CURRICULUM VITAE

February 2016

1. ***PERSONAL BACKGROUND***

NAME:	Michael A. Persinger
DEPARTMENT:	Psychology (and Biology)
PRINCIPAL SUBJECT TAUGHT:	Neuroscience/Methodology/Interdisciplinary
HOME ADDRESS:	261 Wilson Street, Sudbury, Ontario P3E 2S3
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2. ***HISTORY AT LAURENTIAN***

Date of Appointment:	1971
Rank when Appointed:	Assistant Professor
Date of Tenure:	1974
Date of Promotions:	
Associate Professor:	1975
Full Professor:	1980
Coordinator: Behavioral Neuroscience Program:	1983-present
Core Member of the Biomolecular Sciences Ph.D. Program:	2004-present
Member of Ph.D. Program in Human Studies	2006-present
Member of Child Development/Human Development Program	1990-present
Member of Ph.D. Program in Northern Health	2014-
Cross-Appointed to Department of Biology:	1990-present
Cross-Appointed to Forensic Science Program	2009
Adjunct Professor: University of Ottawa (Psychology):	1990-2000
Adjunct Professor: University of Western Ontario (Medical Biophysics):	1999-2001
Adjunct Professor: University of Guelph (Zoology):	2000-2012

3. ***ACADEMIC BACKGROUND***

a) Degree granted/Discipline/Year/Institution/Name

B.A. 1967, University of Wisconsin, Madison, Wisconsin, U.S.A.
M.A. 1969, University of Tennessee, Knoxville, Tennessee, U.S.A.
Ph.D. 1971, University of Manitoba, Winnipeg, Manitoba, Canada

b) Ph.D. Thesis Title

Pre- and neonatal exposure to cobalt 60 or 0.5 Hz electromagnetic fields and delayed conditioned approach behavior.

3.1 Laboratory Research Background

1981-Present

- Quantum representations of biological systems
- Discovering common connections between cosmological quantities, geophysical variable and biological systems.
- Quantitative electroencephalographic measurements and models of consciousness
- Biophysics of the histomorphological, behavioral, and (brain) molecular consequences of a single impact (200 g dropped from 0.9 m) of mechanical energy to the skull: simulation of "mild" brain injury in humans
- Bioelectromagnetism: Mechanisms and processes
- Identification of brain damage patterns (in the rat) induced by a single subcutaneous injection of lithium and pilocarpine and postictal pharmacological treatments
- Evaluation of behavioral and immunological deficits associated with insidious, limbic seizure-induced brain damage
- Verification of Tectonic Strain Hypothesis within several tectonostratigraphic regions
- Factor analyses and construct validity of a temporal lobe lability factor in the human population (applications to creativity and inferential processing during crises)
- Verification and determination of the contribution of geomagnetic activity and experimentally-induced pulsed magnetic fields to brain function and anomalous experiences
- Memory modifications by altered states
- Neuropsychological correlates of religious and delusional thinking
- Comparisons of qualitative (neurological) and quantitative (neuropsychological) techniques for assessing diffuse/microstructural brain damage
- Integrating the Physical Sciences, Social Sciences, and Humanities by common operations.
- Understanding the nature of space-time and its multiple quantitative parameters.

1977-1980

- Specification of conditioned taste aversion mechanisms
- Experimental manipulation of brain mast cell numbers and their degranulation profiles (re: multiple sclerosis)
- Quantitative models for luminosity (UFO report) predictions (adjunct forecasting of earthquakes)
- Haematological, histological, and physiological consequences of sudden reinforcement schedules: application to lifestyle alterations
- Effects of magnetic field application upon memory processes

1973-1976

- Taurine effects on behaviour, physiology, and brain chemistry
- Development of histological techniques for analyses of brain, hypophysis, thyroid, spleen, and thymus
- Identification and quantification of mast cells in the rat brain
- Matrix and profile analyses of behavioral, physiological, histological, and biochemical correlates
- Multiple regression analyses of space-time coordinates of luminosity reports

1966-1972

- Study of rat cardiovascular and haematological function during magnetic field exposure
- Statistical analyses of human disease conditions and their correlates with meteorological conditions
- Behavioral and biological consequences of prenatal exposure to X-rays and gamma-rays
- Pursuit of the thyroidal mechanism as the source of rotating magnetic field-induced changes in the rodent
- Anomalous geophysical and human transients in Southeast Asia
- Amino acid production in abiogenic environments simulating the pre-Cambrian condition

3.2 Clinical Research and Practice

1967-1969 (University of Tennessee)

- Clinical and Training as a graduate student at Eastern State Psychiatric Hospital. Courses in Neuropsychology, Clinical and Counselling and Personality

1970-1971 (University of Manitoba)

- Graduate courses and experience with behavioural modification and clinical neuropsychology (Halstead tradition).

1995-Present

- Transcerebral (weak magnetic field) stimulation for treatment of depression and pain following mild to moderate brain injury
- Development of integrated, accurate neuropsychological, cognitive and personality assessments: test-retest and construct validity
- Geomagnetic activity, complex partial epileptic-like experiences and PSI phenomena
- Hypnotic susceptibility, memory modifications by therapies and the simulation of these therapies by weak, complex transcerebral magnetic fields

1985-1994

- Discriminative analyses of cerebral functional differences in populations of normal, brain-injured and epileptic children and adults
- Development of psychometric instruments to discern the focus of electrical lability within the brain as determined by phenomenological content
- Determination of the interaction between personality factors and mild temporal lobe symptoms

1972-1988 (intermittent)

- Thanatology (death confrontation: behavioral patterns of volunteers with terminal or highly probable terminal conditions)
- Reinforcement histories and daily rituals of young adults prone to sudden religious and occult conversions

Clinical (Private) Practice (Registered Psychologist): Certificate Number: 1952
1986-Present - Canadian Register of Health Providers Number: 05079

- Clinical Neuropsychology & Psychology. Special emphasis & expertise for: epilepsy, learning problems, & closed head injuries. Assessment involves an integrated measurement of classic & novel neuropsychological procedures, personality profiles, cognitive level & electrocortical patterns. Family psychometric measures are often integrated
- Assessed more than 1,000 patients (adult and children over 5 years of age) who have sustained mild to moderate closed head injuries.
- Developed novel or specialized neuropsychological tests and indicators, particularly to infer function within the medial surfaces of the cerebral hemispheres
- Developed the use of "gradient analyses" and z-score comparisons for discerning relative strengths and weakness and differentiating electrical transients from regions of hypofunction
- Intervention: Anomalous/Extreme paranormal crises
- Counselling Survivors of Head Injuries and Temporal Lobe Epilepsy, i.e., partial complex epilepsy (Post-traumatic Stress Disorders)
- Replacing psychometric test interpretations with sLORETA (Low resolution electromagnetic tomography) and employing real-time LORETA profiles during counselling and therapeutic interventions.
- Developing novel electromagnetic cerebral applications for treatment of cancer and the pain associated with closed head injury and malignancies.

