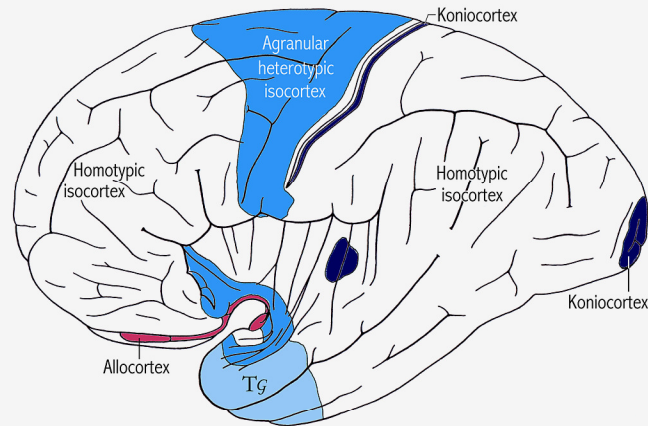


**The
Graduate Program
in Neuroscience
and Education**

OFFICIAL BULLETIN

Department of
Educational and Social Policy
University of Macedonia
Thessaloniki, Greece



Convexity of the human cerebral hemisphere and cortical types as classified by C. von Economo and G. N. Koskinas in their system of cytoarchitectonics

Cover photomicrographs: obverse, hippocampal neurons with the Golgi method; reverse, emulsion autoradiography of the reeler mouse hippocampus. Interior electron micrographs: neuropil, page 2; cellular organelles in a neuron (Golgi apparatus, mitochondria, rough endoplasmic reticulum), page 6; experimental remyelination in the rat spinal cord, page 9.

NEUROSCIENCE AND EDUCATION

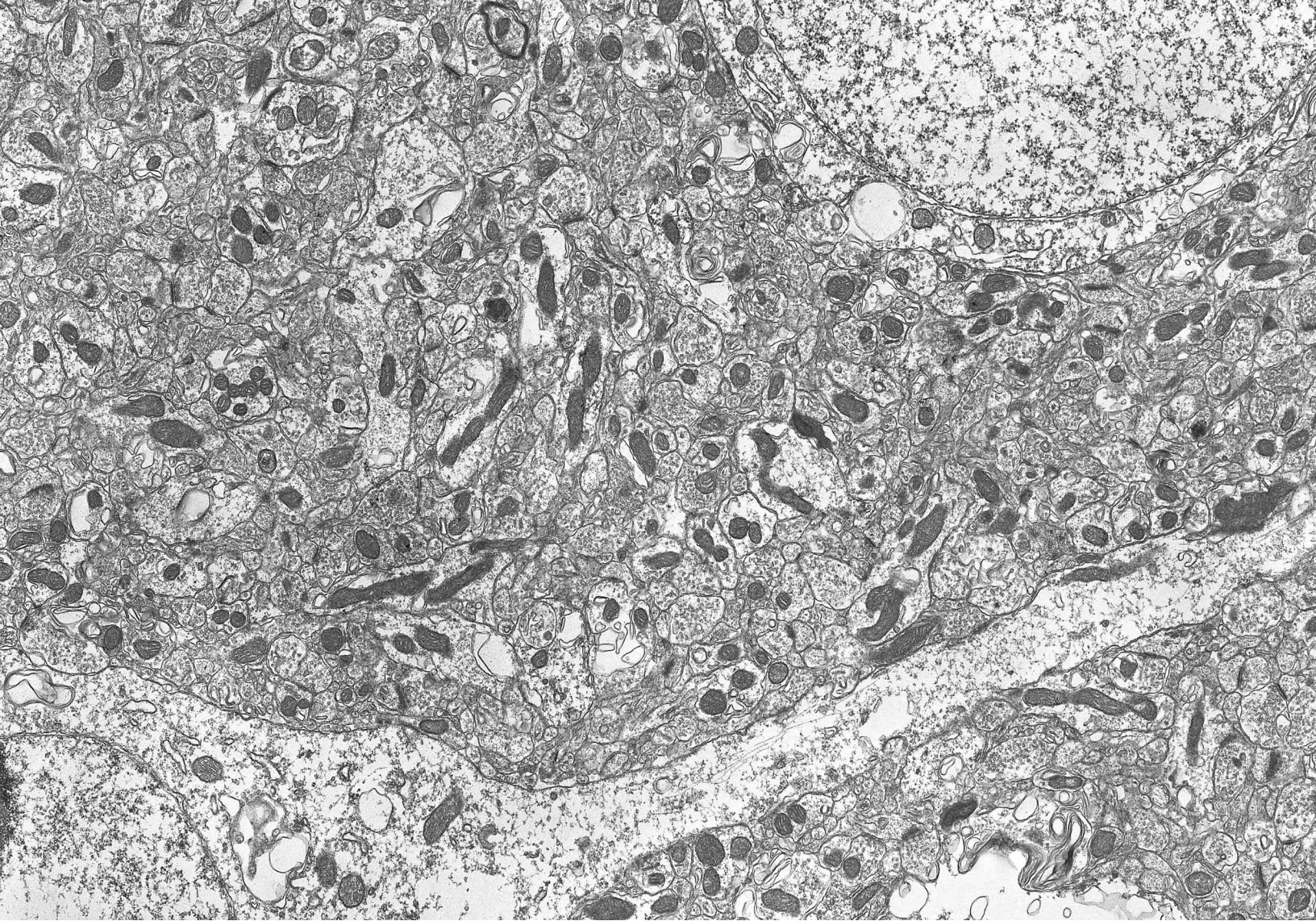
The University of Macedonia introduced the Neural Sciences in its education curricula as soon as the Department of Educational and Social Policy was formed, by creating a professorship in Basic Neuroscience (University Senate, 8th Session, 17 June 1999). Thus, our institution takes precedence in the interdisciplinary field of mind, brain and education, which has been witnessing a dynamic growth since 2000 world-wide. Historically, the first institution to formally establish a professorship of Neurobiology in Education was the National University of La Plata, Argentina, by appointing Dr. Christofredo Jakob (1866–1956) in the Faculty of Humanities and Educational Sciences in 1922.

