

COLLEGE OF MEDICINE CURRICULUM VITAE

Susan K. Schultz, M.D.
Associate Professor of Psychiatry
University of Iowa College of Medicine
2-207 Psychiatry Research, Medical Education Building
500 Newton Road
Iowa City, IA 52242-1000
Phone 319 335-6956
Fax 319 353-3003
susan-schultz@uiowa.edu

I. EDUCATIONAL AND PROFESSIONAL HISTORY

A. List of institutions attended

- 1993-1995 Post-doctoral Fellow, Clinical Neurobiology and Schizophrenia, MH-CRC, Department of Psychiatry, University of Iowa
- 1990-1994 Resident in Psychiatry, University of Iowa Hospitals and Clinics
- 1986-1990 The University of Nebraska Medical Center, College of Medicine, Omaha, Nebraska, Degree: MD
- 1982-1986 The Nebraska Wesleyan University, Lincoln, Nebraska
Degree: Bachelor of Arts in Biology and English, with distinction

Certification and Licensure

- Diplomate: National Board of Medical Examiners, 10/91
American Board of Psychiatry and Neurology, **Adult Psychiatry** 10/1995, Recertified 8/2005
- American Board of Psychiatry and Neurology-Subspecialty Certification:
Geriatric Psychiatry, 11/1996; Recertified 11/2005
- American Board of Psychiatry and Neurology- Subspecialty Certification:
Psychosomatic Medicine, 7/2006
- Medical Licensure: Iowa 1990-present. License # _____

B. Professional and Academic Positions

- 2003-present Associate Director for Clinical Research; UI Center on Aging University of Iowa College of Medicine, 200 Hawkins Drive, Iowa City, IA 52242
- 2000 -present Associate Professor of Psychiatry, Department of Psychiatry, University of Iowa Hospitals and Clinics, 200 Hawkins Drive, Iowa City, IA 52242
- 1995-2000 Assistant Professor of Psychiatry, Department of Psychiatry, University of Iowa Hospitals and Clinics, 200 Hawkins Drive, Iowa City, IA 52242

C. Honors, Awards, Recognitions, Outstanding Achievements (least to most recent)

Faculty

- International Congress for Schizophrenia Research Travel Award, 1999
- American College of Neuropsychopharmacology Travel Award, 1999
- NARSAD Klerman Award for Outstanding Clinical Investigators, July 2000
- "Best Doctors" member: Psychiatry, 2006

Undergraduate

- National Merit Scholar, 1982-1986
- NWU Board of Governors Scholarship, 1982-1986
- Phi Kappa Phi Scholastic Honorary, 1985-1986

D. Teaching Assignments on semester by semester basis (least to most recent)

Classroom, Seminar, or Teaching Laboratory

1. Foundation of Clinical Practice (FCP-IV), M3 Spring semester: Geropsychiatry lectures
2. Resident Geriatric Lecture Series: R3/R4 Resident Physicians, each Fall
3. Psychiatry Residents and Faculty: Monthly clinical case conference in geriatrics
4. UI Aging Studies Program Faculty: Interdisciplinary Graduate/Professional Training in Aging, Fall semester
5. Weekly "Geriatric Meeting" for junior faculty research mentorship, year around

Clinical Teaching

1. Small group clinical cases conferences conducted during appropriate rotations for M1 and M2 medical students, demonstration of psychiatric interview and discussion of mental status.
2. Supervision of resident physicians in geriatric outpatient clinic, general inpatient units
3. Supervision and teaching of nurse practitioners in geriatric outpatient clinic and nursing homes

