BIOGRAPHICAL SKETCH

Provide the following information for the key personnel in the order listed on Form Page 2.
Follow the sample format for each person. **DO NOT EXCEED FOUR PAGES**.

NAME	POSITION TITLE
Fulton T. Crews	Director and Professor

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)*

INSTITUTION AND LOCATION	DEGREE	YEAR CONFERRED	FIELD OF STUDY
Syracuse Univ., Syracuse, NY	**B.S.**	1971	Physiology
Univ. of Michigan, Ann Arbor, MI	**Ph.D.**	1978	Pharmacology
National Institutes of Health, Bethesda, MD	**Postdoc**	1980	Pharmacology

Professional Experience:

1973-1978	NIH Training Grant Awardee, Pharmacology, University of Michigan Rackham Graduate School. (Advisor: Dr. C.B. Smith)
1978-1980	Pharmacology Research Associate Program Awardee, (Preceptor: Julius Axelrod). Staff Fellow, National Institute of Mental Health, Section on Pharmacology, Laboratory of Clinical Science.
1980-1994	Professor of Pharmacology, College of Medicine, University of Florida. (Assistant, 1980-1985, Associate 1985-1990).
1994-Present	Director, Bowles Center for Alcohol Studies, Professor of Pharmacology and Psychiatry, School of Medicine, University of North Carolina at Chapel Hill.

Honors and Awards:

1968	NY State Regents Scholar
1973	NIH Predoctoral Fellowship
1978	NIH PRAT Fellow
1987	Grass Scientist Award
1990, 1992	Research Scholar Award University of Florida
1989-1991	NIMH Study Section, Psychopathology and Clinical Biology (PCB-2)
1991-94	Member, National V.A. Merit-Grant Review Board: Alcoholism and Drug Dependence
1993-1994	Chairman, National V.A. Merit-Grant Review Board: Alcoholism and Drug Dependence
1993-Present	NIH Merit Grant Awardee
1991-1994	Board of Directors, Division of Sponsored Research, Univ. of Florida
1991-1995	NIH Study Section: Alcohol Biomedical Research Review Committee (ALCB-2)
1992	NIH Javitts Grant Awardee
1995-1999	Research Society on Alcoholism Board of Directors
1995-Present	Board of Directors, Freedom House Treatment and Recovery Center
1994-Present	Board of Directors, N.C. Governor's Institute on Substance Abuse
1996-Present	Board of Directors, Alcohol and Drug Council of North Carolina
1998-2000	President, Alcohol and Drug Council of North Carolina
1999	Editorial Advisory Board, Betty Ford Center quarterly newsletter *Findings*
1997-Present	Board of Directors, Pavillon Treatment Center
2001	Received the University of Michigan Outstanding Alumnus Award
2002	National Institute of Health Grand Rounds Speaker, Bldg. 10.
2003	Forbes Lectureship, Grass Foundation Award, Chicago Chapter of Neuroscience
2003	Norbert Kelly Distinguished Award for Contribution to Understanding Addiction as a Mental Disease, Addiction Professionals of North Carolina, Pinehurst N.C.

Bibliography: (Selected from over 170 publications)

OBERNIER, J.A., WHITE, A.M., SWARTZWELDER H.S., and **CREWS, F.T**.: Cognitive deficits and CNS damage after a 4-day binge ethanol exposure in rats. Pharmacol Biochem Behav 72:521-532, 2002.

OBERNIER, J.A., BOULDIN, T.W., and **CREWS, F.T**.: Binge ethanol exposure in adult rats causes necrotic cell death. Alcohol Clin Exp Res 26(4): 547-557, 2002.

NIXON, K. AND **CREWS, F.T.:** Binge ethanol exposure decreases neurogenesis in adult rat hippocampus. Journal of Neurochem 83: 1087-1093, 2002.

