

CURRICULUM VITAE

Mei-Fang H. Cheng

Degrees:

B.S.	1958	The National Taiwan University Taipei, Taiwan
Ph.D.	1965	Bryn Mawr College Bryn Mawr, Pennsylvania

Academic Positions:

1965-1968	Research Associate with Dr. Teitelbaum in Physiological Psychology, University of Pennsylvania, Philadelphia, Pennsylvania
1969-1972	Assistant Research Professor, Institute of Animal Behavior, Rutgers - The State University, Newark, New Jersey
1973-1979	Associate Professor, Institute of Animal Behavior, Rutgers - The State University, Newark, New Jersey
1979-	Professor, Institute of Animal Behavior, Rutgers - The State University, Newark, New Jersey
1987-1989	Chair, Search Committee for IAB Director
1989-1991	Acting Director, Institute of Animal Behavior
1991-1994	Director, Institute of Animal Behavior
1997-2000	Associate Chair, Department of Psychology, Rutgers University

Academic Honors and Awards:

B.S. Summa Cum Laude (1958)
Fulbright Scholar (1959-1963)
Research Scientist Development Awardee
(1974-1979; 1979-1984)
Rutgers University Faculty Merit Award
(1983, 1986, 1987, 1991, 1992, 1993, 1994, 1997)
Who's Who in Frontier Science and Technology (1984-)
Marquis Who's Who in America (1991-)
Johnson and Johnson Discovery Award (1989-1990)
Hoechst Celanese Innovative Research Award (1993)
Rutgers Board of Trustee Award for Excellence in Research (1998)

Membership in Societies:

Society of Neuroscience
International Society of Neuroethology
New York Academy of Science
American Association for the Advancement of Science
International Society of Psychoneuroendocrinology
International Congress of Hormones, Brain and Behavior
International Congress of Avian Endocrinology

Editorial Boards:

Hormones and Behavior (Associate Editor,
September 1986-1996)

Editorial Consultant:

Hormones and Behavior
Journal of Neurobiology
Animal Behaviour
Journal of Neuroscience
Physiology and Behavior
Brain Research
Science
Behavioral Neuroscience
Journal of General and Comparative Endocrinology
Behavioural Processes
Canadian Journal of Zoology
Auk

Consultant to Granting Agencies and Conference Organizing Bodies:**NIMH Neuroendocrinology, Neuroimmunology, and Behavior
Study Section (2006-)**

National Institutes of Health Reviewers Reserve (NRR)
(1995-1999; 2000-)
NIMH Behavioral Neurobiology Subcommittee (1991-
1995)
Natural Sciences and Engineering Research Council of
Canada (Ad hoc since 1992-)
Science and Engineering Research Council of England
(Ad hoc since 1991-)
ADMHA/NIMH/OEPR Ad Hoc Review 1984-1985;
1985-1987, 1991
NIMH Minority Fellowship Program: Neuroscience
Review Committee (1987)
National Science Foundation Ad Hoc Review since 1982
NIMH - Initial Review Committee on Biomedical
and Neuroscience, 1979-1983
New York University of City College Research Grant 1986
Consultant to New York Academy of Science on various

proposals of international conferences
NATO Research Grants

Research Support:

- | | |
|-----------|---|
| 1969-1972 | Reproductive behavior of female ring doves.IAB, Rutgers University.With the late Professor Daniel S. Lehrman |
| 1972-1973 | U.S.P.H.S. NIMH Grant MH-02271. Psychobiology of reproductive behavior. IAB, Rutgers University |
| 1972-1975 | U.S.P.H.S. NIMH Grant MH-02271. Psychobiology of reproductive behavior. IAB, Rutgers University |
| 1978-1982 | U.S.P.H.S. NIMH Grant MH-02271. Psychobiology of reproductive behavior. IAB, Rutgers University |
| 1979-1981 | Charles and Johanna Busch Memorial Fund 28-9121.Development of homologous RIA in pigeon prolactin. |
| 1980-1982 | U.S.P.H.S. NIMH Grant MH-02271. Supplement. Psychobiology of Reproductive Behavior.IAB, Rutgers University. |
| 1983-1985 | National Science Foundation BNS-8121495. Mechanisms of behavioral feedback modulation of endocrine systems. IAB, Rutgers University |
| 1983-1985 | Charles and Johanna Busch Memorial Fund. Fertilization and the time of insemination relative to ovulation. |
| 1984-1985 | Biomedical Research Support Grant. Neural circuits related to estrogen-dependent female reproductive behavior. |
| 1985-1986 | Graduate School Research Award. Rutgers University. |
| 1985-1987 | Charles and Johanna Busch Memorial Fund. The localization of methionine-enkephalin immuno-reactivity and catecholamine-containing terminals and fibers in the dove brain. |
| 1986 | NSF Travel fund to attend International Congress of Neuroethology, Tokyo, Japan, September 1-6. |

