CURRICULUM VITAE

Duane M. North, M.S. Applied Neuroscience, Inc. duane@appliedneuroscience.com

I. EDUCATION

University of Pittsburg, PA., B.S. (Applied Mathematics)

St. Bonaventure University, N.Y., M.S. (Mathematics w/ Master's Thesis)

II. ACADEMIC APPOINTMENTS AND WORK HISTORY

DATABASE MANAGER AND PROGRAMMER

Applied Neuroscience, Inc., September, 2001 to the present

Responsible for clinic report software development, EEG and MRI database management, Gaussian Cross-Validation analyses, tests of normative database sensitivity and accuracy, LORETA image development

RESEARCH STATISTICAL ANALYST, Oct '96 - May '06

The Bay Pines Foundation, Inc. at VA Medical Center, Bay Pines, FL

Medical Research exploring MRI and EEG. Utilizing Silicon Graphic (INDY) computer in an UNIX environment. Using IDL programs in processing MRI data. Using MedVision software on the Macintosh to analyze MRI data images. Expertise in utilizing EXCEL to create databases, tabulations, and chart/graphs. Applying statistical methods: Correlations, Factor Analyses, Discriminant Analyses, T-TESTs, ANOVAs/MANOVAs, etc... using statistical software DATA DESK, SPSS and SYSTAT to analyze data.

ADJUNCT PROFESSOR OF MATHEMATICS, Jan '98 - May '98 Schiller International University; Dunedin, FL

Instructed college freshman mathematics

PROGRAMMER/ANALYST: MARKETING RESEARCH, Jan '96 - Sept '96 Research Data Services, Inc./The Klages Group; Tampa, FL

Tabulation manager by programming utilizing QUANTUM and SPSS programming languages. Analyze final data by checking numbers and statistics to frequencies/marginal counts. Other functions: coding, data-entry, scanning, and data verification

INTERNSHIP: DATA PROCESSING SPECIALIST, Apr '95 - Oct '95

Sterling Research Group, Inc; Isla Del Sol, St. Petersburg, FL

Programming computers using QUANTUM Programming Language utilizing the databases. DATA ENTRY Scanning surveys into databases. Detail Orientation

Florida State Teacher Certification - 1995

NYS Empire State Challenger Fellowship for Education & Teaching

III. BIBLIOGRAPHY

Thatcher R.W., Gomez-Molina J.F., Biver. C., North, D., Curtin, R. and Walker, R.W.,

Two Compartmental Model of EEG Coherence and MRI Biophysics. <u>Behavior and</u> Brain Sciences, 23(3): 412, 2000.

Thatcher, R.W., North, D., Curtin, R., Walker, R.A., Biver, C., J.F. Gomez M., and Salazar, A. An EEG Severity Index of Traumatic Brain Injury, <u>J. Neuropsychiatry</u> and Clinical Neuroscience, 13(1): 77-87, 2001.

Thatcher R.W., Biver, C.L., Gomez-Molina J.F., North, D., Curtin, R. and Walker, R.W., and Salazar, A. Estimation of the EEG Power Spectrum by MRI T2 Relaxation Time in Traumatic Brain Injury. <u>Clinical Neurophysiology</u>, 131: 1724-1738, 2001.

Thatcher, R.W., Biver, C., and North, D., Quantitative EEG and the Frye and Daubert Standards of Admissibility. <u>Clinical Electroencephalography</u>, 34(2): 39-53, 2003.

Thatcher, R.W., Walker, R.A., Biver, C., North, D., Curtin, R., Quantitative EEG Normative databases: Validation and Clinical Correlation, J. Neurotherapy, 7 (No. $\frac{3}{4}$): 87 – 122, 2003.

Thatcher, R.W., North, D., and Biver, C. EEG inverse solutions and parametric vs. non-parametric statistics of Low Resolution Electromagnetic Tomography (LORETA). Clin. EEG and Neuroscience, Clin. EEG and Neuroscience, 36(1), 1 – 9, 2005.

Thatcher, R.W., North, D., and Biver, C. Evaluation and Validity of a LORETA normative EEG database. Clin. EEG and Neuroscience, 2005, 36(2): 116-122.

Thatcher, R.W., North, D., and Biver, C. EEG and Intelligence: Univariate and Multivariate Comparisons Between EEG Coherence, EEG Phase Delay and Power. Clinical Neurophysiology, 2005, 116(9):2129-2141.

Thatcher, R.W., North, D., and Biver, C. Intelligence and EEG current density using low resolution electromagnetic tomography (LORETA), (Submitted for

publication).

Thatcher, R.W., Biver, C. J., and North, D. LORETA current source correlations and cortical connectivity, (In Press, Clin. EEG and Neuroscience, 2006).

Thatcher, R.W., Biver, C. J., and North, D. LORETA current source correlations and intelligence, Human Brain Mapping, May 25, 2006.

B. PUBLISHED ABSTRACTS

Thatcher, R.W., Biver, C., J. Gomez M, North, D., and Salazar, A.M. Normative LORETA EEG database validations and reliability measures. EEG and Clinical Neuroscience Society, Monterey, Calf., 2001.

Thatcher, R.W., Biver, C., J. North, D, and Salazar, A.M. EEG analyses of traumatic brain injury: History and summary of relevant results. EEG and Clinical Neuroscience Society, Monterey, Calf., 2001.

Thatcher, R.W., North, D., Biver, C. EEG normative databases of the differences between eyes open vs. eyes closed conditions. <u>International Society of Neuronal Regulation Annual Meeting</u>, Houston, Texas, September, 2003.

Thatcher, R.W., North, D., Biver, C. EEG discriminant analyses of children with learning disabilities. <u>International Society of Neuronal Regulation Annual Meeting</u>, Houston, Texas, September, 2003.

Thatcher, R.W., North, D., Biver, C. EEG inverse solutions and parametric vs. non-parametric statistics of Low Resolution Electromagnetic Tomography (LORETA). <u>International Society of Neuronal Regulation Annual Meeting</u>, Houston, Texas, September, 2003.

Thatcher, R.W., North, D., Biver, C. EEG analyses of children with learning disabilities. Eleventh Annual Future Health Congress, Palm Springs, California, February, 2004.

Thatcher, R.W., North, D., Biver, C. EEG and Intelligence: Univariate and Multivariate Comparisons Between EEG Coherence, EEG Phase Delay and Power, European International Society of Neuronal Regulation, Winterthur, Switzerland, February 24-28, 2004.

Thatcher, R.W., North, D., Biver, C. EEG and Intelligence: The Frontal Lobes and EEG Coherence and Phase Delays, <u>International Society of Neuronal Regulation</u>, Ft. Lauderdale, Florida, August 28, 2004.

Thatcher, R.W., Biver, C. and North, D. EEG Phase Reset. EEG and Clinical Neuroscience Society Annual Meeting, Boston, MA., <u>EEG and Clinical EEG and</u>

Neuroscience, 37(2): 278-279, 2006.

Thatcher, R.W., Biver, C. and North, D. Spatio-Temporal Current Source Correlations and Cortical Connectivity. EEG and Clinical Neuroscience Society Annual Meeting, Boston, MA., <u>EEG and Clinical EEG and Neuroscience</u>, 37(2): 279-300, 2006.

Thatcher, R.W., North, D., Biver, C. Intelligence and EEG Current Density Using LORETA. EEG and Clinical Neuroscience Society Annual Meeting, Boston, MA., EEG and Clinical EEG and Neuroscience, 37(2): 278-279, 2006.