

CURRICULUM VITAE

Robert John Kowalski, Jr

EMPLOYMENT

| | |
|---|-----------------|
| Neurosurgeon | 09/09 - Present |
| Florida Spine Institute Clearwater, Florida | |
| Neurosurgeon | 08/05 – 08/09 |
| Lieutenant Colonel, United States Air Force, Medical Corps Wilford Hall Medical Center San Antonio, Texas | |
| Task Force Neurosurgeon | 05/08 – 09/08 |
| Craig Joint Theater Hospital Bagram Air Field, Afghanistan | |
| Engineer | 06/89 – 05/94 |
| Lieutenant, United States Navy, Civil Engineer Corps Naval Air Station Key West Key West, Florida | |

EDUCATION:

Post Graduate

| | |
|--|---------------|
| Board Certification – Neurological Surgery - 28093 American Board of Neurological Surgery | 11/08 – 12/18 |
| Clinical Fellow – Complex Spinal Surgery Cleveland Clinic Spine Institute Cleveland, OH | 07/04 – 07/05 |
| Research Fellow Neurosurgery Research and Education Foundation American Association of Neurological Surgeons | 07/03 – 06/05 |
| Neurosurgery Resident Cleveland Clinic Foundation Cleveland, OH | 07/98 – 06/04 |
| Research Fellow Spinal Research Laboratory Cleveland Clinic Foundation Cleveland, OH | 07/02 – 06/03 |

Medical

| | |
|--|---------------|
| M.D. University of South Florida College of Medicine Tampa, FL | 09/94 – 05/98 |
|--|---------------|

Graduate

| | |
|---|---------------|
| M.S. Mechanical Engineering The Catholic University of America Washington, DC | 06/89 – 05/90 |
|---|---------------|

Undergraduate

| | |
|--|---------------|
| B.S. Mechanical Engineering with Distinction United States Naval Academy, Annapolis, MD | 07/85 – 05/89 |
|--|---------------|

MILITARY SERVICE:**Air Force Officer**

| | |
|---|----------------|
| Lieutenant Colonel, Medical Corps | 1998 - Present |
| 2 nd Lieutenant, Medical Service Corps | 1994 - 1998 |

Naval Officer

| | |
|----------------------------------|-------------|
| Lieutenant, Civil Engineer Corps | 1989 - 1994 |
| Midshipman, U.S. Naval Academy | 1985 - 1989 |

PUBLIC SERVICE:**Auxiliary Police Officer**

| | |
|----------------------------|-------------|
| Patrolman | 1992 - 1994 |
| Key West Police Department | |
| Key West, FL | |

Medical Student Volunteer

| | |
|--------------------------------|-------------|
| Public Sector Medicine Program | 1995 - 1998 |
| Judeo-Christian Free Clinic | |
| Tampa, FL | |

HONORS/AWARDS:**Post Graduate**

| | |
|--|-------------|
| Research Fellowship | 2003 – 2005 |
| Neurosurgery Research and Education Foundation | |
| American Association of Neurological Surgeons | |
| Department of Neurosurgery Humanitarian Award | 2002 |
| Cleveland Clinic Foundation | |

Graduate

| | |
|---|-------------|
| Alpha Omega Alpha | 1997 |
| Ambrose Pare Award | 1998 |
| Florida Chapter of the American College of Surgeons | |
| C.O.M. Student Council Vice-President | 1995 - 1996 |
| C.O.M. Senior Honors Surgery Program | 1997 |

Undergraduate

| | |
|---|------|
| 1 of 10 Navy-wide recipients of full graduate scholarship | 1989 |
| Tau Beta Pi, engineering honor society | 1988 |
| Pi Tau Sigma, mechanical engineering honor society | 1988 |
| Brigade of Midshipman 1 st Lieutenant | 1988 |

Military

| | |
|---|------|
| Air Force Meritorious Service Medal | 2009 |
| Army Commendation Medal | 2008 |
| Global War on Terrorism Expeditionary Medal | 2008 |
| Afghanistan Campaign Medal | 2008 |
| NATO Medal | 2008 |
| Global War on Terrorism Service Medal | 2005 |
| Armed Forces Service Medal | 2005 |
| Humanitarian Service Medal | 2005 |
| Air Force Small Arms Expert Marksmanship Ribbon | 2005 |
| Navy Commendation Medal | 1994 |
| National Defense Service Medal | 1993 |
| Navy Expert Pistol Shot Medal | 1989 |
| Navy Expert Rifleman Medal | 1989 |

