

**Alan R. Brewer, DDS, MD**  
**303-520-8978**  
**303-362-2023 (Fax)**  
**docarb@gmail.com**

Date of Preparation: 1 March 2012

**Personal Data:**

Citizenship Status: United States of America  
Spouse: Yvonne C Brewer

**Education:**

8/85-5/89	MD	Creighton University, Omaha, NE
8/75-5/79	DDS	Creighton University, Omaha, NE
8/74-8/75	MS (Microbiology)	Wichita State University, Wichita, KS
8/70-8/74	BS (Biology, Chemistry)	Wichita State University, Wichita, KS
8/69-5/70		Sacred Heart College, Wichita, KS

**Postgraduate Medical Training:**

7/90-7/93	Anesthesiology	University of Nebraska, Omaha, NE
7/89-7/90	General Surgery	Creighton University, Omaha, NE

**Academic Appointments:**

4/2007- 3/2010	Assistant Professor	Chronic Pain Service The Children's Hospital Aurora, CO 80045
9/2001- 3/2010	Assistant Professor	Interventional Pain Program Department of Anesthesiology, Univ. Colorado Health Science Center, Aurora, CO
4/2000- 9/2001	Assistant Professor	Director, Pain Management Center Department of Anesthesiology, University of Kansas Medical Center Kansas City, KS

**Other Employment:**

9/09-3/10	Brigade Surgeon	96 <sup>th</sup> Sustainment Brigade Camp Taji, Iraq
3/08-present	Partner	Spinal Diagnostics and Pain Management Colorado Springs/Denver, CO
8/08-present	Medical Review Officer	Army Reserve Medical Command

8/08-present	Brigade Surgeon	96 <sup>th</sup> Sustainment Brigade Salt Lake City, Utah
10/07-present	Section Chief	Surgery and Medicine 5502 USAH Aurora, CO
9/04-9/07	Commander	7215 <sup>th</sup> Medical Support Unit Aurora, CO
3/05-4/06	Commander Colonel, USAR	7215 <sup>th</sup> Medical Support Unit Soldier Readiness Processing Center Ft. Bliss, TX
3/05-4/06	Fellowship Director	Integrative Medicine Program William Beaumont Army Medical Center Ft. Bliss, TX
7/02-11/02	Lieutenant Colonel USAR	Director, Peri-operative Services Southwest Asia 405 <sup>th</sup> Combat Support Hospital Camp Doha, Kuwait
4/99-01/02	Lieutenant Colonel KSARNG	Division Surgeon, 35 <sup>th</sup> Infantry Division Ft. Leavenworth, KS
10/97-4/00	Director	Pain and Spasticity Management Center Wesley Rehabilitation Hospital Wichita, KS
1/95-10-97	President	Anesthesia Consulting Services Wichita, KS
8/93-1/95	Anesthesiologist	Critical and Specialty Anesthesia Services Wichita, KS
1979-1985	Private Practice	Alan R. Brewer, DDS Eagle, CO

## Honors and Awards:

2007	Membership Southern Clinical Neurologic Society
2005	Who's Who in Medicine Academia
2005	Diplomat in American Academy of Pain Medicine
2002	Who's Who in Anesthesiology
1992/1993	Society for Ambulatory Anesthesia Travel Award
1989	AMA/ Burroughs Welcome Award
1988	Roland F. Mueller MD Medical Student Research Grant Award
1987	Nebraska Medical Foundation Student Research Award
1986/1988	Creighton University School of Medicine Research Grant Award
1975	Graduation with Honors Microbiology.

## Professional Affiliations:

### Current Professional and Scientific Organizations and Societies:

2007-present	American Academy of Pain Management
2007-present	American Academy of Pain Medicine
2006 present	Southern Clinical Neurologic Society
2005-present	American Board of Pain Medicine
2001-present	Colorado Society of Anesthesiologists
2000-present	American Society of Regional Anesthesia
2000-present	International Anesthesia Research Society
1989-present	American Society of Anesthesiologists
1985-present	American Medical Association

## Committees

### **University of Colorado Health Sciences Center, Denver Colorado**

#### University of Colorado Hospital

2003-2005	Sedation Task Force (Medical Director – 2years)
2003-2004	Anschutz Inpatient Pavilion Development (Committee Member)
2004	Nuclear Medicine Review Committee

#### University of Colorado Health Sciences Center

2003-2008	Practice Directors Committee
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#### State of Colorado

2004-present	Advisory Panel Member, Division of Workman's Compensation, State of Colorado
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## Certification and Licensure:

### Certification:

American Board of Pain Medicine - #09805	2005
American Board Anesthesiology - #31626	1999
National Board Medical Examination	(1987-1990)
Central Regional Dental Testing Examination	1979
National Board Dental Examination Part 1/2	1977, 1978

### Licensure:

Colorado Medical License - # 40035	2001
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Kansas Medical License- 93-01312	1993
Nebraska Medical License- 18607	1989
Nebraska State Dental License – 5267	1979
Kansas State Dental License – 5574	1979
Colorado State Dental License – HdI-04463	1979

