

# Curriculum Vitae

February 15, 2021

## Aaron G. Filler, MD, PhD, FRCS, JD

President (2015-16) & General Counsel - Society for Brain Mapping and Therapeutics  
Diplomate, American Board of Neurological Surgery  
Fellow of the Royal College of Surgeons of England  
Fellow of the Intercollegiate Board in Surgical Neurology of England, Ireland,  
Edinburgh & Glasgow  
Fellowship in Complex Spinal Surgery - UCLA  
Fellowship in Peripheral Nerve Surgery - Louisiana State University, New Orleans, LA  
Fellowship in Neuroimaging - University of London  
Director, Institute for Nerve Medicine, Santa Monica, CA  
Director, Center for Advanced Spinal Neurosurgery, Santa Monica, CA  
Medical Director, Neurography Institute, Santa Monica, CA  
Section Editor for Peripheral Nerve,  
Youmans & Winn Textbook of Neurological Surgery  
Lieutenant Colonel, US Army Reserve, Medical Corps, Retired  
Commander, 1466<sup>th</sup> Med Team, Neurosurgery, United States Army Reserve, Retired  
Course founder: Biomechanics & Comparative Primate Anatomy, Harvard University  
Joint Guidelines Committee, American Association of Neurological Surgeons &  
Congress of Neurological Surgeons – Washington Committee  
Guidelines Committee, Disorders of Spine & Peripheral Nerve Section - AANS & CNS  
Spinal Fusion Guidelines Reviewer - American Association of Neurological Surgery &  
Congress of Neurological Surgery – Washington Committee (2013)  
Course Director - Billing and Coding: Medicine and Law  
- American Society for Peripheral Nerve 2013-2014  
Course Faculty - Peripheral Nerve Surgical Anatomy and Dissection Course for  
for Neurosurgery Senior Residents (2014)  
Neuroscience Research and Education Fund, AANS, Baltimore, MD  
Cedars Sinai Medical Staff, Continuing Education Committee Member (2014 to 2016)  
State Bar of California No. 302956, President - Tensor Law, P.C.

### **Office Address**

California:

Institute for Nerve Medicine  
900 Wilshire Blvd., Suite 310  
Santa Monica, CA 90405  
Phone: (310) 314-6410  
Fax: (310) 314-2414

E-Mail: [afiller@nervemed.com](mailto:afiller@nervemed.com)  
Web: [www.nervemed.com](http://www.nervemed.com)  
Web: [www.neurography.com](http://www.neurography.com)

**Date of Birth**                      October 21, 1956

**Place of Birth**                      Washington, D.C.

**Education**

High School	Walt Whitman H.S., Bethesda, MD	(9/71 – 6/74)
BA '77 with honors	University of Chicago, Chicago, IL	(9/74 – 6/77) Date of Diploma: June 20, 1977
MA '79	University of Chicago, Chicago, IL	(9/77 – 6/79) Date of Diploma: December 17, 1979
MD '86	University of Chicago, Chicago, IL	(9/77 – 6/79 & 6/84 – 6/86) Date of Diploma: June 13, 1986
PhD '86	Harvard University, Cambridge, MA	(8/79 – 6/86) Date of Diploma: June 5, 1986
Neurosurgical Residency	University of Washington, Seattle, WA	(6/86-6/94)
FRCS (SN) '94	Intercollegiate Board in Surgical Neurology Royal Colleges of Surgeons, England, Glasgow, Edinburgh, and Ireland	
FRCS '07	Fellow of the Royal College of Surgeons of England	
JD '14	Concord Law School, Kaplan University	(9/10-12/14) Date of Diploma: January 2, 2015

**Post-Graduate Medical Education**

6/86 – 6/94	Neurosurgical Residency Department of Neurological Surgery University of Washington, Seattle, WA General Surgery Rotating Internship (6/86-6/87) Neurosurgical Resident & Chief Resident (7/87-6/94) Univ. of Washington Hospitals and Clinics Harborview Medical Center, Seattle, WA Seattle Veterans Administration Hospital Children's Hospital Medical Center, Seattle, WA Atkinson Morley's Hospital, London, U.K. & St. George's Hospital Med School, London, UK Including 18 months MRI Basic Science & Research 12/90 to 5/92
6/94 – 6/95	Wellcome Trust Clinical Fellow in Magnetic Resonance Nerve Imaging CRC Magnetic Resonance Research Group Div. of Biochemistry, St. George's Hosp. Med. School, & Departments of Neurosurgery and Neuroradiology

Atkinson Morley's Hospital, London, U.K.

