

PERSONNEL

Prof. Henry J. Zimmermann, Director
Prof. John G. King, Associate Director

Advisory Committee

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(Chairman)

Professors

Adler, Richard B.
Allis, William P.*
Barrett, Alan H.
Bekefi, George
Bers, Abraham
Bose, Amar G.
Bromberger, Sylvain
Brown, Sanborn C.
Bruce, James D.
Burke, Bernard F.
Chen, Sow-Hsin
Chomsky, A. Noam
Coppi, Bruno
Davenport, Wilbur B., Jr.
Dupree, Thomas H.
Eden, Murray
Edgerton, Harold E.*
Elias, Peter †

Fodor, Jerry A.
Frishkopf, Lawrence S.
Gallager, Robert G.
Gyftopoulos, Elias P.
Hale, Kenneth L.
Halle, Morris
Harris, James W.
Harvey, George G.*
Haus, Hermann A.
Ingard K. Uno
Jakobson, Roman
Katz, Jerrold J.
Kennedy, Robert S.
King, John G.
Kiparsky, R. Paul V.
Kleppner, Daniel †
Kyhl, Robert L.
Lee, Francis R.
Lettvin, Jerome Y.

McCune, James E.
O'Neil, Wayne A.
Peake, William T.
Penfield, Paul L., Jr.
Pomorska, Krystina
Ross, John R.
Schreiber, William F.
Siebert, William M.
Smullin, Louis D.
Stevens, Kenneth N.
Stickney, Robert E. †
Strandberg, Malcom W. P.
Thornton, Richard D.
Van Trees, Harry L. †
Weiss, Rainer
Wozencraft, John M.
Zacharias, Jerrold R.*
Zimmermann, Henry J.

Associate Professors

Allen, Jonathan
Baggeroer, Arthur B.
Blessner, Barry A.
Braida, Louis D.
Burns, Stephen K.
Colburn, H. Steven
Crampton, Stuart J. B. †
Ezekiel, Shaoul

Garrett, Merrill F.
Granlund, Goesta H. †
Kong, Jin-Au
Lidsky, Lawrence M.
Mark, Roger G.
Oppenheim, Alan V.
Perlmutter, David M.
Price, R. Marcus †
Pritchard, David E.

Shapiro, Jeffrey H.
Sigmar, Dieter J.
Staelin, David H.
Taylor, Robert J.
Troxel, Donald E.
Weiss, Thomas F.
Woo, James T. †
Young, Ian T.

*Emeritus

†Absent

‡Visiting

PERSONNEL

Assistant Professors

Chu, Flora Y-F.
Gupta, Madhu S.
Joannopoulos, John D.
Muehlner, Dirk J.

Oman Charles M.
Politzer, Peter A.
Segall, Adrian

Sussman, Gerald J.
Toong, Hoo-min D.
Waxman, Stephen G. ‡
Willemain, Thomas R.

Lecturers

Durlach, Nathaniel I.
Houtsma, Adrian J. M.
Kiang, Nelson Y. S.

Moxon, Edwin C.
Piankian, Robert A.

Searle, Campbell L.
Smith, Arthur A.
Walker, Edward C. T.

Research Associates and Postdoctoral Fellows

Brill, Michael H. (1)
Cardillo, Mark J.
Ducas, Theodore W.
Gruberg, Edward R.
Guinan, John J., Jr.
Henke, William L.
Hewlett, Martin J.
Klatt, Dennis H.

Klein, Barbara
Lust, Barbara C.
Mersereau, Russell M.
Nedzelnsky, Victor
Ozonoff, David M.
Perkell, Joseph S.
Peterson, John W.
Pettijohn, David O.
Rosenfield, David B.