B. Graduate Students/Resident/Fellows Supervised

1996

1999

1999

1999-2002

2000-2004

2002-

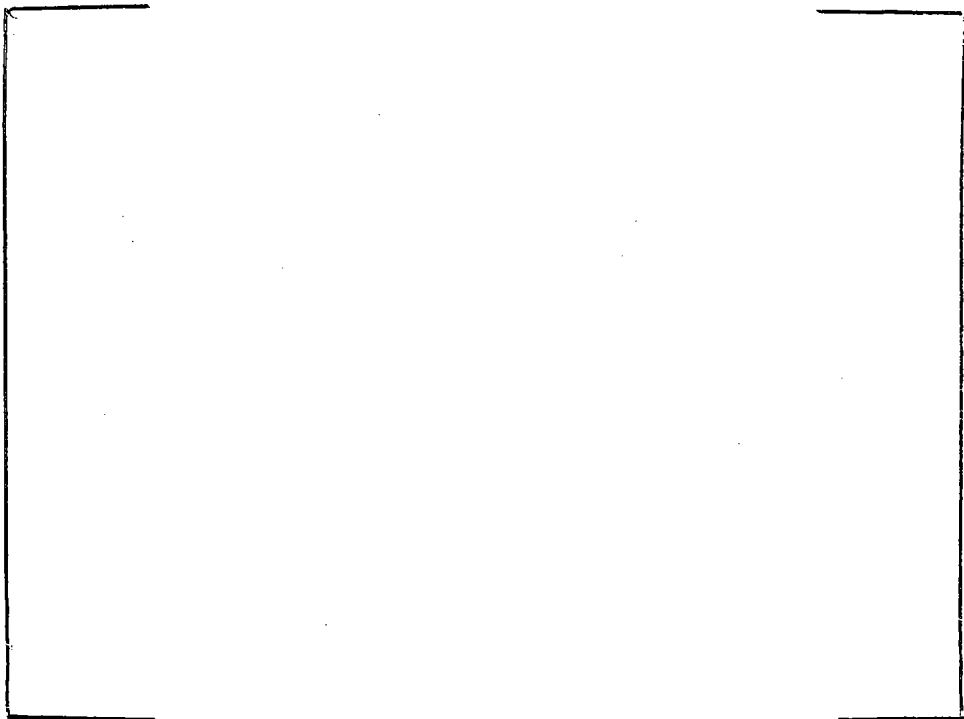
2003-2004

2004-

2004-

2004-

2005





C. Other Contributions to Institutional Programs

Local and Regional CME Talks

1. "Psychosis and Aging" Gerontological Issues in Mental Health: Iowa Nursing Continuing Education Conference, Iowa City IA, October 10, 1996.
2. "Evaluation and Treatment of Psychosis in the Elderly" Iowa Veterans Home, Marshalltown IA, Continuing Education Program for Medical Staff, August 4, 1997.
3. "Assessment of Cognitive Change in the Elderly" Calvin Center, Iowa Social Services Continuing Education Seminar, Des Moines, IA, November 6, 1997.
4. "Medication Management of Psychotic Symptoms in Alzheimer's Disease" Iowa Veterans Home, Marshalltown, IA, Continuing Education Program for Nursing Staff, February 19, 1998.
5. "Aging and Schizophrenia" Educational Conference, Iowa Alliance for the Mentally Ill, Mercy Hospital, Iowa City IA, September 16, 1998.
6. "Mental Health and Aging: Mechanisms in Dementia" Gerontology Society of Iowa Annual Meeting, Hy-Vee Conference Center, Des Moines, IA, April 9, 1999.
7. "Mental Health in the Nursing Home Setting: Tardive Dyskinesia" Multi-disciplinary Continuing Education Conference, Iowa Veterans Homes, Marshalltown, IA, July 16, 1999.
8. "Psychiatric Issues in the Adult and Aging Population: Schizophrenia and Mental Retardation" Continuing education program sponsored by the University of Iowa Nursing Education Center, Clarion Hotel, Iowa City, March 2, 2001.
9. "Depression in Late-Life" Iowa Geriatric Education Center Grand Rounds, University of Iowa, June 20, 2001.
10. "Psychiatric Syndromes in Dementia: Nurse Aid Instructor Update 2001" Iowa Valley Community College Continuing Education, Marshalltown IA, August 2, 2001.
11. "Managing Psychiatric Complications of Dementia" Des Moines Methodist Dementia Conference, Nov 17, 2001.
12. "Aging or Dementia?" Local Community Education Conference sponsored by UIHC Educational Outreach Services, Clarion Hotel, Iowa City Iowa, November 29, 2001.
13. "A Comprehensive Look at Dementia" Regional Health Education Center, Rehabilitation Conference, Mason City, Iowa, April 27, 2002.

14. "Managing Dementia" Alzheimer's Association CME Conference, Hawkeye Community College, Waterloo, Iowa, June 6, 2002.
15. "Schizophrenia and Aging" National Alliance for the Mentally Ill, Iowa City Chapter meeting, May 21, 2003.
16. "Psychosis in Late Life" Alzheimer's Association Conference, Allen Hospital, Waterloo, Iowa, May 27, 2003.
17. "Managing Psychiatric Symptoms in Dementia" Legacy Pointe Assisted Living Facility Inservice, Oct 17, 2003.
18. "Memory Problems in Older Adults" Community education program, Iowa City Senior Center, Feb 4, 2004
19. "Psychiatric Symptoms in Alzheimer's Disease" Alzheimer's Association Conference for caregivers and health professionals, Allen Hospital, Waterloo, Iowa, March 25, 2004.
20. "Aging and Mental Illness" Bryan/Lincoln General Hospital Community Mental Health Conference, Keynote speaker for Mental Illness Awareness Week, Lincoln, Nebraska, October 6, 2004.
21. "Psychiatric Problems with Alzheimer's Disease" Ridgeview Assisted Living, Cedar Rapids, IA, January 2005.
22. "Memory Problems in Late Life" Kirkwood Local Television Programming, the *Involvement Report* aired February – March, 2005.
23. "Dementia and Depression" Aging and Mental Health Conference hosted by the UI College of Medicine, UIHC East Room, January 27, 2006
24. "Psychiatric Consequences of Dementia" Community outreach talk, Methwick Retirement Center, Cedar Rapids, Iowa, February 28, 2006.
25. "Best Practices Conference on the Management of Agitation in Dementia" Bethesda MD, June 28, 2006.
26. "Integration in Primary Care" Dept of Family Medicine and Internal Medicine and Psychiatry CME conference, Iowa City, IA, August 25, 2006.
27. "Managing Emotional Symptoms of Dementia" Greater IA Alzheimer's Association Conference, Des Moines, November 7, 2006.
28. "Management of Dementia" Kirkwood Community College, Cedar Rapids, Iowa, November 29, 2006.

III. Scholarship

A. Publications or Creative Works (least to most recent)

Peer-Reviewed Papers

1. Andreasen NC, Schultz SK: *Assessing the symptoms of schizophrenia* in Handbook of Mental Health Economics and Health Policy. Moscarelli M, Rupp A, Sartorius N (eds.). Proceedings from Symposium: The Economics of Schizophrenia. Milan, Italy, September 1993.
2. Andreasen NC, Nopoulos P, Schultz SK, et al: Positive and negative symptoms of schizophrenia: past, present, and future. *Acta Psychiatrica Scandinavica* 90(suppl.384):51-59, 1994.
3. Travella JT, Forrester AW, Schultz SK, Robinson RG: Depression following myocardial infarction: a one year longitudinal study. *Int J Psychiatry Med* 24(4):357-369, 1994.
4. Gupta S, Andreasen NC, Arndt S, Flaum M., Schultz SK: Neurological soft signs in neuroleptic naive schizophrenics vs. normal controls. *Am J Psychiatry* 152(2):191-196, 1995.
5. Schultz SK, Miller D, Arndt S, Gupta S, Andreasen NC: Withdrawal emergent dyskinesia in patients with schizophrenia during antipsychotic discontinuation. *Biological Psych* 38:713-719, 1995.
6. Castillo CS, Schultz SK, Robinson RG: Post-stroke generalized anxiety: clinical correlates of early versus late onset. *Am J Psychiatry* 152(8):1174-1179, 1995.
7. Miller DD, Schultz SK, Alexander B: Rational pharmacological approaches in the management of treatment-resistant schizophrenia. *Psychiatric Clinics of North America* 3:89-118, 1996.
8. Flaum M, Schultz SK: Clinical case conference: when does amphetamine-induced psychosis become schizophrenia? *Am J Psychiatry* 53(6):812-815, 1996.
9. Flaum M, Schultz SK: The core symptoms of schizophrenia. *Ann Med* 28:525-531, 1996.
10. Schultz SK, Van de Borne P, Anderson E: Heart rate variability before and after electroconvulsive therapy in patients with major depressive disorder. *J Affect Disord* 44:13-20, 1997.
11. Schultz SK, Castillo CS, Robinson RG: Poststroke generalized anxiety: evaluations over two years following stroke. *Am J Geriatr Psychiatry* 5:229-237, 1997.
12. Schultz SK, Oliver S, Ziebell S, Arndt S, Miller D, Andreasen NC: The life course of schizophrenia: a comparison of symptoms among age groups. *Schizophr Res* 23(1):43-57, 1997.
13. Andreasen NC, Flaum M, Schultz S, Duzyurek S: Diagnosis, Methodology and Subtypes of Schizophrenia. *Neuropsychobiology* 35:61-63, 1997.