4. ***TEACHING EXPERIENCE***

a) University Teaching Experience

1971-75 Assistant Professor of Psychology, Laurentian University (Full-time)
1975-80 Associate Professor of Psychology, Laurentian University (Full-time)
1980- Full Professor of Psychology, Laurentian University (Full-time)
1983- Coordinator, Behavioral Neuroscience Program, Laurentian University (Full-time)

b) Research Experience: 40 years; Laurentian University; Full-time

5. ***LEAVES***

a) Study Leave: N/A

b) Sabbatical Leaves: 1978-79/1986 (half)

6. ***ADMINISTRATIVE CONTRIBUTION TO LAURENTIAN***

1975-2000: Chairman and Member of University Animal Care Committee (ACC)
2000-2004: Member of the University Animal Care Committee
1971-present: Member of either Personnel, Ethics, or Academic Affairs Committees for the Department of Psychology
1975-78: Chairman of Departmental Budget Committee
1988-2001: Centre in Mining and Mineral Exploration Research (CIMMER)
1983-present: Coordinator of Behavioral Neuroscience Program
2006-present Contributor to Council of Department of Biology
2006-present Admissions Review Committee, Biomolecular Science (BMS) Program
2007-present Senator, Laurentian University Senate
2010-present Member, Candidate Exam Committee, BMS
2010-present Member, Senate Executive
2009-persent Member of Science and Engineering Executive Council
2010-present Member of university's Research Ethics Board (REB)
2012-present Senate Representative to the Board of Governors
2012-2015 Senate Representative to Exec Board of Governors
2015-present LUFA representative to Teaching and Learning Committee
2013-present Representative to Laboratory Health and Safety
2013-present Executive Council, Ph.D. Human Studies Program
2014-present LUFA Representative to Parking and Security

7. ***SCHOLARLY ACTIVITY/ACADEMIC PUBLICATIONS***

a) Books:

Persinger, M.A. (Ed.). ELF and VLF Electromagnetic Field Effects. New York: Plenum Press, 1974.

Persinger, M.A. (Ed.). The Paranormal. Part I: Patterns. New York: M.S.S. Information, 1974.

Persinger, M.A. (Ed.). The Paranormal. Part II: Mechanisms and Models. New York: M.S.S. Information,

1974.

Persinger, M.A., & Lafrenière, G.F. Space-time Transients and Unusual Events. Chicago: Nelson-Hall, 1977.

Persinger, M.A., Carrey, N.J., & Suess, L. TM and Cult-Mania. Boston: Christopher Publishing House, 1980.

Persinger, M.A. The Weather Matrix and Human Behavior. New York: Praeger, 1980.

Persinger, M.A. Neuropsychological Bases of God Beliefs. New York: Praeger, 1987.

b) Books Edited (see above)

c) Chapters in Academic Books:

Persinger, M.A. Introduction. In M.A. Persinger (Ed.). ELF and VLF Electromagnetic Field Effects. New York: Plenum Press, 1974, Pp. 1-8.

Persinger, M.A. ELF and VLF electromagnetic and magnetic field effects: the patterns and the problems. In M.A. Persinger (Ed.). ELF and VLF Electromagnetic Field Effects. New York: Plenum Press, 1974, Pp. 275-310.

Persinger, M.A., Lafrenière, G.F., & Ossenkopp, K.-P. Behaviourial, physiological, and histological changes in rats exposed during developmental stages to ELF magnetic fields. In M.A. Persinger (Ed.), ELF and VLF Electromagnetic Field Effects. New York: Plenum Press, 1974, pp. 177-225.

Persinger, M.A. Effects of magnetic fields on animal behaviour. In H.D. Johnson (Ed.), Progress in Biometeorology: Division B. Progress in Animal Biometeorology. Amsterdam: Swets and Zeitlinger, 1976, Pp. 177-182.

Persinger, M.A. Limitations of human verbal behaviour in context of UFO-related stimuli. In R.F. Haines (Ed.), UFO Phenomena and the Behavioral Scientist. Metuchen, NJ: Scarecrow, 1979.

Persinger, M.A. Recent studies (since 1973) on the biological effects of low and extremely low frequency electromagnetic fields. In S.W. Tromp (Ed.), Biometeorological Survey. Vol. 1, 1973-1974. London: Heyden, 1979, Pp. 68-73.

Persinger, M.A. Possible infrequent geophysical sources of close UFO encounters: expected physical and behavioral-biological effects. In R.F. Haines (Ed.), UFO Phenomena and the Behavioral Scientist. Metuchen, N.J.: Scarecrow Press, 1979, Pp. 396-434.

Persinger, M.A. The effects of transient or intense geomagnetic or related global perturbation upon human group behavior. In J.B. Calhoun (Ed.), Perspectives on Adaptation, Environment and Population. New York: Praeger, 1983, Pp. 28-30.

Persinger, M.A. The Modern Magnetotherapies. In A.A. Marino (Ed.), Handbook of Bioelectricity, New York: Marcel-Dekker, 1988, pp. 589-627.

Persinger, M.A. Near death experiences: determining the neuroanatomical pathways by experiential patterns and simulation in experimental settings. In L. Bessette (Ed). Healing: Beyond Suffering or Death, MHH: Quebec, 1993, pp. 227-286.

Persinger, M.A. Hypnosis and the brain: the relationship between subclinical complex partial epileptic-like symptoms, imagination, suggestibility and changes in self-identity. In R. G. Kunzendorff, N.P. Spanos, and B. Wallace (Eds). Hypnosis and Imagination. New York: Baywood Publications, 1996, pp. 283-305.

Persinger, M.A. Near-death experiences and ecstasy: An artifact of the organization of the human brain? In S. Della Salla (Ed.), Mind Myths. John Wiley, NY: 1999, pp. 85-99.

Persinger, M.A. The UFO experience: A normal correlate of human brain function. In D.M. Jacobs (Ed.), UFOs and abductions: Challenging the borders of knowledge. University Press of Kansas: Lawrence. 2000, pp. 262-302.

