BIOGRAPHICAL SKETCH

Name H. Philip Zeigler *Title:* (Distinguished) Professor of Psychology

Education and Research Training

1954 B.A	City College of New York	Psychology
1958 PhD	University of Wisconsin	Psychology/Neurophysiology
1958-1960	Cambridge University	Postdoctoral Fellow

Academic and Professional Positions

1961-1971	Assistant Professor to Professor Psychology, City College
1972-present	Professor of Biopsychology, Hunter College, CUNY.
1972-1984	Research Associate, American Museum of Natural History
1972-1994	Director: NIMH Training Grant (Biology/Biopsychology)
1987-1990	Executive Committee: Biology Ph.D. Program Physiology/Neuroscience
1991-1993	SubProgram Head: Biopsychology Doctoral Program

Honors and awards:

NIMH Research Scientist Development Award	1969-1974
Member NIMH Research Career Study Section	1974-1979
Guggenheim Fellow	1974-1975
Fellow: American Psychological Association	1976
NIMH Research Scientist Award	1980-1998
NIMH MERIT Award	1988-1998
Deutsche Akademische Austausch Dienst Fellow	1989
Distinguished Alumnus Award CCNY	1990
Ida Beam University Lecturer: University of Iowa	1994
CUNY Distinguished University Professor	1996
Member: NIH Neurosciences Review Group	1999-2002

Recent, Selected and Relevant Papers

Gao, P., Hattox, A.M., Keller, A. and Zeigler, H. P. Whisker motor cortex ablation and whisking movement patterns. *Submitted to* **Somatosensory and Motor Research**

Gao, P., Ploog, B.O. and Zeigler, H. P. Whisking as a "voluntary" response: operant control of whisking parameters and the effects of whisker denervation. Accepted with revisions: **Somatosensory and Motor Research**

Landers, M., Pytte, C. and Zeigler, H. P. Technical Note: Reversible blockade of rodent whisking: *Botulinum toxin* as a tool for developmental studies. **Somatosensory and Motor Research,** 2002, 19, 358-363.

Bermejo, R., Vyas, A. and Zeigler, H. P. topography of whisking I: Monitoring of whisking movements in two dimensions **Somatosensory and Motor Research** 2002, 19, 341-346.

Gao, P., Bermejo, R. and Zeigler, H. P. Vibrissa deafferentation and rodent whisking patterns: Behavioral evidence for a whisking Central Pattern Generator. **Journal of Neuroscience,** 2001, 21:5374-80.

Harvey, M., Bermejo, R. and Zeigler, H. P. Optoelectronic monitoring of discriminative whisking in the head-fixed rat. **Somatosensory and Motor Research**, 2001, 18, 211-222.

Harvey, M., Sachdev, R. and Zeigler, H. P. Cortical barrel field ablations and whisking patterns in the head-fixed rat., **Somatosensory and Motor Research** , 2001, 18, 223-227.

Sachdev, R. Jenkinson, E., Zeigler, H. and Ebner, F.. Sensorimotor plasticity in the rodent vibrissa system. In: *The Mutable Brain: Dynamic and plastic features of the developing and mature brain*. Jon H. Kaas, ed., Harwood Academic Publishers, Amsterdam, pp. 123-164, 2001.

Bermejo, R. and Zeigler, H. P. Technical Note: "Real-time" monitoring of vibrissa contacts during rodent whisking. **Somatosensory and Motor Research,** 2000, 17, 309-314.

Bermejo, R. and Zeigler, H. P. Trigeminal deafferentation and conditioned pecking in pigeons. B**ehavioral Brain Research**.1999, 99,181--189.

Zeigler, H. P. Whisking: new approaches to the study of a mobile sensor. **Somatosensory and Motor Research, Barrels XI. Proceedings.** 1999, 16, 164-165.

Bermejo, R., Houben, D. and Zeigler, H. P. Optoelectronic monitoring of individual whisker movements in rats **Journal of Neuroscience Methods**, 1998, 83, 89-96

Gao, P., Harvey, M. Mook, D. and Zeigler, P. A "pre-satiety sequence" in rats drinking sucrose solutions. **Physiology and Behavior**, 1998, 65, 355-359.

Ye, S., Wild, J. M., Balsam, P. and Zeigler, H. P. Organization of quinto-frontal structures in hatchling ring doves (*Streptopelia risoria*). **Developmental Brain Research**, 1998,788, 349-352

Bermejo, R. and Zeigler, H. P. Conditioned "prehension" in the pigeon: Kinematics, coordination and stimulus control of the pecking response **Behavioral Brain Research** , 1998, 91, 173-184

Ploog, B. P.and Zeigler, H. P. Response probability and response form in a simple concurrent schedule with food & water reinforcers. **Journal of Experimental Analysis of Behavior**, 1997, 67, 109-29.

Zeigler, H. P. Behavioral Morphology of the Pigeon's Peck: Ingestion, Prehension, Cognition. **European Journal of Morphology**, 1997, 35, 1-14

Bermejo, R., Gao, P. Harvey, M. and Zeigler, H. P. Conditioned "whisking" in the rat **Somatosensory and Motor Research**, 1996, 13, 225-234.

