

Marek Antoni Buczek, M.D., Ph.D., D.M.Sc.



University Hospitals Case Medical Center
Neurological Institute
Neuromuscular Center & EMG Laboratory
UH Westlake Medical Center
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CURRENT APPOINTMENTS:

Assistant Professor of Neurology, Case Western Reserve University School of Medicine

EDUCATION:

Graduate:

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| 1978-1984 | Medical School of Łódź, Poland
Faculty of Medicine
Degree: Medical Doctor (M.D.) |
| 1987-1988 | Medical School of Łódź, Poland
Doctorate in Medical Sciences
University Hospitals, Department of Neurological Surgery
Degree: Doctor of Medical Sciences (D.M.Sc.) |
| 1994-1997 | Case Western Reserve University, Cleveland, Ohio
School of Medicine, Departments of Anatomy and Neurosciences
Degree: Doctor of Philosophy (Ph.D) |

MEDICAL TRAINING:

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| 1984-1985 | Internship, University Hospitals of Łódź-Zgierz, Poland |
| 1985-1992 | Residency in Neurological Surgery, Department of Neurosurgery and Neurotraumatology,
University Hospitals of Łódź-Zgierz, Poland
Program Director: Prof. Zbigniew Jagodzinski, M.D., Ph.D. |
| 1992-1994 | Adiunkt - Attending Neurosurgeon, Department of Neurosurgery and Neurotraumatology,
University Hospitals of Łódź-Zgierz, Poland |

- 1998-2001 Intern/Resident, Department of Neurology
University Hospitals of Cleveland
Cleveland, Ohio
Program Directors: Robert Ruff, M.D., Ph.D.
Stephen Sagar, M.D.
- 2002-2003 Fellow, Department of Neurology
EMG/Pain Management/ANS disorders
University Hospitals of Cleveland
Cleveland, Ohio
Program Directors: Thomas Chelimsky, M.D.
Bashar Katirji, M.D., F.A.C.P.

PROFESSIONAL AND FACULTY APPOINTMENTS:

- 1984-1985 Junior Assistant - Intern
University Hospitals of Łódź-Zgierz, Poland
- 1985-1992 Resident in Neurological Surgery
Department of Neurosurgery and Neurotraumatology
University Hospitals of Łódź-Zgierz, Poland
- 1988-1990 Visiting Research Fellow
Department of Neurosurgery and Laboratory of Experimental
Neurological Surgery, Case Western Reserve University,
Cleveland, Ohio
- 1992-1994 Adiunkt and Attending Neurosurgeon
Department of Neurosurgery and Neurotraumatology
University Hospitals of Łódź-Zgierz, Poland
- 1992-1994 Junior Faculty Advisory Committee
Medical Academy of Lodz, Faculty Senate, Lodz, Poland
- 1992-1994 Consulting Neurosurgeon
County General Hospital
Piotrków Trybunalski, Poland
- 1994-1997 Research Associate
Laboratory of Experimental Neurological Surgery
Case Western Reserve University, Cleveland, Ohio
- 1998-2001 Intern/Resident, Department of Neurology
University Hospitals of Cleveland, Cleveland, Ohio
- 2002-2003 Fellow, Department of Neurology
EMG/Pain Management
University Hospitals of Cleveland
Cleveland, Ohio

02/2003 - present Attending Neurologist
Department of Neurology
University Hospitals of Cleveland/CWRU Faculty
Cleveland, Ohio

06/2003 - present Consulting Neurologist
Department of Medicine, St. John West Shore Hospital
Westlake, Ohio

CERTIFICATIONS:

1992 Board of Neurological Surgery, Warsaw, Poland

1998 Educational Commission for Foreign Medical Graduates (ECFMG)
Philadelphia, PA

2003 American Board of Neurology and Psychiatry

2007 Pain Medicine (ABPM/Neurology)

PROFESSIONAL SOCIETIES:

American Academy of Neurology
American Medical Association
Polish Neurological and Neurosurgical Society

LIST OF SELECTED PUBLICATIONS AND ABSTRACTS:

Journal articles:

Pundik S, Robinson S, Lust WD, Zechel J, Buczek M, and Selman WR (2006): Regional metabolic status of E-18 rat fetal brain following transient hypoxia/ischemia. *Metab Brain Dis.* 2006 Dec; 21(4): 309-17