14. Crespo-Facorro B, Piven M, Schultz SK: Psychosis in late-life: How does it fit into current diagnostic criteria? *Am J Psychiatry* 156(4):624-629, 1999.
15. Schultz SK, Ho BC, Arndt S, Andreasen NC: The role of impaired glucose tolerance as a potential risk: factor for tardive dyskinesia. *Am J Psychiatry* 156(4):640-642, 1999.
16. Christensen AF, Dornink R, Ehlers S, Schultz SK: Social environment and longevity in schizophrenia. *Psychosom Med* 61:141-145, 1999.
17. Ellingrod V, Schultz SK, Arndt S: Association between cytochrome P4502D6 (CYP2D6) genotype, antipsychotic exposure, and abnormal involuntary movement scale (AIMS) score. *Psychiatr Genet* 10(1):9-11, 2000.
18. Magnotta V, Andreasen NC, Schultz S, et al: Quantitative in vivo measurement of gyrfication in the human brain: changes associated with aging. *Cereb Cortex* 9:151-160, 1999.
19. Schultz SK, O'Leary DS, Andreasen NC, et al: A positron emission tomography study of age-related changes in regional cerebral blood flow among young to mid-life adults. *Neuroreport* 9:151-160,1999.
20. Woodman C, Schultz SK: Faculty assessment of residents and the psychiatry resident-in-training examinations. *Acad Psychiatry* 23:137-141, 1999.
21. Turvey C, Schultz SK, Arndt S, Wallace RB, Herzog R: Memory complaint in a community sample aged 70 and older. *J Am Geriatr Soc* 48(11):1435-1441, 2000.
22. Schultz SK, Ho BC, Andreasen NC: Clinical features characterizing young-onset and intermediate-onset schizophrenia. *J Neuropsychiatry Clin Neurosci* 12(4):502-505, 2000.
23. White TJ, Schultz SK: Naltrexone in a 3-year-old boy with self-injurious behavior. *Am J Psychiatry* 157(10):1574-1582, 2000.
24. Whelan FJ, Walker MS, Schultz SK: Donepezil in the treatment of cognitive dysfunction associated with traumatic brain injury. *Ann Clin Psychiatry* 12(3):131-135, 2000.
25. Robinson RG, Schultz SK, Castillo C, et al: Nortriptyline versus fluoxetine in the treatment of depression and in short-term recovery after stroke: a placebo-controlled, double-blind study. *Am J Psychiatry* 157(3):351-359, 2000.
26. Schultz SK: Dementia in the 21st century. *Am J Psychiatry* 157(5):666-668, 2000.
27. O'Leary DS, Block R, Flaum M, Schultz SK, Ponto LLB, Hichwa R, Watkins L, Andreasen NC: Acute marijuana effects on rCBF and cognition: a PET study. *Neuroreport* 11(17):3835-3840, 2000.
28. Schultz SK, Ellingrod V, Andreasen: The association between risk factors for tardive dyskinesia and plasma amino acids levels and phenylalanine-induced abnormal movements in patients with schizophrenia. *Hum Psychopharmacol* 16(3):273-277, 2001.
29. Turvey CL, Schultz SK, Arndt S, et al: Hallucinations and paranoid delusions in cognitively impaired community elders. *Int Psychogeriatr* 13(2):241-249, 2001.

30. Schultz SK: Conclusions: late-life schizophrenia. *Harv Rev Psychiatry* 9(2):84-87, 2001.
31. Atbasoglu C, Schultz SK, Andreasen NC: The relationship between neuroleptic-induced akathisia and depressive symptoms. *J Neuropsychiatry Clin Neurosci* 13(3):336-341, 2001.
32. Ellingrod VL, Schultz SK, Ekstam-Smith K, Kutscher E, Turvey C, Arndt S: Comparison of risperidone with olanzapine in elderly dementia patients with psychosis. *Pharmacotherapy* 22(1):1-5, 2002.
33. Schultz SK, O'Leary DS, Boles Ponto LL, Arndt S, Magnotta V, Watkins GL, Hichwa RD, Andreasen NC: Age and regional cerebral blood flow in patients with schizophrenia: age effects in the anterior cingulate, frontal and parietal cortex. *J Neuropsychiatry Clin Neurosci* 14:19-24, 2002.
34. Schultz S, Arndt S, Lutz G, Petersen A, Turvey C: Alcohol use among older persons in a rural state. *Am J Geriatr Psychiatry* 10(6):750-753, 2002.
35. Moser DJ, Ferneyhough KC, Bauer RM, Arndt S, Schultz SK, et al: Unilateral vs. bilateral ultrasound in the monitoring of cerebral microemboli. *Ultrasound Med Biol* 27(6):757-760, 2001.
36. O'Leary DS, Block RI, Koeppe JA, Flaum M, Schultz SK, et al: Effects of smoking marijuana on brain perfusion and cognition. *Neuropsychopharmacology* 26(6):802-816, 2002.
37. Arndt S, Schultz SK, Turvey C: Screening for alcoholism in the primary care setting: are we talking to the right people? *J Fam Pract* 51(1):41-46, 2002.
38. Ellingrod VL, Miller D, Schultz SK, Wehring H, Arndt S: CYP2D6 polymorphisms and atypical antipsychotic weight gain. *Psychiatr Genet* 12(1):55-58, 2002.
39. Schultz SK, Arndt S, Lutz GM, Petersen A, Turvey CL: Alcohol use among older persons in a rural state. *Am J Psychiatry* 10(6):750-753, 2002.
40. Kraemer HC, Schultz SK, Arndt S: Biomarkers in psychiatry: methodological issues. *Am J Geriatr Psychiatry* 10(6):653-659, 2002.
41. Schultz SK, Ellingrod VL, Turvey C, Moser DJ, Arndt S: The influence of cognitive impairment and behavioral dysregulation on daily functioning in the nursing home setting. *Am J Psychiatry* 160(3):582-584, 2003.
42. Moser DJ, Schultz SK, Arndt S, Benjamin ML, Fleming FW, Brems CS, Paulsen JS, Appelbaum PS, Andreasen NC: Capacity to provide informed consent for participation in schizophrenia and HIV research. *Am J Psychiatry* 159(7):1201-1207, 2002.
43. Ellingrod VL, Schultz SK, Arndt S: Abnormal movements and tardive dyskinesia in smokers and non-smokers with schizophrenia genotyped for cytochrome P4502D6. *Pharmacotherapy* 22(11):1416-1419, 2002.
44. Moser DJ, Ferneyhough K, Robinson RG, et al: Blood vessel function and cognition in elderly patients with atherosclerosis. Submitted, *Circulation*.