Rosenkranz, Philip W.
Rosenthal, Stanley R.
Siegel, Dorothy
Suchanek, Rodolf G.
Watson, Duncan C.
Williams, Katherine L.
Wolf, Catherine D.
Zamir, Ehud

Research Staff

Barrett, John W.
Basu, Bamandas
Benford, Richard L.
Boyle, Brian E.
Carroll, Francis X.
Coleman, John W.
Domnitz, Robert H.
Durlach, Nathaniel I.
Hackel, Lloyd A.
Hagerich, Jeffrey A.
Huggins, A. W. F.

Hunnicut, M. Sharon
Hurtig, Richard
Jensen, Eric R.
Jones, Joseph L.
Kessler, Allan R.
Kiang, Nelson Y. S.
Kierstead, John D.
McCarthy, John J.
McKenzie, John A.
Miller, Perry L.
Molvig, Kim

Mulligan, William J.
Myers, Philip C.
Pangaro, Paul A.
Papa, D. Cosmo
Parrish, Alan
Raymond, Stephen A.
Reiman, Allan R.
Rewoldt, Gregory
Sher, Stephanie E.
Shillman, Robert J.
Weaver, James C.

Visiting Scientists and Guests

Apgar, Edward G.
Arkani-Hamed, Jafar
Blumstein, Sheila E.
Cerrillo, Manuel V.
Chong, Augustine
Jacobsen, Edward H.

Kunt, Murad
Lampis, Giampietro
Mecklenbräuker, Wolfgang F.
Pegoraro, Francesco
Quicoli, Antonio C.
Roy-Yarza, Armando

Shiau, Chyi
Simon, William
Suen, Ching Y.
Vaissière, Jacqueline
Yasuhara, Makoto
Yuen, Horace P. H.

Research Affiliates

Altmann, David W.
Barlow, John S.
Bowie, Jack E.

Bullowa, Margaret
Crist, Alan H.
Fraeman, Martin E.

Funkenstein, H. Harris
Gaiman, Barry
Gerchberg, Ralph W.

‡Visiting

(1) NIH Trainee

PERSONNEL

Research Affiliates (continued)

Groneman, Uri F.	Kfoury, Denis J.	Mulroy, Michael J.
Howland, Bradford (1)	Laferriere, Martha	Painter, Colin
Hubelbank, Mark	Marr, Elizabeth M.	Schultz, Martin C.
Ingham, Kenneth R.	Menn, Lise	Steffens, David A.
Jaffe, Conrade C.	Menyuk, Paula	Wacks, Kenneth P.

Instructors

Clark, Becky J.	Katz, Fredric M.	Soames, Scott
Freeman, Richard R.		Wittels, Norman D.