The guiding principle of our Program is to provide students with solid foundations in the 'Classical Neurosciences' (Neurobiology, Neuroanatomy, Neurophysiology, Neurochemistry, and Neuropsychology), such that graduates would acquire the necessary fundamentals in order to be able to critically delve into the blooming fields of the 'Social and Cognitive Neurosciences' (e.g. Neuroeducation, Affective Neuroscience, Neuroaesthetics, Plasticity and Lifelong Learning, etc.). In a nutshell, our philosophy is that a thorough understanding of the fine structure and the physiological activity of the brain is a prerequisite for effecting any meaningful advance in Educational Neuroscience.

The Neurosciences are profoundly influencing the scientific study of memory, learning, perception and thought. We explore how neural and cognitive processes evolved, how they grow and become organized to perform complex behaviors. Emphasis is placed on understanding the biological underpinnings of the mental apparatus; the levels of analysis range from molecules and cells to the integrative action of the nervous system. There is a substantial collaboration and interaction among core faculty members from a variety of departments of several institutions, including Anatomy, Biomedicine, Cognitive Science, Education, Linguistics, Neuroscience, Philosophy, Physiology and Psychobiology. Instructors are chosen on the basis of their research merit and teaching experience.

The multidisciplinary Program was established by Resolution 107420/B7 of the Hellenic Ministry of Education (*Government Gazette*, no. 1951/2, p. 24456–8, 18 July 2014) and operates in conjunction with the recently established Laboratory of Theoretical and Applied Neuroscience (*Government Gazette*, no. 304/B, p. 4353–4, 15 February 2016). The Program grants a Master of Science degree in Neuroscience and Education from the University of Macedonia.

Lazaros C. Triarhou, M.D., Ph.D.
Professor and Director



INSTRUCTIONAL PROGRAM

A total of 120 ECTS credit units are required for the successful completion of the M.Sc. in Neuroscience and Education. Course work should be completed in four semesters. Students are required to pass the written or oral examinations of all courses by the end of each semester and to write and defend a master's thesis before an advisory committee in a public research seminar.

First Year

Fall Semester

Fundamentals of Neurobiology and Neuroanatomy

Cellular structure and ultrastructure of central nervous system in normal and experimental situations. Cells of the nervous system. Cell biology of neurons. Cell biology of astroglia, oligodendroglia, macrophages and mast cells. Brain vessels and blood-brain barriers. Organization of neural systems: global circuits. Organization of neural systems: point-to-point circuits. Generative and regressive events. Neurogenesis, morphogenesis, epigenesis. Phenotypic and synaptic plasticity. CNS regeneration; intracerebral grafting in neuro degenerative conditions. The cellular basis of behavior; mind from neurons.

Probing the Brain: Methods in Neuroscience

Principles of Biostatistics. Statistical analysis and experimental design. Neuroanatomical and neuro-histological methods. Neurophysiological methods. Neurochemical and neuropharmacological methods. Experimental methods in behavior. Clinical neuropsychological assessment. Neuroimaging: observing the living brain.

Mind, Brain and Education

Mind, brain and education: the art of changing the brain. Historical sketch of the mind, brain and education convergence. Methods. Neurobiology of education. Cognitive psychology and education. Genetics and education. Philosophy and education. Pseudoscientific fallacies. Mind-body link; nutrition, exercise and sleep. New techniques. Universal design for learning; meeting the challenge of individual differences. Policy implications.

Spring Semester

Functional Integration: Neurochemistry and Neurophysiology

Electrical signaling and neural conduction. Resting membrane and action potential. Electrical (gap junctions) and chemical synapses. Principles of direct synaptic transmission. Indirect mechanisms of synaptic transmission. Neurotransmitter and receptor systems. Integration of neural signals. Diseases of chemical neurotransmission. Axonal transport and the neuronal cytoskeleton. Physiological properties and functions of neuroglial cells. Functional architecture of the cerebral cortex. Circulation and energy metabolism.

Behavioral, Cognitive and Clinical Neuroscience: The Biology of Mind

A brief history of cognitive neuroscience. Biopsychology as a neuroscience; the neural basis of cognition. Methods of cognitive neuroscience. Sensation and the sensorimotor system. Perception and encoding; higher perceptual functions. Selective attention and orienting. Learning, memory and amnesia. Language and the brain. The control of action. Executive functions and frontal lobes. Literacy and numeracy. Neural models and cognitive brain theory. The problem of consciousness. The visual system, from eye to brain. Auditory, vestibular, chemical and bodily senses. Movement and motor control. Modulation of movement by the basal ganglia and cerebellum. Thirst and hunger; homeostasis. Motivation, reward circuits and drug addiction. Hormones, sex and reproductive behavior. Circadian rhythms, sleep, dreaming, and wakefulness.

Neurobiological Foundations of Special Education

Nervous, affective, and behavioral disorders. Neurodevelopmental syndromes in special education. Chromosomal, molecular genetic and neuropathological aberrations. Down, Turner, Prader-Willi, de Lange, Williams-Beuren, Smith-Magenis, fragile X, Angelman syndromes. Psychopathologies and learning disabilities explored from a genetic and an environmental perspective. Dyslexia. Dyscalculia. Attention deficit hyperactivity disorder. Autism. Intellectual disabilities. Multiple disabilities. Vision loss. Hearing loss. Movement disorders. Language disorders. Giftedness and talent.

