

Curriculum Vitae

James R. Stellar, Dean
College of Arts and Sciences
100 Meserve Hall
Northeastern University
Boston, MA 02115

617-373-5173 (voice)
617-373-2942 (fax)
Administration: J.Stellar@neu.edu
Research: Stellar@neu.edu

Research Interests/Activities

Neuroscience of reward, motivation, and addiction processes in the mammalian limbic forebrain. Behavioral studies are focused on psychophysical measurements of the reward effect generated by electrical brain stimulation, intravenous cocaine self-administration and reinstatement, intracranial drug self-administration, place preference, and locomotion. Anatomical studies are focused the nucleus accumbens - ventral tegmental area dopamine system with particular attention to anatomical sub-areas of the shell of the accumbens as revealed by immunohistochemical visualization. Some recent projects include an anti-cocaine drug discovery program with a local biotech company, studies of the aftereffects of cocaine treatment on behavioral sensitization and drug craving, and brain changes after repeated cocaine treatment on a variety of biological markers (e.g. tyrosine hydroxylase, GABA, 5-HT₃ receptor, the immediate early gene *cfos*). The laboratory also has a long-standing social mission of promoting the intellectual and personal growth of undergraduates and others in the field. More details are on our web site (www.psych.neu.edu/Stellar/Lab).

Education

B.S. Biology	Ursinus College Collegeville, PA	1968-1972
Ph.D. Biological Psychology	University of Pennsylvania Philadelphia, PA	1972-1976
Postdoctoral Fellow Neuroanatomy	University of Pennsylvania Philadelphia, PA	1976-1978

Academic Positions

Lecturer Psychology	University of Pennsylvania Philadelphia, PA	1977-1978
Assistant Professor Psychology and Social Relations	Harvard University Cambridge, MA	1978-1983
Associate Professor Psychology and Social Relations	Harvard University Cambridge, MA	1983-1986

Research Affiliate Biochem./McLean Hosp.	Harvard Medical School Belmont, MA	1984-1992
Associate Professor Psychology	Northeastern University Boston, MA	1986-1992
Professor Psychology	Northeastern University Boston, MA	1992-
Associate Dean for Undergraduates College of Arts and Sciences	Northeastern University Boston, MA	1993-1995
Chairperson Department of Psychology	Northeastern University Boston, MA	1995-1998
Dean College of Arts and Sciences	Northeastern University Boston, MA	1998-

Major Research Awards

NIDA - Phase-1 STTR collaborator, w. Zebra Pharm., Trzcinska - PI)	2000-2001
Nat. Inst. of Neurological Disorders & Stroke collaborator, B.Waszczak - PI)	1996-1999
National Institute on Drug Abuse PI)	1992-1994
Whitehall Foundation PI)	1987-1990, 1990-1992
Consultant NIH Grant #NS20571) McLean Hospital	1984-1990
Nat. Inst. of Neurological Disorders & Stroke co-PI, w. D.Corbett)	1982-1985
Sloan Fellowship	1980-1982
Other smaller grants from industry SKB Co., CIBA Co., Zebra Pharmaceuticals, Novartis Inc.), and Universities Harvard University: Milton, Biomedical, and Clark funds - Northeastern University Biomedical Fund Awards, RSDF [w. R. Loring])	

Major Teaching Awards

Phi Beta Kappa, Outstanding Harvard University Teacher of the Year, 1985

Teaching Experience

University of Pennsylvania:
Undergraduate: Introductory Psychology (1976, 1978)

Physiological Psychology 1977)
Special Topics Seminar in Physiological Psychology 1977)
Medical: Neurobiology Laboratory 1978)

Harvard University:

Undergraduate: Psychobiology 1978-1986) - last enrollment 158
Neuroscience and Neuropathology Seminar 1979)
Developmental Psychobiology Seminar 1979, with Cicchetti)
Emotions, Motivation, and the Human Brain Seminar 1980)
Human Neuropsychology Seminar 1983-85, 1985 with Corbett)
Graduate: Psychobio. Reward & Motivation Seminar 1979-1981,1983,1985)
Human Neuroanatomy and Neuropsychology 1985, with Milberg)

Northeastern University:

Undergraduate: Psychobiology 1987-95, 96-98) - with major www home page 1997-98
<http://www.psych.neu.edu/Courses/PSY1351>
Psychobiology laboratory 1989-94)
Seminar in Neuropsychology 1988)
Foundations of Psychology 1 1990)
Food Behavior & Eating Disorders 1989-92) - last enrollment 140
College an Introduction 1994)
Introductory Psychology 1995-96)
Graduate: Functional Human Neuroanatomy 1987,90,91)
Neurochemistry and Behavior 1988)
Seminar in the Psychobiology of Reward 1988, 1991)
Seminar on Drug Craving 1997-98) - linked to www version
http://www.psych.neu.edu/Stellar/d_crave

Major Administrative Service

Harvard University:

Psychobiology Assist. Prof. Search Committee 1979-80)
Colloquium Committee 1980-82, Chair 1981-82)
Social Assist Prof. Search Committee 1981-82)
University Committee on Interdisciplinary Study 1983-86)
- responsible for undergraduate biopsychology program
Undergraduate Curriculum Committee 1982-86)

