Eunice Kennedy Shriver Ctr., Waltham, Massachusetts
H. Knisley--U. of Florida
H. Kolody--Eunice Kennedy Shriver Ctr., Waltham, Massachusetts
G. McKhann--Johns Hopkins Med. Sch., Baltimore
A. Niemi--McGill U. Med. Sch., Montreal
J. Robinson--Upstate Med. Ctr., Syracuse
F. Samaha--U. of Pittsburg Sch. of Med.
G. Siegel--M.I. Sinai Sch. of Med.
M. Sporn--NCI
W. Stahli--U. of Washington Sch. of Med., Seattle
D. B. Tower**
C. Wells--Vanderbilt U. Sch. of Med., Nashville
J. Wherrett--U. of Toronto Med. Sch.

LABORATORY OF MOLECULAR BIOLOGY 1962 — Present

Current Staff
T. Adachi E. Friesse* R. Lazzarini
E. Alikian E. G. Friesse T. Nishihara
P. Cooney V. Fuglia V. Oh
M. Diesterhalt R. Menneberry G. Stamminger
E. Eisenstadt T. Iijima C. Tai
P. Fawcett J. Keene A. Toshiro
S. Khan

Present Affiliation ALUMNI
L. Archer--Gulbenkian Inst. of Science, Portugal
R. Berberich--Steggard and Ensch Pratt Hosp., Maryland
D. Cummings--U. of Colorado Med. Ctr.
P. Forstner--Ruhr-Universitat-Bochum, Germany
M. Hampton--Gulbenkian Inst. of Science, Portugal
C. Helmstetter--Roswell Park, New York
T. Ichikawa--Osaka U., Japan
M. Kaback--U. of California
W. Kistal--Germany
W. Konings--Biological Ctr., The Netherlands
Y. Murooka--Osaka U., Japan
E. Maroun--Southern Illinois U. Sch. of Med., Springfield
M. Murphy--NINCDS
T. Ono--Cancer Inst., Japan
H. Rhaese--Fachbereich Biologie der Universitat, Germany
W. Romig--U. of California
A. Rosner--Boston
R. Schmitt--Universitat Erlangen-Nuremberg, Germany
C. Sheu--Georgetown U., Washington, D.C.
J. Simmons--MGH, Boston
E. Speck--Rochester Sch. of Med., New York
K. Suga--Nara Women's U., Japan
H. Strack--Max Planck Inst. fur Biologie, Germany
H. Taber--U. of Rochester Med. Ctr., New York
A. Taylor--U. of Colorado Med. Ctr., Denver
R. Wax--Merck, Sharp, and Dohme, New Jersey
R. Winslow--Johns Hopkins, Baltimore
A. Yoshida--City of Hope Med. Ctr., California

LABORATORY OF NEUROPHYSIOLOGY 1967 — Present

Current Staff
T. Akaike M.G.F. Fortes* T. Smith
A. Bak F. Harizi H. Stanbury
D. Bertrand A. Lasansky L. von Saltmann
P. Detwiler P. Marchalava H. Wagner
R. Fioravanti R. Norman R. Zuckerman

Present Affiliation ALUMNI
D. Albert
D. Alkon--NINCDS
S. Aronson
H. Bernstein--Bethesda
E. Benson
R. Brubaker
R. Carr
B. Colbran
R. Collier
J. Cook
R. Copenhaver
J.B. Crawford
J. Dryden
R. Eisinger
K. Frank
W. Gilbert
C. Giles
G. Goodman
W. Green
M. Holland
G. Iser
O. Jones
H. Kaufman
R. Kuhlman
E.F. MacNichol, Jr.--Woods Hole, Massachusetts
J. McReynolds--U. of Michigan
T. Minz
W. Morgan
P. Newsome
J. Nicholas
P. O'Spahan--NEI
G. O'Connor
R. Oglesby
E. Olson
J. O'Rourke
D. Paton
S. Podas
J. Savelle
E. Simon--Cambridge, England
K. Simon
R. Smith
C. Spahr
M. Wong-Riley--U. of California, S.F.

* Chief
** Acting Chief

NATIONAL INSTITUTE OF NEUROLOGICAL AND COMMUNICATIVE DISORDERS AND STROKE

NINCDS DIRECTORS 1950—Present

Pearce Bailey--retired
Richard L. Masland--Col. of P & S, Columbia
Edward F. MacNichol, Jr.--Woods Hole
Donald B. Tower--Present

INTRAMURAL RESEARCH DIRECTORS 1951—Present

Seymour Kety--Harvard
Robert Livingston--California
G. Milton Shy--deceased
Karl Frank(Acting)--NINCDS
Henry Wagner--Australia Natl. U., Canberra
Thomas Chaso--Present

ASSOCIATE DIRECTOR FOR CLINICAL RESEARCH 1958—Present

Maitland Baldwin--deceased
John Van Buren--NINCDS
Donald Calne--Present

TO
COLLABORATIVE
AND FIELD RESEARCH
(See Adjacent Chart)

TO
LABORATORY
RESEARCH
(See Adjacent Chart)

MEDICAL NEUROLOGY BRANCH 1953—Present

Current Staff	
S. Bean	N. Reedy
A. Bender	R. Rosenbaum
B. Brooks	J. Trotter
J. Cook	R. Tsukui
W. K. Engel*	T. Vertorini
B. Festoff	J. Wells
F. Griffin	D. Zee
R. Irwin	
R. Kula	

Present Affiliation ALUMNI	
K. Abraham--Washington, D.C.	D. E. McFarlin--NINCDS
P. Alroccchi--Stanford, California	J. R. Mendell--Col. of Med., Ohio State U.
C. Alvord, Jr.--Washington Sch. of Med., Seattle	F. L. Merritt--Florida
L. Baker--Minneapolis	F. H. Norris, Jr.--Inst. of Neuro. Sciences, San Francisco
D. Bigner--Duke Med. Ctr.	W. H. Olson--Vanderbilt
A. Borenstein--Florida	S. M. Palten--Baylor
A. Brody--Duke	A. K. Percy--Drew Med. Sch., California
H. Brooker--Colorado Med. Ctr., Denver	D. Pleasure--U. of Pennsylvania
W. A. Camp--Connecticut	R. W. Price--NIDR
E. A. Carmichael--Natl. Hosp., London	A. D. Prince--Seattle Neuro. Clinic
W. J. Collins--Massachusetts Eye and Ear Infirmary	A. M. Rapoport--Connecticut
S. Dahl--U. Hosp., Madison	P. K. Re--Georgia
C. DeVivo--St. Louis Children's Hosp.	J. S. Resnick--Connecticut
J. D. Dorman--California	H. G. Richards--Virginia Med. Sch.
D. A. Drachman--Northwestern Med. Sch., Illinois	R. J. Roelofs--Vanderbilt
D. B. Drachman--Johns Hopkins, Baltimore	R. N. Rovner--Northwestern U. Med. Sch.
G. A. Drager--U. of Texas, Galveston	L. P. Rowland--Col. of P & S, Columbia
A. Drews--Akron	P. R. Rowley--Rochester Sch. of Med.
A. A. Engel--Mayo Clinic, Rochester	W. Sawicki--
E. L. Eyerman, Jr.--St. Louis Sch. of Med., Missouri	R. J. Schwartzman--Miami
G. F. Fanciel--Tennessee	D. E. Schweld--
C. N. Gold--Albuquerque, New Mexico	G. M. Shy--deceased
R. Griggs--Rochester Med. Ctr., New York	D. H. Silberberg--U. of Pennsylvania Sch. of Med.
G. R. Haase--Temple U. Hosp., Philadelphia	B. Smith--U. of Pennsylvania
M. A. Hatcher--North Carolina	J. E. Somers--U. of Missouri Sch. of Med.
F. W. Hathaway--VA Hosp., Dallas	A. C. Stam, Jr.--Harvard
L. A. H. Hoganhuis--Netherlands	M. L. Swardlow--Montefiore Hosp.
M. S. Horwich--New York Hosp.	W. E. Tobin--Jackson Mem. Hosp., Miami
J. D. Humphrey--Toronto	P. Talaris--Hosp. of Special Surgery, N.Y.
R. A. Pieter Kark--U. of California	T. S. Vales--Delaware
O. Karpatis--Montreal Neuro. Inst.	N. A. Vick--U. of Chicago
M. Korengold--Maryland	F. O. Vroom--U. of Florida
R. J. Kossman--New Jersey	G. Walsh--U. of California
M. H. Lane--New Mexico Med. Sch.	J. W. Walsh--Boston
G. Lazarus--Albert Einstein Col. of Med.	J. R. Warmolls--North Carolina
B. E. Levin--Dartmouth Col.	J. N. Whitaker--VA Hosp., Tennessee
G. Mochman--Johns Hopkins, Baltimore	A. H. Wolitz--Mt. Sinai Hosp.
R. Magee--Michigan Med. Sch.	M. M. Zalar--
L. Martin--North Carolina	
D. I. Meuser--New York	

SURGICAL NEUROLOGY BRANCH 1953—Present

Current Staff		
A. Albright	P. Fedio	N. Peters
R. Borke	M. Hammock	A. Pongpatirojana
R. Brooks	G. Matthews	R. Rajjov
L. Cahane	E. Mills	J. M. Van Buren*
G. Di Chiro	N. Mutsuga	P. Williams
A. Daniel	J. Oakley	J. Wood
	A. Ommaya	

Present Affiliation ALUMNI		
J. Adamkiewicz--Med. Col. of Wisconsin		
D. Ahlberg--St. Louis		
M. Baldwin--deceased		
R. Bourke--Roswell Park Mem. Inst., Buffalo		
A. Bucknam--Albert Einstein Col. of Med.		
S. Chou--U. of Minnesota		
J. Ferris--U. of Maryland Med. Sch., Baltimore		
R. Fisher--Yale		
T. Gennarelli--Georgetown		
M. Kostlow--New York		
C. Li--NINCDS		
M. Long--U. of Minnesota		
J. Madigan--Massachusetts		
T. Millorat--George Washington U.		
J. Miller--U. of Tennessee Med. Sch.		
S. Nakateni--Japan		
K. Nelson--NINCDS		
D. Ojemann--U. of Washington Sch. of Med., Seattle		
H. Richter--Jefferson Med. Col., Philadelphia		
J. Tew, Jr.--Cincinnati		
C. West--Roswell Park Mem. Inst., Buffalo		
H. West--California		

EEG AND CLINICAL NEUROPHYSIOLOGY BRANCH 1954—Present

Current Staff		
C. Ajmone-Marsan*		
L. Barry		
D. Bear		
L. Darrell		
J. Ebersole		
D. Lewis, Jr.		

Present Affiliation ALUMNI		
B. Abrams--Kansas City Gen. Hosp., Missouri		
K. Abraham--Washington, D.C.		
P. Alroccchi--Columbia P&S, New York		
D. Banting--Eye and Ear Infirmary, Boston		
R. Ciowell--Kensington, Maryland		
J. del Castillo--U. of Puerto Rico		
M. Dichter--Beth Israel Hosp., Boston		
A. C. Gabor--U. of California, Davis		
P. Gerin--Lyon, France		
R. Gummil--The Ancker Hosp., St. Paul, Minn.		
R. Hardy--Bethesda, Maryland		
J. Hughes--Northwestern U. Med. Cntr.		
D. Humphrey--Emory, Atlanta		
M. Lane--New Mexico		
R. Levine--Mass. Gen. Hosp., Boston		
H. Lux--Germany		
F. Merritt--Watson Clinic--Lakeland, Fla.		
R. Mignone--Medford, Mass.		
P. Mchugh--New York Hosp.		
A. Morillo--Bogota, Columbia		
M. O'Connor--U. of Pennsylvania		
V. Okajev--U. S. S. R.		
C. Payne--Puerto Rico		
D. Pollen--Mass. Gen. Hosp., Boston		
B. Ralston--Tuxedo Park, N. Y.		
N. Richards--Rancho, Va.		
R. Rovner--Chicago		
G. Walsh--UCLA		
C. Wells--Nashville, Tenn.		
L. Widén--Stockholm, Sweden		
D. Winter--Ames Res. Cntr., Mollatt Field, Calif.		
L. Zivin--U. of Oregon Med. Sch.		

LABORATORY OF EXPERIMENTAL NEUROLOGY 1970—Present

Current Staff		
W. Caveness*		
K. Kosaka		
H. Nakagaki		
Y. Yamashita		

Present Affiliation ALUMNI		
M. Kato--Kyushu U., Japan		
A. Tanaka--Fukuoka, Japan		

INFECTIOUS DISEASES BRANCH 1973—Present

Formerly a part of Collaborative and Field Research
(See adjacent chart)

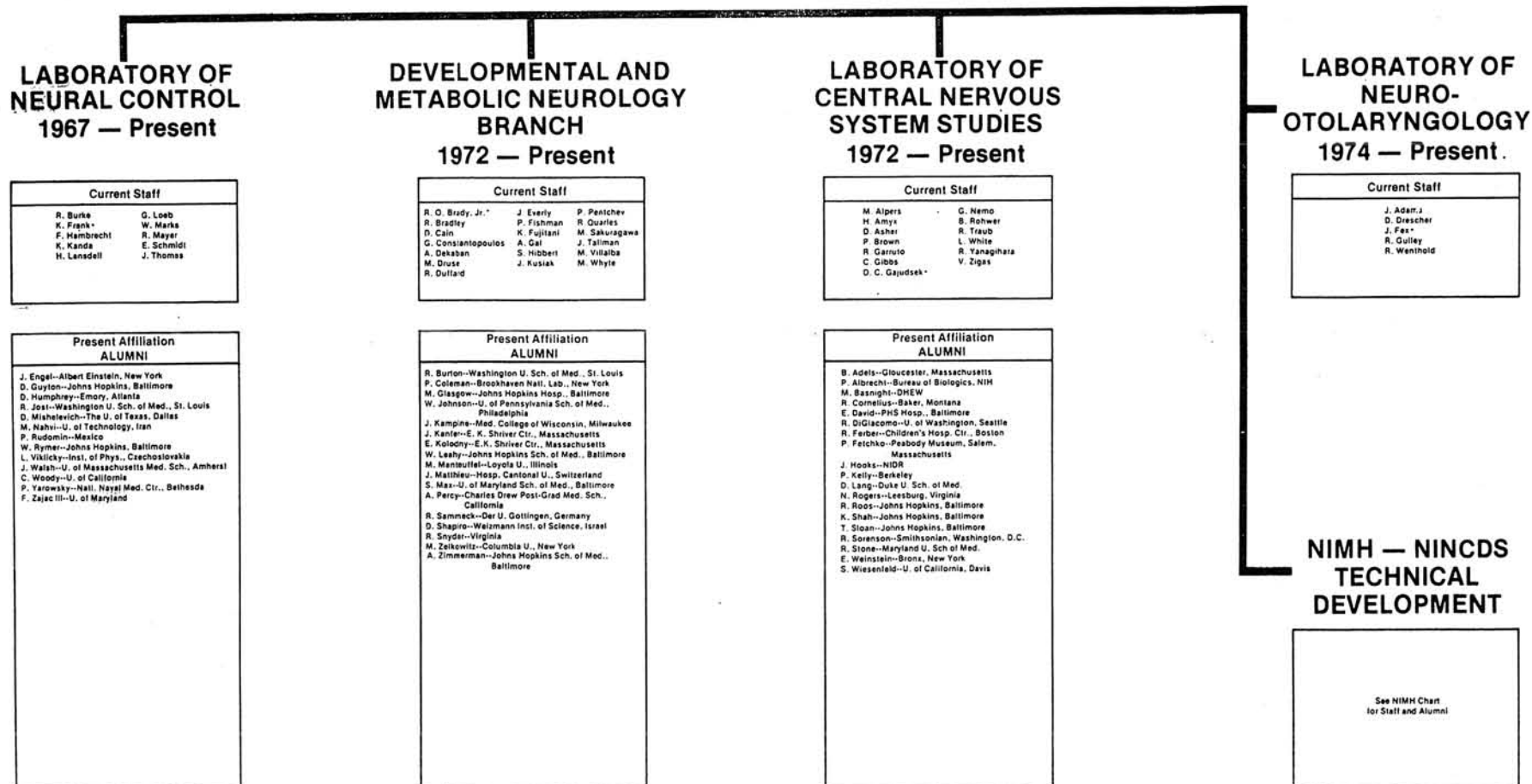
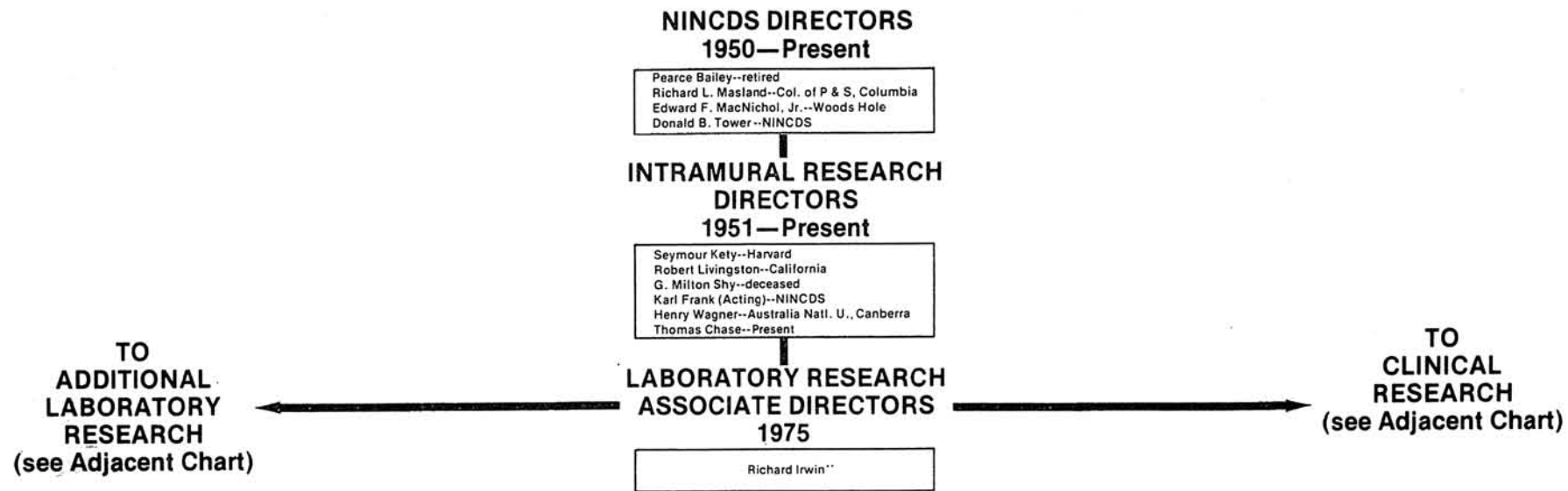
LABORATORY OF NEURO- PHARMACOLOGY 1974—Present

Current Staff		
T. N. Chase*		
R. Kantzinel		
M. Mata		
L. Miller		
Z. Pericic		
M. Perlow		
J. Shoulson		
J. Walters		
R. Weil		

LABORATORY OF NEURO- IMMUNOLOGY 1975

Current Staff		
D. McFarlin*		

NATIONAL INSTITUTE OF NEUROLOGICAL AND COMMUNICATIVE DISORDERS AND STROKE



* Chief
** Acting Chief

NIAID

NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES

LABORATORY OF CLINICAL INVESTIGATION 1953-Present

Sheldon M. Wolff *

The Laboratory of Clinical Investigation conducts research related to the pathogenesis and treatment of human infectious and allergic diseases. In addition, basic studies on host defense mechanisms and responses are pursued.