45. Anderson RL, Schultz SK, Buckwalter KC, Schneider JE: Clinical characteristics of older adults admitted to an inpatient psychiatric unit: implications for resource allocation. *Journal of Mental Health and Aging*, 9 (4), pp. 211-221, 2003.
46. Ponto LLB, Schultz SK: Ginkgo biloba extract: review of CNS effects. *Ann Clin Psychiatry* 15(2):109-119, 2003.
47. Schultz SK, Arndt S, Liesveld J: Locations of facilities with special programs for older substance abuse clients in the U.S. *Int J Geriatr Psychiatry* 18(9):839-843, 2003.
48. Burke WJ, Schultz SK, Smith M; Management of Anxiety in Late life, *Annals of Long-term Care*, 12(8) 25-33, 2004.
49. Ponto LLB, Schultz SK: Technical issues in the determination of cerebrovascular reserve in elderly patients using [15O] water PET imaging. *Neuroimage* 21(1):201-210, 2004.
50. Schultz SK, Hoth A, Buckwalter K: Anxiety and impaired social function in the elderly. *Ann Clin Psychiatry* 16:1-4, 2004.
51. Paradiso S, Robinson RG, Schultz SK, et al: Positron emission tomography study of age-related response to negative visual stimuli, submitted.
52. Sattar S.P., Schultz SK, Arndt S, Petty F; Long-Term Adjunctive Quetiapine Reduces Substance Use in Dual Diagnosis Patients, *Annals of Pharmacotherapy*, in press.
53. Moser DJ, Hoth KF, Robinson RG, Paulsen JS, Sinkey CA, Benjamin ML, Schultz SK, Haynes WG. Blood vessel function and cognition in elderly patients with atherosclerosis Stroke. 2004 Nov;35 (11):e369-72.
54. Schultz SK, Ellingrod V; Late-Life Schizophrenia: Optimizing Treatment, Current Psychosis and Therapeutics Reports Vol 3, Issue 1., February 2005.
55. Alexopoulos G, Schultz SK, Lebowitz B: Late-Life Depression: A Model for Medical Classification; APA White Paper, May 2005.
56. Sakauye K, Liptzin B, Blank K, Cohen C, Schultz SK; Medicare Managed Mental Health Care: A Looming Crisis, *Psychiatric Services*, Fall 2005.
57. Smith M, Schultz SK. Managing perplexing patients: the case of Helen. *Issues Ment Health Nurs*. 2005 Jan;26(1):47-63
58. Moser DJ, Reese RL, Schultz SK, Benjamin ML, Arndt S, Fleming FW, Andreasen NC. Informed consent in medication-free schizophrenia research. *Am J Psychiatry*. 2005 Jun;162(6):1209-11.
59. Schultz SK, Moser DJ, Bishop J, Ellingrod V, Phobic Anxiety in Late-Life and 5HTTLPR Polymorphism, *Psychiatr Genet*. 2005 Dec;15(4):305-6.
60. Duff, K, Ponto L, Schultz SK et al, Practice effects in the prediction of long-term cognitive outcome in three patient samples: A novel prognostic index, JINS, submitted.

61. Ponto LL, Duff K, Schultz SK, Global and Regional Cerebral Blood Flow Manifestations of Cognitive Reserve in Subjects with Mild Cognitive Deficits, *Molecular Imaging and Biology*, in press.
62. Schultz SK., The Neuropsychiatry of Aging, (editorial) *Am J Psychiatry*. 2005 Nov;162(11):1993-5.
63. Schultz K, Klein D, Turvey C, Arndt S, Schultz SK, Wallace RB. Preventive health practice and clinical preventive services use among elders, submitted.
64. Moser DJ, Reese RL, Hey CT, Schultz SK, Arndt S, Beglinger LJ, Duff KM, Andreasen NC Using a Brief Intervention to Improve Decisional Capacity, *Schizophr Bull*. 2005 Sep 21.
65. Alexopoulos GS, Schultz SK, Lebowitz BD. Late-life depression: a model for medical classification. *Biol Psychiatry*. 2005 Aug 15;58(4):283-9.
66. Bishop JR, Moline J, Ellingrod VL, Schultz SK. Serotonin 2A -1438 G/A and G-Protein Beta3 Subunit C825T Polymorphisms in SSRI-Associated Sexual Side-Effects. *Neuropsychopharmacology*. 2006 May 10, epub ahead of print.
67. Lewis DA, Michels R, Pine DS, Schultz SK, Tamminga CA, Freedman R. Conflict of interest. *Am J Psychiatry*. 2006 Apr;163(4):571-3.
68. Turvey CL, Schultz SK, Klein DM. Alcohol use and health outcomes in the oldest old. *Subst Abuse Treat Prev Policy*. 2006 Mar 29;1(1):8
69. Forman-Hoffman VL, Ruffin T, Schultz SK. Basal metabolic rate in anorexia nervosa patients: using appropriate predictive equations during the refeeding process., *Ann Clin Psychiatry*. 2006 Apr-Jun;18(2):123-7.
70. Chen X, Magnotta V, Duff K, Boles Ponto LL, Schultz SK, Donepezil Effects on Cerebral Blood Flow in Older Adults with Mild Cognitive Deficits, *Journal of Neuropsychiatry and Clinical Neurosciences* 2006 Spring;18(2):178-85.
71. Freedman R, Lewis DA, Michels R, Pine DS, Schultz SK, Tamminga C, Patterson SL, McIntyre JS, Goldman HH, Yudofsky SC, Hales RE, Rapaport MH, Hales D, Krajewski J, Kupfer DJ, Badaracco MA, Scully JH Jr. Conflict of interest, round 2. *Am J Psychiatry*. 2006 Sep;163(9):1481-3.
72. Abrams T, Schultz SK Hoth A, Mitchell B, Kaboli P, The Relationship between Hearing Impairment and Depression in Older Veterans, *JAGS*, in press.
73. Duff K, Beglinger LJ, Van Der Heiden S, Moser DJ, Arndt S, Schultz SK, Paulsen JS, Practice effects in Mild Cognitive Impairment: Implications for Diagnosis and Treatment, *Neurology*, submitted
74. _____
_____ in preparation.
75. Smith MA, Buckwalter K, Kang H, Schultz SK., Tales from the field: What Nursing Research Textbooks Won't Tell You, *Applied Nursing Research*, submitted.