Research Assistants

Apt, Jerome, III	Hershcovitch, Ady	O'Shaughnessy, Douglas D.
Ausschnitt, Christopher P.	Ho, Paul T.	Pant, Aniket
Beguesse, Ian M.	Holcomb, Terry L.	Parr, Robert J.
Bromberg, Leslie	Holt, Anthony P.	Pasquarelli, Louis R.
Camrass, Roger J.	Holz, Michael K. O.	Perlmutter, Yvonne M.
Ceglio, Natale M.	Hsia, James C.	Peterson, Scott K.
Chambers, Frank W.	Irwin, Thomas B.	Pettyjohn, Ronald L.
Chan, Hark C.	Jarrell, Joseph A.	Phillips, William D.
Ching, Clifton S. Y.	Karney, Charles F. F.	Pine, Gerald D.
Chrisman, Paul W., Jr.	Kenyon, Peter T.	Reinhart, Tanya
Combs, John A.	Kim, Wha-Chun M.	Rivas, Alberto M.
Cooke, William E.	Komm, David S.	Schneps, Matthew H.
Cooper, John F.	Krasner, Michael A.	Short, William R.
Crane, Patrick C.	Kuklinski, Theodore T.	Silver, Bruce R.
Cuddy, David R.	Kulp, John L., Jr.	Singer, Elliot
Dolarin, Samuel J., Jr.	Lam, Kai-Shue	Stanley, Brian R.
Drake, Caleb J.	Ledsham, William H.	Stern, Richard M., Jr.
Dylla, H. Frederick	Lee, Sylvester	Stimac, Gary K.
Ehst, David A.	Leverette, Steven J.	Stone, David S.
Fisch, Nathaniel J.	Littman, Michael G.	Succi, George P.
Fisher, Alan S.	Lo, Kwok-Yung	Sun, Anthony
Fisher, Arthur D.	Lynn, Charles W.	Tekula, Miloslav
Forbes, Alan R.	Lysy, Dusan G.	Tetreault, David J.
Frerking, Margaret A.	Maeda, Shinji	Theilhaber, Kim
Galvao, Ricardo M. O.	Marsicano, Dennis V.	Throop, Alan L.
Giuffrida, Thomas S.	Martin, Robert N.	Tsang, Leung
Glasser, Lance A.	Mascaro, Juan	Walker, Robert C.
Goldhor, Richard S.	McKinstry, Mark L.	Walters, Joseph B., Jr.
Golub, Howard L.	Metzger, Louis S.	Werner, Charles W.
Graham, Michael R.	Montress, Gary K.	Wildman, David W.
Grove, Robert E.	Myung, Nam-Soo	Woisetschlaeger, Erich F.
Hagelstein, Peter L.	Njoku, Eni G.	Wu, Frederick Y-F.
Haraguchi, Shosuke	Okin, Kenneth	Yee, James R.
Haschick, Aubrey D.	Okrent, Howard F.	Zimmerman, Myron L.
Hayes, Monson H.	Orenstein, Joseph W.	Zue, Victor W.
	Orzechowski, Thaddeus J.	

(1) Lincoln Laboratory Staff Member

PERSONNEL

Teaching Assistants

Bates, Steven L.	Humblet, Pierre A.	Portnoff, Michael R.
Buckley, Robert R.	Johnston, Mark D.	Putnam, Roger S.
Choong, Tsi-Pin	Kaplan, David L.	Richards, Burton
Clements, George N.	Keshner, Marvin S.	Schluter, Paul S.
Demetriou, Efstratios	Kuo, Sze-Ping	Staron, Raymond J.
Doughty, Gregory M.	Lee, Donald L.	Strangio, Christopher E.
Goldwasser, Samuel M.	Lee, Ping	Szlannik, Walter
Harris, David B.	Marzetta, Thomas L.	Wang, Yi-Ming
	Moinuddin, Syed A.	