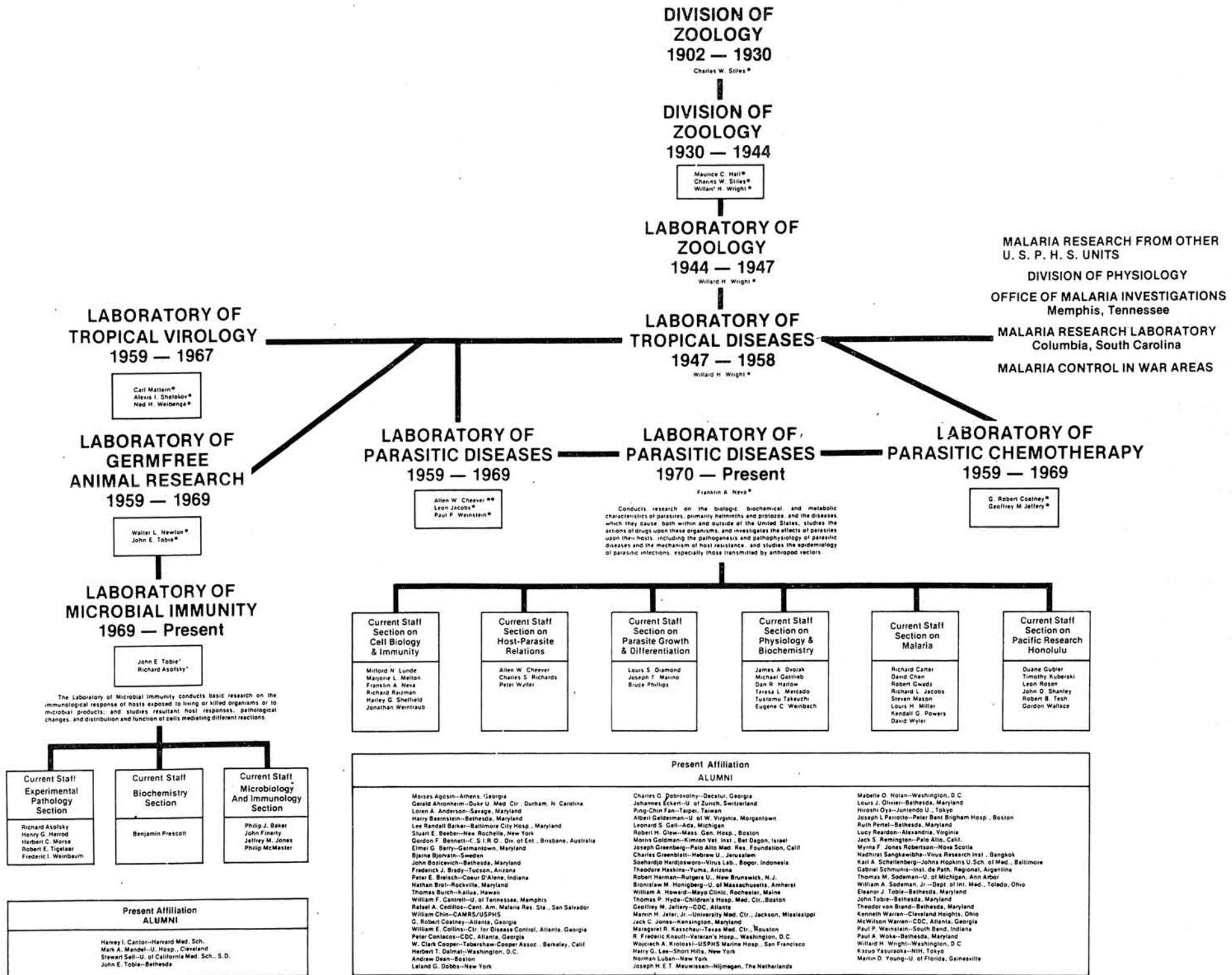
Current Staff Office of the Chief Stanley W. Chapman James E. Gadek Gary W. Hunninghake Dean D. Metcalfe Joseph E. Parrillo, Jr. Richard D. Reichman Lanny J. Rosenwasser Sheldon M. Wolff *	Current Staff Allergic Diseases Section Richard A. Clark Louis W. Heck Allen P. Kaplan Lewis D. Yeates	Current Staff Bacterial Diseases Section William A. Durbin, Jr. John A. Kazmierowski Herbert Y. Reynolds	Current Staff Clinical Mycology Section John E. Bennett Kyung J. Kwon-Chung	Current Staff Clinical Allergy and Hypersensitivity Section Charles H. Kirkpatrick Eric A. Oatesen Peter C. Sohnle
	Current Staff Clinical Immunology Section Michael M. Frank Jeffrey A. Gelfand Charles J. Jaffe Ivan K. Rothman	Current Staff Biologic Structure Section Marcello A. Barcinski Jerrold J. Eitner Dirk K. Graineder Peter E. Lipsky Alan S. Rosenthal	Current Staff Clinical Parasitology Section Franklin A. Neva	Current Staff Clinical Physiology Section James E. Below Michael J. Chusid Anthony S. Fauci Douglas L. Hurley Daniel G. Wright
			Current Staff Medical Virology Section Millicent R. Coker Raphael Dolin	

Present Affiliation ALUMNI

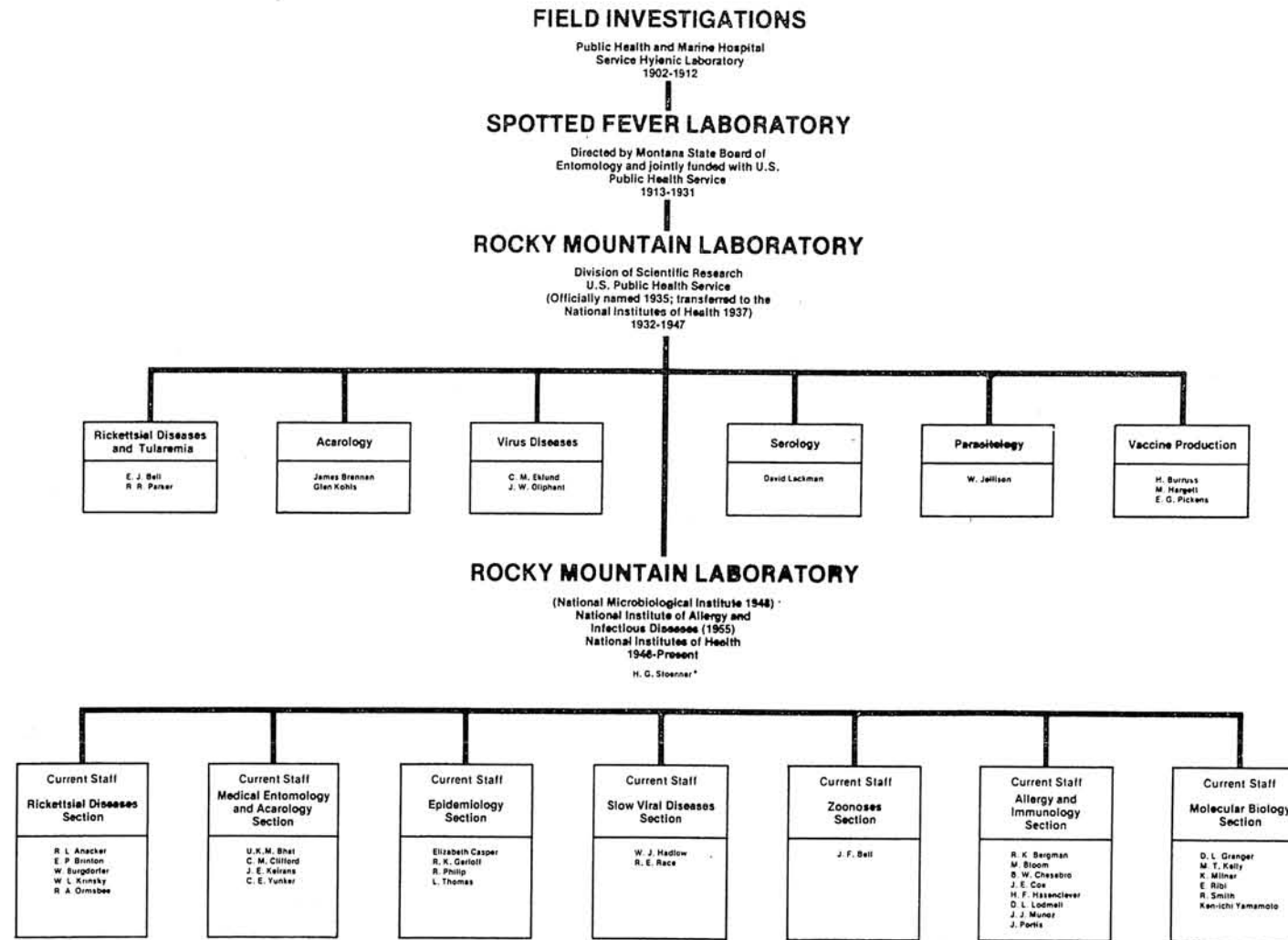
Richard Adler--Honolulu Robert H. Allford--Vanderbilt U., Nashville Burton R. Anderson--U. of Illinois, Chicago Vincent T. Andriole--Yale U. Arthur J. Atkinson, Jr.--Northwestern U., Chicago John Atkinson--Washington U., St. Louis Peter A. Banks--Boston Myles M. Behrens--Columbia Presbyterian Med. Cntr., New York Norman Bell--U. of Indiana, Indianapolis Hoace W. Bernigm--Chevy Chase, Maryland Henry K. Beyer--deceased Darryl D. Bindschadler--Cheyenne, Wyoming Dan C. Bird--Sherman Oaks, California Edward R. Block--U. of Pennsylvania, Philadelphia Ralph S. Blume--Columbia U., New York Robert Bagonier--U. of California, L.A. Michael Brandt--Rochester Gen. Hosp., New York George Bryan--U. of Texas, Galveston Joseph S. Bujak--Sacred Heart Med. Cntr., Spokane, Washington William T. Butler--Baylor Col. of Medicine, Houston Robert R. Carpenter--U. of Michigan, Ann Arbor Thomas R. Cate--Baylor Col. of Medicine, Houston Lawrence Chessin--Rochester, New York Robert A. Clark--U. of Washington, Seattle Robert Couch--Baylor Col. of Medicine, Houston Henry G. Crambert--Ohio State U., Columbus David C. Dale--U. of Washington, Seattle Richard D. Diamond--U. of Chicago	Charles A. Dinarello--Mass. Gen. Hosp., Boston R. Gordon Douglas, Jr.--U. of Rochester Ronald J. Elin--NIH Hugh Evans--Columbia U., New York David S. Fedson--U. of Chicago, Illinois Phillip Fireman--U. of Pittsburgh William Fleet--Vanderbilt U., Nashville Peter Franck--California Robert V. Fuik--Wilmington, North Carolina John I. Gallin--New York U. James L. German, III--Cornell U., New York Robert D. Gerwin--College Park, Maryland Phillip R. Glade--U. of Miami Howard C. Goodman--WHO, Geneva Andrew Grant--U. of Texas, Galveston Dupont Guerry, IV--U. of Pennsylvania, Philadelphia Ashley T. Haase--VA Hosp. & U. of California, S.F. George Hill--U. of Colorado, Denver Eskin Hull--NIAID John S. Johnson--Nashville Richard A. Johnson--Harvard Med. Sch. John K. Kammermayer--U. of Michigan, Ann Arbor Michael A. Kane--MIT, Boston Julius A. Kasel--Baylor Col. of Medicine, Houston Donald E. Kayhoe--NIAID Harry R. Kimball--Yakima, Washington Vernon Knight--Baylor Col. of Med., Houston Howard Kravetz--Phoenix	Irvin Kushner--Case Western Reserve U., Cleveland Sanford Kuvin--Palm Beach, Florida David Lang--Duke U. Alexander W. Lawton, III--U. of Alabama, Birmingham James R. Lehnich--Massachusetts Gen. Hosp., Boston Douglas M. Levin--U. of Chicago, Illinois Frank Loda--U. of North Carolina, Chapel Hill Donald B. Louria--New Jersey Col. of Med., Newark Rose Lieberman--NIAID Rob Roy MacGregor, III--U. of Pennsylvania Sch. of Med., Philadelphia John J. Mann--Johns Hopkins U., Baltimore Christopher M. Martin--Merck, Sharp and Dohme, Westpoint, Pa. Joseph E. May--Long Island Norman B. McCullough--Michigan State U. Ira D. Mickenberg--Southbury, Connecticut Peter D. Mott--U. of Rochester, New York John H. Mulholland--Union Mem. Hosp., Baltimore Theodore E. Nash--Bath-Israel Hosp., Boston John P. Nasou--Bethesda, Maryland James J. Nordlund--Yale U. Robert S. Northrup--Rockefeller Found., Yogyakarta, Indonesia George M. Owen--U. of New Mexico, Albuquerque Robert H. Parrott--Childrens Hosp., Washington, D.C. Ethel D. Patten--U. of Texas Med. Sch., Galveston James E. Pennington--Peter Bent Brigham Hosp., Boston John R. Rhodes--U. of Cambridge, England Robert R. Rich--Baylor Coll. of Med., Houston David Rikind--U. of Arizona, Tucson	Richard K. Root--U. of Pennsylvania, Philadelphia David L. Rosenstreich--NIDR Roger D. Rossen--Baylor Col. of Med., Houston Melvin Rubenstein--Westfield, New Jersey Steven Schenker--Vanderbilt U. Sch. of Med., Nashville Steven Schimpff--Baltimore Cancer Research Ctr., NCI John Sergeant--Cornell U. Sch. of Med., New York John N. Sheagren--Howard U. Sch. of Med., Washington, D.C. Ethan M. Shevach--NIAID Harvey B. Simon--Massachusetts Gen. Hosp., Boston James Smith--U. of Texas, Dallas Leon G. Smith--New Jersey Col. of Med., Newark Chull Song--New York U. Anderson Spikard--Vanderbilt U., Nashville Harry G. Steinman--NCI Daniel Siles--U. of California, S.F. Benjamin Sturgill--U. of Virginia, Charlottesville Michael Toren--U. of Oregon, Portland Bayard S. Tynes--U. of Alabama, Birmingham Predrag Ugrinski--U. of Skopje, Yugoslavia John P. Uis--Georgetown U., Washington, D.C. Robert H. Waldman--U. of Florida, Gainesville Burton C. West--Louisiana State U., Shreveport John Wawerka--U. of Zurich, Switzerland Temple W. Williams--Baylor Col. of Med., Houston Philip Wilorsch--Washington Hosp. Cntr., D.C. Larry J. Wright--Intermountain Clinic, Salt Lake City
---	---	---	---

* Chief

NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES

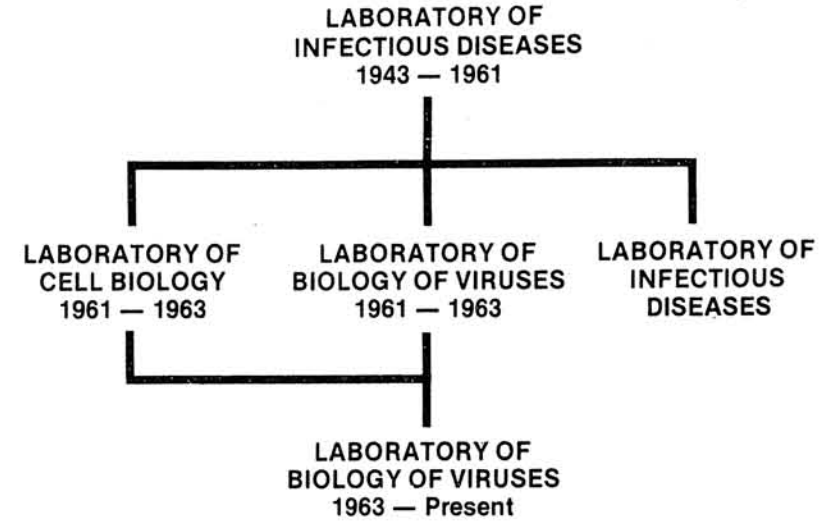
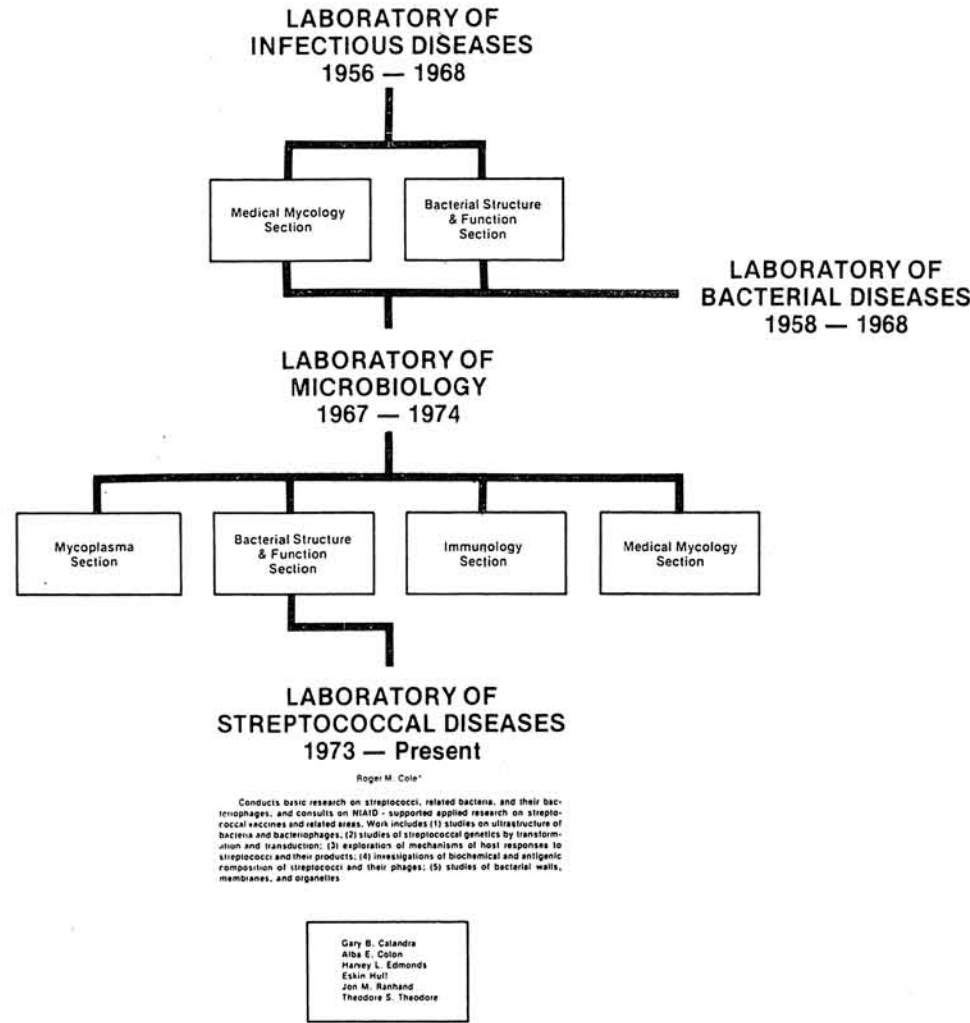


NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES



Present Affiliation			
ALUMNI			
Francis Abineno-retired John F. Anderson-Hygienic Lab Ichiro Aizawa-Osaka U. Sch. of Med. Japan W. R. Barclay-U. of Chicago H. C. Barnett-U. of Maryland, Baltimore E. John Bell-retired U. K. M. Bhat-Virus Research Centre, Poona, India Clarence Birdseye-U. S. Biological Survey Alan Blackett-Commonwealth Serum Lab., Bawley, Australia Colleen Boyle, San Clemente, Calif. Werner Brenner-Robert Koch Institut, Berlin, Germany James M. Brennan-retired Allene Burton-retired Al Canaris-U. of Texas, El Paso Mary Casey-South Tarrant, Mass. B. Chonola-Berkeley, Calif. W. M. Cheevers-U. of Minnesota Conna Clark-Veterans Hosp., Minneapolis, Minn. Gordon Clark-deceased	Carl Clausen-Children's Hosp., Seattle Julius O. Cobb-Hygienic Lab. W. F. Cogswell-Montana State Board of Health James D. Conners-NAMRU-3, Cairo, Egypt Robert A. Cooley-deceased Sixto Colacion-Universidad Nacional de la Plata, Argentina Harold Cox-retired Jim E. Culler, Montana State U., Bozeman Gordon E. Davis-retired John A. Durera, Med. Sch., U. of North Dakota, Grand Forks Ruhi Engi-Imperial Med. Research Inst., Addis Ababa, Ethiopia C. M. Eklund-retired Paul Flatt-U. of Maryland, Baltimore L. D. Fricks-Hygienic Lab. Richard Garcia, U. of California, Berkeley William M. Gaub-retired Kenneth Garner-Stevensville, Mont. Roberto Silva-Goytia-Gen. Hosp., Mexico City Michael B. Gregg-Communicable Disease Cntr., Atlanta, Ga.	Alan O. Hasenstein, Sch. of Med. U. of Washington, Seattle Mason V. Hargrett-retired Steven Harris-Va. Hosp., San Antonio, Texas Willard T. Hawkins-retired John Holt-Montana State Board of Health Bill H. Hoyer-Carnegie Inst., Washington, D. C. W. D. Hunter-U.S. Bureau of Entomology, Wash., D. C. Terry Jackson-National Animal Disease Lab., Ames, Iowa Francis G. Jarvis-U. of Idaho, Pocatello Wm. L. Jellison-retired John Julius-Montana State U., Bozeman W. W. King-Hygienic Lab. Glen Kohls-retired David B. Lackman-retired Jesse L. Lancaster-U. of Arkansas, Fayetteville Carl Larson-Stein-Duncan Inst., U. of Mont., Missoula George LeVelle-Oak Ridge Natl. Lab., Tenn. Daniel Leong-Northern Arizona U., Flagstaff Carlos Lopez-Sloan Kettering Cancer Cntr., New York	Lauri Luoto-Colorado State U., Ft. Collins Harold R. Malmgren-Karolinska Inst., Stockholm Junjiro Matsumoto-Toneyama Hosp., Osaka, Japan Thomas B. McClintock-deceased William F. McLinn-retired Thomas J. Meyer-U. of Colorado Med. Sch., Denver Carl Mitchell-U. of California, Davis Verna F. Newhouse-Communicable Disease Cntr., Atlanta, Ga. Masao Niwa-Osaka U. Sch. of Med., Japan John W. Orliphant-deceased Cora Owen-retired V. S. Pathan-Virus Research Cntr., Poona, India Ralph R. Parker-deceased Rene Parker-Homman Biochemical Lab. C. B. Philip-retired Winshaw H. Poon-Johns Hopkins U., Baltimore Fred A. Reamusan, Jr., U. of California, L. A. Karl R. Remond-Indian Health Service, Tucson, Arizona Cecil Reustman-Wyoming State Health Dept., Casper Howard Ricketts-U. of Chicago Jon A. Rudbeck-U. of Montana, Missoula Samuel B. Salvin-retired Hiroshi Sanada-Inst. of Tuberculosis, Tokyo Joseph W. Shands-U. of Florida, Gainesville R. B. Spencer-Hygienic Lab. Edward A. Steinhilber-deceased Charles W. Stillé-Hygienic Lab. David Termino-Sacred Heart Hosp., Spokane, Wash. Thomas Tuttle-Montana State Dept. of Health Donald G. Wakeham-U. of Idaho, Caldwell Claes P. Wenbu-U. of Lund, Sweden Howard Wheeler-Texas A. & M. Col. Station David A. Wiley-York Hosp., York, Pa. Louis B. Wilson-U. of Minnesota Kenichi Yamamoto-Hokkaido U. Japan

NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES



Research efforts of the Laboratory of Biology of Viruses are directed toward learning how human and other animal viruses infect cells, replicate, integrate into the host genome and produce the transformed state. Attention is given to the elucidation of specific viral functions which could provide targets for future viral chemotherapy.

Current Staff Biochemical Virology Section	Current Staff Macromolecular Biology Section	Current Staff Molecular Structure Section	Current Staff Physical Biochemistry Section
E. Birkenmeier M. Chen F. DeFilippis L. Rosenblatt N. P. Salzman E. Sebring M. Zelig	M. Enfinger C. Garon S. Martin B. Moss C. Wei	F. Kozcol J. A. Rose L. Salzman S. Straus	S. Barban P. Hawley G. Khoury M. A. Martin T. Shih O. Simmons

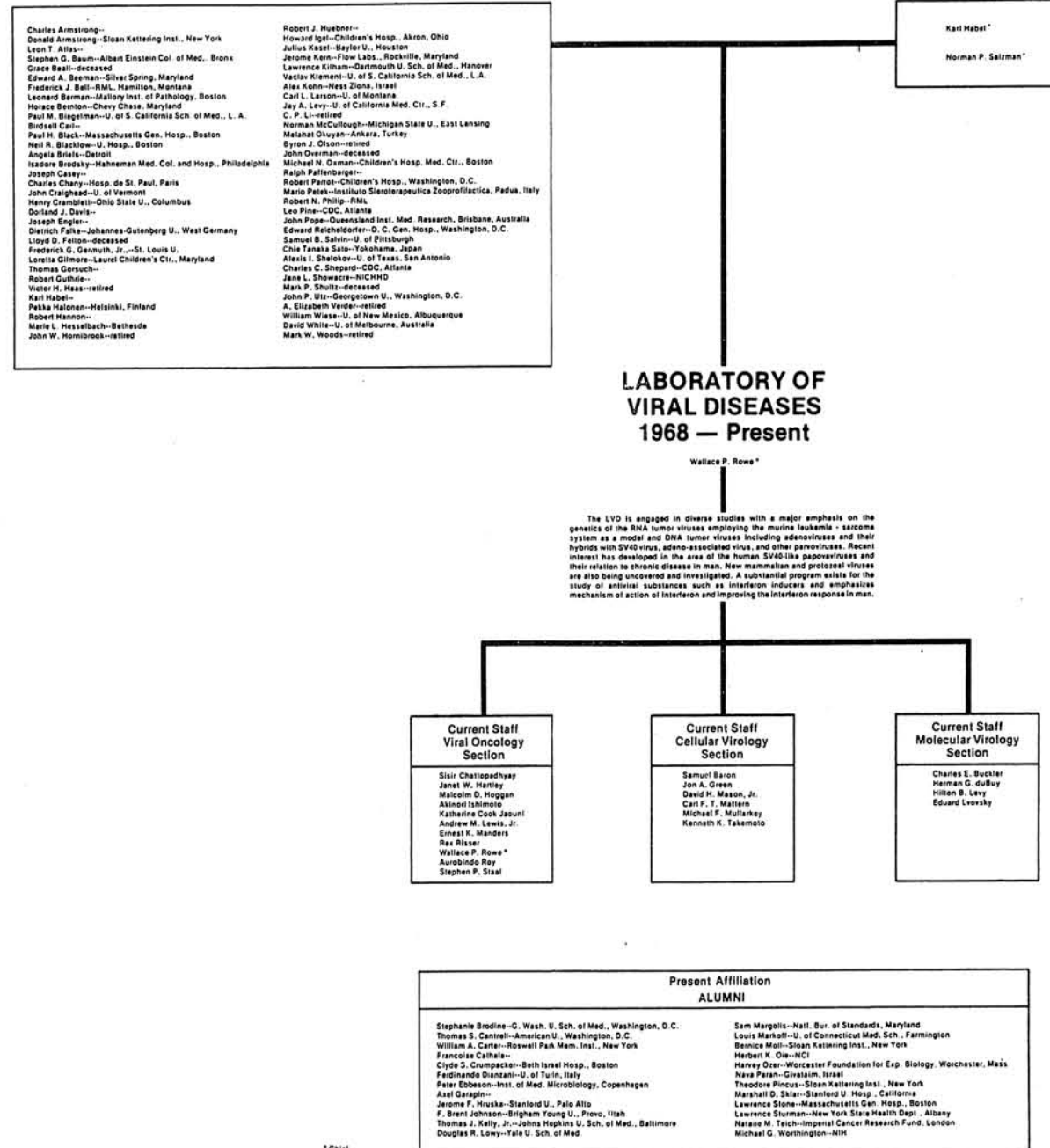
Present Affiliation ALUMNI	
Edwin H. Beachey—U. of Tennessee, Memphis	Anka Kovaceva—U. of Skopje, Yugoslavia
John Brandsburg—Pomona, California	Armen Kurtdjian—C. N. R. S., Paris
Richard T. Coussons—VA Hosp., Oklahoma City	Ryung Joo Kwon—NIH
Benedict T. DeCocco—Catholic U., Washington, D.C.	Carman C. Leonard—Pomona, Maryland
John Ellsworth—George Washington U., Washington, D.C.	George F. Lones—St. Cloud, Minnesota
Chester W. Emmons—Phoanis, California	Kenneth M. Nugent—U. of Iowa, Iowa City
Susan E. Fenman—FDA, Rockville, Maryland	C. Lowell Parsons—U. of Pennsylvania Hosp., Philadelphia
Harry A. Galus—Duke U., Durham, N.C.	Unnur Petursdottir—George Washington U. Hosp., Washington, D.C.
Richard A. Galnick—Warabury, Connecticut	Benjamin Prescott—NIH
Fred Gill—Bethesda, Maryland	Enzo Reiss—CDC, Atlanta
Isaac Ginsburg—Hadassah Sch. of Dental Med., Jerusalem	Anne Repaske—Catholic U., Washington, D.C.
Roger Goos—U. of Rhode Island, Kingston	Roy Repaske—NIH
Alan G. Gluck—Vanderbilt U., Nashville	Jozef Sandula—Chemical Inst., Bratislava, Czechoslovakia
Jerome J. Hahn—Northwestern U., Evanston, Illinois	Arthur Sat—Georgetown U., Washington, D.C.
Herbert H. Hasselbacher—NIH	Arthur L. Schade—U. of Vienna, Austria
Fred S. Hannon—Yale U.	Santlief H. Stone—NIH
Sang Jae Kim—Korean Natl. Tub. Assoc., Seoul, Korea	Joseph G. Tully—NIH
James R. King—FDA, Rockville, Maryland	

Present Affiliation ALUMNI	
C. Armstrong—	Jacob Lebowitz—U. of Alabama—Birmingham
David Axelrod—New York Public Health Labs., Albany	Harvey Leibhaber—Jewish Hosp. of St. Louis, Missouri
Kenneth Barm—Johns Hopkins, Baltimore	Leon Levine—U. of California, S.F.
Michael Bishop—U. of California, S.F.	Jacob Mairzel—NICHD
Donald Brenner—Walter Reed, Washington, D.C.	Arthur Maimon—Washington, D.C.
Bonnie Carter—NIH	L. Mallico—London
William Carter—Roswell Park Mem. Inst., Buffalo	John Mendelsohn—U. of California, San Diego
Robert Chambers—Georgetown Sch. of Med., Washington, D.C.	Julie Milstein—FDA, Maryland
Neil Crane—Group Health Insurance, Washington, D.C.	Kinichiro Miura—Natl. Inst. of Genetics, Japan
James Darnell—Rockefeller Inst., New York	William Munyon—Buffalo, New York
D. Davis—	C. Nishimura—Kitasato U., Tokyo
Robert DeMars—U. of Wisconsin, Madison	Hideo Osamura—NIH, Tokyo
Harry Eagan—Albert Einstein Sch. of Med., New York	Harvey Ozer—Worcester Foundation, Massachusetts
George Fareed—Harvard Med. Sch., Boston	Enzo Paolletti—New York Public Health Labs., Albany
Aaron Freeman—Children's Hosp., Akron, Ohio	Cephus Patch—NCI
Lawrence Gallo—Washington U., St. Louis	Donald Penhrose—Beecham Research Labs., Surry, England
Lowell Glasgow—U. of Utah, Salt Lake City	Suzanne Polmar—Johns Hopkins, Baltimore
Ronald Gool—Natl. Science Foundation, Washington, D.C.	Pradman Dasba—NCI
Karl Haber—NIH	Branislav Rada—Czechoslovak Acad. of Sciences, Bratislava
Leonard Hertzberg—Stanford U., Palo Alto, California	Seymour Rappaport—Los Altos, California
R. Heubner—	Horencia Rosamond—Southern U., Mobile, Alabama
William Hoyer—Carnegie Inst., Washington, D.C.	Arthur Sarr—Georgetown U., Washington, D.C.
Wolfgang Jankil—Duke U., Durham, N.C.	Edward Schneider—GRC, Baltimore
A. G. Kaselberg—Vanderbilt U., Tennessee	Matthew Scharf—Albert Einstein U., New York
Enud Kaza—Hebrew U., Jerusalem	Aaron Shatkin—Rocke Inst., Nulley, N.J.
Walter Keller—Cold Spring Harbor, New York	Tamar Steinschky—Public Health Labs., Tel-Aviv
Thomas Kelly—Johns Hopkins Sch. of Med., Baltimore	Harry Steinman—NCI
Jay Kleinman—Georgetown U. Hosp., Washington, D.C.	Donald Summers—U. of Utah, Salt Lake City
Gebhard Koch—Rocke Inst., Nulley, N.J.	H. Takamori—St. Louis
Robert Krooth—Columbia U., New York	Frank Thorp—U. of Chicago
Robert Lake—Dow Corning Corp., Midland, Michigan	David Trilling—New York State Dept. of Health, Albany
George Levine—Oak Ridge Natl. Lab., Tennessee	Kunio Yoshida—NIH, Tokyo
	Nathaniel Young—NCI

NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES

LABORATORY OF INFECTIOUS DISEASES 1948 — 1968

LABORATORY OF BIOLOGY OF VIRUSES 1954 — Present



NICHD

NATIONAL INSTITUTE OF CHILD HEALTH AND HUMAN DEVELOPMENT

PREGNANCY RESEARCH BRANCH

Pregnancy Research Branch conducts research in the physiology of pregnancy, the effects of disease states on pregnancy, and the identification of those factors which increase perinatal and maternal morbidity and mortality. At this time, studies are primarily oriented toward the use of pregnant baboons, Rhesus monkeys, and sheep as models for human application. The interrelationships of fetal, placental, and maternal polypeptide hormone metabolism, tests of placental function and reserve, and the rate limiting influences on sex steroid production during pregnancy are being examined.

The branch is beginning a clinical research program directed at the management and care of pregnant patients both as inpatients and outpatients.

Current Staff

Eugene Albrecht
Ronald A. Chez*
Richard Eisenkranz
Michael Epstein
Gary K. Oakes
Gerald Pepe
Herman Schut
John D. Townsley
Adrian Walker

Present Affiliation ALUMNI

Deana C. Crystal—Lancaster, Pa.
Alan R. Fischman—Baltimore
Robert E. Oakes—Leeds, 17 England

BEHAVIORAL BIOLOGY BRANCH

Nervous system functions are analyzed at the cellular and molecule levels using combined biochemical, electrophysiological and fine structural techniques. We are attempting to analyze the relationship between these cellular and molecular phenomena and relatively complex behavior that has been well defined in intact animals.

Current Staff Section on Neurobiology

Clifford H. Christian
Lawrence D. Grouse
Maryanna P. Hankart
Ronald W. Holtz
Richard Maurer
Elaine A. Neale
Joseph H. Neale
Phillip G. Nelson*
Bruce R. Ransom
Bruce K. Schrier

Current Staff Section on Functional Neurochemistry

Jeffery L. Barker
Harold Gainer*
Yoko Peng Loh
Yosef Seme

Current Staff Section on Brain and Behavior

Garrett E. Alexander
Sławomir Golewicz
Anna K. Lieblich
David Symmes*

Current Staff Section on Developmental Enzymology

Conrad Chen
Jenice Chou
Thorsten Fjellstedt
Kuo-Ping Huang
J. R. Robinson*

Current Staff Section on Intermediary Metabolism

Laurence Arins
Gordon Guroff*
Takashi Kato
Carol Lesande
Paul MacDonnell
Branislav Nikodijevic
Vernon Rowe
Mel-Ying Yu

Current Staff Section on Physiological Controls

Walter H. Gilman*
Freestle Huang
David Klein
Chiharu Kubai
Jeannette Martin
Andrew Parfitt
John Sparks

Present Affiliation ALUMNI

Anthony C. Bruer—Children's Hosp. Med. Cntr., Boston
Loring Chapman—U. of California
Kenneth H. Chase—Washington, D.C.
Witold Dzialowski—Pharmakologisches Institut der Universität, West Germany
Marvin Eisenbart—Albert Einstein Col. of Med., Bronx
E. F. Evans—U. of Keele, England
Gerald D. Fischback—Harvard Med. Sch., Boston
Harris Ronald Flat—Stanford U. Med. Cntr., California
Norman Funkenstein—Mass. Gen. Hosp., Boston
Earl L. Gillar—Yale U. Sch. of Med.