7/95 – 6/96      Spine Fellow  
Professors Ulrich Batzdorf, J. Patrick Johnson, Duncan McBride  
Complex Spine Reconstruction and Syringomyelia  
Division of Neurosurgery  
University of California Los Angeles  
UCLA Medical Center, Los Angeles, CA

3/96 – 6/96      Peripheral Nerve Fellow  
Professor David Kline  
Department of Neurosurgery  
Louisiana State University  
New Orleans, LA

### **Legal Education**

2/2015              California Bar Exam 2/24/15 - 2/26/15  
- passed at first opportunity

9/7/2010 –12/2014    JD - Concord Law School (12/12/14)  
Los Angeles, California  
Date of Diploma 1/3/15

10/2011              FYLSE – State Bar of California (October 25, 2011)  
First Year Law Students Examination  
– passed exam at first opportunity

11/2013              MPRE - Multistate Professional Responsibility Exam  
- passed exam at first opportunity

11/2013 - present      Certified Law Student - California State Bar  
PTLS - Practical Training of Law Students  
California Rules of Court 9.42  
Certification #: 34114

9/2010 – present      California Bar Association  
Student File # 403403

**Academic and Faculty Positions**

- 2008 - 2009                      Section Editor - Peripheral Nerve Surgery - Youman's  
Textbook of Neurological Surgery, 6th Edition  
Elsevier. (in press). Richard Winn, Editor in Chief
- 2015 - 2017                      Section Editor - Peripheral Nerve Surgery - Youman's  
Textbook of Neurological Surgery, 7th Edition  
Elsevier. (in press). Richard Winn, Editor in Chief
- 2019 - 2021                      Section Editor - Peripheral Nerve Surgery - Youman's  
Textbook of Neurological Surgery, 8th Edition  
Elsevier. (in press). Richard Winn, Editor in Chief
- 2005 - 2008                      Director, Peripheral Nerve Surgery Program  
Cedars Sinai Medical Center &  
Neurosurgical Residency Program  
Cedars Sinai Medical Center, Los Angeles, CA
- 2001 - 2005                      Director, Peripheral Nerve Surgery Program  
Century City Hospital, Los Angeles, CA
- 1996 - 2001                      Assistant Professor of Neurosurgery, UCLA  
Co-Director, UCLA Peripheral Nerve Surgery Program  
Co-Director, UCLA Interventional MRI Program  
Director, UCLA Pediatric & Obstetric Brachial Plexus  
Injury Program  
Associate, Comprehensive Spine Program  
Faculty, Neurosurgical Spine Surgery Fellowship Prog.  
Division of Neurosurgery  
UCLA Medical Center, Los Angeles, CA
- 1995 - 2001                      Clinical Assistant Professor  
Department of Neurological Surgery  
University of Washington, Seattle
- 2000                                  Faculty, Review Course for Board Certification  
American Association of Neurological Surgeons
- 1995 - 1996                      Clinical Instructor  
Division of Neurosurgery  
UCLA Medical Center
- 1994 - 1995                      Wellcome Trust Lecturer  
Division of Clinical Neuroscience  
& Division of Biochemistry  
St. George's Hospital Medical School  
University of London, London, U.K.

- 1992 - 1994                      Acting Instructor in Neurological Surgery  
    Department of Neurological Surgery  
    University of Washington, Seattle
- 1991 - 1992                      Clinical Lecturer - NeuroImaging  
    Division of Biochemistry &  
    Clinical Neuroscience Unit  
    St. George's Hospital Medical School
- 1990 - 1991                      Visiting Research Fellow  
    Division of Biochemistry  
    Department of Cell & Molecular Science  
    St. George's Hospital Medical School  
    London, U.K.
- 1980 - 1983                      Research Advisor for Undergraduates  
    Biological Anthropology  
    Harvard University
- 1980 - 1982                      Special Lecturer  
    - Biomechanics & Comparative Primate Anatomy  
    - Laboratory Methods Course  
    Biological Anthropology  
    Harvard University
- 1979 - 1983                      Teaching Fellow  
    - General Ed., Biology & Biological Anthropology  
    Harvard University  
    Cambridge, MA
- 1977 - 1978                      Research Fellow,  
    Department of Anatomy,  
    University of Chicago