1986-1988	Charles and Johanna Busch Memorial Fund. Midbrain control of female nest-coo.
1986-1989	National Science Foundation BNS-8520241.
1987-1988	Research and Sponsored Programs, Rutgers University. Upgrading dove cages.
1987-1989	Charles and Johanna Busch Memorial Fund. Steroid induced changes in midbrain neural activity and vocalization.
1989-1991	Johnson and Johnson Discovery Research Award. Extra-hypothalamic regulation of pituitary-ovarian axis.
1987-1991	Minority Biomedical Research Support Grant, Rutgers University
1989-1991	Charles and Johanna Busch Memorial Fund. Telencephalic auditory projections in the ring dove neuroanatomical and electrophysiological analysis.
1992	ADAMHA Small Instrumentation Grant - For Digital Sound Analysis System
1990-1992	Charles and Johanna Busch Memorial Fund. Development of syllable morphology and syntactic organization in the songs of European Starlings.
1990-1993	NIH Neurobiological study of vocalization.
1991-1993	Charles and Johanna Busch Memorial Fund. Neurogenesis in the ring dove.
1993	Hoechst Celanese Innovative Research Award.
1994-1996	Charles and Johanna Busch Memorial Fund. The role of estrogen in sensory processing: gene expression induced by vocalization.
1994-1997	NIH Research Supplement Neurobiological study of vocalization.
1994-1999	NIH Neurobiological study of vocalization. MH 47010: \$419,715
1998-2003	NINDS Brain Repair & Functional Recovery of Neurogenesis: Role of Neurogenesis and social environment. NS/HD 36924: \$ 520,709
2003-2008	Minority Biomedical Research Training Grant Training support for undergraduates and graduate students.

2005-2007	Charles and Johanna Busch Memorial Fund Facilitation of lesion-induced neurogenesis in the adult brain: the role of estrogen. \$19,545.
2006-2010	NICHD Brain Damage and Recovery of Function in the Adult System. \$774,642
2007-2009 traumatic	PI of subproject (\$. \$363,640) in a multi-investigative project (\$1,982,631) entitled "Stimulating CNS regeneration after brain injury. Program Director: S. Levinson (pending review)

Outside Examiner for Ph.D. Thesis Committee:

Louise Brand McArthur, University of Ottawa (1980)
Patricia Ann McDonald, University of British Columbia (1983)

Courses Taught:

Endocrine Systems and Behavior
Avian Endocrinology and Behavior
Mind and Brain: An Interdisciplinary Approach
Physiological Psychology
Hormones and Behavior
Seminar in Psychobiology
Seminar in Animal Awareness (organizing and coordinating
outside speakers representing different disciplinary backgrounds)
Emotion and Animal Communication
Emotional Brain
Seminar on Adult neurogenesis
Affective neuroscience

Principal Advisor to Graduate Students:

Name	Ph.D. Awarded	Position held(1986)
John Buntin	1974	Professor, Department of psychology, University of Wisconsin
Marie Gibson	1978	Professor, Department of Neuroendocrinology, Mt. Sinai Hospital New York
Jeffrey Cohen	1981	Columbia University School of Medicine and Surgery - Intern
Eleanor Sims	1983	Research Associate, Reproductive Endocrinology Program, University of Michigan