Northeastern University:

Department Undergraduate Curriculum Committee 1986-92, Chair 1987-92)
Department Undergraduate Coordinator/Head advisor 1987-92)
Head Advisors Committee of College 1987-95, Chair 1993-95)
Psychobiology Assist. Prof. Search Committee 1989-90)
Economics Department Chair Search Committee 1989-90)

Acting Department Chair [during 3 Asst. Prof. Searches] 1989-90)
 Institutional Animal Care and Use Committee 1987-92, Chair 1989-92)
 Sabbaticals and Scholarships Committee 1990-92, Chair 1991-92)
 Cognitive Psychology Assistant Professor Search Committee 1990-91)
 Ad Hoc Committee on methods to improve Co-op/College integration 1990)
 Ad Hoc Committee on Undergraduate Retention in College 1991)
 Strategic Planning Committee for College 1991-92, 1993)
 Dean of Cooperative Education Search Committee 1992)
 Psychology Cooperative Education Coordinator 1992)
 Management of \$2 million part-time budget for College of Arts and Sciences 1993-95)
 Administrative Coordinating Committee for Living /Learning Center 1993-95)
 NUNET Implementation Committee 1992-93)
 Strategic Planning Committee for the University 1992-93)
 Strategic Planning for the College of Arts and Sciences 1992-93)
 Enrollment Management Committee for the University 1993-94)
 University Undergraduate Curriculum Committee 1993-95)
 Summer Orientation Planning Committee 1993-95)
Ad Hoc Behavioral Neuroscience Major Development Committee 1994-95)
 Center for Interdisciplinary Studies [Founding member, 1st director] 1994-95)
Ad Hoc Search Committee for Director of Residence Life 1994)
 Experiential Education Task Force 1994--95)
 Excellence in Teaching Task Force 1994-95)
Ad Hoc College Task Force on the Development of a multimedia studio in the Arts 1994-1997)
 Dual Major Task Force 1994-95)
 The Robbinson Group: Member of Student Intake and Curriculum Committees 1994-95)
 Research Council 1995-7)
 College Advisory Tenure and Promotion Committee 1995-98)
 Research and Development Fund Selection Committee 1995-96)
Ad Hoc Research Centers Committee 1995-97)
 Matthews Distinguished Professor Selection Committee 1996-97)
 Co-Chair of *Ad Hoc* University Committee on Research Enhancement 1997-?)
 NEASC Re-Accreditation Com.: Co-Chair of Special Emphasis Com. on Student Centerness 1997-8)
 NEASC Re-Accreditation Steering Committee 1997-8)
 Psychology Department Committee on World Wide Web applications to Introductory Psychology Teaching
 with Houghton Mifflin Co. and Universal Learning Technology Co. 1997-9)
 Psychobiology Search Committee Chair 1998)
 Various Task Forces, Senates, and Committees as Dean, e.g. member of Senior Leaders team.
 see separate section for activities as Dean)

Research/Field:

NIH Study Section 1986-87)
 Occasional grant reviewer for NIH and NSF 1979-)
 Anonymous reviewer of grant applications for private foundation 1990-)
 Manuscript reviewer for Journals [Brain Research, Psychopharmacology, Behavioral Neuroscience,
 Pharmacology Biochemistry and Behavior, Physiology and Behavior,...] or book chapters 1978-?)

Co-Organizer of Boson Area Neuroscience Group [BANG] 1991,94,95,98)
Treasurer of BANG Steering Committee 1992-8)
Board of Trustees of Massachusetts School of Professional Psychology

Administrative Activities as Dean of the College of Arts and Sciences (activity-based format)*

- Management of a large organization with a \$50 million operating budget that includes:
 - Nearly 285 full-time professorial faculty (and nearly twice that many FTE including instructors, lecturers, etc.) in 21 academic departments, with over 40 undergraduate and graduate programs, and 14 research centers.
 - About 3,000 courses in an academic year filling about 80,000 course seats. These courses serve about 5,000 Arts and Sciences undergraduate majors and 400 graduate students, as well as students from other colleges. The College total enrollments constitute about half of the credit hours taught University-wide.
 - About 120 staff and other non-faculty personnel.
 - A 31 person Dean's Office with direct reports from three Associate Deans, four Directors, and a Special Assistant.
 - A Council of Department Chairs, a College Council, a Council of Center Directors.
- Management of a teamwork-based high-quality College organization that features:
 - Freshman enrollment successes based on strong academic offerings that have led to significant expansion of freshman class (targets raised more than 20% last year from 790 to 950 students), while increasing student quality measures (SAT scores up 47 points to 1181, GPA up to 3.30 from 3.05). This success is based on an increasingly strong applicant pool allowing greater admissions selectivity (applicants up about 140% from about 5,000 applicants 4 years ago - selectivity improved from more than 70% offered admission 4 years ago to 53% for the 2001 class).
 - Significant increases in freshman to sophomore retention (from 75.7% last year to 80.8% this year).
 - Continued expansion of majors from about 3,000 to 5,000 over nearly a 5-year period.
 - Increased faculty grant success, e.g. new research grants last year of more than \$16 million to reach a total of \$43 million in total College holdings, a little under half of holdings, University-wide.
 - Significant success in meeting centrally-set targets for efficiency improvements in student-faculty FTE ratios and in freshman-sophomore retention rate, among others. The result has been a significant increase in financial contribution margin of about 7% over 4 years to 65% of investment for this year.
 - Hiring a high-quality and diverse faculty and making 20-plus tenure/promotion decisions in 3 years, all upheld.
- Alumni Development and major gift fundraising efforts which is on track for a \$15 million 5-year goal. Early establishment of a Resource Council for solicitation of major gifts. Recent efforts at annual giving to support student scholarships in coop and other forms of experiential education.
- Liaison with central administration on a variety of issues including:
 - Standing councils since being Dean, e.g. Dean's Council, Senior Leadership Group)