### **Research Support**

- June '77 - August '77              University of Chicago School of Medicine,  
    Medical Student Research Stipend  
    Department of Anatomy, University of Chicago  
    "Morphometric Analysis of Macropodid Skulls"
- Feb. '81 - Feb. '84                NIH PHS Musculo-Skeletal Training Grant  
    Department of Biology, Harvard University  
    NIH PHS #5 T32 GM07117-09 0011  
    "Evolution of the Mammalian Spine"
- Feb. '88 - Sept. '88                NIH Neurosurgery Training Grant  
    Dept. of Neurol. Surg., Univ. of Washington Seattle

5T32 NS-07144-09  
 “Imaging of Axonal Transport”

- Jan. ‘91 - May ‘92      Neurosciences Research Foundation  
 Atkinson Morley’s Hospital,  
 Harrison Clinical Lectureship  
 Division of Clinical Neuroscience,  
 St. George's Hosp. Med. School, Univ. of London  
 “MR Imaging of Axonal Transport” (\$80,000)
- Oct. ‘91 - May ‘92      Nycomed Imaging, AS, Oslo, Norway  
 - Academic Investigator Support  
 Div. of Biochemistry,  
 St. George’s Hospital Medical School, University of  
 London. Principle Investigator. “ Axonal Transport of  
 Ferrite MR Contrast Agents” (\$25,000)
- May ‘94 - June ‘95      Wellcome Trust Clinical Fellowship  
 Division of Clinical Neuroscience  
 & Division of Biochemistry  
 St. George's Hospital Med. School, Univ. of London  
 “MR Imaging of Neural Tracts” (\$75,000)
- July ‘95 - June ‘96      UCLA Department of Radiological Sciences  
 Pilot Assessment of MR Neurography for Cervical and  
 Lumbar Spinal Imaging
- Sept. ‘97 - Nov. ‘97      Nycomed Imaging, AS, Oslo, Norway - Black blood  
 contrast agents for enhancement of Neurography -  
 pilot study. (\$10,000)
- Jan. ‘98 - June ‘99      U.K. Dept of Trade and Industry - SynGenix LTD,  
 Targeted Drug Delivery to the CNS. (\$100,000)
- Jan. ‘99 - Dec. ‘01      SynGenix LTD  
 Axonal Transport for Drug Delivery (\$1.3 million)
- Sept. '01 - Sept. '03      SynGenix LTD  
 Axonal Transport for Drug Delivery (\$8 million)

### **Academic Meeting Session Chairman**

- 3/20/2010      Filler AG. MRI Imaging. 2<sup>nd</sup> Chongqing International  
 Clinical Neuroscience Forum & International  
 NeuroDrug Conference, Chongqing,  
 People’s Republic of China,  
 2010重庆国际神经病学论坛

- 6/25/2010 Filler AG. MRI Imaging. NeuroTalk BIT 1<sup>st</sup> Annual Congress, Singapore. June 25, 2010.
- 3/15/2012 Filler AG. Neuroscience Imaging. International Neuroscience Conference – Omori Medical Center, Toho University, Tokyo, Japan, 東邦大学医療センター大森病院
- 5/14/2013 Filler AG. Multi-modality Imaging. Society for Brain Mapping & Therapeutics, 10<sup>th</sup> Annual World Congress. Baltimore Convention Center, Baltimore, MD
- 1/11/2014 Filler AG and Malessy MJ. General Scientific Session. American Society for Peripheral Nerve, Maui, Hawaii
- 1/12/2014 Filler AG. Medical and Legal Aspects of Coding and Billing for Peripheral Nerve Surgery. American Society for Peripheral Nerve, Maui, Hawaii
- 3/7/2015 Filler AG. Peripheral Nerve Session I Society for Brain Mapping and Therapeutics, Los Angeles Convention Center, Los Angeles, California
- 4/8/2016 Filler AG. Policy, Ethics and the Law in Neuroscience: Society for Brain Mapping and Therapeutics, Miami Florida.