Tracey Mencio		Transferred to Department of Physiology, University of Illinois
Sharon Barclay	1989	Research Associate, Hunter College (deceased)
Hilton Miller (MS)	1989	Professional School of Clinical Psychology, Rutgers, New Brunswick
Sarah Durand	1993	Postdoctoral Fellow, Department of Psychology, University of Maryland Assistant Professor, Queens College
Changying Ling	1993	Postdoctoral Fellow, Department of Brain and Cognitive Sciences, MIT
Xin Chen	1993 (MS)	
Jie Cao	2000	Postdoctoral Fellow, Monell Chemical Senses Center. Philadelphia, PA.
Gang Chen	2004	Postdoctoral Fellow, University of Michigan

Current Graduate Students

Betty Sanchez (2003, fall)

Sponsor of Postdoctoral Fellow:

Names

Penny Bernstein	1978-1980	Associate Professor, Department of Biology, Kent State University, OH
Jacques Balthazart	1979-1980	Professor, University of Liege, Belgium
Thorsten Klint	1982-1983	Director, CNS Research Unit, Pharmacia Leo, Sweden
Thomas Akesson	1983-1985	Associate Professor, VCAPP Washington State University, Pullman, WA (deceased)
Michael Havens	1985-1987	Associate Professor, Department of Psychology, University of Wyoming
Ming-Xue Zuo	1991-1994	Chair, Department of Biology, Beijing Normal University, Beijing, PRC

Martha Chaiken	1989-1993	Assistant professor, Hosfor University
Jingpian Peng	1996-1997	Assistant Professor, Beijing Agriculture University, Beijing PRC
Jingpian Peng	2000	Associate Professor, Beijing Agriculture University, Beijing PRC

Advisor to Undergraduate Students - Honors Research:

Summer - High School Teacher Internship

Anthony Salters - 1995

Summer Bridges Program for minority traing

Othman Sediki - 1997
Eldon Thompson – 1998

Summer Seed Program for minority high school students

Cherise C. Holder-1999
Guerline Joseph - 2002

Undergraduate Honor Student Internship

Trung Nguyen 1998-1999
Joseph Bradely- 1999-2000

Sponsor for Undergraduate Research Internship

Nerea Jayo Spring 1999
Maria S. Campos- Fall 1999
Shameen Khan Fall 1999-2000
Tanveer Ahmed Fall 2006
Alex Clavijo Fall 2005-Fall 2006

Services:

Grievance Committee (1984)
Affirmative Action Committee (1984)
Animal Care and Facility Committee (1985, 1989, 1990)
Busch Review Committee (1986, 1992)
Executive Council (1987, 1988, 1989)
"Acting Director" of Institute of Animal Behavior during the period of Dr. Jay S. Rosenblatt's tenure as Acting Dean of the Graduate School NCAS (Fall 1986-July 1988).
Responsibilities consist of developing new courses and core course requirements, document of student Ph.D. in Psychobiology. Oversee class schedule, the implementation of the requirements of thesis proposal, comprehensive examinations, academic advisement and other student affairs.
University Student Disciplinary Hearing Board [(Advisor), 1987, 1988]
University Student Disciplinary Hearing Board, (1989-present)
Provost Science Advisory Committee (1991-1994)
Member, cognitive psychology search committee (1997)

A & P Committee (1998)
 Newark Faculty Council (2000- 2005)

Invited Talks:

Cambridge University, (MRC Unit)	1976
Bryn Mawr College	1976
Fairleigh Dickenson	1976
Animal Man Medical Symposium, University of Maine	1977
Rockefeller University, New York City	1980
University of Ottawa	1980
Peking Institute of Zoology, People's Republic of China	1981
European Society for Comparative Physiology and Biochemistry	1982
Rockefeller University, Millbrook Field Station	1982
Columbia University, Physicians and Surgeons	1983
International Symposia of Avian Endocrinology	1983
Introducing Daniel S. Lehrman Lectureship	1984
Pigeon Health Management Conference	1984
Eastern Psychological Association (round table discussant)	1985
International Congress of Neuroethology, Tokyo	1986
University of Maryland	1986
University of Mexico, Mexico	1986
University of Tlaxcala, Tlaxcala, Mexico	1986
XIX International Ornithological Congress (invitation declined)	1986
CINVESTAV, Mexico City, Mexico	1987
Conference on Reproductive Behavior, Tlaxcala, Mexico	1987
FEMME Program Speaker, New Jersey Institute of Technology James A. McFaul Wildlife Center, New Jersey	1988
International Ethological Conference at Amsterdam, Netherlands, Plenary Session	1989
International Conference on Hormones, Brain and Behavior, Satellite Symposium, Liege, Belgium	1989
Conference on Reproductive Behavior, Round Table Saratoga Springs, New York	1989
Institute of Biomedical Sciences, Taipei, Taiwan	1989
National Taiwan University, Psychology Department, Sixteenth Pigeon Health Management Conference, New Jersey	1989
National Taiwan University, Psychology Department, Taipei, Taiwan	1990
International Symposium on Avian Endocrinology, Edinburgh, Scotland	1992
Third International Congress of Neuroethology, Montreal, Canada	1992
Essex County College, New Jersey	1992
Workshop on the Effects of Noise on birds. Sponsored by Hubbs-Seaworld Research Institute	1993
Cornell University, Psychology Department, Ithaca, New York	1994
Rutgers University, Psychology Department, Newark, New Jersey	1995
Gordon Research Conferences on Neuroethology Queen College, Oxford University	1999

Annual Bird Song Workshop Rockefeller field station	2002
Symposium on Behavioral Neurobiology of Bird Song (16 th Annual Symposium of the Center for Study of Gene Structure & Function)	2002
8 th International Symposium on Avian Endocrinology	2004

News Coverage

Interviewed for Sounds of Science, a national syndicated radio series, 1985
 New York Times, Science Section "Q & A", July 29, 1986
 French newspaper, Libration coverage of vocal self-stimulation study. 36 Mercredi 10 Ferrier, 1993
 China Times science section reporting vocal self-stimulation study February 8, 1993
 New Scientist (London based) coverage of nest-coo stimulation study
 National Geographic Magazine in "Geographica" feature report about female nest-coo study, August, 1993
 Australian Natural History Magazine, feature article entitled "Female doves coo to themselves", 1994.
 Provost's Annual Report (1999) -featured in

Personal Publications:

A. Books edited:

Komisaruk, B.R., H.I. Siegel, M.-F. Cheng and H.H. Feder 1986 *Reproduction: A Behavioral and Neuroendocrine Perspective*. New York Academy of Sciences, New York.

B. Book chapters:

Cheng, M.-F. 1979 Progress and prospect in ring dove research. A chapter in *Advances in the Study of Behavior*, Vol. 9 (J.S. Rosenblatt, R.A. Hinde, C.G. Beer and M.-C. Busnel, eds.). Academic Press: New York. pp. 97-124.

Cheng, M.-F. 1983 Behavioral 'self-feedback' control of endocrine states. In *Hormones and Behaviour in Higher Vertebrates* (J Balthazart and R. Gilles, eds.). Springer-Verlag: New York. Pp. 408-421.

Ottinger, M.A., Adkins-Regan, E., Buntin, J., Cheng, M.-F., DeVogd, T., Harding, C. and Opel, H. 1984 Hormonal mediation of reproductive behavior. *J. Exp. Zool. Proceedings of Satellite Symposia of the 7th International Congress of Endocrinology* 232, 605-616.

Cheng, M.-F. 1983 Individual behavioral response mediates endocrine changes induced by social interaction. In *Reproduction: A Behavioral and Neuroendocrine Perspective* (B.R. Komisaruk, H.I. Siegel, M.-F. Cheng and H.H. Feder, eds.). *Annals of New York Academy of Science* Vol. 474, Pp. 4-12.

Cheng, M.F. 1993 Vocal, auditory and endocrine systems: three-way connectivities and implications. *Pultry Science Reviews* 5:37-47. Elsevier applied science.

Cheng, MF 2003 Vocal self-stimulation: Vocal self-stimulation :From the ring dove story to emotion-based vocal communication. In *Advances in the Study of Behavior* (eds. Peter L.B. Slater, Jay S Rosenblatt, CT Snowden, and T.J. Roper) Academic Press Vol 33:309-353.