76. Smith MA, Buckwalter K, Kang H, Schultz SK, Psychotropic Drug Use in Dementia Specific Assisted Living, J American Assoc of Psychiatric Nursing, submitted.
77. Duff K, Beglinger LJ, Schultz SK, Moser DJ, et al, Practice effects in the prediction of long-term cognitive outcome in three patient samples: A novel prognostic index. Arch Clin Neuropsychol. 2006 Dec 1; [Epub ahead of print]
78. Boles Ponto LL, Magnotta VA, Moser DJ, Duff KM, Schultz SK. Global cerebral blood flow in relation to cognitive performance and reserve in subjects with mild memory deficits. Mol Imaging Biol. 2006 Nov-Dec;8(6):363-72.
79. Fiedorowicz JG, Moser DJ, Hynes SM, Beglinger LJ, Schultz SK, Ellingrod VL. LA allelic heterozygosity of the 5HTTLPR polymorphism is associated with higher cognitive function and lower interpersonal sensitivity. Psychiatr Genet. 2007 Feb;17(1):3-4.

Non-Peer Reviewed Papers

1. Schultz, SK: Assessment of psychosis in the elderly (*Vintage Iowa Gerontology Society*) 1999.

Chapters

1. Nopoulos PC, Schultz SK, Andreasen NC: *Brain and Behavior*, in The Textbook of Women's Health, Wallis LA, (ed.). Little, Brown and Co; Boston, 1997.
2. Robinson RG, Schultz SK, Paradiso S: *Treatment of poststroke depression*, in Geriatric Psychopharmacology, Nelson JC (ed.). Marcell Decker, Inc; New York, 1997.
3. Schultz SK, *Contributing question and critique author for psychotic disorders*, in The Geriatric Review Syllabus, A Core Curriculum in Geriatric Medicine, 4th Edition, Cobbs EL and Duthie EH (eds.). American Geriatric Society; 1998.
4. Schultz SK and Miller DD: *Effects of aging on psychotropic efficacy and toxicity*, in Psychiatric Treatment of the Medically Ill, Robinson RG and Yates WR (eds.). Marcell Decker, Inc; New York, 1998.
5. Andreasen NC and Schultz SK: *Integrating functional and structural imaging*, in The Neuropathology of Schizophrenia, Oxford University Press, Oxford, 1999.
6. Schultz SK, contributing author to: *Psychotic Disorders* in The Geriatric Review Syllabus, A Core Curriculum in Geriatric Medicine, 5th Edition, Cobbs EL and Duthie EH (eds.). American Geriatric Society; 2000.
7. Schultz SK, Nopoulos PC, Andreasen NC: *The neuroanatomy of schizophrenia*, in Current Issues in the Psychopharmacology of Schizophrenia, Breier A, Tran PV, Herrera J, Bymaster F (eds.). Williams and Wilkens; Baltimore, in press, 2000.
8. Fuller R, Schultz SK, Andreasen N: Positive and negative symptoms in schizophrenia. Hirsh (ed.). Blackwell publishing; 2002.

9. Schultz SK: *Biological changes with aging and schizophrenia*, in Aging and Schizophrenia, Cohen C (ed.). American Psychiatric Press; 2003.

Books

Geriatric Review Syllabus, 6th Edition, Associate Editor, American Geriatrics Society and Kendall Hunt publishing, 2006

Electronic Publications

1. Dementia Teaching Module in the Iowa Geriatric Education Center (IGEC) web-based learning program for University of Iowa medical students. May 2000.
2. American Geriatrics Society's Foundation for Health in Aging (FHA) publishes Eldercare at Home: online manual for caregivers of compromised older persons at home, Contributed.chapter "Memory Problems:
http://www.healthinaging.org/public_education/eldercare/17.xml" February 2003.
3. Narrator for Audio-Digest Webcasts of the *American Journal of Psychiatry*,
ajp.psychiatryonline.org

Abstracts

1. Schultz SK, Travis K, Ziebell S, Miller D, Arndt S, Andreasen NC: Polydipsia in neuroleptic naïve and treated patients with schizophrenia. International Congress on Schizophrenia Research, Warm Springs, Virginia, 4/95.
2. Schultz SK, Van de Borne P, Anderson E: Heart rate variability before and after electroconvulsive therapy in patients with major depressive disorder. Proceedings of the American Association for Geriatric Psychiatry annual meeting, 3/97.
3. Castillo CS, Schultz SK, Robinson RG: *Clinical correlates of early-onset and late-onset poststroke generalized anxiety*, in Focus on Depression, Vermeulen E (ed.). PMSI; Almere-Stad, The Netherlands, 1996.
4. Schultz SK, Oliver S, Arndt S, Miller D, Andreasen NC: Schizophrenia and aging: a comparison of symptoms among age groups. *Am J Geriatr Psychiatry* 4(4):344, 1996.
5. Schultz SK, Van de Borne P, Anderson E: Sympathetic activity and metabolic rate in patients with anorexia nervosa. American Psychiatric Association Annual Meeting, 5/97.
6. Schultz SK, Miller DD, Arndt S, Andreasen NC: Effects of low versus high potency neuroleptic withdrawal on symptoms and dyskinetic movements. *Schiz Research* 24(1):266, 1997.
7. Ziebell S, Schultz SK, Andreasen NC: Clinical variables associated with suicide in patients with schizophrenia. *Schizophrenia Research* 24(1):26, 1997.
8. Schultz SK and Dornink R: A retrospective analysis of the hypoglycemic treatment of schizophrenia. *Am J Geriatr Psychiatry* 6(3):43, 1998.