Persinger, M.A., & Koren, S.A. Predicting the characteristics of haunts from geomagnetic factors and brain sensitivity: Evidence from field and experimental studies. In J. Houran & R. Lange (Eds), Hauntings and poltergeists: Multidisciplinary perspectives. Jefferson, NC: McFarland & Company, 2001, pp. 179-194.

Roll, W.G., & Persinger, M.A. Poltergeists and hauntings. In J. Houran & R. Lange (Eds.), Hauntings and poltergeists: Multidisciplinary perspectives. Jefferson, NC: McFarland & Company, 2001, pp. 123-163.

Persinger, M.A. Experimental simulation of the god experience: implications for religious beliefs and the future of the human species. In R. Joseph (ed). Neurotheology: Brain, Science, Spirituality, Religious Experience. San Jose CA: University Press, pp. 267-284.

Persinger, M.A. Neurobehavioral effects of brief exposures to weak intensity, complex magnetic fields within experimental and clinical settings. In M. J. McLean, S. Engstrom, & R. R. Holocomb (Eds). Magnetotherapy: potential therapeutic benefits and adverse effects. New York: TFG Press, 2003, pp. 89-118.

Persinger, M. A. The Fatima Phenomena, in A. D. Basiago (ed), Fatima Revisited, Anomalist Book, 2008.

Mulligan, B. P., Cloes, L. S., Mach, Q. H. & Persinger, M. A. Geopsychology: Geophysical matrix and human behavior. In I. V. Florinsky (ed) Man and the Geosphere, Nova Science Publishers: London, 2010, pp. 115-141.

Persinger, M. A. Neuroscientific investigation of anomalous cognition. In E. C. May and S. B. Marwaha (eds) *Extrasensory Perception: Support, Skepticism, and Science*, Praeger, Santa Barber, 2015, pp. 347-375.

d) Articles (in refereed journals):

Persinger, M.A. Open-field behaviors in rats exposed pre-natally to a low intensity-low frequency, rotating magnetic field. Developmental Psychobiology, 1969, 2(3), 168-171.

Persinger, M.A., & Foster, W.S. ELF rotating magnetic fields: prenatal exposure and adult behavior. Archives fur Meteorologie Geophysiks und Bioklimatologie, Series B, 1970, 18, 363-369.

Persinger, M.A. Prenatal exposure to an ELF rotating magnetic field, ambulatory behavior and lunar distance at birth: a correlation. Psychological Reports, 1971, 28, 435-438.

Persinger, M.A., & Pear, J.J. Prenatal exposure to an ELF-rotating magnetic field and subsequent increase in conditioned suppression. Developmental Psychobiology, 1972, 5(3), 269-274.

Persinger, M.A., Ossenkopp, K.-P., & Glavin, G.B. Behavioral changes in adult rats exposed to ELF magnetic fields. International Journal of Biometeorology, 1972, 16, 163-162.

Persinger, M.A., Glavin, G.B., & Ossenkopp, K.-P. Physiological changes in adult rats exposed to an ELF rotating magnetic field. International Journal of Biometeorology, 1972, 16(2), 163-172.

Ossenkopp, K.-P., Koltek, T.W., & Persinger, M.A. Prenatal exposure to an extremely low frequency- low intensity rotating magnetic field and increases in thyroid and testicle weights in rats. Developmental Psychobiology, 1972, 5(3), 275-285.

Pear, J.J., Moody, J.E., & Persinger, M.A. Lever attacking by rats during free-operant avoidance. Journal of the Experimental Analysis of Behavior, 1972, 18, 517-523.

Persinger, M.A., & Ossenkopp, K.-P. Some behavioral effects of pre- and neo-natal exposure to an ELF rotating magnetic field. International Journal of Biometeorology, 1973, 17, 217-220.

Persinger, M.A. Possible cardiac driving by an external rotating magnetic field. International Journal of Biometeorology, 1973, 17(3), 263-266.

Ludwig, W., Persinger, M.A., & Ossenkopp, K.-P. Physiological effects of electromagnetic fields in the ELF region. Archives fur Meteorologie, Geophysiks und Bioklimatologie, Series B, 1973, 21, 110-116.

Persinger, M.A., Ludwig, H.W., & Ossenkopp, K.-P. Psychophysiological effects of extremely low frequency electromagnetic fields: a review. Perceptual and Motor Skills, 1973, 36, 1131-1159.

Ludwig, W., Persinger, M.A., & Ossenkopp, K.-P. Physiologische wirkung electro-magnetischer wellen bei-tiefen frequenzen. Archives fur Meteorologie, Geophysiks und Bioklimatologie, Series B, 1973, 21, 99-109.

Persinger, M.A., Ossenkopp, K.-P., Kamaya, V., & Pear, J.J. Physiological changes associated with changing fixed ratio schedules in rats. Psychological Reports, 1974, 35, 847-850.

Persinger, M.A. Geophysical models for parapsychological experiences. Psychoenergetic Systems, 1975, 1, 63-74.

Persinger, M.A. Lag responses in mood reports to changes in the weather matrix. International Journal of Biometeorology, 1975, 19(2), 108-144.

Persinger, M.A., Lafrenière, G.F., & Mainprize, D.N. Human reaction time variability changes from low intensity 3-Hz and 10-Hz electric fields: Interactions with stimulus pattern, sex and field intensity. International Journal of Biometeorology, 1975, 19(1), 56-64.

Persinger, M.A. Day-time wheel running activity in laboratory rats following geomagnetic event of 5-6 July, 1974. International Journal of Biometeorology, 1976, 20(1), 19-22.

Persinger, M.A. Transient geophysical bases for ostensible UFO-related phenomena and associated verbal behavior? Perceptual and Motor Skills, 1976, 43, 215-221.

Persinger, M.A. The problems of human verbal behaviour: The final reference for measuring ostensible PSI phenomena. The Journal of Research in PSI Phenomena, 1976, 1(1), 72-90.

Persinger, M.A., & Robb, N.I. Cajal-retzius cells as electro-static guides for migrating neurons.

Psychological Reports, 1976, 39, 651-655.

Persinger, M.A., Valliant, P.M., & Falter, H. Weak inhibitory behavioral effects of postnatal-preweaning taurine injections in rats. Developmental Psychobiology, 1976, 9(2), 131-136.

Ehrmann, W., Leitner, H., Ludwig, W., Persinger, M.A., & Thomas, R. Therapie mit ELF-magnetfeldern. Zeitschrift fur Physikalische Medizin, 1976, 5, 161-170.