Mark Healy—Children's Hosp., Los Angeles
Herbert Levitan—U. of Maryland
Dr. Leon I. Mann—Cornell U. Med. Col., New York
John H. Peacock—Stanford U. Med. Sch., California
James W. Richard—Yale U. Sch. of Med.
Donald L. Shapiro—Yale U. School of Med.
Asher Shaliberg—Bar Ilan U., Israel
Donald L. Shapiro—Yale U. Sch. of Med.
John A. Whyte—Washington D.C.
Zvi Wolberg—Tel-Aviv U., Israel

Present Affiliation ALUMNI

Amnon Z. Abramowitz—Brooklyn
Matti S. Al-Alsh—NIH
Arnold E. Andersen—NIH
Stephen Atlas—NIH
Haim Aviv—Walzmann Inst., Rehovot, Israel
William F. Benedict—Children's Hosp., Los Angeles
Gerald R. Berg—Wellesley, Mass.
Alberto Bernardi—Institut de Biologie Moleculaire, Paris
Sue Kinkley—Temple U., Philadelphia
Irving Bolma—Washington U., St. Louis
Judith H. Brown—NIH
Robert Callahan—Mayo Lab., Springfield, Va.
Louis W. Catalano—Columbia U., New York
H. Peter Chase—U. of Colorado Med. Cntr.
Hao-Chia Chen—NICHD
Katherine H. Collins—deceased
Joyce F. Cone—NIH
Laurence M. Corash—NIH
Jacqueline Daymen—NIH
Joseph DeLarco—Mayo Lab., Springfield, Va.
Jules B. Edlow—U. of South Florida, Tampa

Howard J. Eisen—Bethesda
Robert V. Farese—U. of Southern Florida, Tampa
James Fallon—NIH
Angelo Fontana—Istituto di Chimica Organica, Padova, Italy
Jacques E. Glazen—Lab. of Clinical Chemistry, Liege, Belgium
Erlend Guss—NICHD
Wolf Guentersohn—Lehrstuhl für Biochemie, Munich
Edgar E. Hanna III—NICHD
John F. Huddleston—U. of Florida, Gainesville
Walter Klotz—Kennedy Krieger Sch. of Med., Pittsburgh
Hans-Herman Klitz—Kurt-Schumacher Str. 10A, Gd. Rep. of Germany
Karl Knigge—U. of Rochester, New York
Sharon Kraus—U. of California, Berkeley
Kenji Kumaki—NICHD
Hiroshi Kuzuyama—Aichi-Gakuin U., Nagaya, Japan
Philip Leder—NICHD
George Lee—NIH
Louie G. Linaroli—Mercy Children's Hosp., Pittsburgh
Masayuki Mitsunaga—Jhal U., Tokyo
Michiyo Morishita—Kochi Prefecture, Japan

Shigeki Nakagawa—Hkon U., Tokyo
Kike P. Nebelin—Gartenweg, Germany
Daniel W. Nebert—NICHD
Akira Niwa—Tohshimaken, Tokyo
Kosaku Noda—Fukuoka Women's Col., Japan
Takeshi Ota—Suginami-ku, Tokyo
Ida S. Owens—NICHD
Helmut Rahner—Bahnhofstrasse 5, Germany
Jose Retelcion—U. of Philippines
Joseph R. Robinson—Silver Spring
Israel Schachter—Walzmann Institute, Rehovot, Israel
Tatsuo Senzhu—U. of Wisconsin, Madison
Kazunori Shimada—Kyushu U. Sch. of Med., Fukuoka 812, Japan
Peter Shewell—Washington U. Sch. of Med., St. Louis
Lawrence Skogerson—Columbia U., New York
Anella Uzunova—Sofia Med. Acad., Bulgaria
Mary K. Vaughan—U. of Texas Health Cntr.
Joseph Volpe—Mass. Gen. Hosp., Boston
Robert A. Walsberg—NICHD
Carolyn Williams—NICHD
Franklin Zieve—VA Hosp., Minneapolis

* Chief
** Acting Chief

LABORATORY OF MOLECULAR GENETICS

The Laboratory of Molecular Genetics is primarily interested in understanding the processes that govern the flow and regulation of genetic information in pro- and eukaryotic organisms.

Current Staff

David Beebe	Ronald Lundquist
Marcel Bouquet	Jacob Malal
Michael Cashel**	Jurg Meyer
William Chin	Leonard Milstone
Robert Crouch	Paul Newbold
Marie-Luise Dirksen	Stuart Orkin
Lynn Enquist	Joram Piatigorsky
Franz-Josef Ferdinand	Paul Shapshak
Martha Hale	Hal Sternberg
Stanton Hall	David Swan
Emuel Hamel	David Temeiner
Edgar Hanna	Robert Walsberg
Philip Leder*	Heiner Westphal
Judith Levin	Peggy Zelenka

Present Affiliation ALUMNI

Haim Aviv—Walzmann Inst., Rehovot, Israel
Alberto Bernardi—Institut de Biologie Moleculaire, Paris
Irving Bolma—Washington U., St. Louis
Robert Callahan—Springfield, Virginia
Sydney Craig III—Tulane U., New Orleans
Richard Erbe—Mass. Gen. Hosp., Boston
Lawrence Eron—Boston
Jacques Glazen—Lab. of Clinical Chemistry, Liege, Belgium
Tasaku Hozjo—U. of Tokyo, Japan
Sharon Kraus—U. of California, Berkeley
Wm. Clark Lambert—Yale U.
David Livingston—Children's Med. Cntr., Boston
Seymour Packman—Yale U.
Hendrik Ruse—Vrije U., Amsterdam, The Netherlands
Jeffrey Ross—McArdle Lab., Madison, Wisconsin
Sonia Rothschild—Potomac, Md.
Donald Rous—Baylor Col. of Med., Houston, Texas
Kazunori Shimada—Kyushu U. Sch. of Med., Japan
Lawrence Skogerson—Columbia U., New York
Kyoko Uenoyama—Cancer Inst., Tokyo
Anella Uzunova—Sofia Med. Acad., Bulgaria
Pal Varseliner—Hungarian Acad. of Sciences, Szeged, Hungary
Miriam Wolberg—Tel-Aviv U., Israel

LABORATORY OF BIOMEDICAL SCIENCES

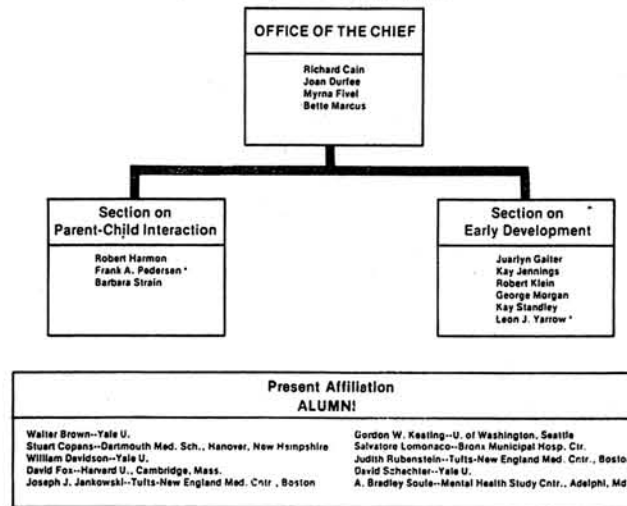
The Laboratory of Biomedical Sciences conducts basic research in developmental enzymology, intermediary metabolism, and physiological controls. The objective of these investigations is the elucidation of the molecular basis for selected types of mental and physical developmental pathology.

NATIONAL INSTITUTE OF CHILD HEALTH AND HUMAN DEVELOPMENT

SOCIAL AND BEHAVIORAL SCIENCES BRANCH

Leon J. Yarrow*

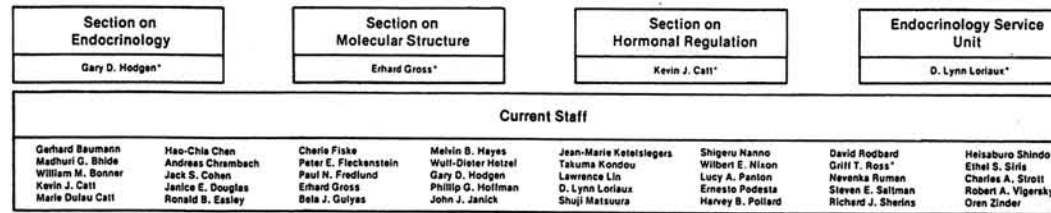
The focus of research is on early environmental influences on development. Current studies are concerned with a number of methodological problems: the development of observational techniques for studying infant's interactions with both parents in their natural environment; attempts to analyze parent-infant interaction as a dynamic system, to determine how the infant's temperamental characteristics influence parental behavior; the development of measures to assess effectiveness of motivation in infancy; techniques for assessing the child's earliest attempts to have an impact on and master his environment.



REPRODUCTION RESEARCH BRANCH

Gill T. Ross*

Chemical, physiological and biochemical studies of problems of human reproduction.



ALUMNI

Itamar B. Ahrass--U. of California, La Jolla	Yank D. Coble--	K. M. Gould--	Howard E. Kulin--Milton S. Hershey Med. Ctr., Hershey, Pa.	K. Rode--	John L. Skosey--U. of Chicago
Milton Altan--	John A. Cooper II--	Stanley Green--Jenkintown, Pennsylvania	Bernard R. Landa--Case Western Reserve U., Cleveland	J. S. Norris--	Leo Stolbach--Tufts U., Walpole, Mass.
Harold Altman--Missouri Inst. Psych., St. Louis	Pierre L. Corvol--	Monte A. Greer--U. of Oregon, Portland	A. Lerario--	Martin Nydick--New York	Alan Treloar--Minneapolis, Minnesota
J. Argony--	E. S. Davis--	Jay Grodin--Bethesda, Maryland	Herbert J. Levine--New England Med. Ctr., Boston	William D. Odell--Harbor Gen. Hosp., Torrance, California	T. Tsuruhara--
C. Wayne Bardin--Milton S. Hershey Med. Ctr., Pennsylvania	B. de Crombrughe--	Charles B. Hammond--Duke U.	John L. Lewis, Jr.--Cornell U., New York	B. W. O'Malley--Baylor Sch. of Med., Houston	William Tullner--Bethesda, Maryland
Albert J. Baukal--	Leslie Degroot--U. of Chicago	James M. Hammond--Milton S. Hershey Med. Ctr., Pennsylvania	Min C. Li--Massau Hosp., Minnesota, New York	John S. Parks--Children's Hosp., Philadelphia	Robert O. Utiger--U. of Pennsylvania, Philadelphia
Robert L. Becker--U. of California, L.A.	Frederick Dhyse--	James Hansen--Georgetown U., Washington, D.C.	Mortimer B. Lipsitt--The Cancer Ctr., Cleveland	Ira Pastan--NIH	Judith Valtukelis--Boston City Hosp., Mass.
Menashe Ben-David--	Peter Doerr--	Michelle Harman--Baltimore, Maryland	J. P. Luvet--	William E. Paul--NIH	Eytard Van Hall--
Delbert Bergental--deceased	Howard Engel--	Wylie C. Hembree--Col. of Phys. and Surgs., New York	Herbert A. Lubs--U. of Colorado, Denver	Elsaworth Phillip--	T. Vanha-Perttula--
Michael Berman--	Richard Falk--	Arnold Jacobson--Highland Hosp., Oakland, California	Richard D. Malfrotz--Lutherville, Maryland	William Pieper--	David H. Van Thiel--U. of Pittsburgh, Penn.
J. Bermudez--	George R. Fisher--Philadelphia, Pa.	George S. Johnson--	Jacques Mahoudeau--Campoy--	James A. Pittman, Jr.--U. of Alabama, Birmingham	Oscar Villar--
Benjamin Borowsky--St. Louis, Missouri	Lawrence M. Fishman--Miami Sch. of Med.	Sheldon M. Kahn--	William L. McGuire--U. of Texas, San Antonio	Phillip Rayford--U. of Texas, Galveston	Charles Wells--
Glenn Braunstein--Doctors of Lebanon Hosp., L.A.	Richard C. Gardner--Harvard U.	Genia Kapadia--	Anthony Means--	Ralph A. Reissfeld--	Benton Westfall--
Alexander Breslow--George Washington U., Washington, D.C.	A. M. Gawronowski--	Gerson Kaplan--	Robert S. Macklenburg--Seattle, Washington	Edward Reller--	Jerry A. Wilder--Luka Grove, New York
William E. Bridson--U. of Wisc. Reg. Primate Res. Ctr., Madison	Saul Genuith--Mt. Sinai Hosp., Cleveland	Abba J. Kastin--Tulane U., New Orleans	Alton Maister--	Richard S. Rivlin--Columbia U., New York	John F. Wilber--Northwestern U., Chicago
H. J. Binkley--	Walter Gerber--Washington U., St. Louis	Ronald A. Kelllogg--	Carole Mandelton--Denver, Colorado	Geoffrey Rosenfeld--	John Wilson--
Joshua Brown--UCLA, L.A.	E. Myles Glenn--	Marvin A. Kirschner--New Jersey Med. Sch., Newark	Yukihiko Miyachi--	Henry J. Ruder--Northwestern U., Chicago	Richard Yadley--Mt. Sinai Hosp., L.A.
Sylvio Bruzzone--	H. Glossman--	D. Kneer--	Richard H. May--U. S. Illinois Sch. Med., Springfield	Gordon Sarfaty--	T. Yoshimi--
L. Bullock--	Robert Goldenberg--Yale New Haven Hosp., Connecticut	Peter O. Kohler--Baylor U., Houston	Charles E. Nadler--Northwestern U., Chicago	George Schneider--N. J. Sch. of Med., East Orange	John Paul Young--
Hildegard (Wilson) Cannon--Washington, D.C.	Donald F. Goldstein--Harvard U.	S. Kono--	E. Nebelin--	Howard S. Schwartz--Bronx	John L. Ziegler--NIH
C. M. Cargille--N.W. Area Health Ed. Ctr., Minot, N. Dakota	Theodore S. Goodfriend--U. of Wisconsin, Madison	Stanley G. Korenman--VA Hosp., Iowa City, Iowa	Bruce Nisula--Georgetown U., Washington, D.C.	Max G. Sherr--Silver Spring, Maryland	
E. Chen--	A. David Goodman--Albany Med. Col., New York	Philip M. Krueger--Georgetown U., Washington, D.C.			

* Child

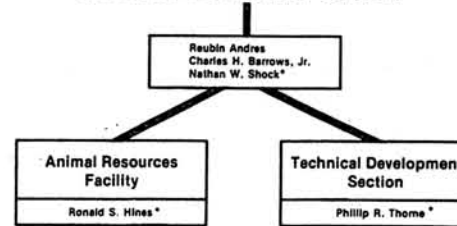
NIA

NATIONAL INSTITUTE ON AGING

GERONTOLOGY RESEARCH CENTER Baltimore, Maryland

The Center conducts all intramural biochemical, physiological and behavioral research on aging for the NIA.

OFFICE OF THE CHIEF



CLINICAL PHYSIOLOGY BRANCH

Studies clinical, physiological, biochemical, and social factors that influence aging. Special areas investigated include heart-lung and exercise changes with age, glucose and insulin metabolism, kidney function, hearing and vision, and many other factors that may affect the way a person or an animal ages. A key resource of this branch is the 650 healthy, community-living volunteers, aged 20 - 96 years, who participate in the Center's longitudinal study of aging.

LABORATORY OF MOLECULAR AGING

Investigates internal control mechanisms responsible for regulating various essential body functions and how these are affected by age. For example, the effects of aging on bio-energetic processes, mechanisms of membrane transport, and responses to hormonal stimuli are studied in animals. Other research stresses alterations in the genetic information system that may occur with aging and how these affect biological function in the senescent organism.

LABORATORY OF BEHAVIORAL SCIENCES

Investigates psychological factors associated with aging in humans and animals. Efforts are made to identify and describe behavioral changes with age, find the basic processes responsible, and develop methods to minimize losses in learning, memory or reasoning ability that occur in some older people. Other research is defined to identify physiological and psychological factors involved in the learned control of visceral responses such as heart rhythm, anal sphincter activity and blood pressure.

LABORATORY OF CELLULAR AND COMPARATIVE PHYSIOLOGY

Emphasizes studies on the nature of age-related structural and functional changes of dividing and non-dividing cells in many animal species, including man. Conducts research on the immunological, genetic and membrane changes of normal and abnormal cells and tissues. Particular attention is given to learning more about the known loss of normal immune responses that occur in older organisms.