Second Year

Fall Semester

Developmental, Social and Affective Neuroscience

Sociobiology and the genetics-nurture debate. Genes and behavior. Basic principles in relation to phenotypes. Mutations affecting neuron structure and behavior. Anatomical, developmental and evolutionary aspects of the social and emotional brain. Historical and ethical issues. Social cognition. Brain mechanisms of emotion, aggression and stress. Regulatory and neuroendocrine systems and homeostasis; autonomic and hypothalamic physiology. Neural bases of social connection and rejection. Neural underpinnings of stress-related physiological responses (from brain to body). Psychoneuroimmunology: effects of immune system activity on neural responses (from body to brain). Child abuse and neglect: neurobiological aspects and intervention. Disorders of social and emotional development.

Brain Plasticity and Lifelong Learning

Lifespan development of brain and behavior. Denervation and regeneration of synaptic connections. Neural plasticity: synaptic, connectional and behavioral. Neocortical ontogeny and developmental plasticity. Molecular mechanisms of learning and memory. Early learning. Second language learning; bilingual brains. Music and the brain. Aging, the remodeling of neuronal circuitry and illness. Plasticity in the visual system. Cortical plasticity and language compensation. Cerebral lateralization and specialization. Epilepsy, the split brain, and hemispherectomy.

The Expanding Brain: Neuroscience Beyond Biomedicine

Philosophical issues in Neuroscience; the mind-body problem. Neurophilosophy: toward a unified science of mind-brain. Philosophy of mind. Bioethics. Neuroethics. Neuroaesthetics. Neuromusicology. Neuroscience and creativity. Thinking and problem-solving. Neuroeconomics. Neuromarketing.

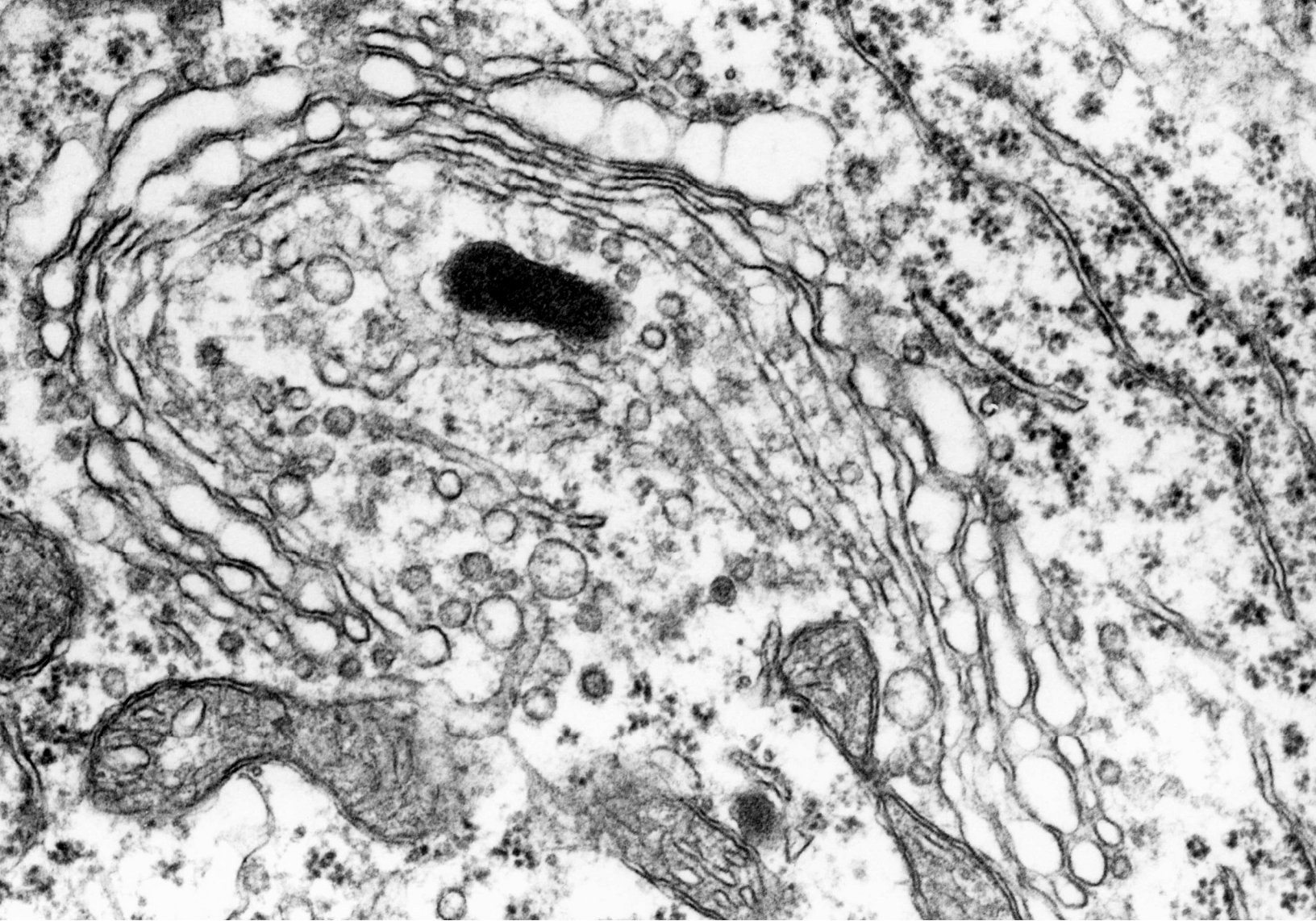
Spring Semester

Special Topics in Brain Research

This course comprises a Journal Club with recent papers and specific topic updates from the neuroscientific literature and some key lectures by select faculty on their active ongoing research.