- Committees e.g. University Planning Council [1998-00], Committee on Funding Priorities [1999-01], Faculty Senate [1999-00], Marketing Committee [2000-]).
- Special assignments such as: Education and community access testimony before Education Select Committee of British Parliament (6/00), Germany trip to represent President at Wissenschaftsrat on issue of Planning and Assessment in Higher Education (9/00), Institutional Assessment team trained at Wharton School (1/02).
- Participation in strategic planning including first Strategic Plan, NEASC re-accreditation, Unit Planning exercise, Senior Leadership Team.
- Major other activities and accomplishments include:
 - Revival of Center for Interdisciplinary Studies and promotion of interdisciplinary programs.
 - Co-formation with Jim Fraser of a vital School of Education out of a moribund department.
 - Establishment of a major cross-college biotechnology initiative w. Karger, Zoloth, & Jones). With sub-components in bioinformatics and other areas through Sloan Foundation grants, Industrial Advisory Board, work with major donors, etc.
 - Co-establishment with Dean of Engineering of a master teacher team based on a 3-year GE Foundation grant. Currently setting up another team with Bouve College.
 - Promoting adoption and use of Educational Technology in all courses and in laboratories (e.g. Multimedia lab in the Arts, Writing lab in English, GIS lab in Geology).
 - Help with Architecture - Visual Arts Department split and pending Architecture accreditation.
 - Formation of student advisory groups such as CASSAC (College of Arts and Sciences Student Advisory Council). More recently establishment of, LEAD mentors (Linking Education and Diversity) for recruitment of prospective students from the Boston Public High Schools and mentoring of those enrolled.
 - Leading College through quarter-to-semester calendar conversion and associated curriculum change.
 - Continuing academic-coop integration efforts starting with re-location and co-supervision and continuing through semester change.

*Note: None of these accomplishments as Dean are mine alone. The entire organization functions as a team and increasing its quality, flexibility, creativity, and efficiency has been the most important and overarching goal of my tenure as Dean.

Professional Societies

Society for Neuroscience
 Eastern Psychological Association
 New York Academy of Sciences
 American Association for the Advancement of Science
 Boston Area Neuroscience Group
 Faculty for Undergraduate Neuroscience

Research Publications

- Edmonds, D.E., J.R. Stellar, and C.R. Gallistel. Parametric analysis of brain stimulation reward in the rat: II. Temporal summation in the reward system. Journal of Comparative and Physiological Psychology, 87: 860-869, 1974.
- Gallistel, C.R., J.R. Stellar, and E. Bubis. Parametric analysis of brain stimulation reward in the rat: I. The transient process and the memory-containing process. Journal of Comparative and Physiological Psychology, 87: 848-859, 1974.
- Stellar, J.R. and C.R. Gallistel. Runway performance for brain stimulation and food reward: Effects of hunger and priming. Journal of Comparative and Physiological Psychology, 89: 590-599, 1975.
- Stellar, J.R. and K. Heard. The aftereffects of rewarding lateral hypothalamic brain stimulation and feeding behavior. Physiology and Behavior, 17: 865-867, 1976.
- Stellar, J.R., F.H. Brooks, and L.E. Mills. Approach and withdrawal analysis of the effects of hypothalamic stimulation and lesions in rats. Journal of Comparative and Physiological Psychology, 93: 446-466, 1979.
- Stellar, J.R. and S.P. Neeley. Reward summation function measurements of lateral hypothalamic stimulation reward: Effects of anterior and posterior medial forebrain bundle lesions. In Eds. B. Hoebel & D. Novin) Neuroscience of Feeding and Reward. Brunswick, ME: Hare Co., 1982.
- Stellar, J.R., J. Illes, and L.E. Mills. Role of the ipsilateral forebrain in lateral hypothalamic stimulation reward in rats. Physiology and Behavior, 29: 1089-1097, 1982.
- Stellar, J.R., A. Kelley, and D. Corbett. Effects of peripheral and central dopamine blockade on lateral hypothalamic self-stimulation: Evidence for both reward and motor deficits. Pharmacology, Biochemistry and Behavior, 18: 433-442, 1983.
- Neeley, S.P. and J.R. Stellar. Reward and aversive effects of lateral hypothalamic stimulation in rats measured by a modified runway and reward summation technique. Physiology and Behavior, 31: 657-662, 1983.
- Corbett, D., J.R. Stellar, A.K. Kelley, L. Stinus, and G. Fouriez. Time course of a-flupenthixol explains purported "response artifacts" of neuroleptic action on brain stimulation reward. Science, 222: 1251-52, 1983.
- Corbett, D. and J.R. Stellar. Neurological reactivity during medial prefrontal cortex stimulation: Effects of self-stimulation experience. Physiology and Behavior, 31: 771-776, 1983.

