

C U R R I C U L U M V I T A E



**LASZLO J. KARAI, M.D., PH.D.**  
Dermatopathologist

**BOARD CERTIFICATIONS**

Anatomic Pathology  
American Board of Pathology

Dermatopathology  
American Board of Pathology

**FELLOWSHIPS**

Dermatopathology  
Cleveland Clinic Foundation  
Cleveland, OH

**RESIDENCY**

Anatomic Pathology  
National Cancer Institute  
Center for Cancer Research  
Laboratory of Pathology  
Bethesda, MD

**MEDICAL AND PH.D DEGREES**

Albert Szent-Györgyi Medical University (M.D.)  
Szeged, Hungary

**PROFESSIONAL MEMBERSHIPS**

- American Society of Dermatopathology
- American Academy of Dermatology
- College of American Pathologists
- United States and Canadian Academy of Pathologists
- International Society of Dermatopathology
- Dallas/Fort Worth Dermatological Society

Dr. Karai graduated summa cum laude with a medical degree (M.D.) and Ph.D from the Albert Szent-Gyorgyi Medical University, Szeged, Hungary. He started his residency in pathology in the Department of Pathology of the same university. He was awarded with the Scholarship of the European Union (TEMPUS) in 1996 and continued his studies in surgical pathology at the University College London and at the Hammersmith Hospital in London, UK. Dr. Karai received his DipRCPath degree in surgical pathology after successful exams in London, and Cambridge, UK in 1998. His interest in research led him to the National Institutes of Health (NIH), Bethesda, MD, where he started a Ph.D. work in molecular-neuroscience. Dr. Karai's findings on the pathomechanisms of pain led to a number of high impact scientific publications, and resulted in a Phase I Clinical Trial on the treatment of intractable pain at the National Cancer Institute (NCI). Dr. Karai re-trained in pathology with Dr. Elaine S. Jaffe at the Laboratory of Pathology of the NCI and gained experience in the diagnosis of cutaneous lymphoproliferative diseases, soft tissue pathology and in various dermatopathological conditions. He continued his training in dermatopathology focusing on hair pathology with a Fellowship Program at the Cleveland Clinic Foundation with Dr. Wilma F. Bergfeld in 2007. Prior to his current position at DermDX, he was a Clinical Associate at Cockerell and Associates, Dallas, TX. Dr. Karai is the Acting Chair of the International Partnering Committee (IPC) of the American Society of Dermatopathologists, working with his colleagues on establishing connections with foreign countries. Dr. Karai has extensive teaching experience in dermatopathology. He is board certified in Anatomic Pathology and Dermatopathology with special interest in cutaneous lymphomas, soft tissue tumors, pigmented lesions, inflammatory dermatoses, and teledermatopathology.

Prior to joining DermDX a division of Aurora Diagnostics, Dr. Karai served in an impressive series of key appointments within both the academic and clinical pathology arenas, as exemplified by the following:

- Acting Chair of the International Partnering Committee (IPC) of the American Society of Dermatopathology
- Assistant Professor, Department of Dermatology, The University of Texas Southwestern Medical Center, Dallas, TX.
- Member of the Web Committee of the American Society of Dermatopathology
- Chief Resident, Laboratory of Pathology, National Cancer Institute.

Other major achievements of note:

- Fellows Award for Research Excellence (FARE), NIH
- National Institute of Dental and Craniofacial Research Special Act Award, NIH
- National Institute of Dental and Craniofacial Research Travel Award, NIH
- Visiting Fellow Award of the NIDCR, NIH
- Scholarship of the Hungarian Republic

Dr. Karai has two U. S. patents pending as the co-inventor of the following procedures:

- "Image-guided molecular neurosurgery for pain control." This patent application covers the use of vanilloid agonists to control pain via intrathecal and intraganglionic administration.
- "Enhancers of transient receptor potential V1 (TRPV1) for analgesia."

A gifted writer, Dr. Karai coauthored numerous pathology-related articles that were subsequently published in some of our more prestigious scientific journals. (See the reverse side of this CV for a sampling of these publications.)