Master's Thesis

The thesis must have some originality, either in theoretical constructs or experimental data. It is supervised by three faculty members and corresponds in terms of workload to two regular courses. Topics will be selected by the students in coordination with their advisers.



FACULTY

Maria Albani, M.D., Ph.D.

Professor of Physiology, Aristotelian University

Publications

- Papadelis, C., Kourtidou-Papadeli, C., Bamidis, P. and Albani, M.: Effects of imagery training on cognitive performance and use of physiological measures as an assessment tool of mental effort. *Brain and Cognition* 64: 74–85, 2007.
- Kalpidis, I.P., Kapoukranidou, D., Charalambakis, N., Chatzisitiriou, A. and Albani, M.: Three-dimensional morphometric mapping of rat muscle fibers. *Muscle and Nerve* 48: 951–957, 2013.
- Kosmidis, E.K., Moschou, V., Ziogas, G., Boukovinas, I., Albani, M. and Laskaris, N.A.: Functional aspects of the EGF-induced MAP kinase cascade: A complex self-organizing system approach. *PLoS One* 9(11): e111612, 2014.

Athanasios Chatzisitiriou, M.D., Ph.D.

Lecturer in Physiology, Aristotelian University

Publications

- Chatzisitiriou, A., Selviaridis, P.K., Kontopoulos, V.A., Kontopoulos, A.V. and Patsalas, I.A.: Delayed persistent hyperthermia after resection of a cranio-pharyngioma. *Pediatric Neurosurgery* 40: 196–202, 2004.
- Selviaridis, P., Zountsas, B., Chatzisitiriou, A., Zaraboukas, T. and Gerdemeli, A.: Demyelinating plaque imitates an intramedullary tumour. *Clinical Neurology and Neurosurgery* 109: 905–909, 2007.
- Petsanis, K., Chatzisitiriou, A., Kapoukranidou, D., Simeonidou, C., Kouvelas, D. and Albani, M.: Contractile properties and movement behaviour in neonatal rats with axotomy, treated with the

NMDA antagonist DAP5. *BMC Physiology* 12: 5, 2012.

Athanasios Dinopoulos, D.V.M., Ph.D.

Professor of Anatomy and Histology,
Aristotelian University

Publications

- Dinopoulos, A., Uylings, H.B. and Parnavelas, J.G.: The development of neurons in the nuclei of the horizontal and vertical limb of the diagonal band of Broca of the rat: A qualitative and quantitative analysis of Golgi preparations. *Developmental Brain Research* 65: 65–74, 1992.
- Dinopoulos, A.: Reciprocal connections of the motor neocortical area with the contralateral thalamus in the hedgehog (*Erinaceus europaeus*) brain. *European Journal of Neuroscience* 6: 374–380, 1994.
- Antonopoulos, J., Latsari, M., Dori, I., Chiotelli, M., Parnavelas, J.G. and Dinopoulos, A.: Noradrenergic innervation of the developing and mature septal area of the rat. *Journal of Comparative Neurology* 476: 80–90, 2004.

Panagiotis Doikos, D.Phil.

Associate Professor of Philosophy,
Aristotelian University

Publications

- Doikos, P.: *Spinoza: Phantasy, Knowledge, Prophecy*. Hellenica Grammata, Athens, 2000, 315 p.
- Doikos, P.: *Platos' Phaedr*. Zitros Publishers, Thessaloniki, 2002, 428 p.
- Doikos, P.: *Kierkegaard and Molla Sadra: The Existential Issue and Oriental Thought*. Romi Editions, Thessaloniki, 2013, 216 p.

Alexandra Economou, Ph.D.

Assistant Professor of Neuropsychology,
University of Athens

Publications

- Economou, A.: Olfactory identification in elderly Greek people in relation to memory and attention measures. *Archives of Gerontology and Geriatrics* 37: 119–130, 2003.
- Papageorgiou, S.G., Economou, A. and Routsis, C.: The 5 Objects Test: A novel, minimal-language, memory screening test. *Journal of Neurology* 261: 422–431, 2014.
- Economou, A., Routsis, C. and Papageorgiou, S.G.: Episodic memory in Alzheimer disease, frontotemporal dementia, and dementia with Lewy bodies/Parkinson disease dementia: Disentangling retrieval from consolidation. *Alzheimer Disease and Associated Disorders* 30: 47–52, 2016.

Kyriakos Garganis, M.D., Ph.D.

Chief of Neurology, St. Luke's Hospital

Publications

- Garganis, K., Kokkinos, V. and Zountsas, B.: EEG-fMRI findings in late seizure recurrence following temporal lobectomy: A possible contribution of area tempestas. *Epilepsy and Behavior Case Reports* 1: 157–160, 2013.
- Garganis, K., Kokkinos, V. and Zountsas, B.: Limited resection of focal cortical dysplasia and associated epileptogenic cortex may lead to positive surgical outcome. *Epileptic Disorders* 13: 422–429, 2011.
- Garganis, K., Papadimitriou, C., Gymnopoulos, K. and Milonas, J.: Pharyngeal dysesthesias as an aura in temporal lobe epilepsy associated with amygdalar pathology. *Epilepsia* 42: 565–571, 2001.

Eirini Gouleta, Ed.D.