- Corbett, D., L. Silva, and J.R. Stellar. An investigation of factors affecting development of frontal cortex self-stimulation. Physiology and Behavior, 34: 89-95 1985
- Hamilton, A.L., J.R. Stellar, and E.B. Hart. Reward, performance and the response strength method in self-stimulating rats: Validation and neuroleptics. Physiology and Behavior, 35: 897-904, 1985
- Janas, J. and J.R. Stellar. Transections of the medial forebrain bundle and the effects on lateral hypothalamic self-stimulation reward in rats. Behavioral Neuroscience, 101:832-45, 1987.
- Waraczynski, M., J.R. Stellar and C. R. Gallistel. The dynamic interval for the rewarding effect in electrical self-stimulation Physiology and Behavior, 41:585-93, 1987.
- Mazur, J.E., J.R. Stellar, and M. Waraczynski. Self-control choice with electrical stimulation of the brain as a reinforcer. Behavioral Processes, 15:143-57, 1987.
- Stellar, J.R., M. Waraczynski, and J. Bruno. Neonatal dopamine depleting lesions spare electrical self-stimulation of the brain in adult rats. Pharmac., Biochem, Behav. 30:657-63, 1988.
- Backus L., J.R. Stellar, J. Jacobs, G. Hesse, and V. Shashoua. Novel GABA agonists depress the reward effect of lateral hypothalamic self-stimulation in rats. Pharmac., Biochem, Behav. 30:365-70, 1988
- Stellar, J.R. and D. Corbett. Effects of regional neuroleptic infusion suggest a role for nucleus accumbens in lateral hypothalamic self-stimulation reward. Brain Research, 47:126-143, 1989.
- Hall, S.F., J.R. Stellar, and A. Kelley. Chronic desmethylimiprimine does not alter lateral hypothalamic stimulation reward in rats. Pharmacology Biochemistry and Behavior, 37:277-81, 1990.
- Stellar, J.R., F.S. Hall, and M. Waraczynski. The effects of excitotoxin lesions on electrical self-stimulation of the lateral hypothalamus. Brain Research, 541:29-40, 1991.
- Sidhu, K.S., J.R. Stellar, D. Garity, and J.P. Bruno. 6-OHDA treated weanling rats show normal neuroleptic sensitivity as adults on LHSS Pharmacology, Biochemistry, and Behavior, 44:901-905, 1993.
- Johnson, P.I., D. Paul, and J.R. Stellar. Regional differences within ventral pallidum are revealed by microinjections of a Mu opiate receptor agonist. Neuropharmacology, 32, 1305-14, 1993.
- Johnson, P. and J.R. Stellar. Effects of accumbens DALA microinjection on brain stimulation reward and behavioral activation in intact and partial 6-OHDA lesioned rats. Psychopharmacology, 114, 665-71, 1994.
- Maldonado-Irizarry, C.S., J.R. Stellar, and A.E. Kelley. Effects of cocaine and GBR-12909 on brain stimulation reward. Pharmacology, Biochemistry, and Behavior, 48, 915-20, 1994.

- Johnson, P.I. and J.R. Stellar. NMDA-induced lesions of the nucleus accumbens and/or ventral pallidum fail to attenuate lateral hypothalamic self-stimulation reward. Brain Research, 646, 73-84, 1994.
- Johnson, P.I. and J.R. Stellar. Comparison of Delta Opiate Receptor agonist induced reward and motor effects between the ventral pallidum and dorsal striatum. Neuropharmacology, 33, 1171-1182, 1994.
- Johnson, P.I. Goodman, R. Condon, J.R. Stellar. Comparison of intracranial self-stimulation reward effects following microinjection of specific opiate receptors agonists into either accumbens core or shell. Psychopharmacology, 120, 195-202, 1995.
- Johnson, P.I. M.A. Parante, J.R. Stellar. NMDA-induced lesion of the nucleus accumbens or the ventral pallidum increase the rewarding efficacy of food to deprived rats. Brain Research 722, 109-117, 1996.
- Hall, F. S., D. Garity, and J.R. Stellar. Measurement issues in curve-shift analysis of apomorphine effects on rewarding brain stimulation , Pharmacology, Biochemistry and Behavior, 53, 417-423, 1996.
- Hesse, G.W., J.R. Stellar, and J. Cheverette. A simple and reliable method for delivering small fluid volumes to the brain a freely moving rat. Journal of Neuroscience Methods, 72, 35-38, 1997
- Richterich, L. and Stellar J.R. A simple design for a small, fixed, four-electrode, brain stimulation array Physiology and Behavior 62, 427-429,1997.
- Todtenkopf, M.S., De Leon, K.R., Stellar, J.R. Repeated Cocaine Treatment Alters Tyrosine Hydroxylase Immunoreactivity in the Rat Nucleus Accumbens. Brain Research Bulletin. 52, 407-411, 2000.
- Todtenkopf, M.S., Stellar, J.R. Assessment of Tyrosine Hydroxylase Immunoreactive Innervation in the 5 Different Subregions of the Nucleus Accumbens Shell in Cocaine Sensitized Rats. Synapse. 38, 261-270, 2000.
- De Leon, K.R., Todtenkopf, M.S., Stellar, J.R. An Examination of Glutamate Decarboxylase65 Innervation in the Rat Ventral Pallidum After Repeated Cocaine Administration. Neuroscience Letters. 284, 69-72, 2000.
- Melnick S.M., Maldonado-Irizarry C.S., Stellar J.R., Trzcinska M. Effects of repeated GBR 12909 treatment on intracranial self-stimulation. European J, Pharmacol., 419, 199-205, 2001.
- Trzcinska M, Pimentel P, Stellar JR, Hanson RN, Choi S-W, Elmaleh DR, Zhang J, Prakash KRC, Tamiz A, Kozikowski AP, Johnson KM, Smith MP, Babich JW. Novel monoamine transporter ligands reduce cocaine-induced enhancement of brain stimulation reward. Pharmacology Biochemistry and Behavior, 68, 171-80, 2001.