## Other Professional Activities:

### Professional Organizations

2000-2001      Mock Oral Examiner American Society of Anesthesiology

## Invited lectures

### Regional, National

1. Memorial Health Systems, Trauma and Critical Care Symposium, (7/2011) Acute pain management in the critical care and trauma arena
2. Nurse Practitioner Symposium, Keystone, CO (7/12/2007), Advances in the treatment of Migraine Headaches
3. Florida Academy of Pain Medicine, Kissimmee, FL. New Advances in Neuromodulation for the Treatment of Chronic Pain Syndromes (7/27/2007)
4. American Spine Society, Annual Meeting, Colorado Springs, CO. Spinal Cord Stimulation (5/5/2006)
5. University of Colorado Internal Medicine Symposium, Options in the Treatment of Neuropathic Pain (7/22/2005)
6. Idaho Pain Society Annual Meeting, Treatment of Neuropathic Pain Syndromes, Sun Valley, Idaho 7/24/2004
7. Nurse Practitioner Symposium, Keystone, CO Neuropathic Pain Syndromes: "I Just Need a Little More Pain Medicine Doc" (7/16/2004)
8. CRASH, Vail, CO Headaches and Atypical Facial Pain (3/3/2004)
9. University of Colorado Gastroenterology Symposium New Mechanisms for Pain and Its Treatment (3/10/2003)
10. CRASH, Vail, CO Military Anesthesia on the Edge of the World (3/2/2003)
11. Post Graduate Symposium, University of Kansas Medical Center, Department of Anesthesiology, Kansas City, KS Use of Neurotoxins in the Treatment of Chronic Pain Syndromes (4/2001)

### International

1. World Congress Anesthesiology. Radiation Reduction in the Outpatient Setting (1/29/2008)
2. Southern Clinical Neurologic Society. Other Options in the Treatment of Intractable Migraine Headaches, Puerto Vallarta (1/16/2004)
3. Southern Clinical Neurological Society, Headaches and Facial Pain Syndromes, Jaco, Costa Rica (1/23/08)

## TEACHING (Since 1/1997)

### Classroom:

Date	Lecture title	Student* hrs	Role**
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1-12/2001-2008	Fibromyalgia (Every Month)	R	60 hr	Lecturer
1-12/2001-2008	Sympathetic Nervous System (Every Month)	R	60 hr	Lecturer
1-12/2001-2008	Low Back Pain (Every Month)	R	60 hr	Lecturer
1-12/2001-2008	Headaches and Atypical Facial Pain	R	60 hr	Lecturer
3/02/2010	Fibromyalgia, The Stone House, Grand Junction, CO	F	25	Lecturer
2/26/2010	Theory and Techniques in Spinal Cord Stimulation And Use of Intrathecal Medications, Sunnyvale, CA	P	50	Course Director
10/12/2008	Theory and Techniques In Spinal Cord Stimulation, Denver Colorado	P	16	Course Director
10/03/2008	Challenging Cases in Neuromodulation Destin, FL	F	1	Lecturer
9/20/2008	Challenging Cases in Neuromodulation Las Vegas, NV	F	9	Lecturer
8/10/2008	Fibromyalgia, Colorado Osteopathic Medical Society Annual Meeting, Breckenridge, CO	F	1	Lecturer
7/17/2008	Perioperative Care of the Chronic Pain Patient, The Childrens Hospital, Denver, CO	F	1	Lecturer
7/10/2008	New advances in the Treatment of Facial Pain, University of Colorado Dental School, Aurora, CO	F	1	Lecturer
6/26/2008	Challenging Cases in Neuromodulation, San Diego, CA	F	1	Lecturer
6/11/2008	Fibromyalgia and Central Sensitization, Southern Atlantic Metabolic Conference Symposium, Atlantic, GA	F	1	Lecturer
6/07/2008	Trial and Management, Denver, CO	F	1	Lecturer
5/17/2008	Theory and Techniques in Spinal Cord Stimulation, Denver, CO	F	16	Lecturer
5/16/2008	Fibromyalgia and Central Sensitization, Detroit Metabolic Conference, Detroit, MI	F	1	Lecturer
4/25/2008	Management of Moderate to Severe Acute Pain, Department of Surgery, University of New Mexico, Albuquerque, NM	F	1	Lecturer
4/25/2008	Neuromodulation in the Treatment of Atypical Facial Pain, University of New Mexico, Pain Management Program, Albuquerque, NM	F	1	Lecturer
4/19/2008	Spinal Cord Stimulation: Patient Selection and Patient Outcomes, University of Arkansas, Little Rock, AR	F	6	Course Director
4/17/2008	Interesting Cases in Neuromodulation, Ontario, CA	F	1	Lecturer
2/20/2008	New Concepts in Pain Management, Beauford Naval Hospital	GR	1	Lecturer
2/19/2008	Non Narcotic Treatment for Neuropathic Pain Warner Robbins Air Force Base	F	1	Lecturer
2/19/2008	NEW Treatments In Chronic Pain, Winn Army Hospital	F	1	Lecturer
1/18-19/2008	Challenging Cases in Neuromodulation New Orleans, Louisiana	F	8	Course Director
1/12/2008	Patient and Theory Selection in Spinal Cord Stimulation, Henderson, NV	F	1	Lecturer
10/27/2007	Theory and Techniques in Spinal Cord Stimulation, Denver, CO	P	16	Course Director