CREWS, **F.T.**, MILLER, M.W., MA, W., NIXON, K., ZAWADA, W.M., AND ZAKHARI, S.: Neural Stem Cells and Alcohol. Alcohol Clin Exp Res, 27(2): 324-335, 2003.

KAMPOV-POLEVOY, A.B., ZIEDONIS, D., STEINBERG, M.L., PINSKY, I., KREJCI, J., EICK, C., BOLAND, G., KHALITOV, E., **CREWS, F.T.**: Association between sweet preference and paternal history of alcoholism in psychiatric and substance abuse patients. Alchol Clin Exp Res, 27(12): 1929-1936, 2003.

BISON, S. and **CREWS, F.T.**: Alcohol Withdrawal Increases Neuropeptide Y in Rat Brain. Alchol Clin Exp Res, 27(7): 1173-1183, 2003.

ZOU, J.Y. and **CREWS, F.T.**: Tumor necrosis factor-α potentiates glutamate neurotoicity by inhibiting glutamate uptake in organotypic brain slice cultures. Submitted to Brain Research 6/04.

CREWS, F. T. and BRAUN, C.J.: Binge ethanol treatment causes greater brain damage in alcohol-preferring P rats than in alcohol nonpreferring NP rats. Alchol Clin Exp Res, 27(7): 1075-1082, 2003.

CREWS, F.T.: Effects of Alcohol Abuse on the Brain. In: *Handbook of the Medical Consequences of Alcohol and Drug Abuse*, (Ed.) J. Brick, The Hayworth Press Inc., 85-138, 2003.

CREWS, F.T., NIXON, K. and WILKIE, MB. Exercise Reverses Ethanol Inhibition of Adult Neurogenesis. Alcohol, 33(1): 63-71, 2004.

KAMPOV-POLEVOY A.B., EICK C., BOLAND G., KHALITOV E., **CREWS F.T.**
Sweet liking, novelty seeking, and gender predict alcoholic status. Alcohol Clin Exp Res, 28(9): 1291-1298, 2004.

DUKA, T., GENTRY, J., MALCOLM, R., RIPLEY, T., BORLIKOVA, G., STEPHENS, D., VEATCH, L., BECKER, H., **CREWS, F.T.** Consequences of multiple withdrawal from alcohol. Alcohol Clin Exp Res, 28(2): 233-246, 2004.

CREWS, F.T., COLLINS, M., DLUGOS, C., LITTLETON, J., NEAFSEY, E.J., PENTNEY, R., SNELL, L., TABAKOFF, B., ZOU, J., NORONHA, A., AND WILKINS, L. Alcohol-Induced Neurodegeneration: When, Where and Why? Alcohol Clin Exp Res, 28(2): 350-364, 2004.

CREWS, F.T., DUPONT, R., GRANT, B., SPEAR, L., SWARTZWELDER, S., TAPERT, S., and WILSON, W.: Brain 101. In: *A Parents's Guide For The Prevention Of Alcohol, Tobacco, And Other Drug Use*. (Eds.) Georgetown Preparatory School, 4-7, 2003.

CREWS, F.T., and NIXON, K. Alcohol, Neural Stem Cells, and Adult Neurogenesis. Alcohol Research and Health, 27: 197-203, 2003.

NIXON, K. and **CREWS, F.T.** Increased hippocampal neurogenesis in protracted abstinence from alcohol. The Journal of Neuroscience, accepted pending revision, 2004

NIXON, K. and **CREWS, F.T.** Temporally Specific Burst in Cell Proliferation Increases Hippocampal Neurogenesis in Protracted Abstinence from Alcohol. The Journal of Neuroscience, 24(43): 9714-9722, 2004.

HE, J, NIXON, K., SHETTY, A., and **CREWS, F.T.** Chronic alcohol exposure reduces hippocampal neurogenesis and dendritic growth of newborn neurons. In press: European Journal of Neuroscience 12/04.