- Carlezon, W.A., Todtenkopf, M.S., McPhie, D., Pimentel, P., Pliakas, A., Stellar, J.R., Trzcinska, M. Downregulation of GluR1 in the ventral tegmental area following repeated exposure to rewarding brain stimulation. Neuropsychopharmacology, 25, 234-41, 2001.
- Chevrette, J. Stellar J.R., Hesse, G.W. & Markou, A. Both the shell of the nucleus accumbens and the central nucleus of the amygdala support amphetamine self-administration in rats. Pharmacology, Biochemistry, and Behavior, 71, 501-07, 2001.
- Waszczak B.L., Martin L., Boucher N., Zahr N., Sikes R.W., Stellar J.R. Electrophysiological and behavioral output of the rat basal ganglia after intrastriatal infusion of *d*-amphetamine: Lack of support for the basal ganglia model. Brain Research, 920, 170-82, 2001.
- Todtenkopf, M.S., Carreiras, T., Melloni, R.H. Jr., Stellar, J.R. The effects of an electrolytic lesion of the dorsomedial shell of the nucleus accumbens on cocaine-induced locomotor activity and sensitization. Behavioral Brain Research, 131, 9-16, 2002.
- Waszczak B.L., Martin L., Finlay, H., Zahr N., Stellar J. Effects of individual and concurrent stimulation of striatal D1 and D2 dopamine receptors on electrophysiological and behavioral output from rat basal ganglia. Journal of Pharmacology and Experimental Therapeutics, 300, 850-861, 2002.
- Trzcinska M., Bergh J., DeLeon K., Stellar J.R., Melloni, R.H. Jr. Differential effects of chronic social stress on induction and expression of cocaine sensitization in adolescent hamsters. Neuropharmacology, 42, 626-632, 2002.
- Sundstrom J.M., Hall F.S., Stellar J.R., and Waugh E.J. Effects of isolation-rearing on intracranial self-stimulation of the lateral hypothalamus: Baseline assessment and drug challenges. Life Sciences, 70, 2799-810, 2002.
- Dobrovitsky V, Pimentel P, Duarte A, Froestl W, Stellar JR, Trzcinska M. CGP 44532, a GABAB receptor agonist, is hedonically neutral and reduces cocaine-induced enhancement of reward. Neuropharmacology (in press, 2002)

Completed Studies, Manuscripts in Preparation:

- Baxter AD, Hesse GW, Pimentel P, Trzcinska M, Stellar JR. A simple and reliable method for making bilateral intracerebral microinjections in a freely moving rat.
- McCaskill, E., R. Allen, J.R. Stellar. Self-administration of electrical self-stimulation of the brain. Psychobiology.
- McCaskill, E., J. Mailoux, A Foster, J.R. Stellar. The role of aversiveness in and the effects of chlorodiazepoxide on in the self-selected frequency of self administration of self-stimulation.

Sidhu K., R. Sikes, and J.R. Stellar. Effects of D1 and D2 antagonists on self-stimulation behavior in adult rats depleted of dopamine at various neonatal ages.

Albert, H. F.S. Hall, and J.R. Stellar Effects of anterior knife-cuts on medial forebrain bundle self-stimulation reward thresholds.

Boucher, N, Richterich, L. and Stellar, J.R. Reward effects of medial forebrain bundle lesions on a multiple-electrode array of self-stimulation electrodes.

Johnson, P.I, F.S Hall, N. Boucher, J.P. Tehrany, J.R. Stellar. Neurons of the ventral tegmental area are not critical for the manifestation of lateral hypothalamic self-stimulation reward.

Chapters

Stellar, J.R., M. Waraczynski, and K. Wong. The reward summation function in hypothalamic self-stimulation. R. Church, M. Commons, J. Stellar, and R Church Eds.) Quantitative Analysis of Behavior: Biological Determinants of Behavior Vol. 7), Hillsdale, NJ: Erlbaum, 1988, pp. 31-58.

J.R. Stellar and M. Rice. Pharmacological basis of intracranial self-stimulation reward. J.M. Liebman and S.J. Cooper Eds.) Neuropharmacological Basis of Reward, New York: Oxford Press, 1989, pp. 14-65.