Persinger, M.A., Lafrenière, G.F., & Falter, H. Oral taurine effects on inhibitory behavior: response transients to step-like schedule changes. Psychopharmacology, 1976, 49, 249-252.

Persinger, M.A. A force/delta D and delta T concept applied to paranormal events: general comments. The Journal of Research on PSI Phenomena, 1976, 1, 1-8.

Persinger, M.A. Mast cells in the brain: possibilities for physiological psychology. Physiological Psychology, 1977, 5(2), 166-176.

Persinger, M.A. Preweaning body marking reduces brain mast cell numbers in rats. Behavioral Biology, 1977, 21, 426-431.

Persinger, M.A., Lafrenière, G.F., & Carrey, N.J. Thyroid morphology and wet organ weight changes in rats exposed to different low intensity 0.5 Hz magnetic fields and pre-experimental caging conditions. International Journal of Biometeorology, 1978, 22(1), 67-73.

Persinger, M.A., & Coderre, D. Thymus mast cell numbers following perinatal and adult exposures to low intensity 0.5 Hz magnetic fields. International Journal of Biometeorology, 1978, 22(2), 123-128.

Persinger, M.A., Cooke, W.J., & Janes, J.T. No evidence for relationship between biorhythms and industrial accidents. Perceptual and Motor Skills, 1978, 46, 423-426.

Persinger, M.A., Lafrenière, G.F., Carrey, N.J., & Mazzuchin, A. Thirty-eight blood, tissue and consumptive measures from rats exposed perinatally and as adults to 0.5 Hz magnetic fields. International Journal of Biometeorology, 1978, 22(3), 213-226.

Lundgren, J., & Persinger, M.A. Activity and acquisition/extinction comparisons of brown- and white-coated litter mates. Psychological Reports, 1978, 43, 779-782.

Persinger, M.A., Carrey, N.J., Lafrenière, G.F., & Mazzuchin, A. Step-like DRL schedule change effects on blood chemistry, leukocytes, and tissue in rats. Physiology and Behavior, 1978, 21, 899-904.

Persinger, M.A., & Fiss, T.B. Mesenteric mast cell degranulation is not essential for conditioned taste aversion. Pharmacology, Biochemistry and Behavior, 1978, 9, 725-730.

Persinger, M.A. Brain mast cell numbers in the albino rat: sources of variability. Behavioral and Neural Biology, 1979, 25, 380-386.

Persinger, M.A. ELF field mediation in spontaneous PSI events: direct information transfer or conditioned elicitation? Psychoenergetic Systems, 1979, 3, 155-169.

Valliant, P.M., Persinger, M.A., & Satinder, K.P. Long-term effects of preweaning taurine injections in rats: Interactions with strain and gender. Developmental Psychobiology, 1979, 12, 515-518.

Krema, R., Persinger, M.A., & Sartor, V. Thyroid and thymus morphology in rats following sudden DRL

reinforcement schedule changes. Physiology and Behavior, 1979, 23, 1163-1164.

Persinger, M.A. Behaviouristic descriptions of paranormal behaviors. Psychoenergetic Systems, 1979, 3, 229-242.

Lafrenière, G.F., & Persinger, M.A. Thyroid morphology and activity does not respond to ELF electromagnetic field exposures. Experientia, 1979, 35, 561-567.

Persinger, M.A. Prediction on Fortean event reports from population and earthquake numbers. Pursuit, 1979, 12(4), 162-174.

Persinger, M.A. A first order approximation of satiation time: $(IRT)^2/R_t$. Perceptual and Motor Skills, 1979, 49, 649-650.

Persinger, M.A. Earthquake activity and antecedent UFO report numbers. Perceptual and Motor Skills, 1980, 50, 791-797.

Rapundalo, S.T., Persinger, M.A., & Alikhan, M.A. Cardiohistological changes in rats from single episodes of maintained forced exercise. Physiology and Behavior, 1980, 25, 433-438.

Persinger, M.A. Handling factors not body marking influence thalamic mast cell numbers in the preweaned albino rat. Behavioral and Neural Biology, 1980, 30, 448-459.

Persinger, M.A. Developmental alterations in mast cell numbers and distributions within the thalamus of the albino rat. Developmental Neuroscience, 1981, 4, 220-224.

Persinger, M.A. Geophysical variables and behavior: III. Prediction of UFO reports by geomagnetic and seismic activity. Perceptual and Motor Skills, 1981, 53, 115-122.

Persinger, M.A. Geophysical variables and behavior: IV. UFO reports and fortean phenomena: temporal correlations in the central U.S.A. Perceptual and Motor Skills, 1982, 54, 299-302.

Nowak, G.P., Persinger, M.A., & Dewson, M.R. Lever pressing in expanding or collapsing intervals of nonresponse-contingent reward: sensitivity to pretraining. Psychological Reports, 1982, 50, 1228-1230.

Persinger, M.A., & Lundgren, J. Wild-albino hybrids and albino rats: thyroid weight but not muricide differences. Psychological Reports, 1982, 50, 421-422.

Schaefer, D., & Persinger, M.A. Finger prints and personality scores. Perceptual and Motor Skills, 1982, 54, 1021-1022.

McLean, K., Parker, G.H., & Persinger, M.A. Lead in the water supply alters swimming-maze behavior in adult mice. Perceptual and Motor Skills, 1982, 55, 507-512.

Kowalski, S., Parker, G.H., & Persinger, M.A. Interactions of 2-ppm lead in the water supply with food deprivation upon maze-swimming behavior of mice. Perceptual and Motor Skills, 1982, 55, 515-519.

Persinger, M.A., Lepage, P., Simard, J.-P., & Parker, G.H. Mast cell numbers in incisional wounds in rat skin as a function of distance, time and treatment. British Journal of Dermatology, 1983, 108, 179-187.

Persinger, M.A. Geophysical variables and behavior. VII. Prediction of recent European UFO report years by nineteenth century luminosity and solar-seismic measures. Perceptual and Motor Skills, 1983, 56, 91-95.

Persinger, M.A. Geophysical variables and behavior. VIII: Specific prediction of UFO reports within the New Madrid states by solar-geomagnetic and seismic measures. Perceptual and Motor Skills, 1983, 56, 243-249.

Persinger, M.A. Geophysical variables and behavior. IX: Expected clinical consequences of close proximity to UFO-related luminosities. Perceptual and Motor Skills, 1983, 56, 259-265.

Persinger, M.A. The tectonic strain theory of luminosities (UFO reports). Pursuit, 1983, 16(1), 21-35.