Associate Professor of Multicultural Special
Education, University of Macedonia

Publications

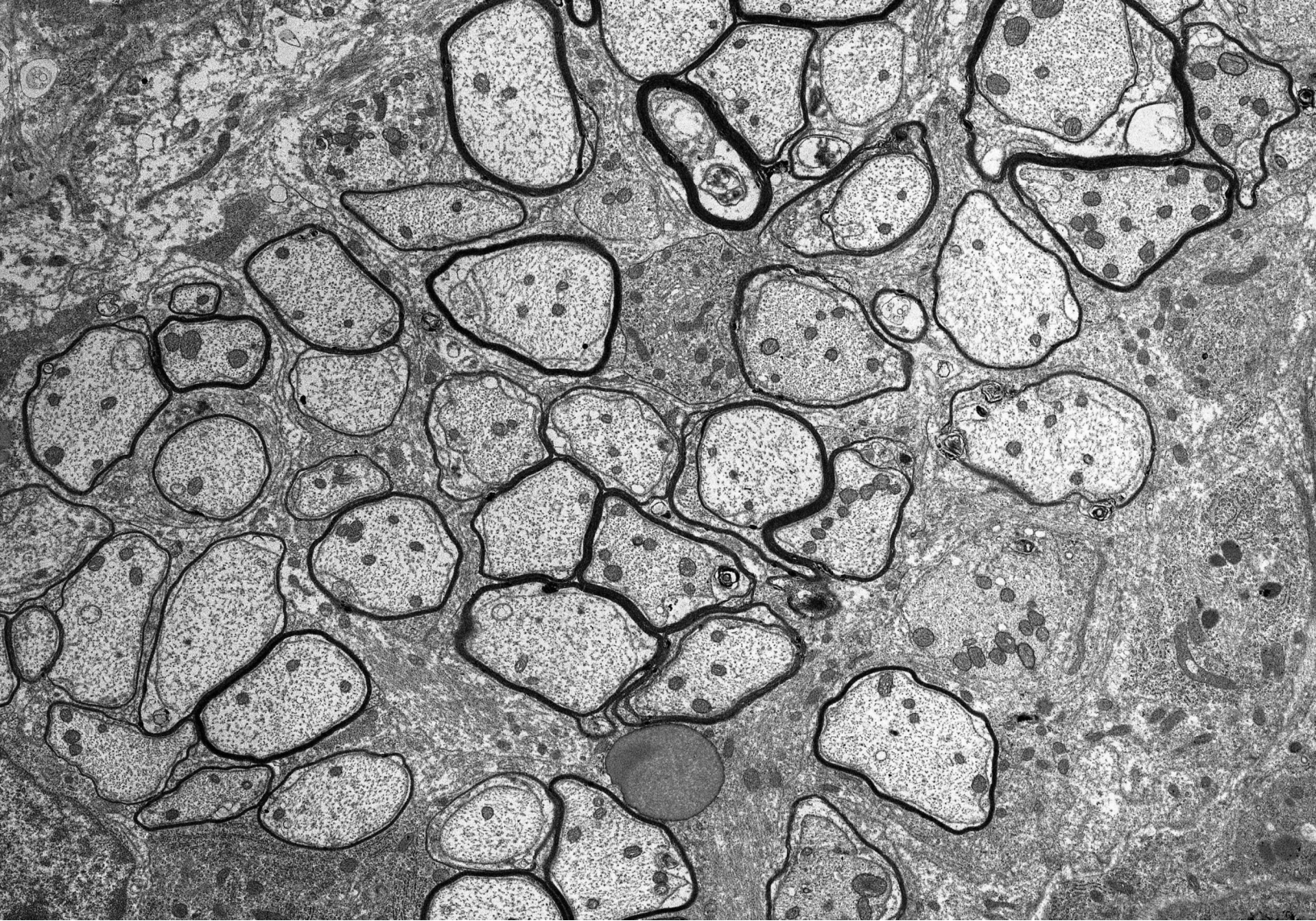
- Gouleta, E.: Hispanic Kindergarten students: The relationship between educational, social, and cultural factors and reading readiness in English. *National Association for Bilingual Education Journal of Research and Practice* 2: 56–76, 2004.
- Gouleta, E.: A bilingual education professional development project for primary Tibetan teachers in China: The experience and lessons learned. *International Journal of Bilingual Education and Bilingualism* 15: 295–313, 2012.
- Gouleta, E.: Educational assessment in Khyber Pakhtunkhwa Pakistan's north-west frontier province: Practices, issues, and challenges for educating culturally linguistically diverse and exceptional children. *Global Education Review* 2: 19–39, 2015.

Athanasios Karavatos, M.D., Ph.D.

Professor Emeritus of Psychiatry,
Aristotelian University

Publications

- Karavatos, A., Kaprinis, G. and Tzavaras, A.: Hemispheric specialization for language in the congenitally blind: The influence of the Braille system. *Neuropsychologia* 22: 521–525, 1984.
- Bozikas, V.P., Kövari, E., Bouras, C. and Karavatos, A.: Neurofibrillary tangles in elderly patients with late onset schizophrenia. *Neuroscience Letters* 324: 109–112, 2002.
- Petrikis, P., Andreou, C., Garyfallos, G. and Karavatos, A.: Incubus syndrome and folie à deux: A case report. *European Psychiatry* 18: 322, 2003.



Andreas Kastellakis, Ph.D.

Associate Professor of Physiological Psychology, University of Crete

Publications

- Thermos, K., Radke, J., Kastellakis, A., Anagnostakis, Y. and Spyrali, C.: Dopamine-somatostatin interactions in the rat striatum: An in vivo microdialysis study. *Synapse* 22: 209–216, 1996.
- Panagis, G. and Kastellakis, A.: The effects of ventral tegmental administration of GABA_A, GABA_B, NMDA and AMPA receptor agonists on ventral pallidum self-stimulation. *Behavioral Brain Research* 131: 115–123, 2002.
- Pallis, E., Vasilaki, A., Fehlmann, D., Kastellakis, A., Hoyer, D., Spyrali, C. and Thermos, K.: Antidepressants influence somatostatin levels and receptor pharmacology in brain. *Neuropsychopharmacology* 34: 952–963, 2009.