9. Schultz SK, O'Leary DS, Andreasen NC: A positron emission tomography study of age-related changes in regional cerebral blood flow. Society for Neuroscience 28th Annual Meeting, 11/98.
10. Ellingrod VL, Schultz SK, Arndt S: Association between cytochrome P4502D6 (CYP2D6) genotype, neuroleptic exposure, and abnormal involuntary movements. International Congress for Schizophrenia Research Annual meeting, 4/99.
11. Atbasoglu C, Schultz SK, Andreasen NC: The relationship between neuroleptic-induced akathisia and depressive symptoms (abstract). Presented at the APA Annual Meeting, 5/00.
12. Schultz SK, Ellingrod V, Moser D, Arndt S: Effects of psychiatric symptoms on functional skills among long-term care patients (abstract). Presented at NCDUE annual meeting; Boca Raton, Florida, 6/00.
13. Schultz SK, Ho BC, Andreasen NC: Age and gender effects on the expression of depressive symptoms in schizophrenia (abstract). American College of Neuropsychopharmacology Annual Meeting, 12/2000.
14. Schultz SK, Ellingrod VL, Moser DJ, et al: Clinical characteristics of late-life psychosis: a comparison of diagnostic groups (abstract). American Journal of Geriatric Psychiatry 9(3)S1:90; Summer 2001.
15. Schultz SK, Ellingrod VL, Ekstam-Smith K, et al: Psychiatric syndromes in the nursing home patient: longitudinal follow-up study (abstract). Presented at the American College of Neuropsychopharmacology Annual Meeting, Kona Hawaii, December 12, 2001.
16. Filips J, Bayless J, Moser DJ, Crossett J, Schultz SK: Associations between cognitive impairment and depressive symptoms in late-life: gender effects. Presented at the First Annual International Congress for Geriatric Psychoneuropharmacology, Kona Hawaii, December 15, 2001.
17. Schultz SK, Ponto LLB, Magnotta V, et al: Assessment of cerebrovascular reserve capacity among persons with mild cognitive impairment using [15O] water positron emission tomography. American College of Neuropsychopharmacology, San Juan Puerto Rico, December 14, 2002.
18. Schultz SK, Ponto LLB, Magnotta V, et al: Cerebrovascular reserve capacity in mild cognitive impairment assessed by [15O] water positron emission tomography. American College of Neuropsychopharmacology, San Juan; December 11, 2003.
19. Duff K, Ponto LLB, Moser D, et al., Mild Cognitive Impairment assessed by [15O]water Positron Emission Tomography: Differences in Cerebral Blood Flow among Cognitive Subtypes. American College of Neuropsychopharmacology, San Juan; December 13, 2004.

Reviews

1. Schultz SK and Andreasen NC: Schizophrenia. *Lancet* 353:1425-1430, 1999.

Other

1. Schultz SK and Schilling M: Info-connect: dementia, delirium and depression in the nursing home. Educational module produced by the Geriatric Education Center, 2000.
2. Schultz SK: *On reaching visible* (poem) in This Side of Doctoring: Reflections from Women in Medicine, Chin EL (ed.). Sage Publications; London, 2002.
3. Research Agenda for the DSM-V: White paper geriatric workgroup member, Chair: Dilip Jeste MD, 2004-5
4. Schultz SK: Info-connect brochure: Treating depression in Dementia. Educational module produced by the Geriatric Education Center, 2005.

B. Areas of Research Interest and Current Projects

Areas of Research Interest

Aging, dementia, psychosis in late life, antipsychotic-induced movement disorders in the elderly, multifactorial pathways to dementia, cancer and dementia

Current Projects

1. Cerebral blood flow, cognition and cognitive enhancers in the elderly
2. Psychosis in the context of dementia, and antipsychotic treatment in dementia
3. Alzheimer's disease; Risk factors for late life cognitive decline
4. Neuroprotective treatments for dementia, genetic predictors of treatment response
5. Chemotherapy as a risk factor for dementia

D. Grants Received

Federal

Principal Investigator: Schultz

National Institute of Mental Health (NIMH) K08 MH01633-01

Mentored Clinical Scientist Career Development Award

Neuroleptics and Aging: Preventing Tardive Dyskinesia

Funding Period: 7/98-7/03

Annual Budget: \$150,000/yr

Site Principal Investigator in Alzheimer's Trial

Sub-contract with the University of North Carolina – Chapel Hill

Prime source: National Institute of Mental Health

R01: Clinical Atypical Antipsychotic Trial of Intervention Effectiveness: CATIE

(PI: Lieberman, Jeffrey, UNC)

This is a large multi-site study of atypical antipsychotic interventions for ambulatory patients with Alzheimer's disease and psychosis.

Funding Period 10/1/2000 – 9/30/2003

Annual Budget: \$147,000

Principal Investigator: Schultz

National Institute of Mental Health

R21 Project: Cognitive Enhancers Explored with PET Imaging; this is a double blind placebo controlled trial of ginkgo biloba augmentation of donepezil, effects on clinical outcome and cerebral blood flow. This study examines whether ginkgo biloba supplementation of traditional medications for dementia (donepezil) is beneficial for otherwise healthy elderly with early dementia.

Funding Period: 2001-2005

Total award of \$375,000

R01AG021488-03– (PI: Dev Devanand)

NIH/NIA

“Antipsychotic Discontinuation in Alzheimer's Disease”

This is a multi-site study to assess patients with dementia in AD and conduct a treatment protocol with a controlled discontinuation phase.

Role: Site Principal Investigator, subcontract with the primary site at Columbia University.

Annual Budget: \$100,000

Funding Period: 12/1/2002 – 11/30/2007

5U01AG010483-15 Alzheimer's Disease Collaborative Study (ADCS)

NIH/NIA (PIs: Leon Thal, Pierre Tariot)

“Valproate and Neuroprotection Clinical Trial”

This study represents a novel clinical trial strategy designed to assess both prospective “prophylactic” therapy for psychopathology in Alzheimer's Disease (AD)

Role: Site Principal Investigator

Annual Budget Estimated \$100,000

Project period: 7/2005 – 12/2008

2 R01 DA010551-05

NIH/NIDA (PI: D. O'Leary)

“Acute Marijuana Effects on Regional Cerebral Blood Flow”

To develop a better understanding of how cannabis impacts the decision making capacity of the brain using PET. One of the main goals is to better understand how the cerebellum is affected by THC and its “functional connectivity” with other brain regions.