8/31/2007	New Treatments in OA and RA, University of New Mexico, Dept. of Rheumatology, Albuquerque, NM	GR	1	Lecturer
8/22/2007	Neuropathic Pain, University of Texas Sciences Center, El Paso, TX	GR	1	Lecturer
8/23/2007	Non Narcotic Treatments for Chronic Pain Syndromes, William Beaumont Hospital Ft. Bliss, TX	GR	1	Lecturer
8/18/2007	Challenging Cases in Neuromodulation Dallas, TX	F	8	Course Director
8/14/2007	Treatment of Neuropathic Pain, St. Mary's Hospital, Grand Junction, CO	GR	1	Lecturer
8/16/2007	Mechanisms in the Treatment of Chronic Pain, University of Georgia School of Medicine, Savannah, GA	GR	1	Lecturer
6/26/2007	Mechanisms of Pain Management, Poudre Valley Hospital, Ft. Collins, CO	GR	1	Lecturer
4/18/2007	Chronic Pain Management, Physical Medicine and Rehabilitation, UCHSC, Denver, CO	GR	1	Lecturer
3/15/2007	New Approaches in Chronic Pain Management University of Texas Health Sciences Center, El Paso, TX	GR	1	Lecturer
2/28/2007	New Treatment Options for Neuropathic Pain, Bluffton Regional Medical Center, Bluffton, IA	GR	1	Lecturer
2/21/2007	Chronic Pain Management, University of Arizona Orthopedic Dept, Tuscon, AZ	GR	1	Lecturer
2/8/2007	Atypical Facial Pain, Department of Otorhinolaryngology, UCHSC, Denver, CO	GR	1	Lecturer
12/06/2006	Occipital Nerve Stimulator Research Advisory Meeting, Las Vegas, NV	F	6	Faculty Advisor
12/02/2006	Advance Techniques in Neuromodulation, Irving, CA	F	6	Faculty Advisor
10/28/2006	Neurostimulation Complications and Management, Theory and Techniques, Denver, CO	F	16	Course Director
10/06/2006	Trial and Implant Options, Irvine, CA	F	1	Faculty Advisor
10/05/2006	Non Narcotic Treatment of Chronic Pain Syndromes, Luke Air Force Base, Phoenix, AZ	GR	1	Lecturer
08/31/2006	Evaluation and Management of Cancer Pain, Department of Anesthesiology Residents, UCHSC, Denver, CO	R	1	Lecturer
08/19/2006	Theory and Techniques Course on Neuromodulation, Denver, CO	P	16	Faculty Advisor
07/18/2006	Neuropathic Pain, Rose Medical Center, Denver, CO	GR	1	Lecturer
07/12/2006	New Concepts in Pain Management, Family Medicine, Goodfellows AFB, San Angelo, TX	F	1	Lecturer
06/08/2006	Neuropathic Pain, Texas Tech University, El Paso, TX	GR	1	Lecturer
5/26/2007	Pathophysiology of Neuropathic Pain Associated With Diabetic Peripheral Neuropathy and Post Herpetic Neuralgia, El Paso Veterans Administration, El Paso, TX	GR	1	Lecturer
5/26/2007	Mechanism in the Treatment of Neuropathic Pain, Texas Tech University, El Paso, TX	GR	1	Lecturer
5/19/2006	New Concepts in the Treatment of Neuropathic	GR	1	Lecturer