Mantle, E., & Persinger, M.A. Alterations in subjective evaluations during acute exposures to 5-Hz but not 9-Hz magnetic field devices. Journal of Bioelectricity, 1983, 2(1), 5-14.

Persinger, M.A. Degranulation of brain mast cells in young albino rats. Behavioral and Neural Biology, 1983, 39, 299-306.

Persinger, M.A. Winter blahs and spring irritability: the chronic but subtle behavioral operations. Perceptual and Motor Skills, 1983, 57, 496-498.

Cameron, K.A., & Persinger, M.A. Pensioners who die soon after retirement can be discriminated from survivors by post-retirement activities. Psychological Reports, 1983, 53, 564-566.

Persinger, M.A., & Levesque, B.F. Geophysical variables and behavior: XII. The weather matrix accommodates large portions of variance of measured daily mood. Perceptual and Motor Skills, 1983, 57, 868-870.

Persinger, M.A. Religious and mystical experiences as artifacts of temporal lobe function: a general hypothesis. Perceptual and Motor Skills, 1983, 57, 1255-1262.

Persinger, M.A. Geophysical variables and human behavior: XV. Tectonic strain luminosities (UFO reports) as predictable but hidden events within pre-1947 Central U.S.A. Perceptual and Motor Skills, 1983, 57, 1227-1234.

Persinger, M.A. Striking EEG profiles from single episodes of glossolalia and transcendental meditation. Perceptual and Motor Skills, 1984, 58, 127-133.

Persinger, M.A. Prediction of historical and contemporary luminosity (UFO) reports by seismic variables within Western Europe. Experientia, 1984, 40, 676-681.

Persinger, M.A. & Derr, J.S. Geophysical variables and behavior: XIX. Strong temporal relationships between inclusive seismic measures and UFO reports within Washington State. Perceptual and Motor Skills, 1984, 59, 551-566.

Persinger, M.A. People who report religious experiences may also display enhanced temporal-lobe signs. Perceptual and Motor Skills, 1984, 58, 963-975.

Persinger, M.A. Propensity to report paranormal experiences is correlated with temporal lobe signs. Perceptual and Motor Skills, 1984, 59, 583-586.

Persinger, M.A. Geophysical variables and human behavior: XVIII. Expected perceptual characteristics and local distributions of close UFO reports. Perceptual and Motor Skills, 1984, 58, 951-959.

Persinger, M.A., & Nolan, M. Geophysical variables and behavior: XX. Weekly numbers of mining accidents and the weather matrix: The importance of geomagnetic variation and barometric pressure. Perceptual and Motor Skills, 1984, 59, 719-722.

Persinger, M.A. Geophysical variables and behavior: XXI. Geomagnetic variation as possible enhancement stimuli for UFO reports preceding earthtremors. Perceptual and Motor Skills, 1985, 60, 37-78.

Persinger, M.A. Geophysical variables and behavior: XXII. The tectonogenic strain continuum of unusual events. Perceptual and Motor Skills, 1985, 60, 59-65.

Persinger, M.A., & Derr, J.S. Geophysical variables and behavior: XXIII. Relations between UFO reports within the Uinta Basin and local seismicity. Perceptual and Motor Skills, 1985, 60, 143-152.

Michaud, L.Y., & Persinger, M.A. Geophysical variables and behavior: XXV. Alterations in memory for a narrative following application of theta frequency electromagnetic fields. Perceptual and Motor Skills, 1985, 60, 416-418.

Makarec, K., & Persinger, M.A. Temporal lobe signs: Electroencephalographic validity and enhanced scores in special populations. Perceptual and Motor Skills, 1985, 60, 831-842.

Persinger, M.A. Death anxiety as a semantic conditioned suppression paradigm. Perceptual and Motor Skills, 1985, 60, 827-830.

Schaut, G.B., & Persinger, M.A. Subjective telepathic experiences, geomagnetic activity and the ELF hypothesis: Part I. Data analyses. PSI Research, 1985, 4(1), 4-20.

Persinger, M.A. Geophysical variables and human behavior: XXX. Intense paranormal experiences occur during days of quiet, global, geomagnetic activity. Perceptual and Motor Skills, 1985, 61, 320-322.

Persinger, M.A., & Valliant, P.M. Temporal lobe signs and reports of subjective paranormal experiences in a normal population: a replication. Perceptual and Motor Skills, 1985, 60, 903-909.

Persinger, M.A., & Derr, J.S. Geophysical variables and behavior: XXXII. Evaluations of UFO reports in an area of infrequent seismicity: the Carman, Manitoba Episode. Perceptual and Motor Skills, 1985, 61, 807-813.

Persinger, M.A. Subjective telepathic experiences, geomagnetic activity and the ELF hypothesis: Part II. Stimulus features and neural detection. PSI Research, 1985, 4(2), 4-23.

Persinger, M.A., & Nolan, M. Partial amnesia for a narrative following application of theta frequency electromagnetic fields? Journal of Bioelectricity, 1985, 4(2), 481-494.

Persinger, M.A. Classical psychophysics and ELF magnetic field detection. Journal of Bioelectricity, 1985, 4(2), 577-584.

Persinger, M.A., & DeSano, C.F. Temporal lobe signs: positive correlations with imaginings and hypnosis induction profiles. Psychological Reports, 1986, 58, 347-350.

Gearhart, L., & Persinger, M.A. Geophysical variables and behavior: XXXIII. Onsets of historical and

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Persinger, M. A. The God of mind or the Mind of God? Humanist Society, Toronto, June 2002. (portions published in Humanist in Canada, Winter 2002-2003, pp. 8-10,19.

Persinger, M. A. Complex, weak magnetic fields as powerful biological stimuli: correlational data and experimental simulation. Seminar Series, Guelph University, February, 2003.

Persinger, M. A. Effects of weak complex magnetic fields (nanoTesla) on mortality in mice following injections of melanoma cells. Cancer Research Seminars. Northeastern Ontario Cancer Research Center, 16 May 2003.

Martin, L.J., Persinger, M. A. Waveform-specific intensity dependent and time limited efficacy of magnetic fields for analgesia in the male Wistar rat. Society for Neuroscience, Program No. 238.7, New Orleans, LA., 2003.

Persinger, M. A. Modulation of chemically-induced tumorigenesis by nocturnal application of weak

complex magnetic fields that simulate geomagnetic activity. Northeastern Ontario Cancer Research Center, November 2003.

