

WYOMING SPINE & NEUROSURGERY ASSOCIATES, L.L.C.

Steven J. Beer, M.D.

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CURRICULUM VITAE

PERSONAL DATA:

Birthdate: 12/17/65
Birthplace: Cedar Rapids, Iowa, U.S.A.
Citizenship: American
Phone: 307-421-3550

EDUCATION:

Cornell College Mt. Vernon, IA	1984 - 1988	B.S.S. Biology Chemistry
University of Iowa Iowa City, IA	1988 - 1992	M.D.
University of Iowa Iowa City, IA	1992 - 1993	General Surgery
University of Iowa Iowa City, IA	1992 - 1998	Neurological Surgery

MEDICAL LICENSES:

Iowa Medical License	1992 – Present
Wyoming Medical License	2001 – Present
Nebraska Medical License	2001 - Present
Colorado Medical License	2011 - Present

PROFESSIONAL ORGANIZATIONS / CERTIFICATIONS:

American Board of Neurological Surgery Certification	2004 - 2014
Fellow American Association of Neurological Surgeons	1993 - Present
Diplomat Congress of Neurological Surgeons	1993 - Present
National Association of Spine Surgeons Member	2006 - Present
American Association of Physicians and Surgeons Physician Member	2010 - Present

RELATED WORK / LABORATORY EXPERIENCE:

1985 – 1988	Researcher, Departments of Biology and Chemistry, Cornell College, Epidermal growth factor isolation, purification and monoclonal antibody preparation. Mount. Vernon, IA
1989 – 1991	First Surgical Assistant, Neurological Surgery, David W. Beck, M.D., Mercy Hospital, Mason City, IA
1990 – 1991	First Surgical Assistant, Neurological Surgery, Marshall Poor, M.D., Mercy Hospital, Paducah, KY
1990 – 1994	Research Assistant, Department of Surgery, Division of Neurological Surgery, University of Iowa, Iowa City, IA.
2001 - Present	Neurosurgeon, Owner and Administrator, President, Wyoming Spine and Neurosurgical Associates, LLC Cheyenne, WY
2002 - 2010	Neurosurgical Trauma Contract Physician Administrator, Cheyenne Regional Medical Center Cheyenne, WY
2006 - Present	Medical Implant Product Development; <i>Arthroplasty Posterior Disk Project, Hydrogel, Element Pedical Screw</i> , and Educator, Aesculap Spine Implant Systems / B. Braun Center Valley, PA and Germany

2007 - Present Medical Implant Product Development; *Parallel Bone Inserter, OsseoScrew, Trestle Luxe Cervical Plate*, and Educator, Alphatec Spine
Carlsbad, CA

2007 - Present Consultant and Medical Director, *Xclose*, Anulex Technologies, Inc
Minnetonka, MN

2008 - 2011 Medical Consultant, Bacterin International, Inc.
Englewood, CO

2009 - Present Neurosurgeon, Owner and Administrator, President, Wyoming Neuromonitoring, LLC
Cheyenne, WY

2011 - Present Mountain Pacific Quality Health, Medicare Quality Improvement and Utilization Review Organization
Neurosurgical Case Reviewer

2011 - Present Medical Consultant Medical Advisory Board, Cellright Technologies
San Antonio, TX

2011 - 2012 Consultant, Office of the Inspector General, Department of Justice, Neuromonitoring and Spine Surgery

APPOINTMENTS:

1986 – 1987 Stueland Research Fellow, Department of Surgery, Division of Neurological Surgery, University of Iowa, Iowa City, IA.

1995 – 1997 Postdoctoral Fellow, Departments of Internal Medicine and Surgery, University of Iowa, Iowa City, IA.