## LASZLO J. KARAI, M.D.

Dermatopathologist

### SAMPLING OF PUBLISHED WORKS

Burdick, L. M., D. Hamrock, **L. Karai**, et al. JAAD Grand Rounds quiz: Asymptomatic necrotic ulcer on leg. *Journal of the American Academy of Dermatology* 61(1):172-74, 2009.

Chatterjee, S., and **L. J. Karai**. Elephantiasis nostras verrucosa in a patient with systemic sclerosis. *Clinical and Experimental Dermatology* 34(8):e696-98, 2009.

**Karai, L. J.**, and W. F. Bergfeld. Recent advances in T-cell regulation relevant to inflammatory dermatopathology. *Journal of Cutaneous Pathology* 36(7):721-28, 2009.

Ritchie, D., R. L. Piekarz, **L. J. Karai**, et al. Reactivation of DNA viruses in association with histone deacetylase inhibitor therapy: A case series report. *Haematologica* 94(11):1618-22, 2009.

Warren, C. B., **L. J. Karai**, A. Vidimos, et al. Pain associated with aminolevulinic acid-photodynamic therapy of skin disease. *Journal of the American Academy of Dermatology* 61(6):1033-43, 2009.

Neubert, J. K., A. J. Mannes, **L. J. Karai**, et al. Perineural resiniferatoxin selectively inhibits inflammatory hyperalgesia. *Molecular Pain* 4(1):3, 2008.

Sabatino, M., Y. Zhao, **L. Karai**, et al. Conservation of genetic alterations in recurrent melanoma supports the melanoma stem cell hypothesis. *Cancer Research* 68(1):122-31, 2008.

Imanguli, M. M., **L. J. Karai**, R. M. Shanti, et al. Myofibroblastic tumor of the lower lip in a patient with x-linked hypogammaglobulinemia and isolated growth hormone deficiency: A case report. *Journal of Oral and Maxillofacial Surgery* 65(6):1219-22, 2007.

Brown, D. C., M. J. Iadarola, **L. J. Karai**, et al. Physiologic and antinociceptive effects of intrathecal resiniferatoxin in a canine bone cancer model. *Anesthesiology* 103(5):1052-59, 2005.

Tender, G. C., S. Walbridge, **L. Karai**, et al. Selective ablation of nociceptive neurons for elimination of hyperalgesia and neurogenic inflammation. *Journal of Neurosurgery* 102(3):522-55, 2005.

**Karai, L.**, D. C. Brown, A. J. Mannes, et al. Deletion of vanilloid receptor 1 expressing primary afferent neurons for pain control. *Journal of Clinical Investigation* 113(9):1344-52, 2004.

**Karai, L. J.**, J. T. Russell, M. J. Iadarola, et al. Vanilloid receptor 1 regulates multiple calcium compartments and contributes to Ca<sup>2+</sup>-induced Ca<sup>2+</sup> release in sensory neurons. *Journal of Biological Chemistry* 279(16):16377-87, 2004.

Caudle, R. M., **L. Karai**, N. Mena, et al. Resiniferatoxin-induced loss of plasma membrane in vanilloid receptor expressing cells. *Neurotoxicology* 24(6):895-908, 2003.

Neubert, J. K., **L. Karai**, J. H. Jun, et al. Peripherally induced resiniferatoxin analgesia. *Pain* 104(1-2):219-28, 2003.

Olah, Z., **L. Karai**, and M. J. Iadarola. Protein kinase C (alpha) is required for vanilloid receptor 1 activation: Evidence for multiple signaling pathways. *Journal of Biological Chemistry* 277(38):35752-59, 2002.

Olah, Z., **L. Karai**, and M. J. Iadarola. Anandamide activates vanilloid receptor 1 (VR1) at acidic pH in dorsal root ganglia neurons and cells ectopically expressing VR1. *Journal of Biological Chemistry* 276(33):31163-70, 2001.

Olah, Z., T. Szabo, **L. Karai**, et al. Ligand-induced dynamic membrane changes and cell deletion conferred by vanilloid receptor 1. *Journal of Biological Chemistry* 276(14):11021-30, 2001.

Virok, D., Z. Kis, **L. Karai**, et al. Chlamydia pneumoniae in atherosclerotic middle cerebral artery. *Stroke* 32(9):1974-76, 2001.