J.R. Stellar. The neural basis of rewarding hypothalamic stimulation. In A. Epstein and A. Morrison Eds) Progress in Physiological Psychology and Psychobiology Vol 14), New York: Academic Press, 1990, pp.235-294.

Books

Stellar, J.R. and E. Stellar. The Neurobiology of Motivation and Reward, New York: Springer Verlag, 1985.

Church R., M. Commons, A. Wagner, and J.R. Stellar Eds.), Quantitative Analysis of Behavior: Biological Determinants of Behavior Vol 7), Hillsdale, NY: Erlbaum, 1988.

Winn, P. co-editors include Stellar, J.R.) Dictionary of Biological Psychology, Routledge, 2001

Papers Resulting from Ph.D. Thesis Work Done in My Laboratory on which I am not an Author

Waraczynski, M. Basal forebrain knife cuts and medial forebrain bundle self-stimulation. Brain Research, 438:8-22, 1988.

**Presentations at Society for Neuroscience meetings:
also published as abstracts)**

Stellar, J.R., J. Illes, and L.E. Mills. Lateral hypothalamic stimulation in hemiforebrain ablated rats: Reward effects. Neuroscience Abstracts, 5: 243, 1979.

Stellar, J.R. and S.P. Neeley. Effects of anterior and posterior medial forebrain bundle lesions on lateral hypothalamic self-stimulation reward. Neuroscience Abstracts, 7: 874, 1981.

Stellar, J.R., A. Kelley, and D. Corbett. Reward summation function analysis of the effects of nucleus accumbens injection of a dopamine receptor blocker on hypothalamic self-stimulation in rats. Neuroscience Abstracts, 8: 897, 1982.

Stellar, J.R., M. Waraczynski, and J. Bruno. Neonatal dopamine depleting lesions spare electrical self-stimulation of the brain in adult rats. Neuroscience Abstracts, 10: 1041, 1984.

Stellar, J.R., D. Corbett and A.L. Hamilton. A forebrain map of dopamine's relevance to lateral hypothalamic stimulation reward as based on intracranial neuroleptic injection. Neuroscience Abstracts, 11: 48, 1985.

Spencer, D. and J.R. Stellar. Accumbens infusion of amphetamine increases and picrotoxin decreases reward from hypothalamic stimulation Neuroscience Abstracts, 12: 1142, 1986

Waraczynski, M, J.R. Stellar and F.S. Hall Ibotenic acid lesions and lateral hypothalamic self-stimulation Neuroscience Abstracts, 13:1324, 1987.

Stellar, J.R., M. Waraczynski, and F.S. Hall. Excitotoxin lesions of lateral hypothalamus fail to disrupt self-stimulation reward. Neuroscience Abstracts, 14:1102, 1988.

Hall, F.S., J.R. Stellar, M. Rice, S. Coffey. Amphetamine, apomorphine, and cholecystokinin modulation of dopamine systems and lateral hypothalamic reward. Neuroscience Abstracts 14:1103, 1988.

Johnson, P. G. Alsterberger, and J.R. Stellar. Accumbens dopamine lesions produce a temporary exaggeration in behavioral activity following opiate microinjections Neuroscience Abstracts, 15:559, 1989.

Sidhu, K., J.R. Stellar, and J.P. Bruno. Effects of dopamine depletions on days 15 and 20 after birth on intracranial self-stimulation and neuroleptic sensitivity in adult rats Neuroscience Abstracts, 15:1096, 1989.

- Stellar, J.R., F.S. Hall, and H. Albert. Effects of medial and posterior hypothalamic knife-cuts on lateral hypothalamic self-stimulation reward Neuroscience Abstracts, 16: 1990.
- Johnson, P., K.S. Sidhu, J.R. Stellar, and J.P. Bruno. Effects of accumbens opiate microinjection on intracranial self-stimulation following neonatal dopamine lesion. Neuroscience Abstracts, 16: 1990.
- Sidhu, K.S., J.R. Stellar, and J.P. Bruno. Effects of D1 and D2 antagonists on lateral hypothalamic self-stimulation reward in adult rats dopamine-lesioned on neonatal day 3. Neuroscience Abstracts, 16: 1990.
- Garity, D. F.S. Hall, and J.R. Stellar. Effects of pimozide on the frequency-current function in rewarding brain stimulation in rats International Conference on Brain Research, 1991.
- Sidhu, K.S., C.P. Levesque, J.R. Stellar. Rats dopamine lesioned on day 3 of neonatal life are subsensitive to 6-OHDA treatment as adults on tests of brain stimulation reward. Neuroscience Abstracts, 16:326, 1991.
- Johnson, P., A.D. Paul, and J.R. Stellar. Ventral pallidum opiate and picrotoxin microinjections display regional differences as measured by intracranial self-stimulation. Neuroscience Abstracts, 16:329 1991.
- Maldonado-Irizarry, C.S., D. Garity, J.R. Stellar. Effects of indirect agonist on brain stimulation reward threshold at multiple currents. Neuroscience Abstracts, 16:684, 1991.
- McCaskill, E.O., R. Allen, J.R. Stellar. Self-administration of electrical self-stimulation of the brain. Neuroscience Abstracts, 16,1238, 1991.
- Stellar, J.R. and H. Albert. Effects of lateral preoptic area knife-cuts on posterior hypothalamic self-stimulation reward. Neuroscience Abstracts, 16:1238, 1991.
- Sidhu, K.S., R. Skies, and J.R. Stellar. Tyrosine hydroxylase positive cells project from dorsal and medial raphe to nucleus accumbens and ventral forebrain suggesting a role for brainstem dopamine in sparing adult reward function in neonatal 6-OHDA treated rats Neuroscience Abstracts, 17, 1992.
- Johnson, P., P. Tehrany, and J.R. Stellar. Effects of excitotoxic lesions in ventral tegmental area, accumbens, ventral pallidum circuit on rewarding brain stimulation of the lateral hypothalamus in rats. Neuroscience Abstracts, 17 1992.
- McCaskill, E., A. Foster, and J.R. Stellar. Modeling cocaine self-administration in rats with rewarding MFB stimulation: Effects of raclopride and SCH-23390. Neuroscience Abstracts, 17 1992.
- Garity, D., H. Albert, L. Jaehn, J. Nunnally, and J.R. Stellar. Examining MFB reward anatomy from ICSS psychophysical changes in multiple electrodes after electrolytic lesions. Neuroscience Abstracts, 17 1992.