Cheng, MF, Durand S. (2004) Song and the Limbic Brain: A New Function for the Bird's Own Song. *Ann NY Acad Sci.* 1016: 611

Cheng, MF (2005) Audio-vocal pathways controlling GnRH release. In "Functional Avian Endocrinology" (Eds. Dawson A.& Sharp P) Narosa Publishing House.

C. Book Reviews

Cheng, M.-F. 1977 Book review - "Neural and Endocrine Aspects of Behaviour in Birds." P. Wright, P.G. Carly and D.M. Vowles (eds.). *Quarterly Review of Biology* 51, 554.

Cheng, M.-F. 1990 Book review - "Mammalian Reproductive Biology." F.H. Bronson (ed.). *Psychoneuroendocrinology*.

Cheng, M.-F. 1993 Book review - "The Neuroscience of Animal Intelligence". E.M. Macphail (ed.). *BioScience* With M. Chaiken

Cheng, M.-F. 1996 Book review - "An Introduction to Neuroendocrinology". R.E. Brown (ed.). *BioScience* 46: 214-215.

Cheng, M.-F. 1998 Book review - "Neurobiological Effects of Sex Steroid Hormones" P.E. Micevych & R. P. Hammer, Jr.(ed.) *Animal Behaviour*

D. Journal Articles

Cheng, M.-F. 1959 Social role in cognitive distortion. *Chinese J. Psychol.* 1.

Littman, R. and Cheng, M.-F. 1964 Relations between exploration and length of alley. *J. Comp. Physiol. Psychol.* 57, 214-216.

Davidon, R. and Cheng, M.-F. 1964 Apparent distance in a horizontal plane with tactile-kinesthetic stimuli. *Quart. exp. Psychol.* 16, 277-281.

Cheng, M.-F. 1968 Tactile-kinesthetic perception of distance. *Amer. J. Psychol.* 91, 74-84.

Teitelbaum, P., Cheng, M.-F. and Rozin, P. 1969 Stages of recovery and development of lateral hypothalamic control of food and water intake. *Ann. N.Y. Acad. Sci.* 157, 849-860.

Teitelbaum, P., Cheng, M.-F. and Rozin, P. 1969 Development of food and water regulation parallels its recovery after brain damage. *J. Comp. Physiol. Psychol.* 67, 403-411.

Cheng, M.-F., Rozin, P. and Teitelbaum, P. 1971 Starvation retards development of food and water regulations. *J. Comp. Physiol. Psychol.* 76, 206-218.

Cheng, M.-F. 1973 Effect of ovariectomy on the reproductive behavior of female ring doves (*Streptopelia risoria*). *J. Comp. Physiol. Psychol.* 83, 221-233.