Role: Co-Investigator

Project Period: 4/1/98 – 6/30/08

R03 AG025850-01 (PI: Duff)

NIH/NIA

“Predicting Decline in Mild Cognitive Impairment”

The major goals of this project are to compare practice effects in patients with Mild Cognitive Impairments and healthy controls, and to examine the ability of short-term practice effects in predicting cognitive functioning at 12-months.

Role: Co-Investigator

Project Period: 7/15/05 – 5/31/07

1U18HS016094-01 (PI: Chrischilles)

NIH/AHRQ

“University of Iowa Older Adults CERT”

The University of Iowa Older Adults CERTs (UIOAC) offers the CERTs program research expertise for making policy-relevant estimates of treatment effects and cost-effectiveness among subsets of the elderly defined by important characteristics such as function status, co-morbidity, and age and identifying and designing interventions to address barriers to optimal therapeutics in the elderly in community care settings.

Role: Co-investigator, Chair of Education and Dissemination Workgroup

Project Period: 4/01/06 – 03/01/11

Co-Investigator

National Institute of Nursing Research

Role: Mentor for Kathleen Buckwalter PhD (PI) "Anxiety Interventions in Assisted Living Facilities"

F30 Fellowship training grant for re-entry into research; this project provides direct supervision to Dr. Buckwalter in conducting assessments of anxiety in the assisted living facilities and modeling interventions including medical optimization and the Progressively Lowered Stress Threshold model.

Funding Period: 2004-7; Total Award of \$100,000.

Other

Principal Investigator: Schultz

UI Cancer and Aging Program (CAP) Pilot Funding

Elderly Cancer Survivors: Cognitive Outcomes and Markers for Neurodegeneration

This project provides essential pilot data for the current R01 in review, by assessing elderly women who have survived chemotherapy for breast cancer and have been in remission for over ten years. The study will obtain neuropsychological testing, brain imaging, genotyping and an evaluation of oxidative damage to determine if there are sustained effects on cognition that may have implications for risk factors for dementia.

Funding Period: 9/2006-2007, Award ~ \$ _____

Principal Investigator: Schultz

Social Adaptive and Cognitive Function Among Older Patients with Schizophrenia,

Nellie Ball Trust Fund, Iowa State Bank and Trust

Project will examine social skills among older patients and determine their relationship to housing needs and cognitive function.

Funding Period 3/2001-2/2002

Annual Budget: \$ _____

Principal Investigator: Schultz

National Alliance for Research on Schizophrenia and Depression (NARSAD) foundation

Project: The Relationship between Tardive Dyskinesia, Diabetes Mellitus and Phenylalanine metabolism in patients with Schizophrenia

This project analyzed glucose tolerance and phenylalanine amino acid challenge tests in patients with tardive dyskinesia.

Funding Period: 7/96 – 12/98 Total Award: \$ _____

Co-Investigator

Reynold Foundation

(PI: _____)

Strengthening Geriatric Training at Iowa: This project seeks funds to implement programs that increase the expertise and magnitude of medical students entering geriatric practice

Funding Period: 7/01/2001-6/30/2005

Annual award of \$ _____ for total project

Annual Award for Co-I Schultz salary: \$ _____

Site-PI

"A Phase II Double Blind Randomized Dose Ranging Placebo Controlled Multi-Center Safety and Efficacy Evaluation of 3 Doses of _____ in Patients with Mild to Moderate Dementia of the Alzheimer Type"

This is a multi-site study to determine how safe and effective _____ is for people with Alzheimer's disease.

Funding period: 8/1/2003 – 12/1/2004; Annual Budget, \$ _____

Pending Decisions

Principal Investigator

National Institute of Health

PI: Schultz SK

R01: Elderly Cancer Survivors: Cognitive Outcomes and Markers of Neurodegeneration

Purpose: To determine the contribution of chemotherapy to cognitive impairment among women in late life who have survived breast cancer more than 10 years, to test whether cognitive impairment among women exposed to chemotherapy is associated with specific differences in brain structure and white matter integrity compared to women who have not been exposed to chemotherapy and to examine whether mitochondrial DNA damage is increased among women with previous chemotherapy.

Submitted October 2005, Score 190, resubmitted July 2006, Score 136, in council.

Annual budget: ~\$200, 000

E. Invited Lectures and Conference Presentations

1. "Age and symptom dimensions in schizophrenia" *American Association for Geriatric Psychiatry Annual Meeting*, February 1996.
2. "Schizophrenia and Aging" *National Alliance for the Mentally Ill, Iowa Chapter 1996 Mental Health Conference*, Cedar Rapids, IA, October 1996.
3. "Diabetes Mellitus as a Risk Factor for Tardive Dyskinesia" *American Association for Geriatric Psychiatry Annual Meeting*, March 1998.
4. "Treatment of Agitation in Dementia" *Iowa Community Mental Health Center 1998 Annual Meeting*, Five Seasons Center, Cedar Rapids IA, October 1998.
5. "Mechanisms in Dementia: Implications for Treatment" *Iowa Psychiatry Society Annual Meeting*, City Plaza Hotel, Iowa City, November 1999.
6. "Assessment of Psychiatric Symptoms among Long-term Care Patients" *Research Seminar*, University of Iowa Department of Psychiatry, Iowa City, February 2000.
7. "Age and Cerebral Blood Flow in Patients with Schizophrenia" *American Association for Geriatric Psychiatry Annual Meeting Symposium*, Fontainebleau Hilton, Miami, Florida, March 2000.
8. "Interventions for Dementia and Psychiatric Symptoms in Dementia" *Gerontology Society of Iowa Annual Meeting*, Des Moines Iowa, April 2000.
9. "Psychiatric Symptoms in the Nursing Home" *Center on Aging Research Seminar*, University of Iowa College of Medicine, May 2000.
10. "Role of Cognitive Decline and Psychiatric Symptoms on Functional Abilities in the Elderly" *Iowa Geriatric Education Center Grand Rounds Series*, May 2000.
11. "Psychiatric Assessment in Late-Life: The Interface of Psychiatry and Neurology" *Hartford Foundation Retreat in Geriatric Psychiatry and Neurology*, St. Johns, Virgin Islands, March 26, 2001.