	Pain, Presbyterian St. Luke's Hospital, Denver, CO			
5/4/2006	COX-2 Inhibitors, Efficacy and Safety, Scott and White Hospital, Temple, TX	GR	1	Lecturer
5/3/2007	Options for the Treatment of Neuropathic Pain In Diabetic Peripheral Neuropathy, Ft. Hood, TX	GR	1	Lecturer
4/28/2006	Headaches, William Beaumont Army Medical Center, Ft. Bliss, TX	GR	1	Lecturer
4/19/2006	Safety Considerations in the use of NSAIDS. University of New Mexico, School of Medicine, Family Practice Department, Albuquerque, NM	GR	1	Lecturer
4/13/2006	Use of Cox 2 Inhibitors in the Prevention of Neuropathic Pain, Goodfellows Air Force Base, Department of Family Practice, San Angelo, TX	GR	1	Lecturer
3/30/2006	Controversies in the Use of Cyclo-oxygenase Inhibitors. Luke AFB, TMC, Phoenix, AZ	GR	1	Lecturer
2/22/2006	Migraines, William Beaumont Hospital, PAMC, Ft. Bliss, TX	GR	1	Lecturer
2/22/2006	Triptans in the treatment of Migraine Headaches, Something New, Something Old. El Paso Pharmacy Association Annual Meeting, Sundland Park, TX	F	1	Lecturer
2/22/2006	Headaches, PAMC, Ft. Bliss, TX	F	1	Lecturer
2/21/2006	Diabetic Peripheral Neuropathy and the Treatment of Neuropathic Pain, PAMC, Ft. Bliss, TX	F	1	Lecturer
2/15/2006	Treatment of Diabetic Peripheral Neuropathy, Department of Family Medicine, Goodfellows Air Force Base, San Angelo, TX	F	1	Lecturer
2/4/2006	Neuropathic Pain, Family Practice Residency, Texas Tech University, El Paso, TX	GR	1	Lecturer
1/27/2006	Treatment Options for Neuropathic Pain, Rose Medical Center, Department of Family Medicine, Denver, CO	GR	1	Lecturer
1/21/2006	Neurostimulation Complications and Management Denver, CO	F	16	Lecturer
1/12/2006	A literature review of the Treatment of Neuropathic Pain, Troop Medical Clinic, Ft. Bliss, TX	F	1	Faculty Advisor
1/06/2006	Non Opioid Treatment of Chronic Pain, William Beaumont Hospital, Ft Bliss, TX	GR	1	Lecturer
11/30/2005	COX-2 Inhibitors, Efficacy and Safety, Goodfellows Air Force Base, Department of Family Medicine, Phoenix, AZ	GR	1	Lecturer
11/9/2005	Non Narcotic Treatment of Neuropathic Pain, Midland Community Hospital, Midland, TX	GR	1	Lecturer
10/8/2005	Theory and Techniques Class in Neuromodulation, Denver, CO	P	16	Faculty Advisor
9/23/2005	Neuromodulation in the Treatment of Chronic Pain Syndromes, Department of Neurology, William Beaumont Hospital, Ft. Bliss, TX.	F	1	Lecturer
9/20/2005	Pregabalin, A Clinical Overview, Orthopedic Residents, Texas Tech University, El Paso, TX	GR	`	Lecturer
8/26/2005	Pain Management, Texas Tech University, Internal Medicine Department, El Paso, TX	GR	1	Lecturer
8/13/2005	Difficult Cases, Minneapolis, MN	F	8	Course Director

6/25/2005	Neurostimulation Complications and Management, Denver, CO	F	16	Faculty Advisor
3/12/2005	Atypical Facial Pain, Trigeminal Neuralgia Association Quarterly Meeting, St. Anthony's Hospital, Denver, CO	F	2	Lecturer
3/9/2005	Headaches, OB GYN Residents, UCHSC, Denver, CO	R	1	Lecturer
3/1/2005	Headaches, Family Practice Residents, UCHSC, Denver, CO	R	1	Lecturer
1/27/2005	Atypical Facial Pain, Department of Otorhinolaryngology, USHSC, Denver, CO	GR	1	Lecturer
1/8/2005	Theory and Techniques in Neuromodulation Denver, CO	F	16	Faculty Advisor
1/7/2005	New Concepts in Pain Management, Petersen Air Force Base, TMC 1, Colorado Springs, CO	F	1	Lecturer
12/13/2004	New Concepts in Pain Management Ortho Residents, UCHSC, Denver, CO	R	1	Lecturer
12/4/2004	Occipital Nerve Stimulator Advisory Meeting Minneapolis, MN	F	4	Faculty Advisor
10/30/2004	National Chronic Pain Society Annual Meeting, SCS and Intrathecal Pumps for the Treatment Of Chronic Pain	F	1	Lecturer
10/21/2004	Other Treatment Options for the Treatment of Acute and Chronic Pain, Olympic Training Center, Colorado Springs, CO	P	2	Lecturer
10/09/2004	Colorado Society of Nurse Anesthetists, Annual Meeting, Headaches and Central Sensitization, Denver, CO	F	2	Lecturer
10/06/2004	Denver Physician Assistant Society, Annual Meeting, Central Sensitization, Denver, CO	F	1	Lecturer
10/05/2004	Central Sensitization, Department of Internal Medicine, UCHSC, Denver, CO	R	1	Lecturer
10/02/2004	Theory and Techniques in the Use of Spinal Cord Stimulation and Pump Placement	P	16	Faculty Advisor
9/3/2004	Neuropathic Pain, Buckley Air Force Base, Troop Medical Clinic, Aurora, CO	GR	1	Lecturer
8/20/2004	New Concepts in Pain Management, Aurora North Medical Center, Aurora, CO	GR	1	Lecturer
8/8/2004	New Concepts in the Management of Pain, Air Force Academy, Colorado Springs, CO	GR	1	Lecturer
5/11/2004	National Jewish, Neuropathic Pain, Denver, CO	GR	1	Lecturer
4/28/2004	Neuropathic Pain, Aspen Regional Medical Center, Aspen, CO	GR	1	Lecturer
4/28/2004	Treatment of Chronic Pain Syndromes, Glenwood Springs, CO	GR	1	Lecturer
4/15/2004	Neuromodulation in the Treatment of Chronic Pain Syndromes, University of Nebraska Medical Center, Pain Management Program, Omaha, NE	GR	1	Lecturer
3/26/2004	IEEE MTG, Advanced Pain Therapies, Denver, CO	F	1	Lecturer
3/16/2004	Sedation Workshop, UCHSC, Denver, CO	R	2.5	Lecturer
3/10/2004	Advances in Cox 2 Inhibition, University of North Dakota Family Practice Residency, Fargo,	R	1	Lecturer