- Cheng, M.-F. 1973 Effect of estrogen on ovariectomized ring doves. *J. Comp. Physiol. Psychol.* 83, 234-239.
- Cheng, M.-F. and Lehrman, D.S. 1973 Relative effectiveness of diethylstilbestrol and estradiol benzoate in inducing female behavior patterns of ovariectomized ring doves (*Streptopelia risoria*). *Horm. Behav.* 4, 123-127.
- Cheng, M.-F. 1974 Ovarian development in the female ring dove in response to stimulation by intact and castrated male ring doves. *J. Endocr.* 63, 43-53.
- Cheng, M.-F. and Silver, R. 1975 Estrogen-progesterone regulation of nest-building incubation behavior in ovariectomized ring doves. *J. Comp. Physiol. Psychol.* 88, 256-263.
- Cheng, M.-F. 1975 Induction of incubation behaviour in male ring doves: a behavioural analysis. *J. Reprod. Fert.* 42, 267-276.
- Cheng, M.-F. 1975 Gonadal hormone specificity in the sexual behavior of ring doves. *Psychoneuroendocrinology* 1, 95-102.
- Cheng, M.-F. 1976 Plasma luteinizing hormone during the breeding cycle of the female ring dove. *Horm. Behav.* 7, 199-205.
- Cheng, M.-F. 1976 Interaction of lighting and other environmental variables on activity of hypothalamo-hypophyseal-gonadal system. **Nature** 263, 148-159.
- Buntin, J.D., Cheng, M.-F. and Hansen, E.W. 1977 Effect of parental feeding activity on squab-induced crop sac growth in ring doves (*Streptopelia risoria*). *Horm. Behav.* 8, 297-309.
- Cheng, M.-F. 1977 Role of gonadotrophin-releasing hormones in the reproductive behaviour of female ring doves (*Streptopelia risoria*). *J. Endocr.* 74, 37-45.
- Gibson, M. and Cheng, M.-F. 1977 The neural mediation of estrogen dependent courtship behavior in the female ring dove. *J. Comp. Physiol. Psychol.* 93, 855-867.
- Cohen, J. and Cheng, M.-F. 1979 Role of vocalization in the reproductive cycle of ring doves (*Streptopelia risoria*): effects of hypoglossal nerve section on the reproductive behavior and physiology of the female. *Horm. Behav.* 13, 113-127.
- Balthazart, J., Blaustein, J., Cheng, M.-F. and Feder, H.H. 1980 Hormones modulate the concentration of cytoplasmic progesterin receptors in the brain of male ring doves (*Streptopelia risoria*). *J. Endocr.* 86, 251-261.
- Cheng, M.-F., Barbieri, C. and Balthazart, J. 1980 Short day induced gonadal regression in ring doves (*Streptopelia risoria*): a case for seasonal variation. *Chronobiologia* 1, 357.
- Balthazart, J., Balthazart, C. and Cheng, M.-F. 1981 Hormonal control of the gonadal regression and recovery induced by short days in male and female doves. *J. Endocr.* 89, 79-89.
- Balthazart, J., Reboulleau, C. and Cheng, M.-F. 1981 Diurnal variations of plasma LH and testosterone in male ring doves kept under different photoperiods. *Gen. Comp. Endocr.* 44, 202-206.

- Cohen, J. and Cheng, M.-F. 1981 The role of the midbrain in courtship behavior of the female ring doves (*Streptopelia risoria*): evidence from radiofrequency lesion and hormone implant studies. *Brain Res.* 207, 279-301.
- Cheng, M.-F., Porter, M. and Ball, C. 1981 Do ring doves copulate more than necessary for fertilization. *Physiol. Behav.* 27, 659-662.
- Cheng, M.-F. and Balthazart, J. 1982 Role of nest-building activity in gonadotrophin secretions and reproductive success. *J. Comp. Physiol. Psychol.* 96, 207-224.
- Cohen, J. and Cheng, M.-F. 1982 Differential effects of androgen metabolites in the midbrain control of courtship behavior in the male ring dove. *J. Neuroendocr.* 34, 64-74.
- Cheng, M.-F. and Burke, W.H. 1983 Serum prolactin levels and crop-sac development in ring doves during a breeding cycle. *Horm. Behav.* 17, 54-65.
- Cheng, M.-F. 1983 Behavioral 'self-feedback' control of endocrine states. In *Hormones and Behaviour in Higher Vertebrates* (J. Balthazart and R. Gilles, eds.). Springer-Verlag: New York.
- Cheng, M.-F. 1983 Does behavior influence hormone actions *Acad. Psychol. Bull.* 5, 473-485.
- Klint, T., Johnson, A.L. and Cheng, M.-F. 1984 Factors in the dose-response effects of testosterone. *Physiol. Behav.* 32, 1037-1040.
- McNabb, F.M.A. and Cheng, M.-F. 1985 Thyroid development in ring doves. *Gen. Comp. Endocr.* 58, 243-251.
- Cheng, M.-F., Klint, T. and Johnson, A.L. 1986 Breeding experience modulating androgen dependent courtship behavior in male ring doves (*Streptopelia risoria*). *Physiol. Behav.* 36, 625.
- Cheng, M.-F. 1986 Female cooing promotes ovarian development in ring doves. *Physiol. Behav.* 37, 371-374.
- Sims, E., Ball, G. and Cheng, M.-F. 1987 Sperm competition after sequential mating in the ring dove. *Condor* 89, 112-116.
- Cheng, M.-F., Akesson, T.R. and de Lanerolle, N. 1987 Retrograde HRP demonstration of afferent projections to the midbrain and nest calls in the ring dove. *Brain Research Bulletin* 18, 45-48.
- Akesson, T.R., de Lanerolle, N. and Cheng, M.-F. 1987 Efferent projections of the nucleus intercollicularis in the ring dove. *Exp. Neurol.* 95, 34-43
- Cheng, M.-F., Desiderio, C., Havens, M. and Johnson, A. 1988 Behavioural stimulation of ovarian growth. *Horm. Behav.* 22, 388-402.
- Barclay, S. and Cheng, M.-F. 1992 The role of catecholamines in courtship behavior of the male ring dove. *Pharmac. Biochem. Behav.* 41, 739-747.
- Cheng, M.-F. 1992 For whom does the female dove coo? A case for the role of vocal self-stimulation. *Animal Behaviour* 43, 1035-1044.
- Durand, S., Tepper, J. and Cheng, M.-F. 1992 The shell region of the nucleus ovoidalis: A subdivision of the avian auditory thalamus. *Journal of Comparative Neurology* 323, 495-518.