- Sidhu, K. J. Nunnally, J. R. Stellar, D. Fisher, and M. Fisher. Microdialysis reveals dopamine release in nucleus accumbens of rats receiving caudal linear nucleus stimulation as adults. Neuroscience Abstracts, 1993.
- Johnson, P., J.B. Goodman, and J.R. Stellar. Effects of intraaccumbens opioid specific agonists on intracranial self-stimulation reward Neuroscience Abstracts, 1993.
- McCaskill, E.O. , J.E. Mailloux, and J.R. Stellar. Self-administration of brain stimulation reward: The role of aversiveness in setting baseline. Neuroscience Abstracts, 1993.
- Stellar, J.R. , Laura Jaehn, and Nicole Boucher. Multiple electrode arrays, Hz-I trade-offs, and MFB reward anatomy in rats. Neuroscience Abstracts, 1993.
- Johnson, P. , J.R. Stellar, and M.A. Parente. Excitotoxic lesion of nucleus accumbens or ventral pallidum suggest a medial-lateral regulation of reward function in food deprived rats Neuroscience Abstracts 1994.
- Stellar, J.R., and R. Lindenfeld. Intracranial drug self-administration method: Improvements to allow reward magnitude estimation Neuroscience Abstracts 1994.
- McCaskill, E.O., L.M. Allard, D.L. Flood, and J.R. Stellar Self-administration of Brian stimulation reward: The effects of chlorodiazopoxide on baseline pulse frequency levels. Neuroscience Abstracts 1994.
- Stellar, J.R., P. Johnson, F.S. Hall, N. Boucher, and P. Tehrany. Ipsilateral ventral tegmental area excitotoxic lesions do not reliably disrupt lateral hypothalamic self-stimulation reward. Neuroscience Abstracts 1995.
- Stellar, J.R., J. Chevrette, and G. W. Hesse. Towards a dose-response analysis of intracranial drug self-administration. Neuroscience Abstracts, 1996.
- Martin, L.P. N.T. Boucher, H. Finlay, J.R. Stellar, and B.L. Waszczak. Correlation of electrophysiological and behavioral output of the rat basal ganglia after intrastriatal infusion of dopamine DA agonists: A new approach, new data. Neuroscience Abstracts, 1997.
- Duggan, M., J.B. Mitchell, J.R. Stellar, and G.W. Hesse. Accumbens release shows some psychophysical mismatch to the reward effect generated by electrical stimulation of the ventral tegmental area. Neuroscience Abstracts, 1997.
- Sundstrom, J.M., J.R. Stellar, F.S. Hall, and E.J. Waugh. Isolation rearing produces sub-sensitivity to D1 and D2 receptor blockers in a self-stimulation reward paradigm. Neuroscience Abstracts, 1997.
- J. Chevrette, P. Johnson, K. Danischewski, A. Markou, G.W. Hesse, and J.R Stellar. Amphetamine intracranial self-administration in accumbens and amygdala in rats. Neuroscience Abstracts, 1998.