Other Graduate Students

Ahmad, Riad N. (1)	Delgutte, Bertrand (15)	Kahn, Daniel (8)
Allweiss, Jack A. (2)	Dowling, Neal B. (8)	Karakawa, Masayuri
Ansourian, Manoug M. (3)	Duncan, David B. (8)	Kean, Mary-Louise (8)
Baan, William A. (4)	Ellis, James R., Jr. (16)	Khan, Malik (23)
Baden-Kristensen, Keld (5)	Englander, Irvin S.	Knecht, Laura E. (8)
Bahler, Lawrence G. (6)	Ferreira, Antonio (17)	Kopec, Gary E. (3)
Balsamo, Salvatore R. (7)	Fisher, Jay L. (14)	Kullberg, Craig M.
Bell, Sarah J. (8)	Freeman, Dennis M. (6)	Leslie, David I. (24)
Berzins, Valdis	Gallemore, James B. (18)	LeSourd, Philip S. (8)
Binder, Michael J.	Ganong, William F., III (6)	Levinstone, Donald S. (8)
Bishop, Robert P. (8)	Garel, Keith C., Jr. (19)	Lieberman, Mark Y. (6)
Boucher, Ronald E. (6)	Gellineau, Antonio C. (20)	Lim, Jae S.
Bourk, Terrance R. (9)	George, Leland M. (8)	Linden, Lynette L. (8)
Breuer, Charles T. (10)	Gluss, David H.	Linebarger, Marcia (8)
Burmawi, M. Yousoof (11)	Goldsmith, John A. (8)	Lippmann, Richard P. (8)
Burr, Charles R. (8)	Goldstein, Ursula G. (8)	Long, Jeffry R.
Bush, Marcia A. (8)	Golestaani, Seyyed J. (21)	Lynch, Thomas J. (8)
Carrier, Jill L. (8)	Gottlieb, Mark	Makowski, Lee C. (8)
Chang, Franklin R.	Govindaraj, T.	Marroquin, José L. (25)
Chao, Yao-Ming (12)	Gray, Harrold W. (22)	May, Robert C. (8)
Chow, Wing Shek	Hentall, Ian D. (14)	Miller, John L. (6)
Cohen, Jeffrey (8)	Hicks, Bruce L. (8)	Minden, Monica (6)
Cohen, Michael A. (8)	Hirshman, Steven P. (6)	Mook, Douglas R. (8)
Conrad, Chester H.	Holford, Stephen K.	Morgan, Paul E. (26)
Cook, Donald L. (13)	Holton, Thomas (8)	Newman, Eric (8)
Cooper, William E.	Jabbawy, Saeed Z.	Odette, Louis L.
Cox, Charles H. (14)	Jeanne, LaVerne M. (22)	Olesik, Joseph T. (6)
Davis, James L. (8)	Jernigan, Marvin E. (8)	Overskei, David O. (14)

(1) Jordanian Government Fellow	(14) RLE Industrial Fellow
(2) Burroughs Fellow	(15) French Government Fellow
(3) Hertz Foundation Fellow	(16) IBM Fellow
(4) NASA International Fellow	(17) Brazilian Government Fellow
(5) Copenhagen University Senior Stipend	(18) U.S. Navy
(6) NSF Fellow	(19) Jamaica Scholarship
(7) U.S. Air Force	(20) Bell Telephone Laboratories Fellow
(8) NIH Trainee	(21) Iranian Government Fellow
(9) Grass Instrument Company Fellow	(22) Ford Foundation Fellow
(10) NSF Trainee	(23) Pakistani Government Fellow
(11) Saudi Arabian Mission Fellow	(24) Kennedy Foundation Fellow
(12) Republic of China Government Fellow	(25) Mexican Government Fellow
(13) National Defense Education Act Fellow	(26) U.S. Army

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Other Graduate Students (continued)

Owens, D. Kingston (1)	Roth, Paul A. (8)	Toman, Jindrich
Paik, Woo Hyun	Sag, Ivan A. (5)	Tribolet, José M. (14)
Pattist, Todd R.	Saidel, William M. (5)	Tucker, Ben M.
Paul, Douglas B. (2)	Saleh, Naser S. (9)	Tung, Leslie (5)
Pires, Antonio C.	Schechter, Bruce M.	Udin, Susan B. (5)
Platero, Paul R. (3)	Schoendorfer, Donald W. (6)	Vanterpol, Ernesto (15)
Price, Robert H. (4)	Shalloway, Mark A. (2)	Vianna, Marcio L. (16)
Prince, Alan S. (5)	Shao, Michael (10)	Wall, Joseph E., Jr. (2)
Prosnitz, Donald (1)	Sianez-Gutierrez, Jorge (7)	Wang, Bingseng (17)
Rabinowitz, William (6)	Singhal, Vijay K. (1)	Wiegner, Allen W. (5)
Ramony Alarcon, Felipe D. (7)	Smith, Charles E. (5)	Willett, John C.
Rhyne, Theodore L.	Sparer, Alan W. (5)	Williams, Gregory (5)
Rich, Edwin S., Jr.	Steingart, Robert J. (5)	Wimpfheimer, Peggy
Riordan, William J.	Stephens, Peter W. (11)	Wolfe, Stephen M.
Rittenberg, Stephen	Tebyani, Mahmoud (12)	Wong, Tonny Y. (18)
Rosen, Stuart M. (2)	Theriault, Kenneth B. (2)	Zack, Gregory W. (5)
Rotenberg, Joel (2)	Thiersch, Craig L. (13)	Zavadil, Stephen W.
	Tole, John R. (5)	