Other

| | |
|------------------------|------|
| Eagle Scout | 1983 |
| National Merit Scholar | 1985 |

High School District Scholar-Athlete 1985

LICENSURE:

Medicine

Doctor of Medicine
Ohio # 35-07-7398-K 1999 - Present
Mississippi # 19025 2005 - Present
Florida # ME 95396 2006 - Present
Texas # M4253 2006 - Present

Engineering

Professional Engineer
Florida # PE-0048078 1994 - Present

CERTIFICATES:

Pediatric Basic Life Support 2000 - 2002
Basic Life Support 1996 - Present
Advanced Cardiac Life Support 1996 - Present
Advanced Trauma Life Support 1997 - 1999

ORGANIZATIONS:

Congress of Neurological Surgeons
American Association of Neurological Surgeons
North American Spine Society
American College of Surgeons
AANS/CNS Joint Section on Disorders of the Spine and Peripheral Nerves
American Medical Association

RESEARCH/TEACHING:

Neurosurgery Research

Research Fellowship Grant (\$70,000) 2003 – 2005
An In Vitro Biomechanical Assessment of Motion Preservation
Strategies for the Lumbar Spine (Nuclear Replacement and
Artificial Intervertebral Disc Technologies versus Gold Standard
Discectomy and Arthrodesis Approaches)
Neurosurgery Research and Education Foundation
American Association of Neurological Surgeons

Biomechanical analysis of novel motion preservation 2002 - 2003
strategies, in particular, artificial cervical intervertebral discs.
Mentor: Edward Benzel, M.D.
Cleveland Clinic Foundation, Cleveland, OH

Biomechanical analysis of three level placement of bilateral 2000
threaded interbody fusion cages (BAK) in the lumbar spine
utilizing a bovine model.
Mentor: Edward Benzel, M.D.

Research Assistant

Classified project studying silencing techniques for submarine hull design for the Naval Ship Research Center under a grant from the Office of Naval Research utilizing a sophisticated wind tunnel.

Mentors: Mario Casarella, Ph.D. and Theodore Farabee, Ph.D.
The Catholic University of America, Washington, DC

Teaching Assistant

Fluid mechanics laboratory for senior engineering students. 1989 - 1990

Mentor: Xu Ling, Ph.D.
The Catholic University of America, Washington, DC

PUBLICATIONS:

Book Chapters

Kowalski RJ, Benzel EC: Spine reconstruction for spine tumors - biomechanical considerations, in Dickman CA, Fehlings MG, Gokaslan ZL (eds): *Spinal Cord and Spinal Cord Tumors: Principles and Practice*. New York, Thieme, 2006.

Kowalski RJ, Ferrara LA, Benzel EC: Biomechanics of Mechanical Motion Preservation Strategies, in Benzel EC (ed): *Spine Surgery: Techniques, Complication Avoidance, and Management 2nd Edition*. Philadelphia, Elsevier Churchill Livingstone, 2005, pp 1434-43.

Woodard EJ, **Kowalski RJ**, Benzel EC: Orthoses: Complication Prevention and Management, in Benzel EC (ed): *Spine Surgery: Techniques, Complication Avoidance, and Management 2nd Edition*. Philadelphia, Elsevier Churchill Livingstone, 2005, pp 1915-34.

Kowalski RJ, Benzel EC: Management of posttraumatic syringomyelia, in Vaccaro AR (ed): *Fractures of the Cervical, Thoracic, and Lumbar Spine*. New York, Marcel Dekker, 2002, pp 687-95.

Kowalski RJ, Benzel EC: Management of posttraumatic deformity, in Vaccaro AR (ed): *Fractures of the Cervical, Thoracic, and Lumbar Spine*. New York, Marcel Dekker, 2002, pp 697-707.

Kowalski RJ, Benzel EC: Biomechanics of the spine, in Wilkins RH, Rengachary SS (eds): *Neurosurgery 3rd Edition*. New York, McGraw-Hill (in press).

