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Incentive motivation, conditioning, stress, and neuropsychiatric disorders: A tribute to Jane Stewart

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This issue of *Biological Psychiatry* is dedicated to the lifetime contributions of Jane Stewart (who retired in 2008) to the fields of psychology, psychiatry, psychopharmacology and neuroscience. Jane Stewart has been a leader whose contributions over the past half-century have profoundly influenced these fields. In an era of increasing specialization and exponential growth in the number of publications, her research interests have remained exceptionally broad, reflecting her genuine interest in understanding how the brain controls behavior. Jane is well known for her seminal contributions to the study of conditioned drug effects (1;2), incentive motivational effects of drugs and drug cues (3), psychomotor sensitization and cross-sensitization with stress (4;5), and the behavioral and neuronal mechanisms of relapse to drug seeking (6;7). In addition, Jane, has made significant contributions to other areas of research, including circadian rhythms (8), stress (9), recovery of function after brain lesions (10), sex differences in drug effects (11), mechanisms of antidepressant and antipsychotic drugs (12; 13), pain (14), and sexual behavior (15;16). In each of these diverse research areas, Jane's work is highly regarded. Jane has also been integrally involved in academic issues relating to science education and policy in Canada. Her former pre-doctoral and post-doctoral trainees hold academic positions at McGill University, University of Toronto, University of Chicago, University of Wisconsin, NIH, University of Rome, and many other academic institutions.

Jane Stewart received her Ph.D. in 1959 from the University of London, England. In her dissertation work she characterized the ability of a light cue to serve as an operant reinforcer in the rat (17;18), a phenomenon that has become important many years later for the understanding of nicotine's rewarding effects (19). After completing her degree she worked as a Senior Research Biologist at Ayerst Pharmaceuticals, Montreal. She joined Concordia University (then Sir George Williams) in 1963, served as chair of the Department of Psychology from 1969-1974, and director of the Center for Studies in Behavioral Neurobiology (CSBN) from 1990-1997. She has served as both a member and chair of Canadian grant committees, including NSERC, MRC, CIHR and CFI and has been on the editorial board of 11 scientific journals, including *Behavioral Neuroscience* and *Psychopharmacology*. She has also been integrally involved in academic issues relating to science education and policy. Jane holds an honorary degree from Queen's University, is a Fellow of CPA, APA and AAAS, and a Fellow of the Royal Society of Canada, Academy of Sciences. On June 29th, 2007 she was appointed an Officer of the Order of Canada for her scientific contributions, the highest civilian honor in her country for an academic researcher.

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This Special Issue contains empirical papers and reviews that reflect her contributions both as a scientist and as an educator. The breadth of her scientific contributions is reflected in the diversity of topics included here in these papers by her collaborators, colleagues and trainees. As an educator, Jane has had a deep and lasting influence on all of us who were fortunate enough to work with her. Jane demands scholarship and precision from her trainees. Her genuine curiosity about the brain and behavior is infectious to those who work with her, and she is only satisfied with the most rigorous scientific standards to address the research questions. We will end our short introduction to the special issue by pointing out that Jane does not use many words in her scientific conversations. Her former trainees will recognize some of the principles that illustrate her succinct and practical approach to science:

--“Just do the work and everything will be fine.”

--“Do not worry about theory and interpretations before you have the data.”

--“We do not have hypotheses, we only have questions.”

--And our favorite phrase: “I do not understand, can you explain this to me again.”

We hope the diverse readership of *Biological Psychiatry* will find the Special Issue of interest, and we would like to thank John Krystal and Eric Nestler for supporting this issue.

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