Wild, J.M. and Zeigler, H. P. Central projections and somatotopic organization of trigeminal primary afferent projections in pigeon. **Journal of Comparative Neurology**, 1996, 368, 136-152.

Ploog, B. P. and Zeigler, H. P. Effects of pellet size, rate, latency and topography of autoshaped responses in pigeon. **Journal of the Experimental Analysis of Behavior**, 1996, 65, 21-35.

Allan, R.W. and Zeigler, H.P. Autoshaping the pigeon's gape response: Acqusition and topography as a function of reinforcer type and magnitude. **Journal of the Experimental Analysis of Behavior,** 1994, 62, 201-223.

Heuston, K. and Zeigler, H. P. Water deprivation and subfornical organ activity in pigeons: A 2-Deoxyglucose study. **Brain Research**, 1994, 654, 331-335

Bout, R. and Zeigler, H.P. Jaw muscle (EMG) activity and amplitude scaling of jaw movements during eating in the pigeon. **Journal of Comparative Physiology**. A: 1994, 174, 433-442

Bout, R. and Zeigler, H.P. Jaw muscle (EMG) activity during drinking in the pigeon (Columba livia). **Journal of Comparative Physiology** A. 1994, 174. 443-450.

Bermejo, R. Houben, D. and Zeigler, H. P. An integrated system for the analysis of pecking response parameters. **Journal of the Experimental Analysis of Behavior**, 1994, 61, 517-527

Bermejo, R. Remy, R. and Zeigler, H.P. Beak movement kinematics and jaw muscle (EMG)
activity during drinking in the pigeon. **Journal of Comparative Physiology** A. 1992, 170.
303-309.

Remy, M. and Zeigler, H.P. Respondent conditioning of jaw movements in the pigeon: Acquisition and response topography. **Animal Learning and Behavior**. 1993, 21, 131-137.30.

Jager, R. Arends, J.J.A., Schall, U. and Zeigler, H.P. The visual forebrain and eating in the pigeon. **Brain, Behavior and Evolution**. 1992, 39, 153-168.

Arends, J.J.A. and Zeigler, H.P. Organization of the cerebellum in the pigeon. I, II, III: Corticonuclear and corticovestibular projections. **Journal of Comparative Neurology**, 1991, 306,201-244; 245-272. 273-289

Wild, J.M., Arends, J.J.A. and Zeigler, H.P. Projections of the Parabrachial nucleus in the pigeon. **Journal of Comparative Neurology**, 1990, 293, 499-523.

Bermejo, R. and Zeigler, H.P. Prehension in the pigeon. II. Kinematic analysis. **Experimental Brain Research**, 1989, 75, 577-585.

Bermejo, J. and Zeigler, H.P. Trigeminal deafferentation and prehension in the pigeon. **Behavioral Brain Research,** 1989, 35, 55-61.

Bermejo, R. And Zeigler, H.P. A microcomputer-based system for multi-channel neurophysiological recording. **Computers in Biology and Medicine,** 1989, 19, 35-54.

Allan, R.W. and Zeigler, H.P. Measurement and control of peck localization in the pigeon. **Physiology and Behavior**, 1989, 45, 1215-1221.

Arends, J.J.A. and Zeigler, H.P. Cerebellar connections of the trigeminal system in the pigeon. **Brain Research,** 1989, 487, 69-78.

.Zeigler, H.P., Semba, K. and Jacquin, M.F. Trigeminal reflexes and ingestive behavior in the rat. **Behavioral Neuroscience**, 1984, 98, 1023-1038.

Jacquin, M.F. and Zeigler, H.P. Trigeminal denervation and operant behavior in the rat. **Behavioral Neuroscience**, 1984, 98, 1004-1022.

Zeigler, H.P., Semba, K., Egger, M.D. and Jacquin, M.F. Trigeminal sensorimotor mechanisms and eating in the rat. **Brain Research**, 1984, 308, 149-154.

Zeigler, H.P., Jacquin, M.F. and Miller, M.G. Trigeminal sensorimotor mechanisms and ingestive behavior in the rat. **Neuroscience and Biobehavioral Review**, 1984, 8, 415-423.

Research Projects ongoing or completed during the past three years

1, Whisking: Sensorimotor integration in an active touch system Period 9/98-8/02
Principal Investigator: H. P. Zeigler
Agency: NIH/NINDS Type RO1:
The goals of this project were to develop methods for the measurement and experimental control of rodent whisking, to characterize its kinematics and spatio-temporal organization in normal anaimals, and to examine the effects of whisker deafferentation upon its patterning.

2. Whisking: development of an "active touch" system Period 9/01-08/05
Principal Investigator: H. P. Zeigler
Agency: NIH/NINDS Type RO1
The goals of this project are to characterize the development of whisking in normal rodents,
examine the effects of deafferentation during development, and elucidate the role of whisking
experience in the acquisition of whisking functions by reducing and augmenting whisking
experience during development.