Journal Articles

Kowalski RJ, Ferrara LA, Benzel EC: *Biomechanics of the Spine*. Neurosurg Q. 15(1), 2005 Mar.

Kowalski RJ, Prayson RA, Lee JH: Skull Base Neurocytoma: Case Report and Review of the Literature of Extraventricular Neurocytomas. *Skull Base: An Interdisciplinary Approach*. 12(2):59-65, 2002 May.

Noga C, Prayson RA, **Kowalski RJ**, Sweeney PJ, Mayberg M: Metastatic Adenocarcinoma to a Pituitary Adenoma: A Case Report and Review of the Literature. *Annals of Diagnostic Pathology*. 5(6):354-60, 2001 Dec.

Kowalski RJ, Rasmussen P: Open direct embolization of a dural arterio-venous fistula: Technical case report. (manuscript in preparation).

Kowalski RJ, Prayson RA, Mayberg M: Pituicytoma: Case report and review of the literature. (manuscript in preparation).

On-line Publications

Schlenk R, **Kowalski RJ**, Benzel EC: Biomechanics of spinal deformity. *Neurosurgery Focus* 14 (1), 2003.

Kowalski RJ, Ferrara LA, Benzel EC: Biomechanics of bone fusion. *Neurosurgery Focus* 10 (4):Article 2, 2001.

Kowalski RJ, Rasmussen P: Intermittent left-sided paresthesias in a 61-year-old woman. *The Cleveland Clinic Foundation Neurosurgery Case Review Series (On-line CME Course)* on Healthstream.com. November, 2000.

Posters

McCafferty RR, Ragel BT, **Kowalski, RJ**. Neurosurgical caseload in Afghanistan during "Operation Enduring Freedom." Congress of Neurological Surgeons, Orlando, 2008.

Kowalski R, Kayanja MM, Jones GA, Borsellino S, Milks R, Benzel EC. Biomechanical properties of the Charité artificial disc. Congress of Neurological Surgeons, San Diego, 2007.

Milks R, Kayanja MM, Jones GA, Borsellino S, Benzel EC, **Kowalski R**. Biomechanical properties of the Prosthetic Disc Nucleus (PDN). Congress of Neurological Surgeons, San Diego, 2007.

Kowalski R, Jones GA, Kayanja MM, Borsellino S, Milks R, Benzel EC. Biomechanical comparison of ALIF fixation techniques. Congress of Neurological Surgeons, San Diego, 2007.

Ferrara LA, Paskiet JL, **Kowalski RJ**, Benzel EC, McLain RF: Biomechanical assessment of multilevel fixation using threaded interbody fusion cages. Congress of Neurological Surgeons 51st Annual Meeting, San Diego, CA, September 29-October 4, 2001.

Ferrara LA, Paskiet JL, **Kowalski RJ**, Benzel EC, McLain RF: Biomechanical assessment of multilevel fixation using threaded interbody fusion cages. International Meeting on Advanced Spine Techniques, Paradise Island, Bahamas, July 12-14, 2001.

PRESENTATIONS:

Kowalski RJ, Prayson RA, Mayberg M: Pituicytoma: Case report and review of the literature. Presented at the Ohio State Neurosurgical Society Annual Meeting, September 7, 2002.

Kowalski RJ, Prayson RA, Mayberg M: Pituicytoma: Case report and review of the literature. Presented at the Cleveland Clinic Foundation 27th Annual Neuroscience Residents' Day, May 10, 2002.

Ferrara LA, Paskiet JL, **Kowalski RJ**, Benzel EC, McLain RF: Biomechanical assessment of multilevel fixation using threaded interbody fusion cages. Presented at the World Federation of Neurological Societies 12th World Conference of Neurosurgeons, Sydney, Australia, September 16-22, 2001.

Kowalski RJ, Prayson RA, Lee JH: Skull Base Neurocytoma: Case Report and Review of the Literature of Extraventricular Neurocytomas. Presented at the Cleveland Clinic Foundation 26th Annual Neuroscience Residents' Day, May 29, 2001.

Noga C, Prayson RA, **Kowalski RJ**, Sweeney PJ, Mayberg M: Metastatic Adenocarcinoma to a Pituitary Adenoma: A Case Report and Review of the Literature. Presented at the Ohio State Neurosurgical Society Annual Meeting, September 9, 2000.