Current Staff Cardiovascular- Renal Section Gary Gerstenblith Nathan W. Shock** Harold Spurgeon	Current Staff Endocrine Section Hardy J. Chou Barry Cooper Robert I. Gingsherman* S. Mitchell Harman Michael S. Katz George Roth	Current Staff Human Performance Section James E. Fish Fred Garfinkel Clyde E. Martin Arthur H. Norris* Chris Plato Stephen P. Tzankoff	Current Staff Metabolism Section Dana K. Andersen Reubin Andres* J. Harold Halderman Elizabeth A. McGuire Jordan D. Tobin Robert E. Vestal	Current Staff Intermediary Metabolism Section Jeanne C. Beck Bernard A. Bulos Arthur Chernoff Steven J. Fass Charles R. Filburn Edward A. George Marc R. Hammaman Richard G. Hansford Roger N. Johnson Chun-Chin T. Liang Bertram Sacktor*	Current Staff Molecular Chemistry Section James J. Butzow Patricia Clark Gunther L. Eichhorn* Jeffery P. Froehlich Josef Pliha Joseph M. Rittkind Young Ae Shin	Current Staff Learning and Problem Solving Section David L. Arenberg* Leonard M. Ciambra Charles L. Goodrick Elizabeth A. Robertson	Current Staff Psychophysiology Section Bernard T. Engel* Sheldon H. Gottlieb Stanley A. Rubin	Current Staff William H. Adler Mary Anne Brock Jochen W. Heine Toshio Hirano Kenneth H. Jones Marguerite M. Kay Peter Koo Takashi Makinoda* Yoji Mitsui Hideo Nanjichi Albert A. Nord Edward L. Schneider Joel H. Shaper Gordon H. Stoltzner Celine Tan Yin H. Tan
---	---	---	---	--	---	--	---	---

Present Affiliation ALUMNI			
J. Robert Adams--Canada	Melvin D. Davidoff--NIMH	Margaret L. Heldrick--U. of Nebraska, Omaha	Theodore Lundy--Philadelphia
Sheldon Adler--Montefiore Hosp., Pittsburgh	Dean F. Davies--U. of Tennessee, Memphis	Daniel D. Hendley--Winoski, Vermont	John H. Lutz--Baltimore
George W. Ainslie, Jr.--Boston	James O. Davis--U. of Missouri, Columbia	Katsuko Hirokawa--Tokyo Med. & Dental U., Japan	Roger K. McDonald--Oxen Hill, Maryland
Thomas E. Andreoli--Duke U.	Paul J. Davis--Baltimore City Hospitals	James G. Hirsch--Rockefeller U., New York	Donald B. Malkoff--Ann Arbor, Michigan
Charles S. Angell--Johns Hopkins U., Baltimore	Ralph G. DeFronzo--Philadelphia	David S. Hirschfeld--University City, Missouri	Norman D. Meadow--Johns Hopkins U., Baltimore
Peter S. Aronson--Yale U.	John S. Dods--Atlanta	Meyer S. Hochman--New Rochelle, New York	Arnold Maiman--Wadsworth Veterans Hosp., L. A.
Joseph Arruch--St. Louis	Leroy E. Duncan--NICH	Joshua Hollander--Rochester, New York	Albert S. Milgram--Inst. for Cancer Research, Philadelphia
Saul P. Baker--Cleveland	Norman Edelman--U. of Pennsylvania Hosp., Phila.	Sister M. Stanislaus Huddleston--Marygrove Col., Detroit	John H. Miller--Church Home and Hosp., Baltimore
Nicholas Bath--Durham, N. C.	Harry R. Elden--Miami	V. V. Jagannathan--Inst. of Enzyme Research, Madison, Wisc.	William R. Milnor--Johns Hopkins Sch. of Med., Baltimore
Roy E. Beuschene--U. of Tennessee, Knoxville	Melvin H. Epstein--Baltimore	Allen D. Johnson--Ruxton, Maryland	Michael E. Mitchell--Waban, Mass.
Gerard L. Becker--Baltimore	W. Wayne Everett--Ourachita Baptist Col., Arkadelphia, Ark.	F. F. Johnston--Dallas	Charles C. Moses--Baltimore
Nathan Berger--Washington U., St. Louis	Darrell D. Faneft--Kansas U., Kansas City	Indira D. Joshi--Oak Park, Michigan	Richard I. Myers--Silver Spring, Maryland
Sosamma Berger--Washington U., St. Louis	Dyrel A. Faustick--Bakersfield, California	Martin I. Kallah--Albert Einstein Col. of Med., Bronx	Stephen J. O'Brien--NCI
Kowit Bhanthumrarin--Lidcombe Hosp., Sydney	James W. Fahey--Baltimore	Roy F. Kinard--NCI	David A. Oursler--Baltimore
James E. Birren--U. of S. California, L. A.	Ronald Fine--U. of Colorado, Denver	Irwin R. Konigsberg--U. of Virginia, Charlottesville	George M. Padilla--Duke U.
Edgar A. Blair--U. of Texas, Galveston	Karl J. Kramer--Miami	Karl J. Kramer--Miami	Robert M. Paine--U. of Washington, Seattle
Eugene R. Blocker--San Francisco	Arlen L. Fluharty--U. of S. California, L.A.	Donald A. Kraft--Johns Hopkins Hosp., Baltimore	James M. Peters--Calif. St. Polytechnic Col., San Luis Obispo
J. J. Blum--Duke U.	William L. Frantz--Michigan State U., Lansing	Edward G. Lakatta--VA Hosp., Washington, D.C.	Richard Pharo--Retina Foundation, Boston
Dietrich Bodenstain--U. of Virginia, Charlottesville	George W. Gaffney--Timonium, Maryland	Kwok W. Lam--Retina Foundation, Boston	Thomas Pozefsky--Baltimore
Morton B. Bogdonoff--Chicago	David H. Gillespie--NCI	Milton Landowne--U.S.A. R.I.E.M., Natick, Mass.	Anilbaran Raychaudhuri--VA Hosp., Washington, D.C.
Jack Botwinick--Washington U., St. Louis	Philip H. Gold--Baltimore	Harold M. Langa--Baltimore	W. Douglas Reed--Rosewood State Hosp., Owings Mill, Md.
Martin Brandtobrenner--Northwestern U., Chicago	Walter V. Greenhouse--Baltimore	T. David Lee--Portland, Oregon	William Reichel--Franklin Square Hosp., Baltimore
Dennis E. Butzow--U. of Illinois, Urbana	John Gregory--Philadelphia	Salvador Leito--Washington Fertility Study Ctr., Wash., D.C.	Thodore R. Reiff--U. of N. Dakota, Grand Forks
Peter Chang--NIMH	Philip Guzelian--Washington, D.C.	John E. Liljenquist--Brentwood, Tennessee	Minchoer C. Reporter--Chas. F. Kettering Res. Lab., Ohio
Russell W. Chesney--McGill U., Montreal	Melvin Haas--Norwood, Mass.	Robert D. Lindeman--U. of Oklahoma, Oklahoma City	Kenneth A. Rosenberg--Atlanta
Joel M. Colker--Inglewood, California	Barry Heatfield--Baltimore	Jerome Lowenstein--New York	
			Robert C. Rosenthal--Buffalo
			David A. Rothbaum--Indiana U., Indianapolis
			John W. Rowe--Mass. Gen. Hosp., Boston
			D. Rao Sanadi--Boston Biomedical Research Inst., Boston
			Toshihide Sato--Baltimore
			Tedashi Satoh--Nagoya City U., Japan
			Yoshio Shimada--Nagoya City U. Hosp., Japan
			Morton Schumaker--Baltimore
			C. Paul Scott--Pittsburgh
			David J. Shaw--Internal Med. Assoc. Med. Group, San Diego
			Louis Shenkman--Leonia, N.J.
			Robert Sherwin--Bayside, New York
			Yoshio Shimada--Nagoya City U. Hosp., Japan
			Stuart S. Shorr--U. of Washington Hosp., Seattle
			David Shreiner--Baltimore
			Sri P. Shukla--Banaras Hindu U., Varanasi, India
			Jerome Silber--New York
			Harold M. Silver--G.W. U. Hosp., Washington D.C.
			Felix A. Silverstone--State U. of New York--Brooklyn
			Donald Slater--Bethesda, Maryland
			Neil Solomon--U. of California, L.A.
			W. Douglas Reed--Rosewood State Hosp., Owings Mill, Md.
			Keshav C. Sondhi--Rutgers U., Newark
			Louis A. Sordahl--Houston, Texas
			Alexandria Spanias--U.S. Dept. of Agric., Hyattsville, Md.
			Stephen W. Spaulding--Yale U.
			Ramesh C. Srivastava--U. of Connecticut, Storrs
			Irwin L. Stotoff--Philadelphia
			Bernard L. Streiber--U. of S. California, L.A.
			George J. Suci--Cornell U., Ithaca, New York
			Walter W. Surwillo--U. of Louisville, Kentucky
			Michael D. Sussman--NIDR
			Ronald S. Swerdloff--UCLA Med. Ctr., L.A.
			Taxler Toppling--Baltimore
			Dorothy Travis--NIH
			Frank N. Turner--Menlo Park, California
			Holger P. Von Hahn--Inst. of Exper. Gerontology, Basel, Switz.
			W. H. Vickers, Jr.--Nagars Falls, New York
			Joseph B. Warshaw--Retina Foundation, Boston
			Donald M. Watkins--HEW
			William B. Weglicki--Harvard U.
			Myron L. Weisfeldt--Johns Hopkins Hosp., Baltimore
			Theodore Weiss--U. of Pennsylvania
			Peter Weisman--U. of Michigan Hosp., Ann Arbor
			Robert J. Workman--Nashville, Tennessee
			Niou Ching Wu--Papanicolaou Cancer Research Inst., Miami
			Katsuhiko Yano--Atomic Bomb Casualty Comm., Hiroshima
			Marvin J. Yiangsi--Baltimore
			Uriel Zor--Weizman Inst. of Science, Rehovot, Israel
			Allen E. Zuckerman--Johns Hopkins Hosp., Baltimore

* Chief
** Acting Chief

NEI

NATIONAL EYE INSTITUTE

OPHTHALMOLOGY BRANCH, NINDS 1955-1968

CLINICAL BRANCH 1971-Present

The study of ocular disease in patients is being correlated with laboratory investigation. The major eye diseases under study are glaucoma, diabetic retinopathy, retinal degenerations and cataract.

Current Staff
Elmer J. Ballentine*
Donald R. Burgame
Sheldon M. Buzney
Sтивен T. Charles
David G. Cogan
Daniel M. Eichenbaum
Martin L. Fishman
Kenneth A. Fucci
Robert N. Frank
Douglas Gaasterland
Ralph D. Gunkel
Muriel I. Kaiser
Carol R. Kellert
Frank J. Kottaris
Carl Kupfer
Rodney N. Lynn
Frank J. Macit
Robert D. Yee

Present Affiliation ALUMNI
Howard T. Almquist—Walter Reed Army Med. Cntr., Washington, D.C.
Robert S. Brown—PHS Hosp., New Orleans, La.
Richard F. Brubaker—Mayo Clinic, Rochester, Minn.
James R. Cook—Huntington, Va.
Robert M. Dryden—Tucson, Ariz.
Richard B. Emswiler—Morristown, New Jersey
Daniel Gede—Natl. Naval Med. Cntr., Bethesda, Md.
Lawrence M. King, Jr.—Natl. Naval Med. Cntr., Bethesda, Md.
Heige Koll—NINDS
Francis G. Ladlans—Walter Reed Army Med. Cntr., Washington, D.C.
John L. Marquardt—Lakewood, Ohio
David A. Newsome—Mass. Gen. Hosp., Boston
Stephen Faysar—Howard U. Hosp. Washington, D.C.
Paul O. Sanderson—Iowa City
Jonathan L. Sowell—Yale U.
Martin Snyder
Walter J. Stark—Johns Hopkins Hosp., Baltimore
William Sullivan—Knoxville, Tenn.
Ludwig von Sallmann—NINDS
Mitchell L. Woll
Vernon G. Wong—Georgetown U., Washington, D.C.

*Chief

LABORATORY OF VISION RESEARCH 1971-Present

A broad range of basic research programs is conducted on the entire visual system. The objective is to promote multidisciplinary approaches in the investigation of crucial eye problems such as cataract and retinal degenerations.

Current Staff
Gerold J. Chader
Alfred J. Coulombre
Jane L. Coulombre
Francisco M. de Monasterio
Bruce M. Dow
Edward F. Farniglietti
Henry H. Fukui
Masaaki Funahashi
Peter Gouvas
Ralph J. Halness
Helen H. Hess
Isumi Kabasawa
Jon Kinoshita*
Teichiro Kuwabara
Maic S. Lewis
Lorenza O. Marola
Ikuo Mikuni
Ralph F. Nelson
Paul J. O'Brien
W. Gerald Robison
Machiko Sakuragawa
Hiroshi Sasaki
Shambhu D. Varma
David R. Whitehart
Shuko Yoshikami
Yasukiko Tsunematsu
Barbara N. Wiggert

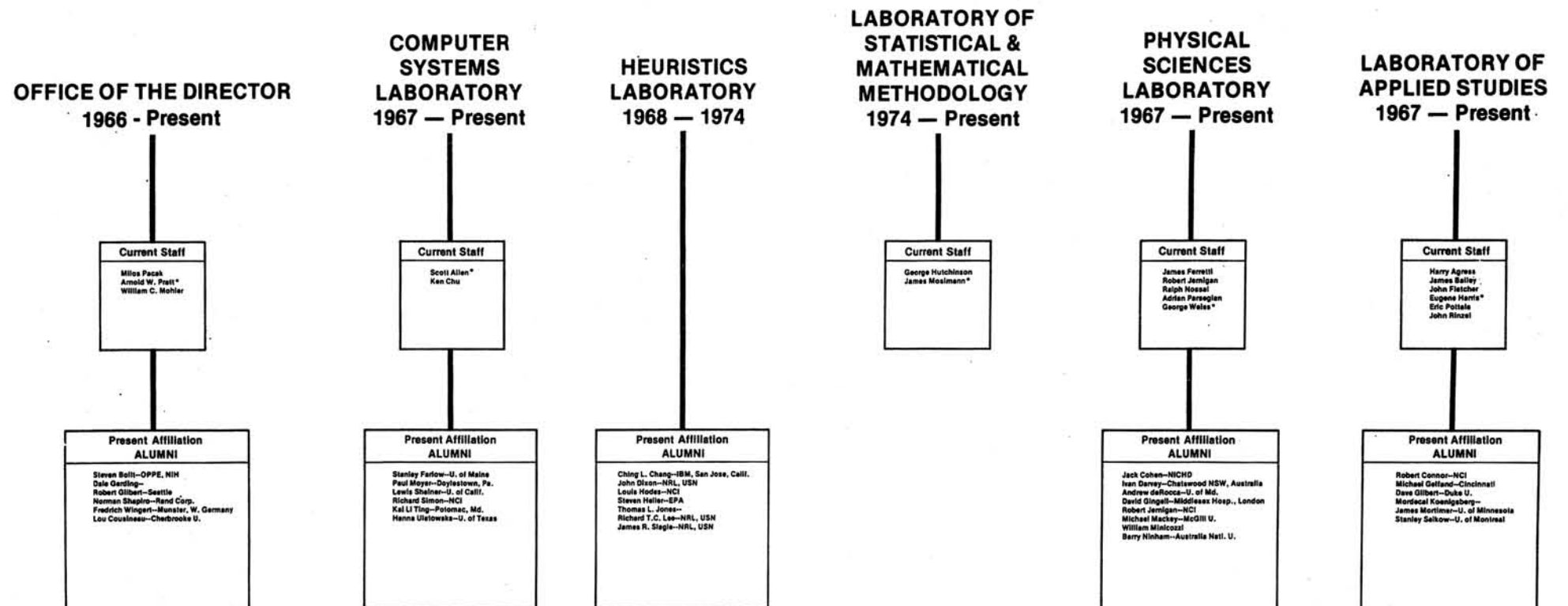
Present Affiliation ALUMNI
Richard Bensinger—Washington U. Sch. of Med., St. Louis
Jacqueline J. Bungenberg de Jong—U. of Washington, Seattle
Daniel Finfelstein—Johns Hopkins U. Baltimore
Stephen Gollberg—New York Med. Col., New York
Yasuno Namai—Hiroshi U., Med. Sch., Japan
Astrid Kalla-von Leutner—U. of Vienna, Austria
Kenneth R. Kenyon—Johns Hopkins Hosp., Baltimore
Harry L. Knopf—St. Louis, Mo.
Richard Lederman—Newton Cntr., Mass.
Gunter Niemeyer—Kantonsspital, Zurich, Switzerland
Hajime Obazawa—Tokai Med. Sch., Japan
Shigetani Okizaka—U. of Melbourne, Victoria, Aust.
Peter Palmans—Inst. for Perception TWG, Sappierberg, the Netherlands
Stephen Parker—Mass. Gen. Hosp., Boston
David H. Reese—NCI
Richard M. Robb—Harvard Med. Sch., Boston
Robert Tretstad—Mass. Gen. Hosp., Boston
Sam Zeki—U. Col., London, England
Keith Zion—Harvard Med. Sch., Boston

*Chairman, Dept. of Ophthalmology

DCRT

DIVISION OF COMPUTER RESEARCH AND TECHNOLOGY

DIVISION OF COMPUTER RESEARCH AND TECHNOLOGY
1964 — 1975



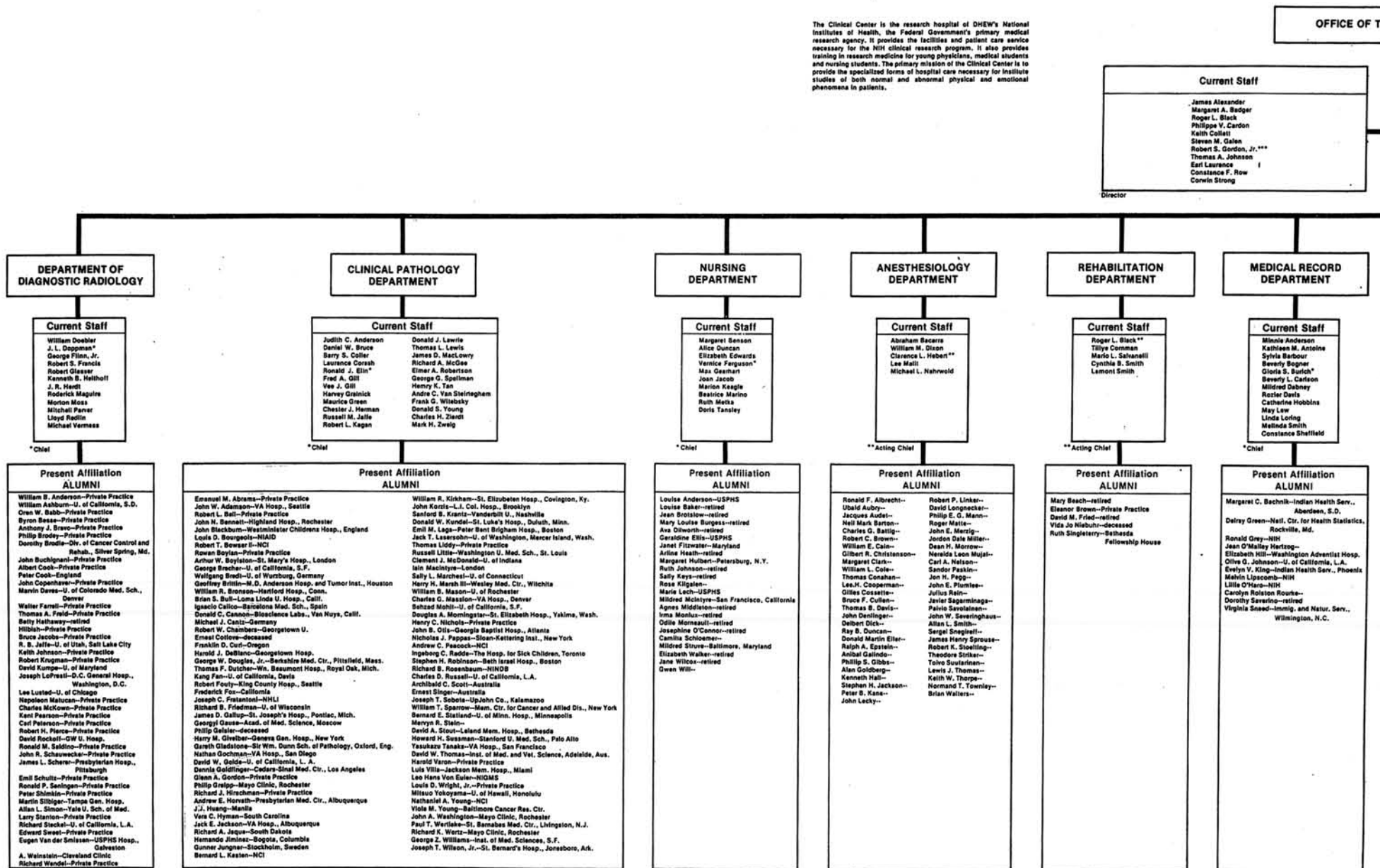
cc

CLINICAL CENTER

Professional Serv

The Clinical Center is the research hospital of DHEW's National Institutes of Health, the Federal Government's primary medical research agency. It provides the facilities and patient care service necessary for the NIH clinical research program. It also provides training in research medicine for young physicians, medical students and nursing students. The primary mission of the Clinical Center is to provide the specialized forms of hospital care necessary for institute studies of both normal and abnormal physical and emotional phenomena in patients.