### **Medical & Board Certifications**

- 1987 Diplomate  
National Board of Medical Examiners of U.S.A.  
NBME # 214994
- 1994 Diplomate  
American Board of Neurological Surgeons,  
Primary Exam for Board Eligibility
- 1994 Diplomate  
Neurological Surgery Residency Training  
Department of Neurological Surgery  
University of Washington, Seattle, WA

1994                      Diplomate  
                                  Intercollegiate Board in Surgical Neurology  
                                  of the Royal Colleges of Surgeons of  
                                  Edinburgh, Glasgow, England, and Ireland.  
                                  (equivalent to FRCS {SN})

1999                      Diplomate  
                                  American Board of Neurological Surgeons,  
                                  Oral Exam for Board Certification  
                                  ABNS Cert. #99073, 11/17/99 to 12/31/2009  
                                  Recertification #17043, expiration 12/31/2019

## **Medical Licensure**

California State  
Physician & Surgeon G81778  
7/1995 - current

California State  
Fluoroscopy Supervisor and Operator: RHC 145535  
11/1998 - current

Florida  
Medical License #: ME 118548  
1/17/14 - current

Indiana  
License #: 01070287A  
9/29/2011 to current

Massachusetts  
License #:245500  
4/4/2012 to current

Michigan  
Medical Doctor #:4301104352  
12/3/2013 to 10/16

New York State  
License # - 254556  
8/19/2009 to current

Nebraska  
License # 26935  
8/24/2012 to current

Ohio  
License #: 35098599  
2/5/2012 to current



Pennsylvania State  
Medical Physician & Surgeon MD423086  
10/03 – 10/16

Utah State  
Medical License 5267292-1205  
1/27/2004 to 1/31/2006

Virginia  
Medicine & Surgery License #0101252705  
9/6/12 to 10/16

Washington State  
Physician and Surgeon License #MD00025619  
6/30/88 - 10/21/06

Texas  
1/2021 expected - Pending

U.K. General Medical Council  
Medical Practitioner Limited Registration: 89/1233  
12/89 - 5/95

U.K. General Medical Council  
Medical Practitioner Full Registration: 4439398  
7/97 - current

DEA: BF0683777  
6/88 - current

## **Bar Admissions**

State Bar of California  
Bar Membership # 302956  
May 18, 2015

Federal District Court,  
Central District of California  
June 17, 2015

Court of Appeals for the Federal Circuit  
July 7, 2015

Court of Federal Claims  
January 30, 2019

### **Advanced Cardiac Life Support Certification**

3/06 - present	Advanced Cardiovascular Life Support (ACLS)
3/06 - present	Basic Life Support (BLS)
2/13 - present	Pediatric Advanced Life Support (PALS)

### **Medical Staff Privileges**

6/94 – 6/96	University of Washington Medical Center, Seattle, WA
6/94 – 6/96	Harborview Medical Center, Seattle, WA
6/96 – 6/97	Madigan Army Medical Center, Seattle, WA
6/96 – 6/97	Olive View-UCLA Medical Center, Los Angeles, CA
7/96 – 7/09	UCLA Medical Center, Los Angeles, CA
5/01 – 7/05	Century City Hospital, Los Angeles, CA
1/04 – 4/14	Midway/Olympia Hospital Med Center, Los Angeles, CA
7/01 - present	Cedars Sinai Medical Center, Beverly Hills, CA
10/03 – present	St. John’s Health Center, Santa Monica, CA

### **Membership in Professional Societies**

- Society for Brain Mapping & Therapeutics
- International Society for Magnetic Resonance in Medicine
- Society for Neuroscience
- Los Angeles County Medical Association
- California Medical Association
- American Medical Association
- American Association for the Advancement of Science

North American Spine Society

American Association of Neurological Surgeons

Congress of Neurological Surgeons

Joint Section for Peripheral Nerve & Spine of the  
AANS and CNS

Society of British Neurological Surgeons

### **Visiting Professorships**

University of London  
Atkinson Morley's Hospital  
St. George's Hospital Medical School  
Department of Neurosurgery  
London, England, U.K. 10/21/97

Harvard University  
Beth Israel/Deaconess Hospital  
Harvard Medical School  
Department of Anesthesia  
Cambridge, Massachusetts 11/2/99 –11/3/99

### **Academic Honors and Awards**

Pioneer in Medicine Award (2016) for invention of  
Diffusion Tensor Imaging (DTI)  
Society for Brain Mapping & Therapeutics

SMART Award. UK Department of Trade and Industry  
Highly competitive national award in UK for  
technology in SynGenix LTD (1997)