Undergraduate Students

Abrams, Jerome	Chernick, Paul L.	Giaimo, Richard J.
Ackerman, William L.	Chew, Weng-Cho	Gillock, Richard R.
Allen, Barry R.	Ching, Dennis T.	Gipe, Michael A.
Ambros, Victor R.	Chow, Chun-Ling	Glaser, Charles L.
Anderson, John R.	Chua, Siong-Huat	Goldstein, Stephan C.
Arapostathis, Aristotle	Crawford, Thomas R.	Gonzalez, Manuel T.
Bacon, David P.	Cunningham, Franklin	Green, James F.
Baker, Clark M.	Cunningham, Peter M.	Green, Jonathan B.
Battye, William	Czerwinski, Mark J.	Haines, Lora L.
Beaman, Peter D.	Dai, Cheng-Ti	Hakimi, Farhad
Belli, Douglas A.	Deutsch, Keith R.	Hale, Roger L.
Birrell, Steven E.	DeVito, Jonathan E.	Halpern, Mark
Blake, Stephen H.	DeWitt, Gregory S.	Hanschen, Thomas P.
Blau, Robert S.	Dix, David P.	Hasan, Ibrahim
Bodziak, Thomas A.	Djermakoye, Boucar	Herman, Philip W., Jr.
Boghosian, Bruce M.	Doerre, George W.	Hersh, Keith C.
Borish, Jeffrey G.	Ferguson, Edwin L.	Howard, Iris A.
Brown, Melvin	Fetter, Robert	Hunter, Kevin
Campbell, Thomas K.	Fiedler, Ralph L.	Ito, Takayoshi
Carter, Everett F.	Fiekowsky, Peter J.	Jeffery, James A.
Chan, Wing-Cheung	Fine, John S.	Kaplan, Jonathan
Chang, Albert M-F.	Frueh, Jonathan T.	Kaplan, Martin C.
Chau, Cheuk L.	Gerstmyer, Robert	Kaufman, Karen S.

- | | |
|---------------------------------|---|
| (1) RLE Industrial Fellow | (10) Sloan Fellow |
| (2) NSF Fellow | (11) M. I. T. Karl T. Compton Fellow |
| (3) Ford Foundation Fellow | (12) Iranian Government Fellow |
| (4) Hertz Foundation Fellow | (13) Danforth Foundation Fellow |
| (5) NIH Trainee | (14) Inst. Alta Cultura (Portugal) Fellow |
| (6) NIGMS Fellow | (15) Black-American Fund |
| (7) Mexican Government Fellow | (16) National Research Council of Brazil |
| (8) NSF Trainee | (17) Research Foundation Sao Paolo |
| (9) Jordanian Government Fellow | (18) Raytheon Fellow |

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Undergraduate Students (continued)