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2/2/2004	Headaches, ER Nurses, Denver Health Medical Center, Denver, CO	F	1	Lecturer
1/08/2004	Pain Management Redefined, Physical Medicine And Rehabilitation Department, UCHSC, Denver, CO	GR	1	Lecturer
11/5/2003	New Mechanisms for Abdominal Pain, Department of Anesthesiology Residents, UCHSC, Denver, CO	R	1	Lecturer
11/5/2003	Neuropathic Pain and Migraines, Department of Anesthesiology Residents, UCHSC, Denver, CO	R	1	Lecturer
10/13/2003	Doc, I just need a Little more pain medication, University of Colorado School of Dentistry Denver, CO	GR	1	Lecturer
8/13/2003	Non Opioid Treatment of Chronic Pain,	GR	1	Lecturer
7/22/2003	Sedation, Sedation Task Force, UCHSC, Denver, CO	R	2	Lecturer
	Orthopedics Residents, UCHSC, Denver, CO			
2/13/2003	Headache and Facial Pain Syndromes, Rocky Mountain Dental Study Club, Denver, CO	F	1	Lecturer
4/1/2002	Little Blue People, Depart of Anesthesiology Residents, UCHSC, Denver, CO	R	1	Moderator
3/25/2002	Geriatrics 101, Department of Anesthesiology Residents, UCHSC, Denver, CO	R	1	Lecturer
2/6/2002	Cancer Pain, Department of Anesthesiology Residents, UCHSC, Denver, CO	R	1	Lecturer
10/08/2001	Anaphylaxis, Department of Anesthesiology Residents, UCHSC, Denver, CO	R	1	Lecturer
8/23/2001	Opioid Use in Chronic Pain, University of Kansas Anesthesiology Residents, Kansas City, KS	R	1	Lecturer
4/7/2001	Use of Neurotoxins in the Treatment of Chronic Pain Syndromes, University of Kansas Anesthesiology Residents, Kansas City, KS	R	1	Lecturer
3/30/2001	Neurotoxins in the Treatment of Chronic Pain Syndromes, University of Kansas Anesthesiology Residents, Kansas City, KS	R	1	Lecturer
2/14/2001	Mishaps in the World of Pain Management, University of Kansas Anesthesiology Residents, Kansas City, KS	R	1	Lecturer
1/12/2001	Fibromyalgia University of Kansas Anesthesiology Residents, Kansas City, KS	R	1	Lecturer
01/09/2001	Pain Mechanisms and Transmission University of Kansas Anesthesiology Residents Kansas City, KS	R	1	Lecturer
4/7/2001	Use of Neurotoxins in the Treatment of Chronic Pain Syndromes, University of Kansas Anesthesiology Residents, Kansas City, KS	R	1	Lecturer
11/21/2000	Pitfalls in Acute Pain Management, University of Kansas Anesthesiology Residents, Kansas City, KS	R	1	Lecturer
11/9/2000	Neurotoxins. University of Kansas Anesthesiology Residents, Kansas City, KS	R	1	Lecturer
8/10/2000	Emerging Concepts in Headache Prophylaxis, University of Kansas Anesthesiology Residents, Kansas City, KS	R	1	Lecturer

7/24/2000	Local Anesthetics, University of Kansas Anesthesiology Residents, Kansas City, KS			
6/9/2000	Prophylactic Treatment for Headaches, University of Kansas Anesthesiology Residents, Kansas City, KS	R	1	Lecturer
5/23/2000	Understanding the Chronic Pain Patient, University of Kansas Anesthesiology Residents, Kansas City, KS	R	1	Lecturer
5/23/2000	Living in a World of Hurt, University of Kansas Anesthesiology Residents, Kansas City, KS	R	1	Lecturer
4/13/2000	Sympathetically Maintained Pain, University of Kansas Anesthesiology Residents, Kansas City, KS	R	1	Lecturer
5/1/2000	Non Opioid Treatment of Chronic Pain, University of Kansas Anesthesiology Residents, Kansas City, KS	R	1	Lecturer

\*Students: F=Faculty; P=Fellows, R=GME, MS=Medical Students, U=Undergraduate, GR = Grand Rounds, etc

\*\* Lecturer, Faculty Advisor, Moderator, Discussant, Course Director, Station Leader, etc.