OFFICE OF THE



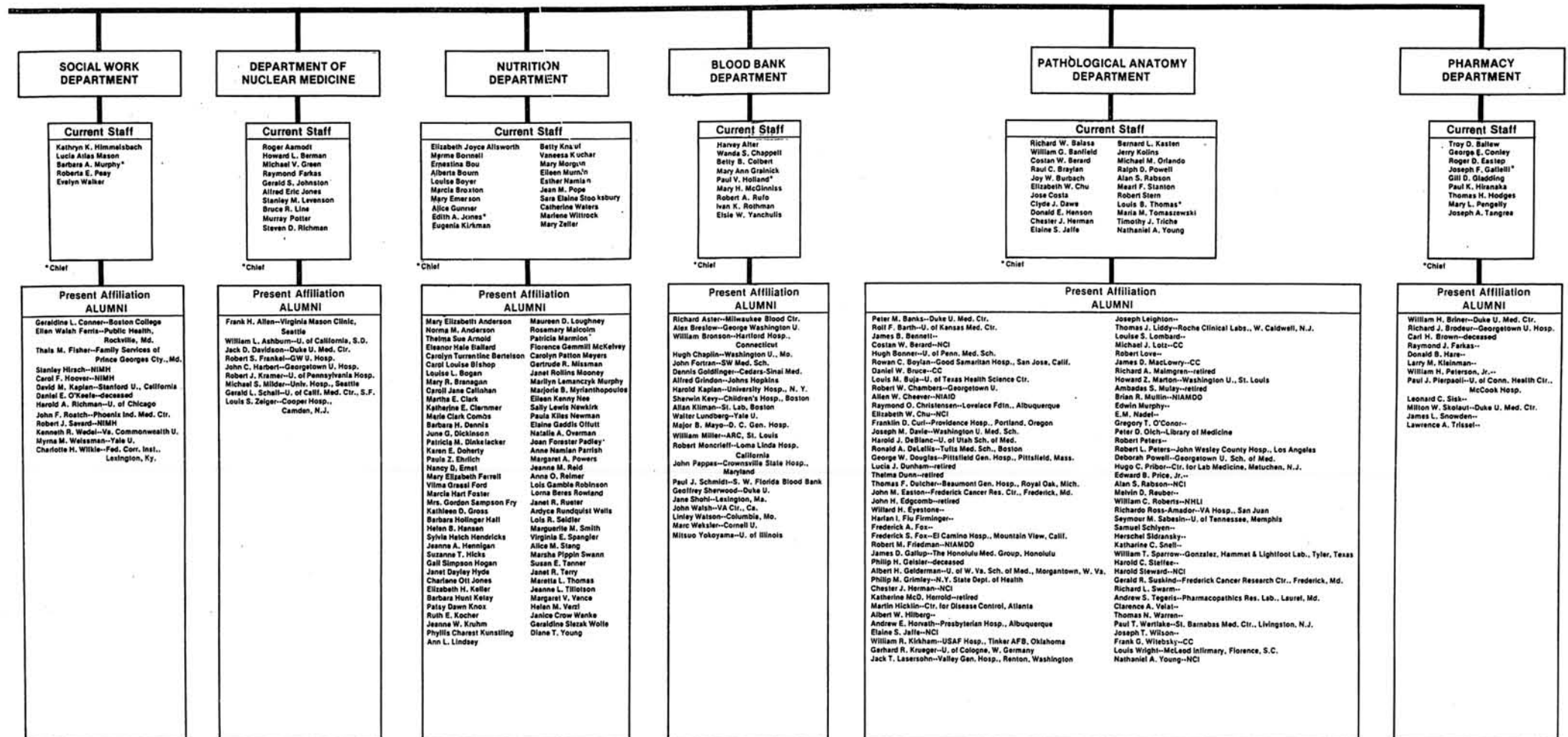
CLINICAL CENTER

ice Departments

DIRECTOR

As far back as 1911 it was recognized that lack of a clinical facility especially designed for research was hampering the effectiveness of Federal medical research. Construction of the Clinical Center was begun in 1945, and the first patients were admitted in 1953. The Clinical Center is now a 14-story, 516-bed research hospital, designed so that scientists in some 1,100 laboratories can work side by side with clinicians caring for patients. About 4,000 patients are admitted each year upon referral by physicians throughout the United States and abroad.

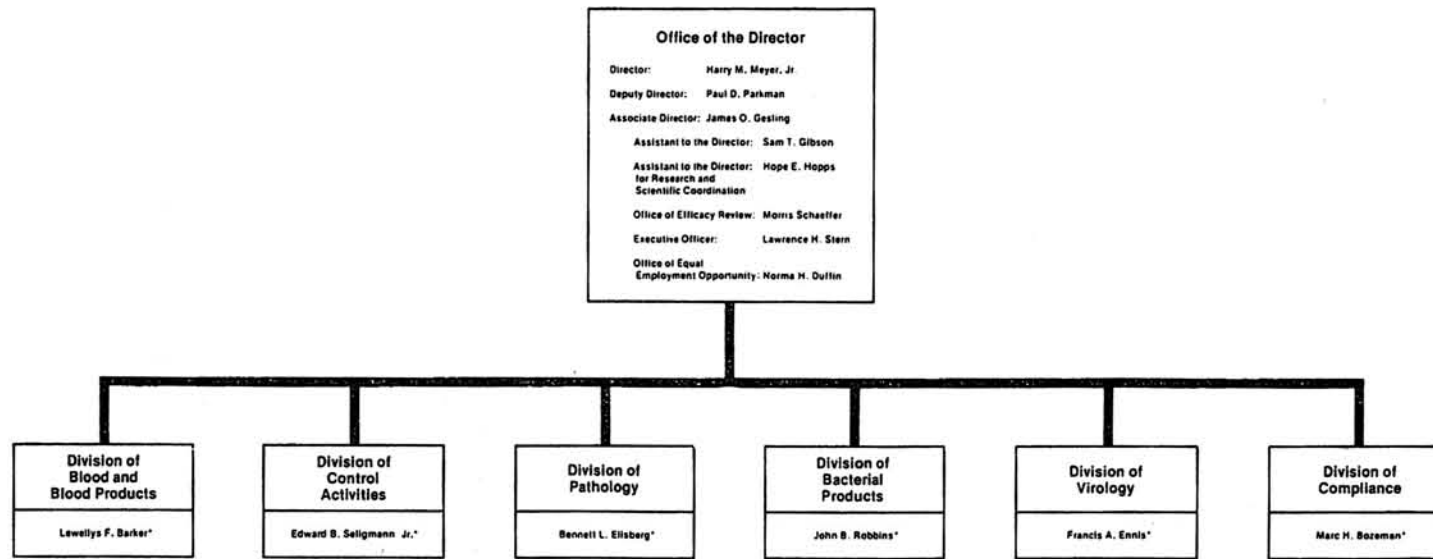
Present Affiliation ALUMNI	
Jerome B. Block--Harbor Gen. Hosp., Torrance, Calif.	Clifton K. Nimmelsbach--Georgetown U., Washington, D.C.
Thomas C. Chalmers--Mt. Sinai Med. Ctr., New York	Ralph W. Kletzien--Indiana U. Hosp., Indianapolis, Ind.
Kenneth Chapman--deceased	Margaret E. Lalman--deceased
James P. Olson, Jr.--Antioch Coll., Yellow Springs, Ohio	Jack Masur--deceased
Robert A. Farrel--Catholic Hosp. Assoc., Washington, D.C.	Donald W. Patrick--deceased
Richard Harschal--retired	Stuart M. Sessoms--Duke U. Hosp., Durham, N.C.
Robert T. Hewitt--Calif. Dept. of Mental Hygiene	Philip P. Simon--retired
	John A. Trautman--retired



BOB

BUREAU OF BIOLOGICS

BUREAU OF BIOLOGICS/FDA (Formerly Division of Biologics Standards/NIH)



* Director

NIMH

NATIONAL INSTITUTE OF MENTAL HEALTH

LABORATORY OF CLINICAL SCIENCE 1955 — Present

The Laboratory of Clinical Science conducts a program of research in biochemistry, pharmacology, physiology, medicine and psychiatry and the interrelationships between them. Current research includes (1) mechanism of action and metabolism of drugs and hormones which act in the nervous system, (2) biochemical studies in endocrine and metabolic disorders of amino acids, catecholamines and other putative neurotransmitters, (3) clinical pharmacology including drug metabolism, (4) circulatory physiology and psychosomatic medicine, (5) longitudinal investigation of patients (acute or episodic psychosis, depression) stressing biological factors (endocrine function, catecholamines, serum proteins, specific enzyme activities), (6) biological rhythms and their control, (7) biological aspects of toxic psychoses and drug addiction, and (8) relationship of biogenic amines to neurological disorders associated with psychiatric abnormalities.

Section on Pharmacology
Julius Axelrod*

Section on Experimental Therapeutics
Michael H. Ebert*

Section on Psychiatry
Frederick K. Goodwin*

Section on Histopharmacology
David M. Jacobowitz*

Section on Medicine
Irwin J. Kopin*

Section on Clinical Neuropharmacology
Dennis L. Murphy*

Current Staff

Michael Brownstein	Richard L. Hawks	Giovanni Mucicciola	Nguyen B. Thoa
Robert W. Colburn	Robert O. Hunt	Larry K. Y. Ng	Yusef Tuzubi
Jonathan L. Costa	Hiro-O Kamiya	Charles W. Popper	O. Humberto Viveros
Carlos E. de la Vega	John W. Kebabian	Michael F. Roizen	Thomas A. Wehr
Immanuel J. Dalberto	J. Stephen Kizer	Jorge A. Romero	Marion Zatz
Alina Etkin	Charles R. Lake	Randi Rubovits	Michael Ziegler
Frederic H. G. Foppen	Antonia Luzzi	Juan M. Saavedra	Justin A. Zivin
Philip W. Gold	Gertrude D. Mangwyn-Davies	Stanley L. Slater	
Horst Grubecker	Sanford P. Markey	Mance L. Lipson	
Woodrow W. Havens	Theres Milaresis	Joseph Taraniofa	

The Laboratory of Clinical Science was established in 1955 under the name of the Laboratory of Clinical Biochemistry and Physiology. It consisted of five sections: Clinical Biochemistry, headed by Dr. Norman Goldstein; Physiology, Dr. Edward Evans; Psychosomatic Medicine, Dr. Roger MacDonald; Psychiatry, Dr. Seymour Perlin; and Pharmacology, headed by Dr. Julius Axelrod. The Acting Chief of the laboratory was Dr. Norman Goldstein who later left and Dr. Edward Evans became the Acting Chief.

In 1956, Dr. Seymour S. Kety, then Scientific Director of both Institutes - NIMH and NIMH, was appointed Chief of the Laboratory. The laboratory was renamed The Laboratory of Clinical Science.

In 1961, Dr. Kety was appointed Henry Phipps Professor and Chairman and concurrently Psychologist-in-Chief in the Department of Psychiatry, Johns

Hopkins University School of Medicine. In Dr. Kety's absence, Dr. Edward Evans became Acting Chief. In 1962, Dr. Kety returned to the laboratory where he remained until 1966 when he was appointed a Visiting Professor at the College de France, Paris, France. During this period, 1966-1967, Dr. Philippe V. Cardon was appointed Acting Chief. Dr. Kety did not return to the laboratory in 1967 on completion of his appointment in France, but accepted an appointment at Harvard Medical School where he is currently Professor of Psychiatry and Director of Research at the Massachusetts General Hospital.

In 1968, Dr. Irwin J. Kopin, Chief of the Section on Medicine in the Laboratory of Clinical Science, was appointed Acting Chief of the laboratory. In 1969, Dr. Kopin became Chief of the laboratory and has filled this position for the past seven years.

LABORATORY OF DEVELOPMENTAL PSYCHOLOGY 1953 — Present

The research program of the Laboratory is devoted to studies of the psychological development and behavior of children, in relation to biological and environmental determinants.

Current Staff

David E. Barrett	Clare L. Poulson
Ubert J. Caron	Mary F. Waldrop
Jacob L. Gewirtz	Carolyn Z. Wavler
Charles F. Halverson	Raymond K. Yang
Robert A. King	Marian R. Yarow*
Howard A. Mook	

Present Affiliation

ALUMNI
Richard O. Bell-U. of Virginia, Charlottesville
Douglas Ernst-Estlin State Com. Ment. Health Ctr., Idaho Falls
D. Wells Goodrich-Strong Mem. Hosp., Rochester, New York
Robert A. Haast-U. of Toledo, Ohio
Lawrence Halpern-U. of California, Davis
Gary Jacobson-Harvard Med. Sch.
Sandra Jones Kearns-North Lebanon, Maine
Nicholas Long-Georgetown U., American U., Washington, D.C.
Joseph D. Kuschpil-George Washington U., Howard U., Washington, D.C.
David H. Olson-U. of Minnesota, St. Paul
Harold L. Roush-U. of Massachusetts, Amherst
Fritz Redl-Wayne State U., Detroit
Kenneth S. Robson-Tufts U., Boston
Robert G. Ryder-U. of Connecticut, Storrs
Earl Silber-Washington Psychanalytic Inst., Washington, D.C.
Philip M. Spilman-San Francisco Psychanalytic Inst.
George M. Waller-Monticello Hosp. & Med. Ctr., New York, St. Christophers Hosp. for Children, Philadelphia

LABORATORY OF NEUROBIOLOGY

The Laboratory of Neurobiology conducts research on the nervous system at several levels ranging from biochemical and biophysical studies of single excitable cells to studies of systems of neurons in the brain. Research projects include studies on the excitation process in nerve and muscle membrane using optical techniques to demonstrate changes in birefringence, turbidity, and fluorescence in excitable tissue, the biophysics of model membrane systems, and the integration in the brain of visual information and extraneous input (such as eye movements and attention) using single unit recording in awake monkeys performing learned tasks.

Current Staff

Jean Bauer
Isao Inoue
Charles W. Mohler
Hansuh C. Pant
Ichijiro Takahashi
Akira Warashina
Robert H. Wurtz

Present Affiliation

ALUMNI
Konrad Akert-Inst. für Hirnforschung der U. Zürich, Switzerland
William H. Barry-Stanford Sch. of Med., Palo Alto, California
Jose Burdman-Catedra de Quimica Biologica Patologica, Capital Federal, Argentina
Catedra de Quimica Biologica Patologica, Capital Federal, Argentina
Emilio Carbone-Alasio, Italy
Lawrence D. Caine-Rancho Palos Verdes, California
Robert H. Davis-U. of Nebraska Med. Sch., Omaha
Gabriel Frazzetta-U. of Indiana, Bloomington
David Galin-Langley Porter Psychiatric Inst., San Francisco
Michael E. Goldberger-Armed Forces Radiobiology Research Inst. Bethesda
Stanley J. Goodman-Harbor Gen. Hosp., Torrance, California
Robert Gorn-Brookline, Massachusetts
Mark Halleter-Massachusetts Gen. Hosp., Boston
Henry P. Hirsch-U. of Kentucky Med. Sch., Lexington
Noburo Kamiya-Osaka U., Japan
Yonosuki Kobatake-Hokkaido U., Sapporo, Japan
Lawrence Lerman-Roosevelt Hosp., New York
Robert B. Livingston-U. of San Diego Med. Sch., La Jolla, California
Edward M. Podwell-Austen Riggs Ctr., Inc., Stockbridge, Massachusetts
David Lee Robinson-Armed Forces Radiobiology Research Inst. Bethesda
Allan S. Schneider-Stan Kettinger Inst. for Cancer Research, New York
Muneo Shimamura-Shinkei-Kagaku-Kenkyujo, Tokyo, Japan
Irwin Singer-U. of Pennsylvania Med. Sch., Philadelphia
Ken F. Scott-Baltimore
Constantine S. Spyropoulos-U. of Chicago
Arnold Starr-U. of California Med. Sch., Irvine
Toshimi Tanenaka-Yokohama City U. Med. Sch., Japan
Franklin D. Walker-Indiana U., Indianapolis
Akira Watanabe-Tokyo Med. and Dent. U., Japan
Wanda Wyrwicka-U. of California Med. Sch., L.A.