- P.I. Johnson, A. Pilakas, K. Danischewski, E.J. Waugh, J. Chevrette, R.H. Loring, G.W Hesse, J.R. Stellar. Nicotine intracranial self-administration in the ventro tegmental area in rats. Neuroscience Abstracts, 1998.
- P. Pimentel, A. Crowell, J.R. Stellar, R. Hanson, W. Choi, D. Elmaleh, J. Babbich, A.P. Kozikowski. Testing novel anti-cocaine drugs, e.g. MC9-20 and Nocaine-B, with a rate-frequency brain stimulation reward enhancement paradigm. Neuroscience Abstracts, 1998.
- M.S. Todtenkopf, K.R. De Leon, J.R. Stellar. Changes in tyrosine hydroxylase immunoreactivity innervation of the nucleus accumbens in rats treated chronically with cocaine. Neuroscience Abstracts, 24, 1998.
- Todtenkopf, M.S., Stellar, J.R. Assessment of Tyrosine Hydroxylase Immunoreactive Innervation in the Different Subregions of the Nucleus Accumbens Shell in Cocaine Sensitized Rats. Neuroscience Abstracts. 25, 1999.
- De Leon, K.R., Todtenkopf, M.S., Stellar, J.R. An Examination of the GABAergic Innervation Pattern in the Ventral Pallidum of Rats Exposed to Repeated Cocaine. Neuroscience Abstracts, 25 1999.
- Pimentel P, Trzcinska M, Crowell A, Stellar JR, Zhang JR, Kozikowski AP, Smith MP, Babich J. Effects of piperidines on cocaine-induced enhancement of reward, brain stimulation reward study. Neuroscience Abstracts, 25, 1999
- Todtenkopf, M.S., McPhie, D.L., Pimentel, P., Pliakas, A.M., Stellar, J.R., Trzcinska, M., Carlezon, W.A. Jr. Repeated Exposure to Rewarding Brain Stimulation Downregulates GluR1 Expression in the Ventral Tegmental Area. Neuroscience Abstracts, 26, 2000
- Bergh J, DeLeon K, Stellar, Trzcinska M, Melloni, Jr RH. Chronic social stress during adolescence alters the induction, but not expression of behavioral sensitization to cocaine in hamsters. Neuroscience Abstracts, 26, 2000.
- P. Pimentel, Prakash K.R.C, Kozikowski AP, Smith MP, Babich JW, Stellar JR, Trzcinska M. Effects of novel substituted tropanes on cocaine-induced enhancement of brain stimulation reward. Neuroscience Abstracts, 26, 2000.
- Stellar, J.R., Potter, L.R., and Todtenkopf, M. 5-HT3 immunohistochemistry in the five subregions of the nucleus accumbens shell: An examination of changes induced by cocaine sensitization. Neuroscience Abstracts, 27, 2001.
- Potter, L.A., Dobrovitsky, V., Hesse, G., and Stellar, J.R. A 5-HT3 receptor antagonist re-established time-dependent loss of cocaine-conditioned place preference. Neuroscience Abstracts, 27, 2001

Todtenkopf, M., Carreiras, T., Melloni, R.H., and Stellar, J.R. The effects of an electrolytic lesion of the dorsomedial shell of the nucleus accumbens on cocaine-induced locomotor activity and sensitization. Neuroscience Abstracts, 27, 2001

Presentations at Eastern Psychological Association Meetings

Stellar, J.R., F. Brooks, and L.E. Mills. Approach and withdrawal analysis of the effects of lateral hypothalamic lesions. 1978.

Boulton, J.A., J.R. Stellar, and L.E. Mills. The effects of Nembutal on the swimming pattern of infant rats. 1979.

Stellar, J.R. Hypothalamic stimulation suppresses jump and startle responses in rats. 1979.

Illes, J. and J.R. Stellar. Neurological effects of lateral hypothalamic stimulation in hemiforebrain ablated rats. 1980.

Boulton, J.A., L.E. Mills, and J.R. Stellar. The effects of anesthetics on the swimming pattern of extensively forebrain-damaged rats. 1980.

Kelley, A., J.R. Stellar, and D. Corbett. Pimozide and self-stimulation: Quantitative analysis of reward and motor effects. 1981.

Pon, S. and J.R. Stellar. Behavioral effects of unilateral lateral hypothalamic lesions in hemiforebrain ablated rats. 1981.

Stellar, J.R. The effects of brain lesions on reward summation in self-stimulation behavior. Symposium 1981 "Use of quantitative techniques in the study of the neural substrate of brain stimulation reward" invited participant , 1981.

Neeley, S.P. and J.R. Stellar. Separation of running time and latency to lever-press in the runway paradigm for self-stimulation reward: A measure of reward and aversiveness. 1982.

Hamilton, A. and J.R. Stellar. A simple method for distinguishing factors which affect reward from those affecting motor performance in responding for electrical stimulation of the brain. 1983.

Waraczynski, M., K. Wong, and J.R. Stellar. Automated data collection and curve fitting studies in self-stimulation studies. 1985.

Discussant in Eastern Psychological Association Symposium on "What energizes and directs motivated behaviors? Roles of the hypothalamus and mesolimbic dopamine system. 1995.

A novel drug, MC9-20, reduces the reward-enhancing effects of cocaine in an electrical brain stimulation paradigm in the rat. 1998.

Presentations at Canadian Psychological Association Meetings

Janas, J. and J.R. Stellar. Effects of transections of the medial forebrain bundle on self-stimulation reward. 1984.

Waraczynski, M. and J.R. Stellar. Choice method analysis of brain stimulation reward psychophysics. 1984.

Presentations at American Psychological Association Meetings

Stellar, J. Whatever happened to emotion Mr. James? Symposium, August 1990.

Presentation at IBC 5th International Congress on Drug Discovery Technology

Trzcinska M, Pimentel P, Dobrovitsky V, Stellar JR, Prakash KRC, Tamiz AP, Zhang J-R, Kozikowski AP, Johnson KM, Smith MP, Babich JW. Novel monoamine transporter ligands reduce cocaine-induced enhancement of reward. 2000.