#### Clinical Teaching:

University of Colorado Hospital Clinic 2 days per week (10-15 procedures per week)  
University of Colorado Hospital Operating Room 2 Days per week (3-6 operations per day)  
The Children's Hospital Clinic 2 days per month  
The Children's Hospital Interventional Radiology 2 days per month (4-8 procedures per day)

#### Postdoctoral Fellows Supervised:

Supervisor, Fellow Research Project, Assessment of Pain Education in US Pediatric Residency Programs, Heather Davids, MD 2007  
Supervisor, Fellow Research Project, Re-assessment of Pain Education in US Medical Residency Programs, Heather Davids, MD 2007

#### Fellows Trained

2008 Leif Sorenson, MD  
2008 Heather Davids, MD  
2008 Matthew Langston, MD  
2007 Theodore Ford, MD  
2007 Andrew Smolenski, MD  
2006 Jason Krutch, MD  
2005 Douglas, Keehn, DO  
2004 Amad Salih, MD  
2003 Mark Wilson, MD

#### Faculty Advisor (Medical/Nursing Students)

Joel Bridgewater

## **Research**

### Areas of Research Interest

Peripheral nerve stimulation for the treatment of peripheral neuralgia.  
Occipital neuralgia for the treatment of intractable migraine and chronic daily headaches.  
Thalidomide in the treatment of fibromyalgia and neuropathic pain syndromes.  
Botulism toxin in the treatment of migraine and tension type headaches.  
Botulism toxin in the treatment of myofascial pain syndromes.  
Guaifenesin as a treatment options for fibromyalgia and chronic myofascial pain syndrome.  
Radiation reduction in the outpatient setting.  
High altitude headaches.  
Primary care education in pain assessment and treatment.

### Current Projects

#### Projects in Progress

#### IRB Approved

COMIRB # 03-1002	A Twelve Week Open Label Trial of Thalidomide to Evaluate Safety and Efficacy for use in Fibromyalgia Syndrome. PI
COMIRB #04-0405	Medtronic Clinical Investigation of Occipital Nerve Stimulation (ONS) for Treatment of Migraine Headache. PI
COMIRB #06-0332	Assessment of Pain Education in US Pediatric Residency Programs. Co I
COMIRB #04-0490	Re-assessment of Pain Education in US Medical Residency Programs. Co I

#### Applying for IRB

COMIRB # 07-0587	Influence of Reactivity on Patient Self-Monitoring: Pain v. Comfort
COMIRB # 06-0578	Active or Just Busy? Pedometer Recordings of Health Care During Normal Work Weeks CO PI
COMIRB #07-	A Randomized, Double Blind, Placebo Controlled Study to Evaluate the Efficacy of Celecoxib and/or Pregabalin in Reducing Post-operative Pain, Narcotic Use and in Preventing Neuropathic Pain in the Long Term in Patients Undergoing Certain Outpatient Surgical Procedures PI
COMIRB #07-	Long Term (2-5 Year) Follow-up of Spinal Cord Stimulation Efficacy for Neuropathic Pain. PI
COMIRB #07	Moderate Dose Ketamine Infusions for the Treatment of Intractable Neuropathic Pain: Characteristics of Dosage and Length of Time Needed for Pain Control, PI

### Research Support

## National

Source: R21 NIH Grant Submission  
Title: Therapeutic massage for management of pain and disability in tension type headache.  
Period: 10/07-present  
Direct Costs/Current Year/Total: \$xxx  
Role: Co investigator

Source: Celgene  
Title: A twelve week open label trial of thalidomide to evaluate safety and efficacy for use in fibromyalgia syndrome.  
Period: mo/yr – present  
Direct Costs/Current Year/Total: \$xxx  
Role: PI

Source: Medtronic's  
Title: Medtronic Clinical Investigation of Occipital Nerve Stimulation (ONS) for Treatment of Migraine Headache  
Period: mo/yr – present  
Direct Costs/Current Year/Total: \$xxx  
Role: PI

## Departmental

Source: Physical Medicine and Rehabilitation  
Title: Pedometer Recordings of Health Care Professionals During Normal Work Weeks  
Period: 10/07 – present

## **Bibliography**

### Books and/or chapters

1. Brewer, A.R. and Nique, T.A.: Preoperative anesthetic evaluation. **Oral Max Clinics North Amer**, Aug, 1992.

### Papers published or in press

- Brewer, A, Slocumb, J, Davids, HR: Use of spinal cord stimulation in combination with Peripheral nerve stimulation in the treatment of chronic pelvic pain: A report of two cases
- Brewer, A, Davids, HR: Use of the Medtronic Interstim Stimulation Lead for the treatment of chronic migraine headache: Report of 5 cases.
- Brewer, A and Davids HR: A new anchoring technique to prevent migration of both Spinal cord and peripheral nerve stimulator leads.
4. Brewer, A, Van Dorsten, B and Davids, H: Atypical facial pain: Treatment nomograms for the use of peripheral nerve stimulation in intractable pain syndromes.
  5. Van Dorsten, B, Davids, HR, Dingmann, C, and Brewer, A: A ten year check-up progress in pain education in primary care residencies.
  6. Van Dorsten, B, Davids, H, Brewer, A, Dingmann, C; Primary care residents knowledge of adjunctive pain treatment modalities,