Efstratios K. Kosmidis, Ph.D.

Assistant Professor of Physiology, Aristotelian University

Publications

- Laskaris, N.A., Kosmidis, E.K., Vucinić, D. and Homma, R.: Understanding and characterizing olfactory responses. *IEEE Engineering in Medicine and Biology Magazine* 27: 69–79, 2008.
- Kosmidis, E.K., Moschou, V., Ziogas, G., Boukovinas, I., Albani, M. and Laskaris, N.A.: Functional aspects of the EGF-induced MAP kinase cascade: A complex self-organizing system approach. *PLoS One* 9(11): e111612, 2014.
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frog: An ex vivo electrophysiological study. *International Journal of Nanomedicine* 10: 7089–7096, 2015.

Mary H. Kosmidis, Ph.D.

Professor of Neuropsychology, Aristotelian University

Publications

- Kosmidis, M.H., Breier, A. and Fantie, B.D.: Avoidance learning in schizophrenia: A dissociation between the effects of aversive and non-aversive stimuli. *Schizophrenia Research* 38: 51–59, 1999.
- Kosmidis, M.H., Aretouli, E., Bozikas, V.P., Giannakou, M. and Ioannidis, P.: Studying social cognition in patients with schizophrenia and patients with frontotemporal dementia: Theory of mind and the perception of sarcasm. *Behavioural Neurology* 19: 65–69, 2008.
- Kosmidis, M.H., Giannakou, M., Messinis, L. and Papanthanasopoulos, P.: Psychotic features associated with multiple sclerosis. *International Review of Psychiatry* 22: 55–66, 2010.

Elvira Masoura, Ph.D.

Assistant Professor of Cognitive Psychology, Aristotelian University

Publications

- Masoura, E. and Gathercole, S.E.: Contrasting contributions of phonological short-term memory and long-term knowledge to vocabulary learning in a foreign language. *Memory* 13: 422–429, 2005.
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Anthony J. Montgomery, Ph.D.

Associate Professor of Organizational Psychology, University of Macedonia

Publications

Montgomery, A.J., Bradley, C., Rochfort, A. and Panagopoulou, E.: A review of self-medication in physicians and medical students. *Occupational Medicine* 61: 490–497, 2011.

Montgomery, A.J., Todorova, I., Baban, A. and Panagopoulou, E.: Improving quality and safety in the hospital: The link between organizational culture, burnout, and quality of care. *British Journal of Health Psychology* 18: 656–662, 2013.

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Areti Okalidou, Ph.D.

Professor of Speech-Language Pathology, University of Macedonia

Publications

Okalidou, A. and Harris, K.S.: A comparison of intergestural patterns in deaf and hearing adult speakers: Implications from an acoustic analysis of disyllables. *Journal of the Acoustical Society of America* 106: 394–410, 1999.

Helidoni, M., Murry, T., Chlouverakis, G., Okalidou, A. and Velegrakis, G.: Voice risk factors in Kindergar-

ten teachers in Greece. *Folia Phoniatrica et Logopaedica* 64: 211–216, 2012.

Okalidou, A., Kitsona, M., Anagnostou, F., Tsoukala, M., Santzakli, S., Gouda, S. and Nikolopoulos, T.P.: Knowledge, experience and practice of SLTs regarding (re)habilitation in deaf children with cochlear implants. *International Journal of Pediatric Otorhinolaryngology* 78: 1049–1056, 2014.

George Panagis, Ph.D.

Professor of Biological Psychology, University of Crete

Publications

Panagis, G., Spyraiki, C. and Miliaressis, E.: Poststimulation excitability of ventral pallidum self-stimulation neurons. *Behavioral Neuroscience* 109: 777–781, 1995.

Panagis, G., Nomikos, G.G., Miliaressis, E., Chergui, K., Kastellakis, A., Svensson, T.H. and Spyraiki, C.: Ventral pallidum self-stimulation induces stimulus dependent increase in *c-fos* expression in reward-related brain regions. *Neuroscience* 77: 175–186, 1997.

Panagis, G., Mackey, B. and Vlachou, S.: Cannabinoid regulation of brain reward processing with an emphasis on the role of CB1 receptors: A step back into the future. *Frontiers in Psychiatry* 5: 92, 2014.

Maria Platsidou, Ph.D.

Associate Professor of Developmental Psychology, University of Macedonia

Publications

Demetriou, A., Efklides, A. and Platsidou, M.: The architecture and dynamics of developing mind: Experiential structuralism as a frame for unifying cognitive developmental theories. *Monographs of*

the Society for Research in Child Development 58: 1–205, 1993.

Demetriou, A., Spanoudis, G., Shayer, M., Mougi, A., Kazi, S. and Platsidou, M.: Cycles in speed-working memory-G relations: Towards a developmental-differential theory of the mind. *Intelligence* 41: 34–50, 2013.

Platsidou, M. and Kantaridou, Z.: The role of attitudes and learning strategy use in predicting perceived competence in school-aged foreign language learners. *Journal of Language and Literature* 5: 253–260, 2014.

Hariklia Proios, Ph.D.

Assistant Professor of Neurocommunicative Disorders, University of Macedonia

Publications

Chialant, D., Domoto-Reilly, K., Proios, H. and Caramazza, A.: Preserved orthographic length and transitional probabilities in written spelling in a case of acquired dysgraphia. *Brain and Language* 82: 30–46, 2002.

Proios, H. and Brugger, P.: Influence of color on number perseveration in a serial addition task. *Perceptual and Motor Skills* 98: 944–946, 2004.

Ghemulet, M., Baskini, M., Messinis, L., Mouza, E. and Proios, H.: Taste perception analysis using a semantic verbal fluency task. *Psychology Research and Behavior Management* 7: 261–272, 2014.