Persinger, M. A. Behavioral and histomorphological consequences of neuronal death. Cancer Research Seminars. Northeastern Ontario Cancer Research Center, December, 2004.

Dupont, M. J., Charette, J. C., Parker, G. H., St-Pierre, L. & Persinger, M. A. Experimental simulation of the geomagnetic activity correlated with sudden infant death in rat pups and histomorphological changes. SIDS International Conference. 2-6 July, 2004, Edmonton, Alberta.

Martin, L. J., Lafrenière, R. M., Persinger, M. A. Variable exposure durations to a weak (microTesla) frequency-modulated magnetic pattern activates MAPK, ERK-1, and ERK-2 pathways which results in different thermal analgesic responses that can be increased with preinjections of morphine or agmatine. Society for Neuroscience, Program No. 718.5, San Diego, CA., 2004.

Galic, M. A., Fournier, N.M., Martin, L. J., & Persinger, M. A. Anticonvulsant action from a 10-min swim stress on behavioral convulsions induced through lithium and pilocarpine. Society for Neuroscience, Program No. 451.15. San Diego, CA., 2004.

Persinger, M. A. Recent developments in behavioral neuroscience: implications for legal concepts of intention and impulsive acts. Northern Ontario Judges Conference, May, 2005.

Persinger, M.A., & Buckman, R. The experimental production by weak naturally-patterned magnetic fields of the sensed presence: the prototype to god and related mystical experiences. 10 March, 2006, University of Toronto MacLean Auditorium (Guest Lecture) for The Humanist Society (recorded by TVO and aired May, 2006).

Persinger, M. A. The molecular bases to memory and analgesia: The role of the ERK/MAPK Cascade and the potential interaction with physiologically-patterned magnetic fields. Tumor Biology Seminars, Regional Cancer Program, Sudbury, Ontario, 16 October, 2006.

Mach, Q-H. & Persinger, M. A. LTP saturation induced by electromagnetic fields impairs performance in the Morris water maze. Society for Neuroscience, 18 October, 2006, Atlanta, Georgia.

Persinger, M. A. presented "The anachronism of policies and laws for hate speech in Canada: the current negative cultural impact of legal punishment upon extreme verbal behaviour" to the Canadian Human Rights Commission in Marc Lemire (Respondent) vs Richard Warman (Complainant) Case: 22 February, 2007 (transcript also available).

From 2008 to present (about one conference per year; posters presented by graduate students at various international conferences.

October 2013 (Oral Presentation) Electromagnetic Fields and Water: The Potential for Non-Locality.
2nd International Symposium on Electromagnetic Fields and Quantum Phenomena in the Biological Systems. Poznan, Poland

October 2012 (Poster). The Physiochemical and Spectroflourescent Analysis of Patterned Magnetically Field Treated Water.
Seventh Annual Conference on the Physics, Chemistry & Biology of Water, West Dover, Vermont, USA

April 2012 (Oral) Potential Synergisms of Pulsed Low Frequency Magnetic Fields and Opioids on Dugesia tigrina Locomotion. 3rd Annual Pyschology Conference, Laurentian University, Sudbury

Dotta, BT, Saroka, KS, Persinger, MA. Increases Biophoton emission from the head during different states is correlated with EEG power.

FENS (Forums for European Neuroscience Societies) Barcelona, Spain – July **2012**

Dotta, B.T., Persinger, M.A. Ultra weak luminescence from biological systems.

*International Conference on Ultra-weak Photon Emission, Olomouc, Czech Republic – June **2013***

Dotta, B.T., Murugan, N.J., Karbowski, L.M., Lafrenie, R.M., Persinger, M.A. Cosic's Resonant recognition model for macromolecules can be used to predict and modify the fluctuating wavelengths of ultraweak photon emission from stressed cancer cells.

Biophysical Society Conference, San Francisco, California, USA – Feb **2014**

j) Research Contracts:

1983	U.S. Navy, Surface Weapons Research Branch:Magnetic Field Effects on Mast Cell Degranulation: $10,000
1985-1986	Prognostication of rock bursts from micro seismographic patterns. CIMMER: $25,000
1999-2001	Weak transcerebral magnetic fields as treatments for depression following brain injury: Clinical trials (Network North): $15,000

k) Community Contributions

-Research covered in the following magazines: Omni, Psychology Today, Newsweek (Japan), Equinox, MacLean's Magazine, New York Times Magazine, Wired, Newsweek (U.S.A.), Reader's Digest, Discover, New Scientist, Saturday Night.

-Research covered (via telephone interviews) in major newspapers from: England, Scotland, Sweden, Denmark, Japan, France, U.S., Canada, Germany, The Netherlands, Italy, Chile, Australia, New Zealand, Portugal, Turkey, Taiwan, Poland, Brazil, Ukraine, Russia, and South Korea..

-Guest on over 100 TV and radio shows concerning scientific aspects of various paranormal events and religious/mystical experiences (1974-2010).

-Since 1986 I appeared on "NOVA", ABC's "20/20", ABC's "NightLine," "60 Minutes" (Australia), "That's Incredible," "48 Hours" (CBS), Unsolved Mysteries, The Discovery Channel, UltraScience, MTV News Special, The Unexplained, CNN News, NBC News, The Learning Channel, Arts and Entertainment Channel, Japanese T.V. We have been filmed by approximately 150 different groups of television journalists or writers within the last 17 years. (List of most interviews is available).

-Registered Psychologist, Ontario (since 1987). Specialty: Neuropsychology; Clinical Psychology; Practice in Neuropsychology

l) Other Scholarly Activity Representing a Contribution to the Discipline:

- Member of the Editorial Board for the Journal of Research in PSI Phenomena (1976-78)
- Member of Editorial Board for Journal of Bioelectricity. Have refereed articles for the following journals: Science; Physiology and Behavior; Perceptual and Motor Skills; Psychological Reports; Psychopharmacology; Developmental Psychobiology; Scandinavian Journal of Work, Environment and Health; Pharmacology, Biochemistry and Behavior; Journal of Nervous and Mental Disease; Brain Research Bulletin; Personality and Individual Differences; Epilepsy Research; Neuroscience

Letters; Journal of Neurochemistry; Brazilian Journal of Medical and Biological Research; Journal of Comparative Psychology; Epilepsy and Behavior, Bioelectromagnetism, Neurobiology of Disease, Journal of Physics, Astrophysics, and Physical Cosmology, Neuroquantology, Neurocase, Theriogenology, Cortex, Histology and Histopathology.