7. Brewer, AR, Pierchala, LA, Yanchick, JY, Magelli, M, Rovati, S. : Gastrointestinal Safety of Diclofenac Epolamine Topical Patch 1.3%: A Pooled Analysis of 14 Clinical Studies. *Postgrad Med*, 2011 July 123:168-176.
8. Brewer, AR, McCarberg, W, Argoff, CE: Update on the Use of Topical NSAIDs for the Treatment of Soft Tissue and Musculoskeletal Pain: A Review of Recent Data and Current Treatment Options. **Physician and Sports Medicine** 2010 June 38(2); 62-70.
9. Al Tamimi, M., McCeney, M., Brewer, A., Krutsch, J., Yakovlev, A.: A case series of pulsed radiofrequency treatment of myofascial trigger points and scar neuromas. (In Press) **Pain Medicine**
- \* 10. Gunter, J., Brewer, A., Tawfik, O.: Botulinum toxin A for vulvodynia, A case report. **J Pain**. 2004 May 5(4):238-40.
11. Brewer, A.R., Smyrk, T.C., Bailey, R.T., Bonavina, L., Eypasch, E.P., Demeester, T.R.: Drug- induced esophageal injury. Histopathological study in a rabbit model. **Digestive Diseases and Sciences**, 35(10); 1205-1210, 1990.
12. Brewer, A.R., Stromberg, B.V.: In vitro adherence of bacteria to prosthetic grafting materials. **Annals Plastic Surgery**, 24(2); 124-138, 1990.
13. Bailey, R.T., Brewer, A.R., Eypasch, E.P., Jones, J.B., Smyrk, T.C., Demeester, T.R.: A rabbit model to evaluate pill-induced esophageal injury. **Journal of Investigative Surgery** 2; 329-330, 1989
14. Brewer, A.R., Quinn, T.H.: Correlation between the presence of an ossified stylohyoid ligament and myofascial pain dysfunction syndrome. **Clinical Research** 36(6); 920, 1988.
15. Bailey, R.T., Eypasch, E.P., DeMeester, T.R., Nwakama, P.E., Brewer, A.R., Spires, K.J., Hinder, R.A.: Age influences capsule entrapment in the esophagus. **Pharmacotherapy** 8; 127, 1988.
- \* 16. Sobieski, R.J., Brewer, A.R.: Toxicity of nalidixic acid on Candida albicans, Saccharomyces cerevisiae, and Kluyveromyces lactis. **Antimicro Agents Chemo**, Mar. 1976, p 485-492.

(\* peer reviewed, \*\* invited paper)

#### Abstracts (Published Only)

1. Bailey, R.T. Brewer, A.R., Eypasch, E.P., Smyrk, T.C., Jones, J.B., DeMeester, T.R.: Markers of acute esophageal injury induced by solid oral medication. **Gastroenterology** 96; A22, 1989.
2. Smyrk, T., Brewer, A.R., Bailey, R.T., Eypasch, E., Jones, J., DeMeester, T.R.: Balloon cells are an early marker in pill induced esophageal injury. **Lab Investigation** 60(1); 89A, 1989.

3. Brewer, A.R., Bailey, R.T., Eypasch, E.P., DeMeester, T.R., Nwakama, P.E., Spires, K.J., Hinder, R.A.: Age and gastroesophageal reflux disease influences capsule transit in the esophagus. **Clinical Research** 36(6); 921A, 1988.
4. Eypasch, E.P., Bailey, R.T., DeMeester, T.R., Brewer, A.R., Nwakama, P.E., Spires, K.J., Hinder, R.A.: Age influences capsule entrapment in the esophagus. **Gastroenterology** 94; A120, 1988.

#### Poster and Oral Presentations

1. American Society of Anesthesiologists, October 2008  
Orlando, FL Medically Challenging Case Programs  
Brewer, Alan and Davids, Heather: Peripheral nerve stimulation in the treatment of occipital neuralgia: A compilation of 15 case studies.
2. Pain Week 2008, September 2008  
Las Vegas, NV  
Brewer, A., Yanchick, J, Lanzarotti, A, Fuller, C: Time to onset of acute pain relief due to minor ankle sprain with the diclofenac epolamine topical patch.
3. Brewer, A., Yanchick, J, Rovati, S, and Fuller, C: The diclofenac epolamine topical patch offers a safe treatment alternative to oral NSAIDS in the treatment of minor soft tissue injuries.
3. American Academy Nurse Practitioners, 23rd National Conference, June 2008  
National Harbor, MD  
Brewer, A., Yanchick, J, Lanzarotti, A, Fuller, C: Evaluation of Treatment of Mild to Moderate Acute Pain of Ankle Sprain with Diclofenac Epolamine Topical Patch
4. American Academy of Pain Medicine, 24<sup>th</sup> Annual Meeting, Feb 2008  
Orlando, FL  
Brewer, A., Davids, H., Van Dorsten, B.: Treating atypical facial pain with peripheral nerve stimulation: A collection of ten case reports.
5. American Academy of Pain Medicine, 23<sup>rd</sup> Annual Meeting Feb 2007  
New Orleans, LA  
Al Tamimi, M., McCeney, M., Brewer, A., Krutsch J., Yakovlev, A.:  
A case series of pulsed radiofrequency treatment of myofascial trigger points and scar neuromas.
6. 1993 Eighth Annual Society for Ambulatory Anesthesia  
Scottsdale, AZ  
Brewer, A.R., Peters, K.R., and Becker, G: Ondansetron: Effects on nausea and vomiting when used in an ambulatory surgery setting.
7. International Trauma Anesthesia and Critical Care Conference  
Baltimore, MA