Robinson S, Petelenz K, Li Q, Cohen ML, Dechant A, Tabrizi N, Buczek M, Lust D, and Miller RH (2005): Developmental changes induced by graded prenatal systemic hypoxic-ischemic insults in rats. *Neurobiol Dis.* 2005 Apr; 18 (3): 568-81

Lust WD, Pundik S, Zechel J, Zhou Y, Buczek M., and Selman WR (2003): Changing metabolic and energy profiles in fetal, neonatal, and adult rat brain. *Metab Brain Dis.* 2003 Sep; 18(3): 195-206.

Buczek M, Alvarez J, Azhar J, Zhou Y, Lust WD, Selman WR, and Ratcheson RA (2002): Delayed changes in regional brain energy metabolism following cerebral concussion in rats. *Metab Brain Dis.* 2002 Sep; 17(3): 153-167.

Buczek M., Hlavin ML, and Ratcheson RA (1998): Remembering Harvey Cushing: correspondence from Cleveland. *Neurol. Neurochir. Pol.* 34 (4): 171-174.

Jagodzinski Z, and Buczek M (1995): Cerebral blood flow and metabolism in acceleration brain injury. *Ann. Acad. Med. Lodz* 36: 91-96.

Buczek M, and Jagodzinski Z (1994): Diagnosis and treatment of central nervous system arachnoid cysts. *Neurol. Neurochir. Pol.* 28 (2): 211-220.

Buczek M, and Pieninski A (1993): Deep penetrating brain injury with 20 years of asymptomatic survival: a case report. *Otolaryngol. Pol.* 47 (6): 553-556.

Buczek M, Harrington JF, Lust WD, Assaf HM, and Ratcheson RA (1992): Effects of metabolic stress on the release of glutamic acid and GABA in the brain tissue of Mongolian hamsters. *Neurol. Neurochir. Pol. Suppl.1*: 251-257.

Buczek M, Ratcheson RA, Lust WD, McHugh M, and Pappius HM (1992): Metabolic effects of experimental thermal damage of the brain in rats - cold lesions. *Neurol. Neurochir. Pol. Suppl.1*: 213-225.

Buczek M, Kopytek M, and Jagodzinski Z (1992): Surgical *versus* conservative treatment modalities for the traumatic posterior fossa hematomas. *Ann. Acad. Med. Lodz* 34: 116-121.

Buczek M, Ratcheson RA, Lust WD, McHugh M, and Pappius HM (1991): Effects of cortical freezing lesion on regional energy metabolism. *J. Cereb. Blood Flow Metab.* 11 (5): 845-851.

Jagodzinski Z, Dabrowska E, and Buczek M (1990): Post-traumatic cerebellar hematomas. *Neurol. Neurochir. Pol.* 24 (5-6): 315-321.

Buczek M, Jagodzinski Z, Kopytek M, and Dabrowska E (1989): Conservative treatment of post-traumatic intracerebellar hematoma. *Wiad. Lek.* 42 (8): 550-555.

Buczek M, Jagodzinski Z, and Góraj B (1989): A case of favorable outcome of conservative treatment of acute otogenic cerebellar abscess. *Neurol. Neurochir. Pol.* 23 (2): 153-156.

Buczek M (1989): Traumatic hematomas in the posterior fossa of the cranium: The pathogenesis, natural history, treatment, and outcome. *Ann. Acad. Med. Lodz* 29: 296-308.

Sekula J, Buczek M, and Starzycki Z (1985): A case of aspergillosis of the ear. *Otolaryngol. Pol.* 39 (2): 166-170.

Sekula J, Piorunska K, Korczowska B, and Buczek M (1985): The central nervous system in deaf adolescents. *Acta Otolaryngol. Stockh.* 99 (3-4): 310-312.

Books and Book Chapters:

Buczek M, Suarez JI, and Chelimsky TC (2004): Treatment of autonomic disorders requiring intensive care management. In: *Critical Care Neurology and Neurosurgery*, Suarez, Jose I (Editor).

Little Black Book of Neurology, 4th Edition (2002), Zaidat OO and Lerner AJ (Editors)
Co-author, chapters dealing with neurosurgery and emergency neurology.