Matt Sanoudos, D.D.S., Ph.D.

Certified Tutor in Problem-Based Learning; Adjunct Scientist, University of Athens

Publications

Sanoudos, M. and Christen, A.G.: Levi Spear Parmly, the apostle of dental hygiene. *Journal of the History*

of Dentistry 47: 3–6, 1999.

Garetto, L.P. and Sanoudos, M.: *Application of 'Problem-Based Learning' in Teaching the Basic Sciences to Undergraduates*. University of Macedonia Lifelong Learning Seminars, Thessaloniki, 2006.

Gkantidis, N. and Sanoudos, M.: Lower anterior crowding correction by a convenient lingual method. *Journal of Esthetic and Restorative Dentistry* 25: 96–100, 2013.

Gregory Simos, M.D., Ph.D.

Associate Professor of Developmental Psychopathology, University of Macedonia

Publications

Perris, C., Frank, N., Gusmao, R., Henry, L., Lundberg, M., Schaub, A., Simos, G., Richter, J., Rognoni, R., Ruchkin, V. and Valls, J.: Assessment of dysfunctional working models of self and others in schizophrenic patients: A summary of data collected in nine nations. *Acta Psychiatrica Scandinavica* 102: 336–341, 2000.

Obsessive Compulsive Cognitions Working Group: Development and initial validation of the obsessive beliefs questionnaire and the interpretation of intrusions inventory. *Behaviour Research and Therapy* 39: 987–1006, 2001.

Simos, G.: Collaboration in psychopharmacotherapy. *Journal of Clinical Psychology* 68: 198–208, 2012.

Despina A. Tata, Ph.D.

Associate Professor of Biological Psychology, Aristotelian University

Publications

Tata, D.A. and Anderson, B.J.: The effects of chronic glucocorticoid exposure on dendritic length, synapse numbers and glial volume in animal models:

Implications for hippocampal volume reductions in depression. *Physiology and Behavior* 99: 186–193, 2010.

Tata, D.A. and Yamamoto, B.K.: Chronic stress enhances methamphetamine-induced extracellular glutamate and excitotoxicity in the rat striatum. *Synapse* 62: 325–336, 2008.

Tata, D.A., Marciano, V.A. and Anderson, B.J.: Synapse loss from chronically elevated glucocorticoids: Relationship to neuropil volume and cell number in hippocampal area CA3. *Journal of Comparative Neurology* 498: 363–374, 2006.

Zoe D. Theodoridou, Ph.D.

Head, Department of Special Educational Needs, St. Luke's Hospital

Publications

Theodoridou, Z.D. and Triarhou, L.C.: Fin-de-siècle advances in neuroeducation: Henry Herbert Donaldson and Reuben Post Halleck. *Mind, Brain, and Education* 3: 119–129, 2009.

Théodoridou, Z.D. and Triarhou, L.C.: Christfried Jakob's 1921 theory of the gnosés and praxes as fundamental factors in cerebral cortical dynamics. *Integrative Psychological and Behavioral Science* 45: 247–262, 2011.

Theodoridou, Z.D. and Triarhou, L.C.: Challenging the supremacy of the frontal lobe: Early views (1906–1909) of Christfried Jakob on the human cerebral cortex. *Cortex* 48: 15–25, 2012.

George Theophilidis, Ph.D.

Professor of Animal Physiology, Aristotelian University

Publications

Maratou, E., Theophilidis, G. and Arsenakis, M.: Axonal transport of herpes simplex virus-1 in an in vitro model based on the isolated sciatic nerve of the frog *Rana ridibunda*. *Journal of Neuroscience Methods* 79: 75–78, 1998.

Papachristoforou, A., Rortais, A., Zafeiridou, G., Theophilidis, G., Garnery, L., Thrasyvoulou, A. and Arnold, G.: Smothered to death: hornets asphyxiated by honeybees. *Current Biology* 17: R795–R796, 2007.

Papaëfthimiou, C. and Theophilidis, G.: Octopamine—a single modulator with double action on the heart of two insect species (*Apis mellifera macedonica* and *Bactrocera oleae*): Acceleration vs. inhibition. *Journal of Insect Physiology* 57: 316–325, 2011.

Lazaros C. Triarhou, M.D., Ph.D.

Professor of Basic Neuroscience, University of Macedonia

Publications

Zhang, W., Lee, W.-H. and Triarhou, L.C.: Grafted cerebellar cells in a mouse model of hereditary ataxia express IGF-I system genes and partially restore behavioral function. *Nature Medicine* 2: 65–71, 1996.

Triarhou, L.C.: The Economo–Koskinas Atlas revisited: Cytoarchitectonics and functional context. *Stereotactic and Functional Neurosurgery* 85: 195–203, 2007.

Triarhou, L.C.: Neuromusicology or musiconeurology? "Omni-art" in Alexander Scriabin as a fount of ideas. *Frontiers in Psychology* 7: 364, 2016.

INSTRUCTOR

Kyрана Tsapkini, Ph.D.

Instructor of Neurology in Learning,
Johns Hopkins University

Publications

Tsapkini, K. and Rapp, B.: The orthography-specific functions of the left fusiform gyrus: evidence of modality and category specificity. *Cortex* 46: 185–205, 2010.

Tsapkini, K., Frangakis, C.E. and Hillis, A.E.: The function of the left anterior temporal pole: evidence from acute stroke and infarct volume. *Brain* 134: 3094–3105, 2011.

Tsapkini, K., Vindiola, M. and Rapp, B.: Patterns of brain reorganization subsequent to left fusiform damage: fMRI evidence from visual processing of words and pseudowords, faces and objects. *Neuroimage* 55: 1357–1372, 2011.

Paul D. Hatzigiannakoglou, M.Sc.