Kaufman, Nathan E.	Pajer, Gary	Shure, Loren
Kendall, Elizabeth A.	Perlstein, Yvonne C.	Siebert, Peter W.
Kim, Sei Hee	Perry, Roger R.	Silverston, Cary
Kunin, Jay S.	Picard, Leonard	Simon, Robert P.
Kuperstein, Michael	Rabinovici, Mark S.	Solbrig, Marylou V.
Lake, Anthony	Raji, Latif A. G.	Sorensen, John M.
Lapatovich, Walter A.	Ratzel, John N.	Sperber, Berndt R.
Laurenson, Robert C.	Razdow, Allen M.	Sweer, Leon W.
Lesh, Michael D.	Reisberg, Stephen A.	Szymkowiak, Andrew E.
Leverenz, Ellen L.	Rhymes, Jill A. R.	Taller, Jay B.
Levinthal, David A.	Rice, John E.	Terry, Paul W.
Linder, Barry J.	Richard, Stephen M.	Tobis, Bruce J.
Look, Yum H.	Roberts, Christopher B.	Tyndall, Joseph S.
Lowenhaupt, Manuel T.	Ross, Warren S.	Velasquez, Roberto
Macklem, David M.	Ruotolo, Bruce R.	Vidic, Thomas R.
Mason, Andrew H.	Sachs, Josef T.	Villars, Frederick
Mayer, Rulon	Sanchez, Ricardo L.	Vlannes, Nickolas P.
Meyer, Edwin R.	Schaffer, Eric J.	Walton, James J.
Mitchell, H. Clyde	Schick, Irwin C.	Weisberg, Andrew H.
Mogri, Juzer S.	Seidman, Roberta J.	Wolinsky, Murray A.
Nigro, Georgia N.	Seligson, Daniel A.	Wright, John N.
O'Brien, Maureen	Serri, John A.	Young, Carl S.
Ojemann, David R.	Shafer, Richard A.	Young, David H.
	Shu, Jia H.	

Administrative Staff

Amdur, Alice S.	Duffy, Donald F.	McCarthy, Barbara L.
Bella, Charles J.	Hewitt, John H.	Smith, Paul L.
	Keyes, Richard V., Jr.	

Support Personnel

Aalerud, Robert W.	Dufault, Francis X.	Keefe, John B.
Alpert, Melvin	Duquette, Bruce E.	Kelley, Frances A.
Audette, Alfred G.	Eccles, Miriam R.	Kelly, Mark A.
Barron, Gladys	Edelman, Monica E.	Kodish, Hedy
Barrows, Francis W.	Ellis, Holly W.	Kopf, Cynthia Y.
Bella, Rose Carol	Farkas, Howard	Lauricella, Deborah A.
Bloomer, Margaret R.	Fitzgerald, Edward W., Jr.	Lauricella, Virginia R.
Boruchoff, Susan	Foster, Stella J.	Leach, George H., Jr.
Bunick, Frank J.	Fownes, Marilyn R.	Lewis, Ionia D.
Cabral, Manuel, Jr.	Garabieta, Ignacio	Liljeholm, Frederick H.
Cahill, Joyce H.	Gay, Harry D.	Lorden, Gerald J.
Carter, Charles E.	Grande, Esther D.	Lory, Barbara B.
Carter, James M.	Guberman, Joseph	Lyll, Neena
Casella, Barbara J.	Haggerty, Robert H.	MacElree, Ellen W.
Chartres, J. Margaret	Haghayeghi, Hamid R.	Marshall, Rudolph
Chase, Arbella P.	Hall, Kyra M.	Mastovsky, Ivan
Clarke, Emerson L.	Handel, Phyllis L.	McAvenia, Gloria M.
Collier, M. Helene	Hanes, Helen S.	McDowell, Patricia L.
Connolly, John T.	Hsia, Doris T-H.	Mitchell, Joseph E.
Cook, John F.	Hughes, Martin O.	Montesano, Eleanor E.
Doucette, Wilfred F.	Kaloyanides, Venetia	Muollo, Ralph E.

PERSONNEL

Support Personnel (continued)

Muse, William J.
Naus, Gregory J.
Nelson, Sylvia A.
North, Donald K.
O'Brien, Neva M.
Pastore, Anthony J.
Peck, John S.
Peters, Nancy M.

Rettman, Kenneth F.
Rice, Dianne D.
Riley, Joseph F.
Scalleri, Mary S.
Serini, Ann G.
Sharib, George
Sianez, Yolanda G.

Sincuk, Joseph, Jr.
Smith, Clare F.
Taylor, Martha L.
Thibodeau, Donald S.
Tortolano, Antonio J.
Us, Denise M.
Wilker, Bonnie A.
Young, Nancy E.