

# H. CHRISTOPHER LAWSON

Baltimore Neurosurgery and Spine Center Mirowski Medical Office Building 5051 Greenspring Avenue, Suite 101 Baltimore, MD 21209 Office: (410) 664-3680 Fax: (410) 664-3686 www.baltimoreneurosurgery.com

## **EDUCATION**

| 1995-2000               | Medical School: | Johns Hopkins School of Medicine<br>Doctor of Medicine, May 2000   | Baltimore, MD       |  |  |
|-------------------------|-----------------|--|---------------------|--|--|
| 1991-1995               | Undergraduate:  | Johns Hopkins University<br>Bachelor of Science, Biomedical En<br>Bachelor of Science, Materials Scien<br>Graduated with University and Depe | nce and Engineering |  |  |
| 1987-1991               | High School:    | Harrisburg High School<br>Valedictorian  | Harrisburg, PA      |  |  |
| PROFESSIONAL EXPERIENCE |                 |  |                     |  |  |
| 2010-Present            |                 | Baltimore Neurosurgery and Spine G<br>Baltimore, MD  | Center              |  |  |
| 2007-2010               |                 | Greater Baltimore Neurosurgical As<br>Greater Baltimore Medical Center<br>Department of Neurosurgery<br>Baltimore, MD                        | sociates            |  |  |
| CLINICAL TRAINING       |                 |  |                     |  |  |
| 2006-2007               |                 | Johns Hopkins University School of<br>Chief Resident, Department of Neur   |                     |  |  |
| 2001-2006               |                 | Johns Hopkins University School of Assistant Resident, Department of N   |                     |  |  |
| 2000-2001               |                 | Johns Hopkins University School of   | Medicine            |  |  |



Intern, Department of General Surgery

## CERTIFICATION AND LICENSURE

| 2012 | Board Certified, American Board of Neurological Surgeons   |
|------|--|
| 2007 | State of Maryland Medical                                  |
| 2003 | American Board of Neurological Surgery Primary Examination |

## HONORS AND AWARDS

American Parkinson Disease Association Post-doctoral fellowship (2004-2005) Harvey Cushing Medical Student Hunterian Research Award (1999) NIH Supplemental Opportunities Research Grant (1998-99) National Society of Professional Engineers Scholarship (1991-95) Omicron Delta Kappa Leadership Honor Society (Inducted in 1995) Tau Beta Pi Engineering Honor Society (Inducted in 1994) Golden Key Honor Society (Inducted in 1994) National Achievement Scholarship (1991-92)

#### CLINICAL STUDIES

A Prospective Randomized Multi-center Investigation of the Mobi-C Artificial Cervical Disc Replacement, Investigator, 2007

A Prospective Randomized Multi-center Investigation of the Paradigm-Coflex Spinal Stabilization without Fusion, Investigator, 2007

#### **RESEARCH EXPERIENCE**

| July 2004 – May 2006  | Research Fellow – Preceptor: Fred Lenz, MD<br>Johns Hopkins School of Medicine, Dept of Neurosurgery<br>American Parkinson's Disease Association Fellowship<br>Motor learning studies on patients with movement disorders   |
|-----------------------|---|
| June 1998 - June 1999 | Research Fellow - Preceptor: Henry Brem, MD<br>Johns Hopkins School of Medicine, Dept of Neurosurgery<br>National Institutes of Health Grant<br>Assisted in the development of intracranial animal models for<br>local delivery of chemotherapeutic agents for brain tumors |



| June 1996 - Aug 1996    | Research Assistant - Preceptor: Cameron Huckell, MD<br>Johns Hopkins School of Medicine, Dept of Orthopedic Surgery<br>Assisted in a clinical project comparing the outcomes of patients<br>treated for pseudarthrosis by two different techniques. |
|-------------------------|---|
| Oct 1994 - Aug 1995     | Research Assistant - Preceptor: Edmund Chao, PhD<br>Johns Hopkins School of Medicine, Department of Orthopedics and<br>Biomechanics<br>Conducted material testing of defected canine tibiae.  |
| June 1994 - Aug 1994    | Research Assistant - Preceptor: Stephen Oppenheimer, MD<br>Johns Hopkins School of Medicine, Dept of Neurology<br>Assisted in mapping areas of the thalamus using data from a<br>retrospective study of sixty patients.                             |
| June 1992 - August 1992 | Research Assistant - Preceptor: Norman Sheppard, PhD<br>Johns Hopkins University, Dept of Biomedical Engineering<br>Assisted in the development of an experimental glucose sensor.  |

#### PUBLICATIONS

WS Anderson, HC Lawson, AJ Belzberg, FA Lenz. Selective denervation of the levator scapulae muscle: an amendment to the Bertrand procedure for the treatment of spasmodic torticollis. J Neurosurgery. Apr:108:757-63. 2008

HC Lawson, P Sampath, E Bohan, MC Park, N Hussain, AOlivi, J Weingart, L Kleinberg, H Brem. Interstitial chemotherapy for malignant gliomas, the Johns Hopkins Experience. J Neuro-oncology. 83: 61-70, 2007.

WS Anderson, S Ohara, HC Lawson, R-D. Treede, FA Lenz. Plasticity of pain-related neuronal activity in the human thalamus. ProgBr Res 157:353-354, 2006.

S Ohara, WS Anderson, HC Lawson, HT Lee, FA Lenz. Endogenous and exogenous modulators of potentials evoked by a painful cutaneous laser (LEPs). Acta Neurochirogie. 99:1-3, 2006.