2003 – 2005 Assistant Clinical Professor, Department of Neurosurgery, School of Medicine, University of Colorado Health Sciences Center, Denver, CO

2003 – 2006 Adjunct Clinical Faculty, Family Residency Program, Cheyenne/Neurosurgery, University of Wyoming, Cheyenne, WY

2009 - Present Medical Advisory Board, The Doctors Research Group, Bone Adhesives, *Kryptonite Bone Cement*
Southbury, CT

HONORS AND AWARDS:

- 1996 Best Scientific Paper, The Department of Surgery Residents and Fellows Research Day, University of Iowa, Iowa City, IA.
- 1997 Best Clinical Paper, The Department of Surgery Residents and Fellows Research Day, University of Iowa, Iowa City, IA
- 2002 Super Surgeon, "Stealth Treon Intraoperative Stereotatic Navigation," *Discovery Channel* Feature
- 2006 Lead physician developer of the "Brain Bike Chopper" developed by Dr. Beer to increase awareness and raise funds for *Think First* and the *Christopher Reeves Paralysis Foundation with Medtronic SNT Division*
- 2008 - 2010 Steven J Beer, MD, Wyoming Spine and Neurosurgery Associates, LLC, Featured in *Ladies' Home Journal*, September 2008, as exemplary surgeon, "Leading-Edge Care for Traumatic Brain Injury & Spinal Conditions"
- 2011 *Newsweek* "Top 15 Leaders in Neurosurgery" October 2011 Feature Advertisement
- 2012 *Newsweek* "2012 Top 15 Leaders in Neurosurgery" May 2012 Feature

PRESENTATIONS / INVITED GUEST LECTURES:

- 2001 Invited Faculty Lecturer, Grand Rounds, Cheyenne Regional Medical Center, "*Cervical Spine Evaluation*"
Cheyenne, WY
- 2001 Invited Faculty Lecturer, University of Wyoming Residency Program, "Subarachnoid Hemorrhage"
Cheyenne, WY
- 2002 Invited Faculty Lecturer, Cheyenne Regional Medical Center Respiratory Therapy Department, "*Advances In Neurosurgery*"
Cheyenne, WY
- 2003 Invited Faculty Lecturer, Cheyenne Regional Medical Center, "*Surgical Treatment of Brain Tumors*"
Cheyenne, WY

- 2005 Invited Lecturer, Department of Employment
Division of Workers' Compensation, "*Artificial Disk
Replacement*"
Cheyenne, WY
- 2008 Invited Guest Lecturer, Neurosurgical Society of
America, "*Efficacy of Intraoperative Lumbar Fusion
Neuromonitoring*"
Whistler, British Columbia
- 2008 Invited Faculty Keynote Speaker, National Sales
Meeting Alphatec Spine, "*The Aging Spine;
Osteoporosis*"
Las Vegas, NV
- 2010 Invited Faculty Speaker, Aesculap Implant
Systems, National Sales Meeting
Fort Meyers, FL
- 2010 Invited Faculty Lecturer, Alphatec Spine Tom Lowe
Symposium
Beaver Creek Resort, Avon, CO
- 2010 Invited Faculty Lecturer, International Sales
Meeting, Alphatec Spine
Vienna, Austria
- 2011 Invited Guest Lecturer, Aesculap Spine Implant
Systems, International Sales Meeting, "*Element
Pedical Screw Fixation*"
Vienna, Austria
- 2011 Invited Faculty Speaker, Wyoming Society
of Radiologic Technologists, Annual Conference,
"*Osteobiologic Compunds, Bone Adhesives and
Nuts and Bolts, Innovative Ideas for the Future and
Implications for Radiographic Technology*"
Cheyenne, WY
- 2011 Keynote Speaker, Cheyenne Rotary Club,
"*Innovative Spine Concepts: Innovative Treatment
for Back Pain; The Aging Spine*"

TEACHING:

1996 – 1997	Teaching Assistant, Medical Student Neuroanatomy, University of Iowa College of Medicine Iowa City, IA.
1998 - 2005	Physician Advisor Medtronic Spine Representative Training Memphis, TN
2001 - Present	Medical Student Neuroanatomy Course Instructor, University of Wyoming WWAMI Medical Education Program Laramie, WY
2003 - 2012	Physician Advisor, Aesculap Spine Representative and Physician Educator, and Product Development Advisor B.Braun, Tuttlingen, Germany Aesculap, Center Valley, PA
2007-Present	Physician Advisor, Physician Educator, Spine Representative Training, Product Development Advisor Alphatec Spine Carlsbad, CA

BIBLIOGRAPHY:

Completed Publications in Scientific Journals

Peer Reviewed Publications

Beer, SJ and WA See. Intracorporeal needle breakage; An unusual complication of papaverine injection therapy for impotence. J. Urol. 147:148-149, 1992.