- Bernstein, P. and Cheng, M.-F. 1993 Social condition affects the courtship behavior of PMH lesioned male ring doves. *Behavioral Neural Biology* 57: 120-125.
- Durand, S.E., Zuo, M., Zhou, S. and Cheng, M.-F. 1993 Avian auditory pathways show met-enkephalin-like immunoreactivity. *NeuroReports* 4(3):727-730.
- Cheng, M.-F. and Havens, M. 1993 Auditory-responsive units in the midbrain vocal nuclei in the ring dove (*Streptopelia risoria*). *Brain Research Bulletin* 30: 711-715.
- Cheng, M.-F. 1993 Vocal, auditory and endocrine systems: 3-way connectivities and implications. *Poultry Science Review* 5: 37-47.
- Cheng, M.-F. and Zuo, M. 1994 Proposed pathways for vocal self-stimulation: met-enkephalinergic projections linking the midbrain vocal nucleus, auditory-responsive thalamic regions and neurosecretory hypothalamus. *Journal of Neurobiology* 25: 361-379.
- Goldstein, D.L., Fleming, J. and Cheng, M.-F. 1994 Effects of noise on non-auditory physiology of birds. A chapter in "Effects of Noise on Birds", A. Bowles (ed.).
- Ling, C. and Cheng, M.-F. 1995 Sex differences in cell proliferation in the ventricular zone of young ring doves. *Brain Research Bulletin* 37: 657-662.
- Barclay, S. and Cheng, M.-F. Vocal display of male courtship behavior: the ring doves are modulated by the alpha noradrenergic system. *Hormones and Behavior* (In press).
- Ling, C., Zuo, M., Alvarez-Buylla, A. and Cheng, M.-F. 1997 Neurogenesis in juvenile and adult ring doves. *The Journal of Comparative Neurology* 379:300-312.
- Cheng, M.-F. and Peng, J. 1997 Reciprocal talk between the auditory thalamus and hypothalamus: an antidromic study. *NeuroReport* 8: 653-658.
- Cheng, MF, Peng, Peng, JP, Johnson, P. (1998) GnRH neurons preferentially respond to female nest coo stimulation: Demonstration of direct acoustic stimulation of luteinizing hormone release. *Journal of Neuroscience*. 18: 5477-5489.
- Cheng, M.-F., Chaiken, M. and Zuo, M. (1999) Nucleus taenia of the avian amygdala: anatomical and functional studies in ring doves (*Streptopelia risoria*) and starlings (*Sturnus vulgaris*). *Brain, Behavior and Evolution* 53:243-270
- Cao, J. and Cheng, MF (2002) Lesion induced new neuron incorporation in the cells in the adult hypothalamus. *Brain Research*. 943: 80-92.
- Cheng, MF, Peng, JP, Chen G and Bonder, EM (2004) Functional restoration of acoustic units and adult-generated neurons after hypothalamic lesion. *J Neurobiol*. 60:97-213.
- Cheng, MF & Durand S. (2004) Song and the Limbic Brain: A New Function for the Bird's Own Song. *Ann NY Acad Sci*. 1016: 611
- Cheng, MF (2005) Audio-Vocal Pathways controlling GnRH Release. In: *Functional Avian Endocrinology* (A Dawson & PJ Sharp, Eds.).
- Chen G, Bonder E & Cheng MF (2006) Lesion induced neurogenesis in the hypothalamus is involved in behavioral recovery in adult ring doves. *J. Neurobiol*. 66: 537-551.