CA Bagley, S Ohara, HC Lawson, FA Lenz. Psychophysics of CNS pain-related activity: binary and analog channels and memory encoding. The Neuroscientist 12:29-42, 2006.

N Weiss, HC Lawson, S Anderson, SA Treede, JD Greenspan, FA Lenz. Neuronal activity recorded along the human forebrain 'pain pathway'. Thalamus and related systems. 3:71-86, 2005.



KW Li, C Roonprapunt, HC Lawson, IR Abbott, J Wisoff, F Epstein, GI Jallo. Endoscopic third ventriculostomy for hydrocephalus associated with tectal gliomas. Neurosurg Focus. 18; Jun 15, 2005.

S Ohara, N Weiss, S Hua, S Anderson, HC Lawson, JD Greenspan, FA Lenz. Allodynia due to forebrain sensitization demonstrated by thalamic microstimulation. In: Hyperalgesia: Molecular approaches and clinical

treatment. Eds. K Brune and HO Handwerker. IASP Press: Seattle. 353-371, 2004 (in press).

F Lenz, N Weiss, S Ohara, HC Lawson, JD Greenspan. The role of the thalamus in pain. Suppl. Clin. Neurophysiol. 57: 50-61, 2004.

AF Samdani, EB Kuchner, L Rhines, DC Adamson, HC Lawson, B Tyler, H Brem, VL Dawson, TM Dawson. Astroglia induce cytotoxic effects on brain tumors via a nitric oxide-dependent pathway both in vitro and in vivo. Neurosurgery. Vol 54, No. 5, May 2004, p. 1231-7.

C Guerin, A Olivi, JD Weingart, HC Lawson, H Brem. Recent advances in brain tumor therapy: local intracerebral drug therapy by polymers. Investigational New Drugs. Vol 22, No 1, Jan 2004, p. 27-37.

LD Rhines, P Sampath, F DiMeco, HC Lawson, BM Tyler, J Hanes, A Olivi, H Brem. Local immunotherapy with interleukin-2 delivered from biodegradable polymer microspheres combined with interstitial chemotherapy: a novel treatment for experimental malignant glioma. Neurosurgery. Vol 52, No 3, April 2003, p. 872-879.

TS Tierney, RE Clatterbuck, HC Lawson, QA Thai, LD Rhines, RJ Tamargo. Prevention and reversal of experimental posthemorrhagic vasospasm by the periaventitial administration of nitric oxide from a controlled –release polymer. Neurosurgery. Vol 49, No. 4, October 2001, p. 945-951.

H Brem and HC Lawson. The development of new brain tumor therapy utilizing local and sustained delivery of chemotherapeutic agents from biodegradable polymers (Editorial). Cancer Vol. 86, No. 2, July 15 1999, p. 197-199.

DA Cohen, A Chotivichit, T Fujita, TH Wong, CB Huckell, AN Sieber, JP Kostuik, HC Lawson. A comparison of structural grafts in the repair of lumbar pseudarthrosis: autogenous iliac crest vs. femoral ring allograft. Spine: State of the Art Reviews. Vol 13, No. 2, May 1999, p. 359-368.

## ABSTRACTS

HC Lawson, S Ohara, JD Greenspan, FA Lenz, Quantitative sensory testing demonstrates distributed pattern of modality representation in parasylvian cortex. American Association of Neurological Surgeons, New Orleans, LA, 2005 (E-poster presentation).



HC Lawson, L. Rhines, M. Wetzel, B.M. Tyler, G. Faircloth, H. Brem. Aplidine and Ecteinascidin-743: Cytotoxicity of two novel anti-tumor agents against primary and metastatic brain tumor lines in vitro. Congress of Neurological Surgeons, Boston MA, October 30 - November 4, 1999 (Oral Poster Presentation)

L Rhines, HC Lawson, A Samdani, F DiMeco, B Tyler, VL Dawson, H. Brem. Stimulation of astroglia with interleukin-4, interleukin-12, and interleukin-13: Effects on co-cultured tumor cells. Congress of Neurological Surgeons, Boston MA, October 30 - November 4, 1999

L Rhines, HC Lawson, T Bunton, P Sampath, B Tyler, J Weingart, H Brem. O6-Benzylguanine causes toxicity when administered in conjunction with biodegradable polymers containing increases BCNU loading doses. Congress of Neurological Surgeons, Boston MA, October 30 - November 4, 1999

L Rhines, VL Perry, HC Lawson, F DiMeco, B Tyler, H Brem. Locally delivered adriamycin and interleukin-2 are synergistic in the treatment of intracranial 9L gliosarcoma. Congress of Neurological Surgeons, Boston MA, October 30 - November 4, 1999

L Rhines, P Sampath, HC Lawson, S Betchen, F DiMeco, B Tyler, H Brem. Interstitial polymeric delivery of interleukin-2 combined with BCNU in the treatment of experimental glioma. Congress of Neurological Surgeons, Boston MA, October 30 - November 4, 1999

F DiMeco, L Rhines, J Hanes, HC Lawson, B Tyler, A Aggarwal, VL Perry, H. Brem, A Olivi. Local delivery of IL-12 by microspheres against experimental brain tumors. Congress of Neurological Surgeons, Boston MA, October 30 - November 4, 1999

A Samdani, L Rhines, DC Adamson, HC Lawson, B Tyler, H Brem, VL Dawson, TM Dawson. Astroglia mediate cytotoxic effects toward brain tumors via a nitric oxide dependent mechanism in vivo. American Association of Neurological Surgeons, New Orleans LA, April 24-29, 1999