Present Affiliation

ALUMNI

Steven L. Ablon-Chestnut Hill, Massachusetts	George A. Falk-Cornell U., New York	Joel T. Kahn-Orange, California	Derald Poch-U. of Graz, Austria
Michael Aronoff-Columbia U., New York	Irwin Feinberg-San Francisco	Lawrence Kizakoff-Mt. Sinai Sch. of Med., New York	Lincoln T. Potter-U. of Miami Sch. of Med., Florida
Max A. Baker-St. Edward Mercy Hosp., Ft. Smith, Arkansas	Josef E. Fischer-Massachusetts Gen. Hosp., Boston	Kenneth R. Krauss-New York U.	Neil H. Raskin-U. of California Med. Ctr., S.F.
Ross Baldeasant-Massachusetts Gen. Hosp., Boston	Ray G. Fitzgerald-Crozer-Chester Med. Ctr., Upland Chester, Pennsylvania	Richard Kvetnansky-Inst. of Exper. Endocrinology Bratislava, Czechoslovakia	Donald E. Redmond-New Haven, Connecticut
Hemul Beckmann-Narashinihik da U., Muenchen, West Germany	George P. Gewirtz-Englewood Cliffs, New Jersey	Robert H. Laatsen-Butte, Montana	John L. Reid-U. of London, England
Stephen C. Berens-U. of California Sch. of Med., L.A.	George Glaubiger-Strong Mem. Hosp., Rochester, New York	Elwood LaBrosse-U. of Maryland, Baltimore	Sune Rosell-Karolinska Inst., Stockholm, Sweden
Frederic H. G. Foppen	Jacques Glowinski-U. of France, Paris	Frederic Lamprechti-Berlin U., Germany	J. S. Richardson-U. of Saskatchewan, Canada
Isa Black-Cornell U., New York	Thomas C. Golden-Washington, D.C.	Mark H. Lane-U. of New Mexico, Albuquerque	Jacques St. Laurent-Faculty of Med., U. of Ottawa, Canada
Lugene D. Brand-Mid. Pennnsula & Northern Neck Ment. Health Clinic, Saluda, Virginia	Kenneth Greenspan-New York State Psychiatric Inst.	Louis Landsberg-Beth Israel Hosp., Boston	Robert L. Sack-Stanford U., California
George Breese-U. of North Carolina, Chapel Hill	Ingeborg Hanbauer-U. of Vienna, Austria	Louis Lemberger-Eli Lilly Lab., Indianapolis	Saul M. Schanberg-Duke U., Durham, North Carolina
W. Stephen Bumpkin-Mayo Clinic, Rochester, Minnesota	George M. Henry-Lexington, Kentucky	Leslie Libow-Mt. Sinai City Hosp. Ctr., Elmhurst, New York	Joseph J. Schildkraut-Harvard Med. Sch.
Kevin H. Brodie-Duke U., Durham, North Carolina	David P. Henry-Eli Lilly, Indianapolis	Morris A. Lipton-U. of North Carolina, Chapel Hill	Goran C. Sedvall-Karolinska Inst., Stockholm, Sweden
Donald D. Brown-Carnegie Inst., Baltimore	John Allan Hobson-Harvard Med. Sch.	Raymond J. Matia-Peter Bent Brigham Hosp., Boston	Solomon Snyder-Johns Hopkins U., Baltimore
Robert H. Butler-Washington, D.C.	Dale Horst-Hoffman-La Roche, Nutley, New Jersey	Roger K. McDonald-Temple Hills, Maryland	Norman R. Tamarkin-Washington, D.C.
Roland Cavarero-Stanford Med. Ctr., California	Snouch S. Hotta-Eastern Virginia Med. Sch., Norfolk	Robert Nichols-Cornell Med. Ctr., Ithaca, New York	W. Thomas Thach-Yale Med. Sch.
Carl A. Cohn-Rockefeller U., New York	James H. Houser-Los Angeles	Patricia J. Middleton-Philadelphia	Han Thoenen-U. of Basel, Switzerland
Joseph T. Coyne-Johns Hopkins U., Baltimore	Peter R. Huttenlocher-Yale U. Med. Sch.	Halbert D. Miller-Eastern Maine Med. Ctr., Bangor	James A. Thomas-Wayne State U., Detroit
Huneh Kramer-U. of Freiburg, Germany	Joseph Inzco-Rockville, Maryland	Harold S. Minsky-Washington, D.C.	Daniel P. van Kammen-U. Hosp., Utrecht, The Netherlands
Darab Dastur-ICMR JJ Hosp., Bombay, India	Leslie Inverson-Cambridge U., England	Perry B. Moltott-U. of Colorado Med. Ctr., Denver	Theodore A. Walter-North Carolina
John Davis-Wisconsin State Psychiatric Inst., Chicago	David S. Janowsky-Tennessee Neuropsychiatric Inst., Nashville	John M. Moss-Duke U., Durham, North Carolina	August Watanabe-Indiana U. Sch. of Med., Indianapolis
Jacques deChamplain-U. of Montreal, Canada	David G. Johnson-Washington Med. Sch., Seattle	Peter S. Mueller-Rutgers U. Med. Sch., Piscataway, New Jersey	Jerry Webb-Med. U. of South Carolina, Charleston
Takuo Deguchi-Tokyo Metro Inst. for Neurosciences, Japan	Richard J. Kall-Philadelphia	James M. Musacchio-New York U. Sch. of Med.	Richard Weissshilbaum-Mayo Clinic, Rochester, Minnesota
Manion DeLong-Johns Hopkins Hosp., Baltimore	Tamara Kato-Med. Faculty, Dept. of Pharmacology, Belgrad, Yugoslavia	Lionel G. Whimby-Edinburgh Med. Sch., Scotland	Roger Weir-Howard U., Washington, D.C.
Andre Dubois-U. Hosp. St. Pierre Faculty of Med., Brussels, Belgium	Seymour S. Kety-Harvard Med. Sch., Boston	Conan Kornelasky-Boston U. Sch. of Med.	James L. Weiss-Johns Hopkins U., Baltimore
David L. Dunner-Columbia U., New York	Conan Kornelasky-Boston U. Sch. of Med.	Arnold M. Kobayashi-U. of California, S.D.	Robert Williams-Louisville, New York
Robert L. Dupont-Rockville, Maryland	Ronald M. Kebabian-U. of California, S.D.		O. Fredrick Wooten-Cornell Med. Ctr., Ithaca, New York
Jess Durkin-Psychiatric Inst., Washington, D.C.			Richard J. Wurman-Massachusetts Inst. of Tech., Cambridge
Arnold J. Epstein-Yale U.			
Richard Epstein-Bethesda, Maryland			

NATIONAL INSTITUTE OF MENTAL HEALTH

LABORATORY OF SOCIO-ENVIRONMENTAL STUDIES

Current Staff
Gordon Allen John T. Campbell Melvin L. Kahn* Joanna Miller Leonard I. Pearlin Carmi Schooler

Present Affiliation ALUMNI	
Stephen T. Boggs--U. of Hawaii, Honolulu Roger V. Burton--State U. of New York, Buffalo John A. Clausen--U. California, Berkeley Eleanor E. Carroll--Nat. Inst. on Drug Abuse--Rockville, Maryland Stanley Coopersmith--U. of California, Davis Leila Deasey--Florida State U., Tallahassee Melvin Ember--Hunter Col., New York Erving Goffman--U. of Pennsylvania, Philadelphia Frederic W. Ilfeld, Jr.--Mental Health Services, Sacramento, California Myron J. Lefkowitz--U. of Wisconsin, Madison Erwin L. Linn--Dental Health Ctr., California, S.F. Yngvar Lochen--U. of Tromso, Norway Eleanor Maccoby--Stanford U., California	Albert J. McQueen--Oberlin Col., Ohio Stewart E. Perry--Cambridge, Massachusetts Olive W. Quinn--Goucher Col., Baltimore Morris Rosenberg--State U. of New York, Buffalo Sandra Salapatek--U. of Minnesota, Minneapolis Harry Scarr--LEAA, Washington, D.C. Charlotte G. Schwartz--M.I.T., Cambridge, Mass. Phyllis M. Scott--Armadale, Victoria, Australia Roberta C. Simmons--U. of Minnesota, Minneapolis Herman Turk--Duke U., Durham, N.C. Lindsay Williams--Parktown Building, Rockville, Maryland E. Grant Youmans--U. of Kentucky, Lexington

LABORATORY OF GENERAL AND COMPARATIVE BIOCHEMISTRY

The Laboratory of General and Comparative Biochemistry conducts investigations on: mechanisms and pathways of protein biosynthesis; biological methylations; alkaloid biosynthesis; differentiation and gene expression in eukaryotes.

The main focus of the laboratory is on the enzymatic mechanisms in methyl transfer reactions, RNAse action, mechanism of drug addiction, muscle differentiation in cell culture and transgenesis.

The Section on Alkaloid Biosynthesis studies the enzymes involved in alkaloid biosynthesis, their control and biosynthesis in relation to morphogenetic development of the plant; also, enzymatic mechanisms of transmethylation and intermediary metabolism of sulfur-containing amino acids in various conditions, including inborn errors of metabolism.

Current Staff Section on Proteins
Giulio L. Cantoni* Peter K. Chuang Mark R. Geier Werner A. Klee Carl R. Merrill Sigrindo Scarpa B. William Uhlenhuth

Current Staff Section on Alkaloid Biosynthesis
Anne H. Dasko John Giovanetti S. Harvey Mudd*

Present Affiliation ALUMNI		
M. Akino--Tokyo Metro U., Japan H. G. Blumberg--Harvard Med. Sch. E. A. Boeker--U. of Washington, Seattle William F. Budgers--U. of Alabama Med. Ctr., Birmingham J. Brown--Seattle Gilbert Daniels--Massachusetts Gen. Hosp., Boston G. de la Haba--U. of Pennsylvania Sch. of Med., Philadelphia F. Curtius Dohan, Jr.--Children's Hosp. Med. Ctr., Boston Jack Durell--Psychiatric Inst. of Washington, D.C. Dan Fisher--Washington, D.C. Stanley Friedman--State U., New York Downstate Med. Ctr., Brooklyn Thomas B. Friedman--Oakland U., Rochester, Michigan O. Gattwell--Georgetown U. Med. Sch., Washington, D.C. Harry Gelboin--NCI, NIH, Bethesda O. Greenberg--New England Deaconess Hosp., Boston Roy Haberkin--U. of North Carolina, Chapel Hill M. Hamosh--Georgetown U. Med. Sch., Washington, D.C.	Arthur P. Hays--Columbia U., New York Hartland Hendrickson--Modesto, California J. Herzog--New York U. Med. Ctr. Piergiata--U. of Perugia, Italy H. Ishikura--Tokyo Med. and Dent. U., Japan K. S. Iyer--Trivandrum, India G. A. Jameson--Washington, D.C. H. Kageyama--Inst. of Life Sciences, Tokyo, Japan Seymour Kaufman--NIMH, Bethesda Claude Klee--NCI Kenneth Kriell--Food and Drug Adm., Rockville, Maryland Paul Lebowitz--Yale U. Med. Ctr. Michael Lesch--Peter Bent Brigham Hosp., Boston Ephraim Levin--Johns Hopkins U., Baltimore Samuel Luborsky--NCI, NIMH, Bethesda Maynard H. Makman--Albert Einstein Col. of Med., New York	J. Mann--U. of California, Riverside Kilmer McCully--Harvard U. S. Maslona--Lab. of Developmental Biology, Naples, Italy Mano Molinaro--U. of Rome Iva Morris--Johns Hopkins U. Med. Sch., Baltimore Stanley Nathanson--Albert Einstein Col. of Med., Bronx Francis A. Neelon--Duke U. Med. Ctr., Durham, North Carolina T. Nihari--U. of Alberta, Canada V. Pallini--U. of Siena, Italy Gerald Rosen--Teaneck, New Jersey Gregory Schmidt--St. Charles, Illinois Louis Sheimer--U. of California Med. Ctr., S.F. Carol E. Stenhardt--U. of Wisconsin, Madison Carl Stone--Howard U., Washington, D.C. Richard Vernick--Peter Bent Brigham Hosp., Boston M. B. Yarmolinsky--Inst. de Biologie Molec., Paris

ADULT PSYCHIATRY BRANCH

The focus of the Branch is to study the etiology and treatment of schizophrenia and manic-depressive illness. An attempt is made to understand these complex disorders from a neurophysiological, pharmacological, biochemical and genetic point-of-view, along with an attempt to integrate basic biological findings with psychological knowledge of these same disorders.

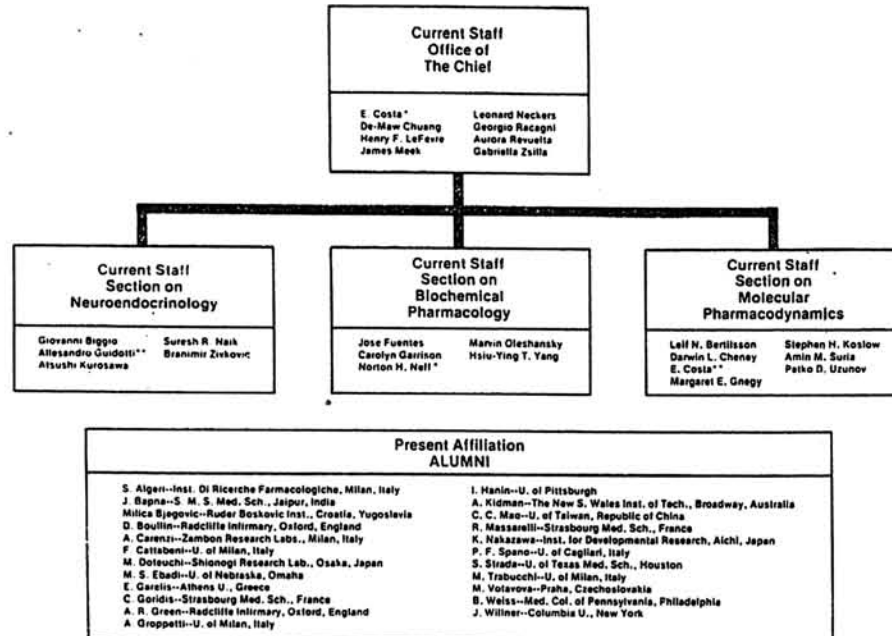
Current Staff	
Arnold E. Andersen Gerald L. Brown Monie S. Buchsbaum William E. Bunney, Jr.* William T. Carpenter Ronald M. Costell Leon Cytryn Eleanor D. Dibble John P. Docherty Thomas C. Douthett Harvey Fernbach Ralph J. Gemelli Robert H. Garner Elliot S. Gershon David C. Jamerson	Marian S. Kafka James F. Leckman Thomas H. McGlashan Donald H. McNew Robert M. Papp Judith L. Rapoport Robert J. Savard Paula W. Sendroff Walter R. Secory Samuel G. Sins John F. Tallman Michele Van Eerdewegh Daniel P. Van Kammen Herbert Weingartner

Present Affiliation ALUMNI	
Martin G. Allen--Washington, D.C. Richard J. Almond--Palo Alto, California David Anderson--Bangor, Maine Rosalee Auster--Washington, D.C. Simon L. Auster--Washington, D.C. Jack Baruch--Chevy Chase, Maryland Clemens C. Bebis--New York, New York Robert H. Benimaker--Jerusalem, Israel David A. Berkowitz--Newton, Massachusetts Thomas Bitner--Phoenix, Arizona George F. Bourge--LaGrange, Illinois Murray Bowen--Chevy Chase, Maryland Walter M. Bradley--Washington, D.C. Lucius M. Brown James W. Bulford--Washington, D.C. Robert N. Butler--Washington, D.C. John S. Carman--Washington, D.C. Lynette V. Cuetino--Rockville, Maryland Donald J. Cohen--New Haven, Connecticut Stephen M. Cohen--Burlington, Vermont Robert W. Colburn--Bethesda, Maryland Stephen C. Cronin--Brockton, Massachusetts John M. Davis--Chicago, Illinois James H. Demt--Rockville, Maryland Stanley Diamond--Syracuse, New York Edward F. Donnelly--Washington, D.C. Robert H. Dwynger--Monterey, California Chesterman B. Etkes--Columbia, Maryland Jan A. Fawcett--Chicago, Illinois Jay Feuerman--San Diego, California Carl B. Feinstein--Washington, D.C. Edward B. Fink--Providence, Rhode Island Jacob R. Fishman--Washington, D.C. Julius Day Fund--Garrett Park, Maryland Stanford B. Friedman--Baltimore, Maryland U. Weiss Goodrich--Rochester, New York Frederick A. Goodwin--Bethesda, Maryland Spencer Gordon, Jr.--Chevy Chase, Maryland Harold A. Greenberg--Bethesda, Maryland Irwin M. Greenberg--Waterbury, Connecticut David A. Hamburg--Palo Alto, California John H. Hart--Newton, Massachusetts Lynette L. Hartmann--Newton, Massachusetts Stuart I. Hauser--Boston, Massachusetts Alan B. Hawk--Honolulu, Hawaii Joseph H. Herzberg--Bethesda, Maryland Myron A. Holer--Bronx, New York Axel Holzer--Boston, Massachusetts David S. Jamovsky--La Jolla, California Ismet Karacan--Houston, Texas Herant Katchadourian--Palo Alto, California Robert A. King--Bethesda, Maryland Sheldon J. Korchin--Berkeley, California Lena Kurland David J. Kupfer--Pittsburg, Pennsylvania Hanna Y. Kuzikowska--Bethesda, Maryland Stephen G. Landau--Ann Arbor, Michigan Alan Latterson--Boston, Massachusetts I. David Levy--Washington, D.C. Steven I. Levy--Atlanta, Georgia Nathanael T. Loveland--Washington, D.C.	James W. Mason--New Haven, Connecticut John A. McCormack--Bethesda, Maryland Richard M. MacDonato--San Francisco, California Herbert Y. Meltzer--Chicago, Illinois John F. Meinfield--Concord, Massachusetts Gary Morris--deceased Palatit Moses--Jerusalem, Israel Loren R. Mosher--Rockville, Maryland Dennis L. Murphy--Bethesda, Maryland Stanley R. Palumbo--Washington, D.C. Adolf Pfefferbaum--Palo Alto, California William Pollin--Rockville, Maryland Israel Posner--Pomona, New Jersey Alan S. Quin--Knappton, Montana Keni Ravenscroft--Washington, D.C. David Reiss--Washington, D.C. Margaret J. Rich--Chevy Chase, Maryland John Roizen--Arizona Carl P. Rosenbaum--Stanford, California Sheldon Roth--Waban, Massachusetts Irvin R. Schell--Washington, D.C. James E. Sabin--Wellesley, Massachusetts Michael H. Sacks--New York, New York Charles Savage--Baltimore, Maryland Leslie Schaffer--Washington, D.C. Burton G. Schontfeld--Adelphi, Maryland Jimmy Scott--Davis, California Winfield H. Scott--Washington, D.C. Edward Shapiro--Belmont, Massachusetts Roger L. Shapiro--Washington, D.C. Jay T. Shurley--Oklahoma City, Oklahoma Earle Silber--Chevy Chase, Maryland Julian Silverman--Berkeley, California Melvin Singer--Hagerstown, Pennsylvania Bruce H. Sliwew--Chevy Chase, Maryland John R. Smith--Oklahoma City, Oklahoma Frederick Snyder--Gallup, New Mexico Frederic Solomons--Washington, D.C. James R. Slobman--Farmington, Connecticut Herim Sherlin--Hendelberg, Germany Richard Stillman--Washington, D.C. Frederick J. Stoddard--Belmont, Massachusetts John S. Strauss--Rochester, New York Howard Subak--Cleveland, Ohio Irvin Tauber--Brookline, Massachusetts Joseph J. Tecce--Boston, Massachusetts Pekka J. Tienari--Norway Jean S. Tippett--Washington, D.C. Joe P. Tupin--Sacramento, California Blanche Sweet Ugdassky--Washington, D.C. Paul P. Verdone--Sacramento, California Ralph W. Wadson--Washington, D.C. Spencer A. Ward--Chevy Chase, Maryland Wolfgang O. Wergert--Washington, D.C. Douglas F. Weisler--Brookline, Massachusetts David Wember--Washington, D.C. Robert J. Wine--Germantown, Maryland Carl T. Wotli--Brooklyn, New York Richard J. Wyatt--Washington, D.C. Lynn C. Wyner--Rochester, New York John Zimer--Washington, D.C.