12. "Dementia in the New Millennium" *First Annual Midwest Aging Conference*, Methodist Medical Center, Des Moines IA, September 27, 2001.
13. "Brain Maintenance 101" *Nebraska Wesleyan University Pre-medicine Alumni Reunion*, Nebraska Wesleyan University, September 26, 2002.
14. "Fall Clinicians Institute: Geropsychiatry Educational Forum for the General Psychiatry", Sponsored by the *American Association for Geriatric Psychiatry*, Conference Chair and speaker, Orlando, FL; Nov. 8-11th, 2003.
15. "Axis III and Beyond: Sexuality and Social Function in Late-Life" *American Association for Geriatric Psychiatry*, Symposium at annual meeting, Honolulu, Hawaii; March 2, 2003.
16. "Late Life Psychosis" *American Geriatrics Society annual meeting symposium*, Baltimore, MD, May 18, 2003.
17. "Axis III: More Chronic Comorbid Conditions" American Association for Geriatric Psychiatry annual meeting, March 2, 2004.
18. "Depression, Dementia, Delirium" American Urologic Association, Geriatric Society annual meeting, San Francisco, May 12, 2004.
19. "Late Life Schizophrenia" American Psychiatric Association Annual Meeting, New York, NY, May 2, 2004.
20. "The Interface of Anxiety and Cognitive Decline" American Geriatrics Society (AGS) Annual Meeting, Las Vegas, May 19, 2004.
21. "Management of Schizophrenia in Late-life" Long-term Care Conference, Iowa Veterans Home, Marshalltown, IA, October 22, 2004.
22. "NIMH Outreach Partners Annual Conference: Geriatric Psychiatry" NIMH sponsored event in Omaha, Nebraska, April 1-3, 2005.
23. "Research Agenda for DSM-V, Geriatric Psychiatry APA Workgroup" American Psychiatric Association Annual Meeting, Atlanta, Georgia, May 24, 2005.
24. "Atypical Antipsychotics in Dementia Care" UI Interdisciplinary Geriatric Grand Rounds, November 23, 2005, 3W19C.
25. "Dementia and Depression" Aging and Mental Health Conference hosted by the UI College of Medicine, January 27, 2006, UIHC East Room.
26. "Psychiatric Consequences of Dementia" Community outreach talk, Methwick Retirement Center, Cedar Rapids, Iowa, February 28, 2006.
27. American Association for Geriatric Psychiatry Annual Meeting, Moderated Conference on "Future Perspectives in Geriatric Psychiatry Research" San Juan, Puerto Rico, March 7, 2006.
28. American Association for Geriatric Psychiatry Annual Meeting "Career Development for Women" Annual Meeting Presentation, San Juan Puerto Rico, March 10, 2006.

29. Iowa City VAMC General Medicine Grand Rounds, "Antipsychotic Medications in the Elderly" ICVAMC 3W-19, April 4, 2006.
30. Monitoring Issues for Antipsychotic Management of Behavioral Problems in the Long-term Care Patient, Best Practices Consensus Conference, Bethesda, MD, June 28, 2006.

IV. SERVICES

A. Offices held in profession organizations (least to most recent)

- | | |
|--------------|---|
| 1990-present | American Psychiatric Association, member |
| 2000-2005 | American College of Neuropsychopharmacology (ACNP) Associate |
| 2001-present | International College of Geriatric Psychoneuropharmacology (ICGP),
Founding Member |
| 2001-2004 | American Association for Geriatric Psychiatry, Education Committee, Chair |
| 2004-present | American Association for Geriatric Psychiatry, Research Committee, Chair |

Editorships

- Deputy Editor, *American Journal of Psychiatry*; 2005-present
- Associate Editor, American Geriatric Society: Geriatric Review Syllabus, 6th edition, 2006.
- Editorial Board, *Annals of Clinical Psychiatry* 2004-present
- Editor / Narrator for Audio-Digest Webcasts of the *American Journal of Psychiatry*

Review Panels

- Ad-hoc reviewer, Department of Veterans Affairs Study Section, 1999-2000.
- Ad-hoc reviewer, National Institute of Mental Health Special Emphasis Panel ZMH-DEA-F01 3/04
- Member National Institute of Health (NIH) Study Section: Neuropathology of Addiction and Sleep Disorders (NPAS Study Section, formerly BDCN-6) 2004-present
- Member FDA Psychopharmacologic Drug Advisory Committee, February 2007-present

Departmental, Collegiate or University Committees

- Director, Work Group for Geriatric Projects, Department of Psychiatry
- Coordinator, Monthly "Faculty Research Lunch," Department of Psychiatry
- Reviewer, Holden Comprehensive Cancer Center, Protocol Review and Monitoring Committee (PRMC)

University

1998-2001	Institutional Review Board (Human Subjects Committee A)
1998-present	Iowa Geriatric Education Consortium, Project Participant
2001-present	UI Center on Aging Executive Board
2001-present	Coordinator, Department of Psychiatry Research Forum
2003-2005	Director, University of Iowa Center on Aging, Neuropsychiatry of Aging Research Seminar
2003-2006	IRB Member, University of Iowa Human Subjects member, 2 nd tour
2005-6	Reviewer, Iowa City VAMC Human Subjects Committee

College of Medicine

1996-2000	Medical School Admissions Committee, Medical School Applicant Interviewer
2000-present	University of Iowa College of Medicine Research Committee, member

National

1998-2000	National Consortium for Research on Schizophrenia and Aging
2000-present	American Board of Psychiatry and Neurology (ABPN) Geriatric Certification Committee
2004-2005	APA Task Force: Research Agenda for DSM-V, Workgroup in Geriatric Psychiatry
2004-2007	American Association for Geriatric Psychiatry, Board of Directors
2005	AAGP Task Force for a Position Statement on Clinical Trials Registries
2005-	Group for the Advancement of Psychiatry, Aging Committee
2006-	APA Component Committee on Access and Effectiveness of Psychiatric Services for the Elderly
2006-	Narrator for Audio-Digest Webcasts of the <i>American Journal of Psychiatry</i>
2006-	AAGP Director of 2006 "Research Summit on the Future of Geriatric Psychiatry Research" Bethesda MD, November 3, 2006.
2007-	APA DSM-V Work Group on Psychosis, Schizophrenia and Related Disorders