19.0 Sensory Communication

19.1 Auditory Psychophysics and Aids for the Deaf

Academic and Research Staff

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Visiting Scientist

Dr. N.A. Macmillan[17]

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D. Barnes, P. Duchnowski, R. Hammerschlag, T.H. Im, Y. Ito, S.K. Isabelle, M.E. Machado, E.L. Markowitz, B. Mihura, G. Owen, C. Passaro, M.H. Power, P.M. Peterson, K. Rashd, B. Shinn, D. Stephan, T. Tamir, R.M. Uchanski, S-M. Wei, J.S. Yu, H. Zhang, M. Zissman

Support Staff

E.M. Luongo

Research is being conducted on a variety of topics concerned with the auditory and tactile senses, particularly with a view to the development of improved aids for the deaf. The supporting grants are listed below. Detailed progress reports are available from the investigators (listed below) and the granting agencies. Publications and talks reporting this work are listed below.

19.1.1 Perceptual Anchors

National Science Foundation (Grant BNS 84-11392)

Louis D. Braida, Neil A. Macmillan

19.1.2 Binaural Hearing

National Institutes of Health (Grant 5 R01 NS10916)

H. Steven Colburn, Nathaniel I. Durlach, Patrick M. Zurek

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19.1.3 Hearing Aid Research

National Institutes of Health (Grant 5 R01 NS12846)

Louis D. Braida, Patrick M. Zurek, Nathaniel I. Durlach, Charlotte M. Reed

19.1.4 Tactile Communication of Speech

National Institutes of Health (Grant 5 R01 NS14902)
National Science Foundation (Grant BNS 84-17817)

Nathaniel I. Durlach, William M. Rabinowitz, Charlotte M. Reed

19.1.5 Multimicrophone Hearing Aids

National Institutes of Health (Grant 1 R01 NS21322)

Patrick M. Zurek, Nathaniel I. Durlach, William M. Rabinowitz

19.1.6 Cochlear Prostheses

National Institutes of Health (Grant 1 P01 NS23734)

William M. Rabinowitz, Donald K. Eddington

19.1.7 Hand Function

National Science Foundation (Grant DMC 83-32460)

Nathaniel I. Durlach, William M. Rabinowitz

Publications

Bustamante, D.K., and Braida, L.D., "Multiband Compression Limiting for Hearing-Impaired Listeners," *J. Rehab. Res. Dev.* 24 (4):149 (1987).

Colburn, H.S., P.M. Zurek, and N.I. Durlach, "Binaural Directional Hearing - Impairments and Aids," In *Directional Hearing,* eds. W. Yost and G. Gourevitch. New York: Springer Verlag, 1987.

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Im, T.H., *Noise Reduction for Performance Improvements in the IBM Speech Recognizer,* S.M. thesis, Dept. of Electr. Eng. and Comp. Sci., MIT, 1987.

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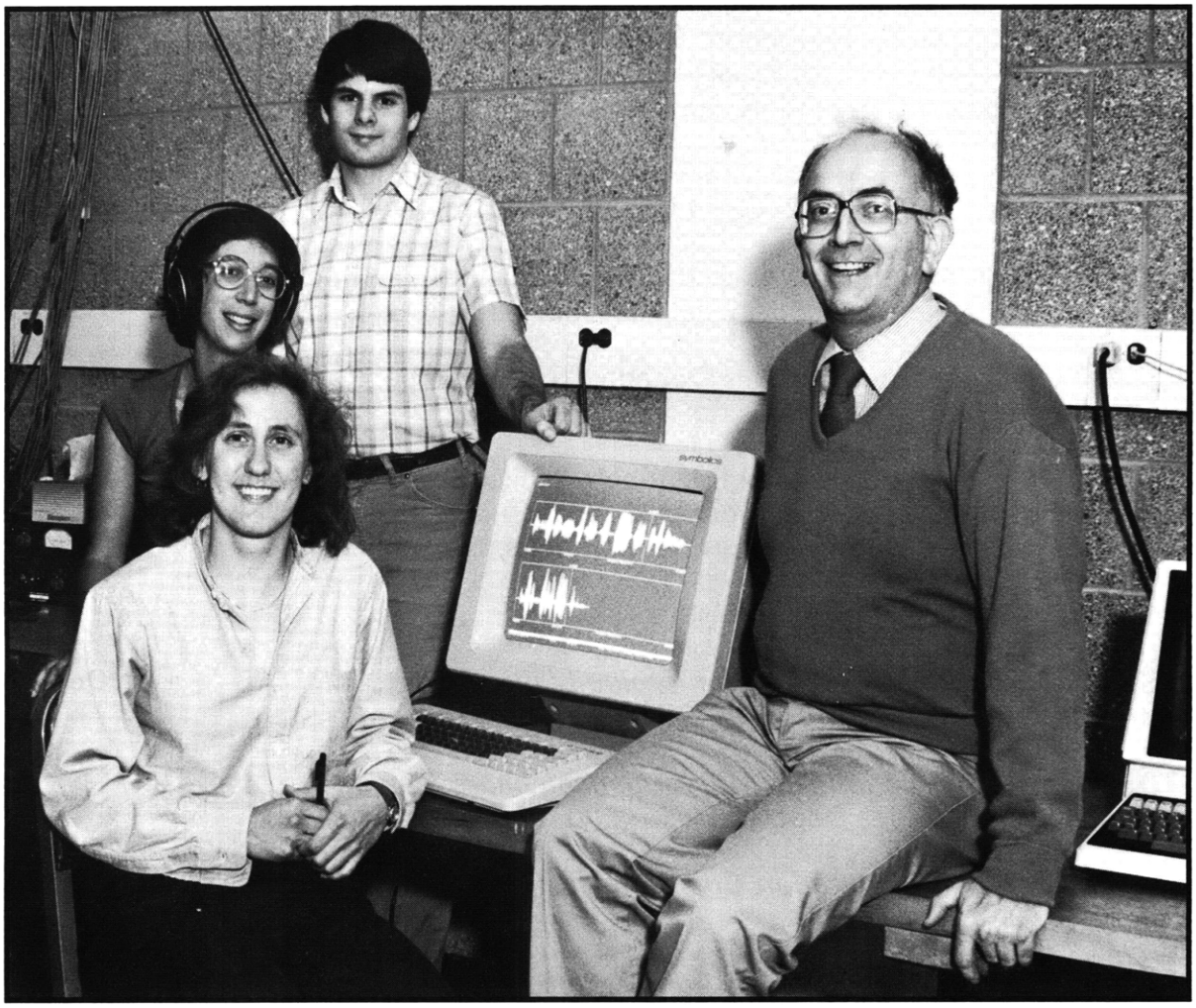

Clockwise from right: Professor Louis D. Braida, Research Assistant Rosalie Uchanski, Postdoctoral Associate Dr. Diane K. Bustamante, and Research Assistant Matthew H. Power