Beer, SJ and AH Menezes. Primary tumors of the spine in children— Natural history, management and long-term follow-up. Spine 22(6) :649-658, 1997.

Beer, SJ, Stein C. Ross BD, Hilfinger JM and Davidson BL. Poly (lactiglycolic) acid co-polymer encapsulation of recombinant Adenovirus reduces immunogenicity in vivo. In press, Gene Therapy, 1998.

Non-Peer Reviewed Publications

Beer, SJ, Hilfinger JM and BL Davidson. Extended release of adenovirus from polymer microspheres: potential use in gene therapy for brain tumors. Advanced Drug Delivery Reviews 27:59-66, 1997.

Book Chapters

Beer, SJ and CL Loftus. Back pain in pregnancy. In Neurosurgical Aspects of Pregnancy, CL Loftus (ed.), Neurosurgery Topics Series, AANS Publications Committee, 1995.

Abstracts and Preliminary Communications

Beer, SJ and AH Menezes. Primary tumors of the spine in children—Natural history and management. Presentation at the 12th Annual Meeting of the Joint Section on Disorders of the Spine and Peripheral Nerves, Lake Buena Vista, FL, 1996.

Beer, SJ, Stein CS, Hilfinger JM, and BL Davidson. Encapsulated Adenovirus: a novel new method for delivery of gene therapy. Presentation at the Department of Surgery Residents and Fellows Research Day, The University of Iowa, Iowa City, IA, April 26, 1996 (Best Scientific Paper).

Beer, SJ and AH Menezes. Primary tumors of the spine in children—Natural history and management. Presentation at the Department of Surgery Residents and Fellows Research Day, The University of Iowa, Iowa City, IA, April 26, 1996.

Hilfinger JM, Tsume Y, **Beer, SJ**, Davidson BL, Crison JR, and GL Amidon. Extended release of recombinant adenovirus from PLGA microspheres. Controlled release Society Meeting, 320a Kyota, Japan, 1996.

Beer, SJ, Stein CS, Hilfinger JM and BL Davidson. Encapsulated adenovirus: a novel method for delivery of gene therapy. Presentation at the Joint University of Iowa and University of Minnesota Neurosurgical Research Conference, Minneapolis, MN, June 7, 1996.

Beer, SJ, Stein CS, Hilfinger JM, Tsume Y, Traynelis VC, and BL Davidson. Encapsulated adenovirus: a novel method for the intracerebral delivery of adenovirus in glioma treatment. Society for Neuroscience Meeting, Washington, D.C., November, 1996.

Beer, SJ, Wetjen N and CM Loftus. Outcome after subarchnoid hemorrhage in the elderly based on surgical timing. Joint Section on Cerebrovascular Surgery, Annual Meeting, Anaheim, CA, February 1997.

Beer, SJ, Stein CS, Broghammer JA, Hilfinger JM and BL Davidson. Adenovirus re-dosing in the brain: Dose-dependent limitations may be overcome by appropriate formulation. American Association of Neurological Surgeons Annual Meeting, Denver, CO, April 1997.

Beer, SJ, Stein CS, Broghammer, JA, Ross BD, Hilfinger JM and BL Davidson. Dose-dependent limitations of intracerebral adenovirus gene therapy for malignant glioma may be overcome by appropriate formulation. Presentation at the Department of Surgery Residents and

Fellows Research Day, The University of Iowa, Iowa City, IA, May 30, 1997.

Beer, SJ, Wetjen N and CM Loftus. Outcome and cost analysis after aneurismal subarachnoid hemorrhage in the elderly based on surgical timing. Presentation at the Department of Surgery Residents and Fellows Research Day, The University of Iowa, IA, May 30, 1997 (Best Clinical Paper).

Beer, SJ, Stein CS, Broghammer JA, Ross BD, Hilfinger JM and BL Davidson. Adenovirus re-dosing in the brain: dose-dependent limitations of intracerebral gene therapy may be overcome by appropriate formulation. Presentation at the Joint University of Iowa and University of Minnesota Neurosurgical Research Conference, Iowa City, IA, June 7, 1997.