CREWS, F.T., MDZINARISHVILI A., KIM, D., and NIXON, K. Neurogenesis in adolescent brain is potently inhibited by ethanol. Submitted to Neuroscience 2/05.

MONTI PM, MIRANDA R JR, NIXON K, SHER KJ, SWARTZWELDER HS, TAPERT SF, WHITE A, **CREWS FT**. Adolescence: booze, brains, and behavior.
Alcohol Clin Exp Res, 29(2): 207-20, 2005.

RESEARCH PROJECTS ONGOING OR COMPLETED DURING THE LAST 3 YEARS:

Molecular and Cellular Pathogenesis in Alcoholism - Administrative Core
Principal Investigator: FT Crews Agency: NIAAA
Type: P60 (AA11605, Years 06-10) 12/1/02 - 11/30/07
The major goal of the Administrative Core is to provide scientific leadership and administrative support for the Alcohol Research Center.

Molecular and Cellular Pathogenesis in Alcoholism – Research Component 1
Principal Investigator: FT Crews Agency: NIAAA
Type: P60 (AA11605, Years 06-10) 12/1/02 - 11/30/07
This proposal investigates binge drinking induced brain damage (BIBD). The following hypotheses are tested, 1. BIBD is related to oxidative stress. This hypothesis is tested by monitoring indices of oxidative stress and signaling cascades involved in neurodegeneration. 2. Peripheral tissue damage is involved in BIBD. Experiments investigate the interaction of liver secreted factors with brain damage. 3. Repeated exposure will increase BIBD. The effects of multiple episodes of alcohol exposure on BIBD, gene induction and oxidative stress are determined.

Molecular and Cellular Pathogenesis in Alcoholism/Sub – Education Core
Principal Investigator: FT Crews Agency: NIAAA
Type: P60 (AA11605, Years 06-10) 12/1/02 - 11/30/07
This component will organize Annual Research to Practice symposia that educate health professional students and practicing health professionals.

Molecular and Cellular Pathogenesis in Alcoholism/Sub – Pathology Core
Principal Investigator: FT Crews Agency: NIAAA
Type: P60 (AA11605, Years 06-10) 12/1/02 - 11/30/07
This component provides consultation, training and services in basic histopathology for preparation for frozen and paraffin sections fro histology and immunocytochemistry.

Molecular and Cellular Pathogenesis in Alcoholism/Sub – Viral Vector Genotyping Core

Principal Investigator: FT Crews Agency: NIAAA
Type: P50 (AA11605, Years 06-10) 12/1/02 - 11/30/07
The specific aims for this core are to provide each investigator with the necessary expertise, facilities, and procedures needed to produce AAV and AD vectors and will meet the demands for validating the genetics of the research animals to accomplish the goals of the proposed investigations.

Molecular and Cellular Pathogenesis in Alcoholism/Sub - Animal Core
Principal Investigator: FT Crews Agency: NIAAA
Type: P50 (AA1160, Years 06-10) 12/1/02 - 11/30/07
This core will consult with researchers on estimating alcohol levels through behavioral indices(e.g, Majchrowicz scale) so that alcohol levels can be carefully controlled in test subjects, even under conditions where regular monitoring of alcohol concentrations is not possible.

Ethanol Effects on Neurotransmission
FT Crews NIAAA
Type: R37 (AA06069, Years 19-23) 3/1/04 - 2/28/09
This proposal is the renewal of this grant. The focus remains the mechanisms of chronic alcohol induced changes in brain. The current central theme is ethanol inhibition of adult neurogenesis and withdrawal induced increased neurogenesis.

Molecular and Cellular Alcohol Research Training
Principal Investigator: FT Crews Agency: NIAAA
Type: T32 (AA07573, Years 06-10) 4/1/03 - 3/31/08
Training grant to promote the development of promising PhD postdoctoral fellows as independent investigators and future faculty members who will investigate the pathogenesis of alcoholism and alcohol abuse using modern molecular medicine techniques.