**Brewer, AR** and Morgan JR: Posterior fossae hematoma and streptococcal meningitis: a concurrent presentation.

8. 1992 American Society Anesthesiology Annual Meeting  
New Orleans, La.  
**Brewer, A.R.:** Bacterial adherence to endotracheal tube material.
9. Midwest Anesthesiology Residents Conference  
Indianapolis, IN.  
**Brewer, Alan:** Bacterial adherence to endotracheal tube material.
10. **Brewer, AR,** and Belatti, RG: Estimating Blood loss: getting back to the basics.
11. 1991 Sixth Annual Society for Ambulatory Surgery Meeting  
San Diego, CA.  
**Brewer, AR** and Boskovski, NA: Unplanned outpatient admissions.
12. Midwest Anesthesia Conference  
Chicago, IL.  
**Brewer, AR,** Boskovski, NA, and Landers, DF: Unplanned outpatient admissions.
13. 1989 Academy of Surgical Research, Fifth Annual Scientific Session.  
Charleston, S.C.  
Bailey, RT, **Brewer, AR,** Eypasch, EP, Jones, JB, Smyrk, TC, DeMeester, TR: A rabbit model to evaluate drug-induced esophageal injury.
14. Digestive Disease Week-American Gastroenterological Association Ninetieth Annual Meeting  
Bailey, RT, **Brewer, AR,** Eypasch, EP, Smyrk, TC, Jones, JB, DeMeester, TR: Markers of acute esophageal injury by solid oral medication.
12. XX National Student Research Forum  
Galveston, Texas  
**Brewer, A.R.,** Stromberg, B.V.: In vitro adherence of bacteria to urinary catheter material.
16. **Brewer, A.R,** Bailey, R.T., Eypasch, E., Smyrk, T., Jones, J., DeMeester, T.R.: A study of acute esophageal injury induced by solid oral medication.
17. US and Canadian Academy of Pathology Annual Meeting  
San Francisco, California  
Smyrk, T.C., **Brewer, A.R.,** Bailey, R.T., Eypasch, E.P., Jones, J.B., DeMeester, T.R.: Balloon cells are an early finding in pill induced esophageal injury.
18. American College of Clinical Pharmacy,  
X Annual Meeting  
Bailey, R.T., Jones, J.B., **Brewer, A.R.,** Eypasch, E.P., Smyrk, T.C., Demeester, T.R.: Balloon cells are an early marker of drug induced esophageal injury.
19. 1988 American Society for Clinical Pharmacology and Therapeutics  
Jones, J.B., Bailey, R.T., **Brewer, A.R.,** Eypasch, E.P., Smyrk, J.C., DeMeester, T.R.: Drug-induced esophageal injury
20. XXIX National Student Research Forum,  
Galveston, Texas

**Brewer, A.R.**, Stromberg, B.V., Knoop, F.: In vitro adherence of bacteria to prosthetic grafting materials

21. XIX Midwest Student Medical Research Forum  
Omaha, Nebraska  
Brewer, A.R., Quinn, T.H.: "Correlation Between the Presence of an Ossified Stylohyoid Ligament and Myofascial Pain Dysfunction Syndrome" (Poster)

**Brewer, A.R.**, Bailey, R.T., Eypasch, E.P., DeMeester, T.R., Nwakama, P.E., Spires, K.J., Hinder, R.A.: "Age and Gastroesophageal Reflux Disease Influence Capsule Transit in the esophagus."

22. Digestive Disease Week-American Gastroenterological Association  
Eighty-ninth Annual Meeting  
New Orleans, Louisiana  
Eypasch, E.P., Bailey, R.T., DeMeester, T.R., **Brewer, A.R.**, Nwakama, P.E., Spires, K.J., Hinder, R.A.: "Age Influences Capsule Entrapment in the Esophagus."
23. X Annual Meeting, American College of Clinical Pharmacy  
Philadelphia, Pennsylvania  
Bailey, R.T., Eypasch, E.P., DeMeester, T.R., Nwakama, P.E., **Brewer, A. R.**, Spires, K.J., Hinder, R.A.: "Age Influences Capsule Entrapment in the Esophagus"

#### Teaching Syllabus Developed

1. **Brewer, AR**: Pain Management Curriculum
2. **Brewer, AR**: Nomograms for the treatment of low back pain, shoulder and arm pain, chronic pelvic pain, headaches
3. **Brewer, AR**: Sedation Course Curriculum and Test

#### Media and Software Developed:

1. CD-ROM                      Chronic Pain Management Library
2. Sedation Course            On Line Course and Testing and Program