Chen G, Cheng MF (2007) Inhibition of Lesion-Induced Neurogenesis Impaired Behavioral Recovery in Adult Ring Doves. *Behav. Brain Res.* 177:358-363.

Cheng, MF (in press) The role of vocal self-stimulation in female response to males: implications for state-reading. *Hormones and Behavior*.

E. Abstracts

Cheng, M.-F. Specificity of the effect of gonadal hormones and sexual behavior in ring doves. Paper presented at the 3rd International Symposium "Hormones, the Brain and Behavior." Royal College of Physicians, London, July, 1972.

Cheng, M.-F. Light and social exposure: complimentary effect on pituitary-gonadal function. Paper presented at the 5th International Congress "Hormones, Homeostasis and the Brain." July 24-27, 1977. Elsevier Scientific Publishing Co., Amsterdam.

Cheng, M.-F. Role of LRF in the female reproductive behavior of ring doves. Paper read at the Eastern Regional Reproduction Conference. June 13-16, 1976. Saratogo Springs, New York.

Cheng, M.-F. and Porter, M. Do ring doves copulations serve other function? Northeastern Regional Animal Behavior Society. American Museum of Natural History, October 8-11, 1976.

Cheng, M.-F. Seasonal factors in hypothalamo-hypophyseal-gonadal system. VIIth International Congress of Psychoneuroendocrinology, May 8-14, 1977. Atlanta, Georgia.

Cheng, M.-F. Psychobiological aspects of female reproductive systems in ring doves. Paper presented at the 3rd Annual Biomedical Symposium, July issue of *Journal of Marine Medical Associations* 68, #7, 245-259.

Cheng, M.-F. Why do ring doves copulate? Eastern Regional Reproductive Conference. University of Connecticut, Storrs, June 5-8, 1977.

Cheng, M.-F. Egg fertility and endocrine factors in reproductive recycling. XVth International Ethological Conference, Bielefeld, Germany, August 23-31, 1977.

Gibson, M.J. and Cheng, M.-F. Posterior medial hypothalamic mediation of female courtship behavior in the ring dove. Paper presented at the 7th Annual Meeting of Society for Neuroscience, November 6-10, 1977, Anaheim, California.

Cohen, J. and Cheng, M.-F. Effect of midbrain lesions on female nest-coo behavior during the breeding cycle. Paper presented at the 7th Annual Meeting of Society for Neuroscience, November 6-10, 1977, Anaheim, California.

Cohen, J. and Cheng, M.-F. Olfaction in birds: Modulation of parental behavior by altering odour of squabs. Eastern Psychological Association, 1978.

Cohen, J. and Cheng, M.-F. Effect of devocalization on reproductive physiology and behavior in ring doves. Eastern Regional Conference on Reproductive Behavior, Madison, Wisconsin, May 31-June 3, 1978.

Gibson, M.J. and Cheng, M.-F. Neural mediation of female reproductive behavior. Eastern Regional Conference on Reproductive Behavior, Madison, Wisconsin, May 31-June 3, 1978.

Cheng, M.-F. Seasonal cycles in animal behavior. Eastern Regional

- Conference on Reproductive Behavior, Madison Wisconsin, May 31-June 3, 1978.
- Cheng, M.-F. Estrogen-sensitive midbrain areas and courtship behavior in the female ring dove. Eastern Regional Conference on Reproductive Behavior
- Cheng, M.-F. Behavioral effect on hypothalamo-hypophyseal-gonadal system. Congress of Psychoneuroendocrinology, August 8-11, 1979.
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