Harrington JF, Buczek M, Whittingham TS, Lust WD, Ricci AJ, Sternau LL, LaManna JC, and Ratcheson RA (1989): Effects of metabolic stress on the release of glutamate and GABA from hippocampal slices. In: J.Seylaz and ET Mackenzie (Editors), *Neurotransmission and Cerebrovascular Function*, Elsevier Science Publishers BV, Amsterdam, 1989, pp. 433-446,

Abstracts and Posters:

Buczek M and Ruff RL (2002): Neuromuscular transmission is maintained during muscle fiber contraction and stretch by a rigid endplate membrane.

The 54th Annual Meeting of the American Academy of Neurology, Denver, Colorado, USA, April 14-19, 2002.

Buczek M, Lust WD, Azhar J, and Ratcheson RA (1999): Delayed spatial and temporal metabolic changes in experimental cerebral concussion. *XIX International Symposium on Cerebral Blood Flow and Metabolism – Brain '99*, Copenhagen, Denmark, June 13-17, 1999.

Thomas NJ, Zhou Y, Buczek M, Selman WRS, Lust WD, and Kalaria RN (1998): APP and amyloid beta in a guinea pig model of focal stroke. *Society for Neuroscience*, Vol. 24, P1504,

Macklin WB, DeWeese D, Duchala CS, Douglas A, Pundik S, Buczek M, Selman WR, and Lust WD (1997): Altered neonatal rat brain development following fetal hypoxia. *J. Cereb. Blood Flow Metab.* Vol. 17, Suppl. 1, S150,

Lust WD, Pundik S, Buczek M, Taylor A, Selman WR, and Ratcheson RA (1997): Age-dependent changes in metabolic substrates in the rat brain. *J. Cereb Blood Flow Metab.* Vol. 17, Suppl. 1, S14.

Buczek M, Lust WD, and Ratcheson RA (1997): Delayed spatial and temporal metabolic changes in a fluid-percussion model of rat brain trauma. *The 21st Annual Graduate Student Symposium, Case Western Reserve University*, P18.

Macklin WB, DeWeese D, Duchala CS, Douglas A, Pundik S, Buczek M, and Lust WD (1997): Fetal hypoxia: Metabolic and developmental events. *Society for Neuroscience*, Vol. 23, P1411,

Macklin WB, Hays LU, Douglas A, Pundik S, Buczek M, and Lust WD (1996): Rat neonatal brain damage following fetal hypoxia. *Society for Neuroscience*, Vol. 22, P1938,

Buczek M, Lust WD, and Ratcheson RA (1996): Consequences of concussive head injury on cerebral metabolism and blood flow in experimental rat model. *The 20th Annual Graduate Student Symposium, CWRU*, P44,

Lust WD, Selman WR, Pundik S, Buczek M, and Ratcheson RA (1995): Developmental changes in the distribution and concentration of glucose and lactate in the rat brain. *J. Cereb. Blood Flow Metab.* Vol. 15, Suppl. 1: S587,

Buczek M, Lust WD, and Ratcheson RA (1995): Regional cerebral glucose utilization and energy metabolism in thermally traumatized rat brain. *The 19th Annual Graduate Student Symposium*

University Hospitals Neurological Institute

To Heal. To Teach. To Discover.

University Hospitals Neurological Institute is Northeast Ohio's first designated institute for the comprehensive care of patients with diseases affecting the nervous system. We provide high-quality, patient-centered medical care at locations throughout Northeast Ohio. Our flagship medical center, University Hospitals Case Medical Center, is the primary teaching affiliate of Case Western Reserve University School of Medicine.

The Neurological Institute has fifteen Centers of Excellence that bring together some of the country's foremost experts in neurology, neurosurgery and related specialties. Under the direction of Warren Selman, MD and Anthony Furlan, MD, the Neurological Institute at University Hospitals offers the latest in innovative technology for the diagnosis and treatment of all neurological conditions and diseases.

Medical experts devise appropriate combinations of clinical skills and advanced technologies to better provide individualized care for pediatric, adult, and elderly patients. The Institute's team is committed to expanding and integrating translational research into clinical practice and offers patients direct and rapid access to leading-edge treatment alternatives.