- Organized first Canadian Symposium concerning the bio-behavioral effects of extremely low frequency electromagnetic fields, Quebec City, C.P.A., 1975
- Special Consultant to the Committee on Biosphere Effects of ELF Radiation of the Assembly of Life Sciences, Division of Medical Sciences, Washington, D.C., U.S.A. (1976-77)
- Technical Consultant in Psychology and Electromagnetic Field Effects for Aerial Phenomena Research Organization (A.P.R.O.), Tucson, Arizona, U.S.A. (1975-77)
- Member of Scientific Advisory Board for Society for the Investigation of the Unexplained (1978-86)
- Member of Scientific Advisory Panel for Evaluation of Potential Medical Hazards from Overhead 765 KV Transmission Lines for the State of New York (1980-1984)
- Member of Board of Sudbury Head Injury Association (1992-1999)

8. ***CURRENT RESEARCH PROJECTS***

- Discerning potential effects of complex, weak intensity magnetic fields for producing and treating specific cancers.
- Quantitative (cell count) measurements of the aberrant neuroanatomical pathways of sudden infant deaths in rats and humans associated with pc1 geomagnetic patterns and nitric oxide.
- Long-term neuroanatomical and behavioral effects of 1 min of exposures to carbon dioxide, nitrogen gas, or vacuum during infancy and childhood in the rat.
- Determining the mechanisms of persistent excessive sucrose consumption (200 cc/day) in the rat.
- Determination of neuronal apoptosis and necrosis in impact and countercoup areas in the rat brain following single mechanical impacts to the skull without loss of "consciousness"-potential treatments
- Isolation of electromagnetic sequences that stimulate gene expression.
- Modifying the interval between successive 20 msec recreations of consciousness and time experience.
- Behavioral and neuroimmunological correlates of seizure-induced brain damage within the rat.
- Neurocognitive and personality changes in people with enhanced temporal lobe signs.
- Thalamic fine-structure connection by factor analyses and canonical correlation of nuclear necrosis and histochemical determinations.
- Modelling and testing of the tectonic strain model for luminous phenomena and seismicity.
- Simulation of near-death experiences, mystical experiences, and altered states of consciousness by exposure to complex, weak transcerebral magnetic fields.
- Isolating and evaluating the fundamental electromagnetic algorithms for brain stimulation as substitutes or adjuncts to drug treatment for depressed and chronic pain patients.

9. ***MEMBERSHIP AND CONTRIBUTION IN PROFESSIONAL ORGANIZATIONS***

1. Member of Executive of the Sudbury Advisory Committee for Head Injury (1988-1999)
2. Member of the following organizations: American Society for the Advancement of Science; Neuroscience Society; Ontario Psychological Association

10. a. ***DOCTORAL DISSERTATION SUPERVISION*** **(bold indicates in progress)**

Blake Dotta (Biomolecular Sciences Program): Photon Emission from Cells and Photon Communication,

2010 to 2014.

Linda St-Pierre (Integrated Biology). Complex magnetic fields and obesity
Via Guelph University: 2001-2011.

Quoc Hao Mach (co-supervisor, Engineering) : Artificial systems in mining exploration (2008-present)

Rolland Chrétien (Psychology) Prefrontal lobe indicators differentiate young offenders from normal teenagers Via Ottawa University: 1993-1997

Lukasz Karbowski (Biomlecular Sciences Program): Magnetic field inhibition of cancer cells

Kevin Saroka: ((Human Studies Program) Complex systems in human phenomena: magnetic-music effects.

Nirosha Murugan (Biomolecular Sciences Program): Magnetic fields and light patterns on cell membranes

Mandy Scott (Human Studies Program): QEEG and Conscious States

David Vares (Human Studies Program): Low Level Seismic Energies and Human Conflict

Joseph Caswell (Human Studies Program): Heliobiological Phenomena

Lucas Tessaro (Human Studies Program): Plato's Forms, Thought Patterns and Modern QEEG

Lyndon Juden-Kelly (Human Studies Program): Machine-Non Machine Interfaces for Subtle Energy

Nicolas Rouleau (Biomolecular Sciences Program): Molecular Biology of AI.

Trevor Carniello (Biomolecular Sciences Program): Quantum Botany

10. b. ***MASTER THESIS SUPERVISION (Primary Supervisor)*** **Bold Indicates In Progress**

Ryan Bidal	Magnetic properties of physiological water (2015-
William Mekers	Planarian and chemical reactions (2014-
Justin Costa	Photon profiles in water and biology (2014-
Nicholas Rouleau	Self-generating magnetic field patterns (2013-
Trevor Carniello	Quantum and biological (plant) systems (2013-
Andrew Lapointe	Mechanical forces, impact injuries and QEEG (2012-
Ryan Burke	Complex magnetic fields and different species (2012-2014).
David Vares	Random events and RPG mathematics (2012-2014)
Lyndon Juden-Kelly	Geomagnetic activity and temporal distortions (2011-2014)
Joseph Caswell	Consciousness and control or random events (2011-2014)
Nirosha Murugan	EM fields and protein configuration in planaria (2011-
Paula Corradini	Neuropsychology and Brain EEG (2011-2014)
Lucas Tessaro	Magnetic Fields and Receptors (2011-2014)
Brendan Lehman	Virtual Brain Space, QEEG and Biogames (2011-
Lukaz Karbowski	Comparisons of aging-induced and epileptic neuronal loss (2010-12
Anabella Caracas	Human energies and healing (2010-
Constance Reed	Electromagnetic fields and clinical health (2010-illness)
Mark Collins	Consciousness and brain activity (2010-2014)
Kevin Saroka	QEEG activity, music, and magnetic fields (2009-2011)
Noa Gang	Magnetic fields, planarian, and water (2008-2011)
Christina Lavallee	QEEG, meditation and magnetic fields (2008-2010)
Natalie Lagace	Histmorphology of brain and aggression (switched to Midwifery)
Rafiq Rahemtulla	Mast cells and function (2008-2012
Mandy Scott	Electroencephalographic activity and consciousness (2007-2012)
Katherine George	Obesity and brain damage (2008-2010)
Blake Dotta	Temporal censing in cells and humans (2008-2010)
Bryce Mulligan	Geomagnetic fields and behavior (2007-2011)
Hsai Patrick Wu	Infrared field effects on cell metabolism and signalling (2007- 2009)
Mathew Hunter	Electroencephalographic AI in biology and engineering (2007- 2010)
Debby Meades:	Aging, brain, and behavior..2005-2006 (withdrew)
Phil Evans:	Mild head injury and mechanisms..2005-2011