NATIONAL INSTITUTE OF MENTAL HEALTH

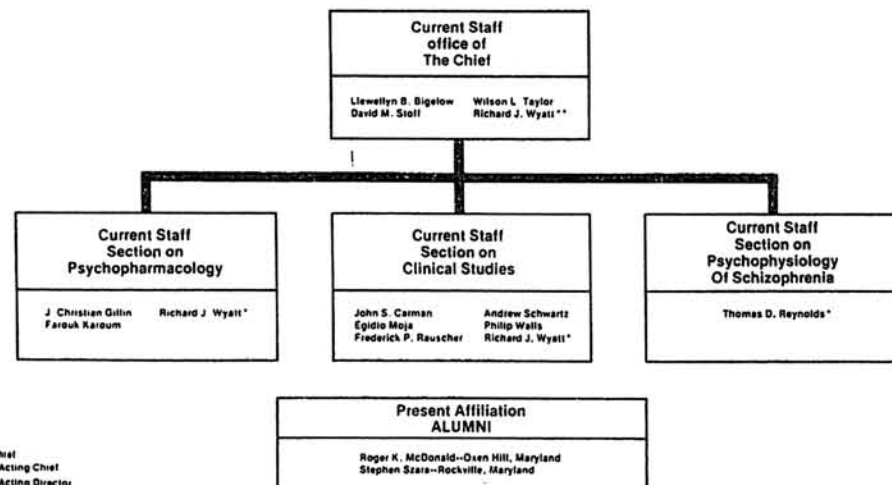
LABORATORY OF PRECLINICAL PHARMACOLOGY

The Laboratory of Preclinical Pharmacology conducts studies on the mechanisms of action of psychoactive drugs at presynaptic and postsynaptic levels using mass fragmentography. In these studies, the mechanisms of drug toxicity are explored and the drugs are used as tools to reveal the role of neurotransmitter abnormalities in mental diseases. Special attention is given to the molecular basis of synaptic plasticity and trophic effects which are mediated trans-synaptically.



LABORATORY OF CLINICAL PSYCHOPHARMACOLOGY

The Laboratory of Clinical Psychopharmacology conducts studies in animals and in human subjects aimed at investigating the biochemical correlates of mental illness and the relationship of the metabolism to the behavior action of psychotropic drugs and other pharmacological agents.

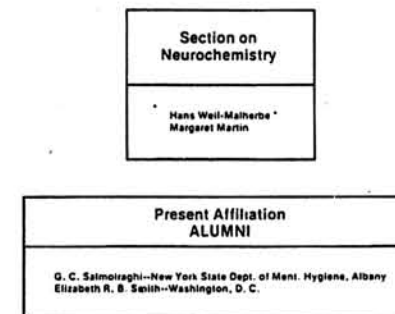


* Chief
** Acting Chief
*** Acting Director

Division of Special Mental Health Research

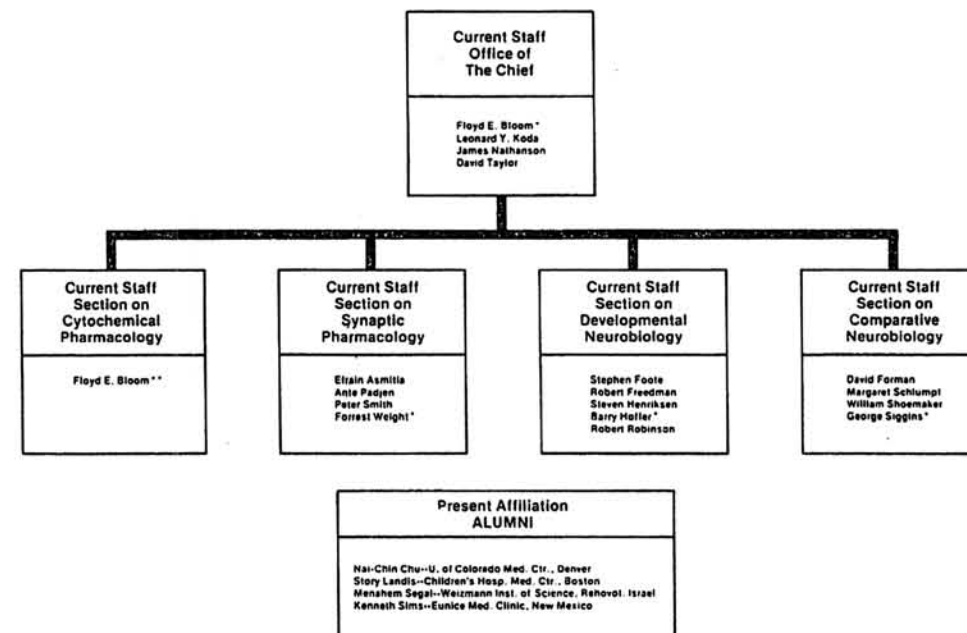
Floyd E. Bloom***

The Division of Special Mental Health Research plans and conducts a program of intramural research on special mental health problems, such as psychopharmacology, neuropharmacology, memory, human behavior, and the biochemistry of learning; and performs clinical evaluation and follow-up activities in connection with research patients.



LABORATORY OF NEUROPHARMACOLOGY

The Laboratory of Neuropharmacology conducts multi-disciplinary fundamental neuroscience centered upon the identification of neurotransmitter substances, and their sites and mechanisms of action. In particular, this research program seeks to determine how neuro-active and psycho-active drugs can influence behavior through specific interactions with identifiable synaptic transmission sites.



NATIONAL INSTITUTE OF MENTAL HEALTH

LABORATORY OF NEUROPHYSIOLOGY

The Laboratory of Neurophysiology plans and conducts research on the physiology of the central nervous system, studying its electrical, chemical, structural and functional mechanisms and processes as they relate to neurological function and behavior.

Current Staff

Edward V. Evarts*
James H. Fuller
Chung Chin Kim
Frederick A. Miles
Jesus B. Otero
Stanley I. Rapoport
Frank R. Sharp
Peter L. Strick

Present Affiliation ALUMNI

James E. Blankenship—U. of Texas Med. Branch, Galveston Floyd J. Buntley, Jr.—Johns Hopkins Sch. of Med., Baltimore David O. Carpenter—AFRR, Bethesda W. Stephen Corrie—Washington U. Sch. of Med., St. Louis, Missouri Carl F. Essig—Leungton, Kentucky Gerald Fischbach—Harvard Med. Sch. Ganche Ganchev—Lab. Applied Neurophysiol. & Psychophysiology, Sofia, Bulgaria Duane C. Heilmann—Washington U., St. Louis, Missouri Martin M. Hovey—Chautauque, New York Jack Hubbard—VA Hosp., Philadelphia John R. Hughes—Northwestern U. Med. Ctr., Chicago Eric R. Kandel—Pub. Health Research Inst. of City of New York Conan Kornetsky—Boston U. Sch. of Med. William O. Landau—Washington U. Sch. of Med., St. Louis, Missouri Herbert Levitan—U. of Maryland, College Park	Horace W. Magoun—Natl. Acad. of Science, Washington, D.C. Allan F. Mirsky—Boston U. Sch. of Med. Noel L. Morlock—Wayne State U., Detroit James Mortimer—VA Hosp., Minneapolis Alan L. Pearlan—Washington U. Sch. of Med., St. Louis, Missouri Friedrich-Karl Pierau—Kerckhoff Inst. der Max Planckgesellschaft, Bad Nauheim, West Germany Jean M. Postema—U. of Geneva, Switzerland Barbara Z. Rankin—Duke U. Med. Sch., Durham, North Carolina Norman Robbins—Case Western Reserve Med. Sch., Cleveland, Ohio Alden Spencer—New York U. Med. Ctr. Constantine Sgyropoulos—U. of Chicago Downtown Center Felix Stromwasser—California Inst. of Tech., Pasadena Charles D. Woody—U. of California, L.A. Michael Wiederhold—AFRR, Bethesda Raymond B. Wuerker—Los Angeles
---	---

LABORATORY OF PSYCHOLOGY AND PSYCHOPATHOLOGY

The Laboratory of Psychology and Psychopathology carries out research designed to identify and understand basic psychological processes, cognitive, motivational, perceptual, sensory-motor, psychophysiological, and neuro-psychological, to understand the nature and causes of deviant behavior, especially psychoses found in schizophrenia and manic-depressive disorders, neuroses which are debilitating in varying degree, and character disorders that involve social and antisocial behavior, and to determine the possible association between the basic psychological processes and such disorders, emphasizing especially genetic and environmental factors that may be implicated in the basic processes and in the behavioral disorders.

Current Staff Office of the Chief

Gordon Allen
Donald S. Boomer
Virgil S. Carlson
Edward A. Jerome
Walter Reich
Ronald O. Reider
David Rosenthal*
Theodore Zahn

Current Staff Section on Neuropsychology

Patricia Goldman
Charlene D. Jank
Mortimer Mishkin
H. Enger Rosvold*
Josephine Semmes

Present Affiliation ALUMNI

W. Edward Bacon—Rockville, Maryland Kyle R. Bechelen—Washington U., St. Louis, Missouri Karl Boffig—Eidg. Techn. Hochschule, Zurich, Switzerland Nancy Bayley—Carmel, California Richard O. Bell—NIMH, Bethesda Daniel Bryner—U. of Toronto, Canada James E. Biren—U. of So. California, L.A. Donald S. Blough—Brown U., Providence, Rhode Island William Bondareff—Northwestern U., Chicago Joseph Bostrom—NINDS, Bethesda Jack Botwinick—Washington U., St. Louis, Missouri Douglas Bowden—U. of Washington, Seattle Joseph F. Buntley—St. Louis, Missouri Thomas Brown—DePaul U., Chicago Roger Buddington—Bethesda Charles Butler—U. of Michigan, Ann Arbor Nelson Butters—Boston VA Hosp. Rue L. Chomwell—U. of Rochester, New York Luis-etlin Gatta—NIE, Washington, D.C. Jean Delacour—U. Paris VII Allen T. Dittman—U. of Maryland, Baltimore Ivan Dvacek—Boston City Hosp. Joseph Dorris—St. Norbert College, De Pere, Wisconsin Gerald Doyle—Witwatersrand U., Johannesburg, South Africa Ruthmary Duetz—U. of Chicago Hosp. and Clinics Lawrence Greenhill—Bronx Mun. Hosp. Ctr. Stanley I. Greenspan—NIMH, Adelphi, Maryland Lois Hammer—Washington, D.C. Joseph Hamilton—Cleveland Heights, Ohio Susan Iversen—U. of Cambridge, England Eichi Iwai—Tokyo Metro. Inst. for Neurosciences	Leonard Jakubczak—VA, Jefferson Barracks, St. Louis, Missouri Barry Jones—Vancouver Gen. Hosp., British Columbia Harry Kay—U. of Sheffield, England Herbert Kelman—Harvard U. William G. Lawler—Fordham U., New York Waclaw Lewicki—Nencki Inst. of Exper. Biology, Warszawa, Poland Ann Lodge—Children's Hosp. of San Francisco Donald Marburg—State Hosp., Austin, Texas Allan Mirsky—Boston U. Sch. of Med. Robert Plutchick—Rochelle, New York Walter Pohl—Wisconsin State Col., Stevens Point Louis Parier—Massachusetts Inst. of Tech., Cambridge Daniel Primeau—California Psychological Clinic, Orange Harriet Rheinbold—U. of North Carolina, Chapel Hill Klaus Riegel—U. of Michigan, Ann Arbor Bryan Robinson—Tallahassee Neurological Clinic, Florida Jeffrey Rosen—Boston U. Earl Schaefer—U. of North Carolina, Chapel Hill Marvin Snyder—Brooklyn Eugene Stricker—Bethesda Marta Swarczewski—Washington, D.C. Sanford M. Ungar—Springfield State Hosp., Sykesville, Maryland Holger Ursin—U. of Bergen, Norway John L. Van Dyke—Patton State Hosp., California Richard Warren—U. of Wisconsin—Milwaukee Irene E. Waskow—NIMH, Rockville, Maryland Alfred Weiss—Mount Vernon, New York Paul Wendan—U. of Utah, Salt Lake City Laure G. Wispe—U. of Oklahoma, Norman Marguerite L. Young—Bethesda
--	---

LABORATORY OF NEUROCHEMISTRY

The Laboratory of Neurochemistry conducts investigations in the following areas: (1) the structure, mode of regulation, and mechanism of action of phenylalanine hydroxylase and the ancillary enzymes that comprise the phenylalanine hydroxylating system. In addition to studies with the pure enzymes, there is emphasis on the relationship between the properties of this enzyme system and the pathophysiology of phenylketonuria and hyperphenylalaninemia; (2) the structure and regulatory properties of the enzymes involved in the biosynthesis of norepinephrine and serotonin and the relationship between the properties of the enzymes and physiological regulation of rates of synthesis of these neurotransmitters; (3) the biochemical basis for skeletal muscle hypertrophy including the effects of exercise and neural factors in the process; (4) cell surface membrane proteins and their role in cellular differentiation; (5) DNA repair mechanisms and their role in aging; (6) the structure of viral DNA especially in relation to the phenomena of integration of viral DNA into host structures and viral transduction of host genes; (7) electronic structure of DNA and its components with emphasis on specific interactions of nucleotides in cellular processes such as codon-anticodon recognition and DNA replication.

Current Staff Office of the Chief

Herman C. Chang
John Dallen
John Denton
Philip H. Fleckman
Robert D. Hoeldtke
Ira R. Katz
Seymour Kaufman
Thomas A. Lloyd
Sheldon Millsten
Howard A. Nash
Audrey L. Stone
Takashi Yamachi

Current Staff Section on Biophysical Chemistry

Ta-Min Chang
Alice Dazord
David M. Neville, Jr.

Present Affiliation ALUMNI

Jean-Pierre Abita—Faculté Des Sciences-Valrose, Nice, France Akai Akino—Tokyo Metro U., Japan Richard S. Balfanz—The New York Hosp. Joseph Baron—U. of Chicago Hosp. Stoney Bernhard—U. of Oregon, Eugene William Bridges—Natl. Academy of Science, Washington, D.C. A. R. Brinneman—Hartford, Connecticut Gilbert Daniels—Massachusetts Gen. Hosp., Boston Howard DeVoe—U. of Maryland, College Park Daniel Fisher—Washington, D.C. Paul Friedman—Beth Israel Hosp., Boston Stanley Friedman—Downstate Med. Ctr., Brooklyn	Hartmut Glossmann—Justus Liebig-Universität, Giessen, Germany Stanley Hall—U. of Calgary, Canada Cecilia Hidalgo—Boston Biomed. Research Inst. Charles Huang—Dow Chem. Co., Indianapolis, Minnesota Charles Jablcki—Mayo Clinic, Rochester, Minnesota Michael Leitch—Peter Bent Brigham Hosp., Boston Eph Lerner—Johns Hopkins U., Baltimore Alexander Rich—Massachusetts Inst. of Tech., Cambridge Ross Shiman—M. S. Hershey Med. Ctr., Pennsylvania Carl Storm—Howard U., Washington, D.C. Jettey H. Y. Tong—U. of Ottawa, Canada Richard Verneck—Peter Bent Brigham Hosp., Boston
--	---

LABORATORY OF CEREBRAL METABOLISM

Louis Sokoloff*

The Laboratory of Cerebral Metabolism carries out study of the circulation and metabolism of the brain in health and disease.

Current Staff Section on Membrane Chemistry

Michelle M. Des Rosiers
Gianna G. Fitzgerald
Elaine E. Kaufman
Charles Kennedy
Osamu Sakurada
Mami Shimohara
Louis Sokoloff

Current Staff Section on Developmental Neurochemistry

Louis Sokoloff

Current Staff Section on Myelin Chemistry

Bernard F. Driscoll
Marion W. Kies
Allan J. Kramer
Russell F. Mansenson

Present Affiliation ALUMNI

Charles S. August—Denver Ayesha R. Balg—Karachi, West Pakistan Elsa Borriss—Medizinische Hochschule Hannover, Germany Donald Brown—Carnegie Inst. of Washington, Baltimore Oran Dastur—J. J. Hosp., Bombay, India Jack Durell—The Psychiatric Inst., Washington, D.C. George Falk—Cornell U. Med. Col., New York Cesare Fieschi—Dell'Università, Siena, Italy John T. Garland—St. Luke's Med. Ctr., Chicago George P. Gewirtz—Columbia Presbyterian Med. Ctr., New York Douglas Hansen—Houston S. S. Hotta—Eastern Virginia Med. Sch., Norfolk George Isaacs—Houston John D. Johnson—Stanford U., California Robert Krause—Temple U. Sch. of Med., Philadelphia Jiri Krivanek—Czechoslovak Acad. of Sciences, Prague	Robert H. Luzzo—McPheeters Clinic, Poplar Bluff, Missouri Elwood H. LaBrosse—Elliott City, Maryland Mark H. Lane—Albuquerque, New Mexico Ana Maria Lennon—Univ. de Chile, Santiago Robert P. Lusk—U. of Pennsylvania Sch. of Med., Philadelphia Robert Michels—Cornell U. Med. Sch., New York Patricia J. Middleton—Philadelphia Peter Mueller—Johns Hopkins Hosp., Baltimore Jacques Nunez—INSERM, Paris, France Neil M. Raskin—U. of California Med. Ctr., S.F. Martin Revich—U. of Pennsylvania Hosp., Philadelphia Roger N. Rosenberg—U. of Texas Southwestern Med. Sch., Dallas Michael J. Schmidt—Eli Lilly and Co., Indianapolis Arnold L. Smith—Children's Hosp. Med. Ctr., Boston Harry R. Steinberg—Washington, D.C.
---	--