Laboratory Instructor in Computer Science,
University of Macedonia

Publications

Hatzigiannakoglou, P.D. and Triarhou, L.C.: A review of Heinrich Obersteiner's 1888 textbook on the central nervous system by the neurologist Sigmund Freud. *Wiener Medizinische Wochenschrift* 161: 315–325, 2011.

Hatzigiannakoglou, P.D.: Junk-food destroyer; helping adolescents with Down syndrome to understand healthy eating through serious game. *IEEE Xplore Digital Library* 7(15510210): 1–5, 2015.

Hatzigiannakoglou, P.D. and Kampouraki, M.T.: Learn Braille. *Journal of Engineering Science and Technology Review* 9: 174–176, 2016.

ADMISSIONS

Applications from candidates with undergraduate degrees in related fields from domestic or foreign universities are acceptable. A maximum of twenty (20) graduate students are selected per cycle.

Selection criteria

Bachelor's degree (grade and relevance), Proficiency in English (Cambridge or Michigan, TOEFL, IELTS language level C2 etc.), personal interview, letters of recommendation, application evaluation.

Tuition

Tuition fees are set at € 1350 per semester to cover the operating costs of the program.

Application

Applications for admission are submitted from **1 to 15 September** for the fall semester of the academic year.

To retrieve the application package and the instructions please visit:

neuro.uom.gr/admissions.html

Contact

Graduate Program in Neuroscience
and Education
University of Macedonia
156 Egnatia Avenue
Thessaloniki 54636 (Greece)

Secretariat

Ms. Asimina Karagianni
phone: 2310 891-357
e-mail: neusecr@uom.edu.gr

Links

Official Program website:
neuro.uom.gr

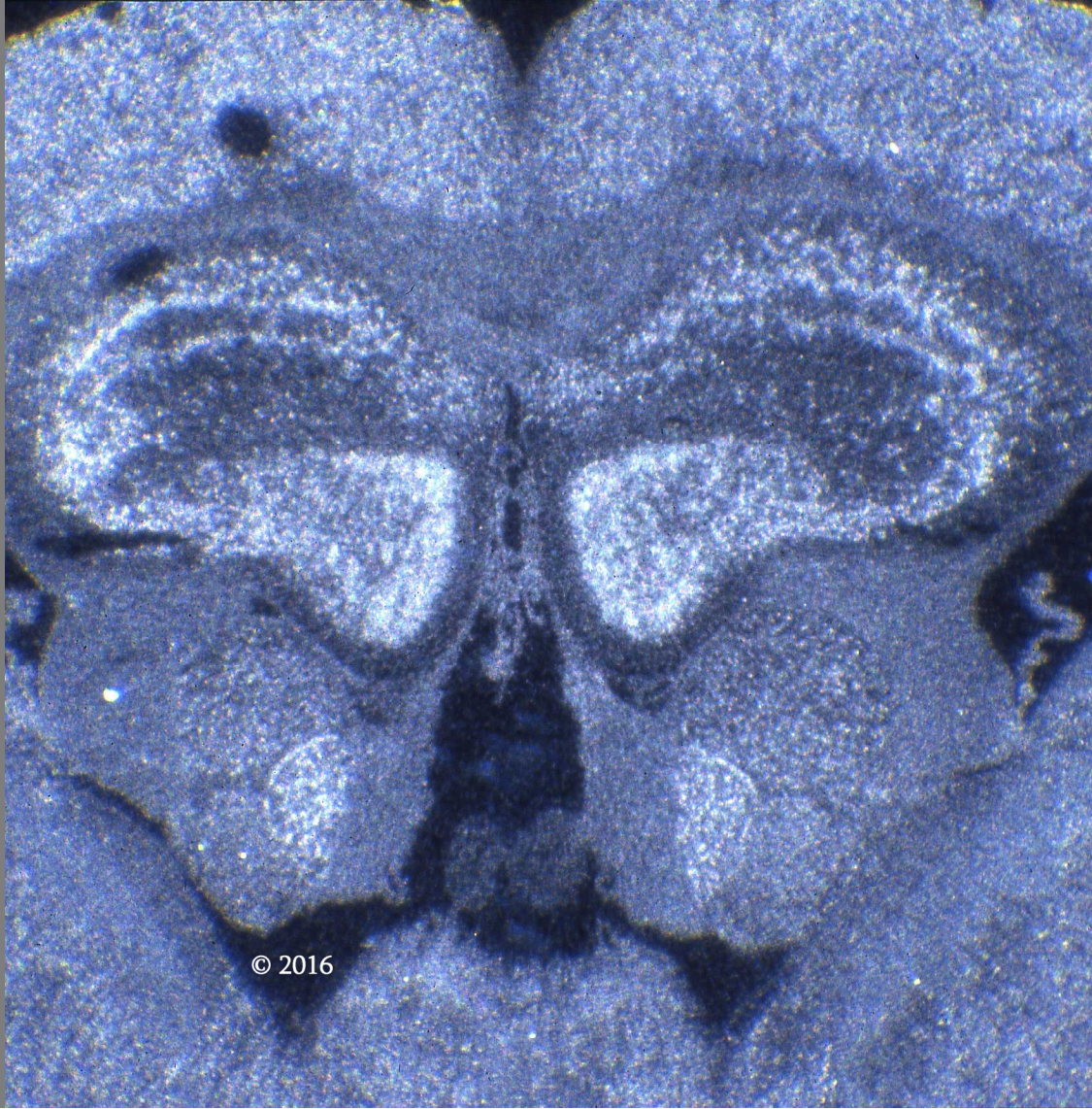
Program Director's homepage:
afroditi.uom.gr/~triarhou

Society for Neuroscience:
sfn.org

MedLine reference database:
pubmed.gov



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