Vivien Hoang: Experimental brain injury and treatment..2005-2008
Paul Whissell: Magnetic fields and development...2005-2008
Jude Delparte: Complex magnetic fields and learning.. 2003-2006
Jing Hu: Magnetic fields and neoplastic histology.. 2003-2006
Quoc Hao Mach: Basic algorithms of AI in biological systems..2002-2007
Michael Galic: Sucrose-hormonal effects in female rats..2002-2005
Loren Martin: Complex magnetic fields and analgesia....2002-2004
Wudu Lado: Closed-head injury and novel treatments in the rat..2002-2005
Julie Charette: Early anoxia, hippocampus, and behavior. (hiatus for Architecture)
Mathieu Dupont: SIDS related magnetic patterns and cell density..2002-2005
Nicholas Booth: Complex magnetic fields and consciousness..2002-2006
Eric Tsang: Complex EM therapy and EEG/physiological measures..2001-2004
Samantha Kinoshameg: EAE and geomagnetic-type stimulations..2000-2003
Bruce McKay: Complex magnetic field synergisms with drugs..1999-2001
Linda St-Pierre: Prenatal exposures to complex magnetic fields..1998-2001
Linda Vaillancourt: Maternal behavior and brain damage..1998-2002
Tracy Bergeron: Sense of self and brain laterality..1998-2009
Rod O'Connor: Sudden Infant Death and magnetic fields..1997-2001
Lee Stewart: Excitotoxicity and brain injury ..1997-2000
Timothy Rico: Blood chemistry and histology of epileptic rats (withdrew)
Guylaine Chellew: Cardiac aperiodicity and neuropsychology 1997-2006
Carolyn Djaferis: Families and patients after closed head injury 1995-2006
Laura Baker: Magnetic fields and brain injury depression..1996-2005
Charles Cook: Developmental aspects of consciousness..1997-2000
Lisa Cook: Experimental multiple sclerosis..1996-1999
Cynthia Renton: Neurocognitive features of PMS patients..1995 (withdrew)
Dawn Desjardins: Aggressive behavior and brain in rats: 1995-1998
Sandra Tiller: Neuropsychological tests and acquired brain injury: 1996-1999
Barbara Hein: Cognitive style and interests in science students: 1993-98
Pauline Richards: Ontogeny of Toe Agnosia and Graphaesthesia: 1992-94
Yves Bureau: Hypothermia and epileptic-induced brain damage: 1992-94
Susan Fisher: Neuropersonality changes following concussion: 1990-93
Carol Bisson: Brain tumor incidence in Northern Ontario: 1992-95
Oksana Peredery: Oral cadmium and severity of limbic seizure damage: 1991-94
Pat Kaija: MMPI profile of adolescent substance abusers: Withdrew
Drew Moulden: Ontogeny of dichotic listening: 1991-93
Ross Skirda: Religious/Paranormal beliefs and dichotic processing: 1991-92
Ka-mee Law: Oral Cd and kidney histochemistry and pathology: 1987-89
Anna-Maria Santi: Psychosocial discriminators of gifted children: 1986-87
Chris Blomme: Magnetic field detection by pigeons: 1986-88
Jackie Stanley: Humoral immunological response of the rat: 1985-86
Patricia Lepage: Nickel deposition in fowl within Ontario: 1984-85
Before 1980, about 8 M.Sc.s in Chemistry and Biology.
***bold indicates current students**

11. ***RESEARCH GRANTS***

2013-2015: Bosarge Family Biophoton Cancer Stopping Apparatus Project: $1.3 million
2010-2015: NSERC $27,000 per year (sum=$135,000) for studying: complex electromagnetic field effects on cancer growth
2006: Bancroft Community Futures: Minerals, Magnetic Fields and Creativity: $5,000.
2004: Canadian Foundation for Study of Infant Deaths: $26,000.
2000-2001: BIAL Foundation: Complex Magnetic Fields Psi and Consciousness: $40,000

2000-2001:	Canadian Foundation for Study of Infant Deaths (Dr. S. Segal Research Grants): 30,000
1989-89:	Internal - Micromorphology of seizure damage: $19,000
1988-89:	(Research Excellence Award) - Epilepsy Research: $13,500
1975 through 2002:	L.U. (internal funds) - Primarily brain morphology, electrical patterns and behavior in rats and humans: $47,000
1973-74:	(Shared with Falter): President's Fund $10,000

12. ***ACADEMIC/PROFESSIONAL AWARDS, PRIZES***:

Winner of LIFT (Leader in Faculty Teaching), Ontario Government, 2007
Winner TVO (Ontario) Best Lecturer 2007
Voted TVO Top Ten University Lecturers (Professors) In Ontario 2006
Voted TVO Top Ten University Lecturers (Professors) in Ontario 2005
Laurentian University Research Excellence Award 1989
Sudbury Regional Brain Injury Association Lifetime Membership Award 2001

13. ***OTHER ACTIVITIES WHICH ARE NOT OTHERWISE LISTED ABOVE***

My personal funding from my salary of research publications, supplies, and staff ranges between $15,000 to $20,000 annually
Free Course during the summer: Physical Neuroscience (2006, 2007, 2008, 2009, 2010, 2011, 2012): Use of quantification and imagination to solve anomalous and "big picture" problems.

14. ***LIST OF COURSES AND NUMBERS OF TIMES COURSES HAVE BEEN TAUGHT***

Brain and Behavior:	43
Behavioral Neurobiology:	26
Theories of Learning:	5
Introduction to Psychology:	40
Fourth Year Thesis:	32
Advanced Human Neuroanatomy:	20
Parallel Patterns of the Sciences:	5
Advanced Memory Mechanisms (Consciousness):	14
Experimental Parapsychology:	4
Biometeorology:	4
Clinical Neuropsychology:	22
Graduate (M.Sc.) Design and Methods of Analysis:	26 (Biology)
Graduate Design and Methods of Analysis:	11 (Child and Human Development)
Motivation and Emotion:	10
Neuropharmacology:	15
Current Developments in the Neurosciences:	10
Clinical and Counselling Psychology:	5
Graduate Child Assessments	2
Graduate Adult Assessments	3
Histology	2
Individual Differences (Grad course)	1

Contributions to Group Courses

Pathophysiology-two weeks	3
Graduate (Ph.D.) Cell Physiology-one week	7
Graduate (Ph.D.) Human Studies-two weeks	2
Graduate (Ph.D.) Molecular Structure-one hour	4