Wellcome Trust Clinical Fellowship  
(5/94) Division of Clinical Neuroscience  
& Division of Biochemistry  
St. George's Hospital Medical School  
University of London

Harrison Clinical Lecturer in Neuroscience  
(1/91-5/92) Division of Clinical Neuroscience  
St. George's Hospital Medical School  
University of London

NIH PHS Musculo-Skeletal Training Grant  
(2/81-2/84) Department of Biology,  
Harvard University

Faculty Search Committee,  
Department of Anthropology,  
Harvard University (9/82-9/83)

Bachelors Degree with Honors, (1977)  
University of Chicago

Howell Murray Award, (1977)  
University of Chicago

### **Technical Course Certifications**

Midas Rex Bone Dissection 4/93 - current

Oratec Intradiscal Electrothermal Therapy 12/98 - current

### **Academic Symposia**

11/98 Fifth Workshop on Obstetric Brachial Plexus Lesions  
Atrium MC, Heerlen, Netherlands

### **Editorial Appointments**

7/08 – present Youmans Neurological Surgery  
Section Editor – Peripheral Nerve

### **Peer Scientist Reviewer for Academic Journals**

3/95 - present JMRI, (Journal of Magnetic Resonance Imaging)

9/04 – present Journal of Human Evolution, Harvard University

10/06 - present Neuroradiology

4/07 – present Journal of Neuroimaging

6/09 – preset NeuroImage

7/09 - present Clinical Anatomy

4/10 – present PLOS One  
 9/10 - present Journal of Neurological Sciences  
 11/10 - present Neurosurgery

### **University Committees**

9/82 - 9/83 Faculty Search Committee,  
 Department of Anthropology,  
 Harvard University  
 2004 Examiner for Doctoral Thesis  
 School of Medicine  
 University of London

### **Consultant Appointments**

11/97 – 11/98 General Electric Medical Systems  
 IntraOperative MRI Medical Advisory Board

### **Business Positions**

7/15 – present Managing Partner  
 Tensor Law, P.C.  
 2716 Ocean Park Blvd., #3082  
 Santa Monica, CA 90405  
 Phone: 310 450-9689  
 www.tensorlaw.com  
 11/93 – 3/04 Co-Chief Scientific Officer, Director,  
 & Co-Founder  
 SynGenix Ltd. (English Reg. # 2740120)  
 Babraham Hall  
 Babraham  
 Cambridge, CB2 4AT, UK  
 Phone: (011 44 1223) 496-093  
 Fax: (011 44 1223) 496-018  
 1/04 – present CEO and Co-Founder, Director  
 Molecular Synthetics Inc.  
 2716 Ocean Park Blvd., Suite 3082  
 Santa Monica, CA 90405  
 Phone 310 314-6410  
 Fax: 310 314-2414  
 Babraham, Cambridge, UK Office  
 Phone: (011 44 1223) 496-121  
[www.molecularsynthetic.com](http://www.molecularsynthetic.com)

12/98 - present  
CEO and Co-Founder, Director  
NeuroGrafix, Inc.  
2716 Ocean Park Blvd., Ste. 3035  
Santa Monica, CA 90405  
Phone: (310) 664-3944  
Fax: (310) 664-3949  
[www.neurography.com](http://www.neurography.com)

4/2008 – 10/2008  
Host – The Pain Free Hour – CBS Radio/KLSX  
with Kerri Kasem and Shirlee Jackson

### **Event Management**

9/75 - 6/78  
Chairman and Founder: Major Activities Board  
University of Chicago  
Booking, marketing and staging for concerts

9/77 - 4/78  
Chairman: Festival of the Arts  
University of Chicago  
Booking, marketing, scheduling, advertising

9/73 - 9/74  
International Vice President  
United Synagogue Youth  
Convention Planning, Budget Planning

9/73 - 4/74  
Chairman: Conference on American Civilization  
National Association of Student Councils  
Booking, scheduling, supervision of committee staffs

### **Non-Technical Writing**

9/75 - 6/77  
*Chicago Maroon* (University of Chicago)  
General reporting

6/77 - 10/79  
*Chicago Reader*  
Freelance feature writer

### **Technical Theater Experience**

3/74 - 5/74  
Stage Manager  
Walt Whitman High School Talent Show

6/75 - 9/75  
Technical Lighting and Construction Assistant  
Court Theatre, Chicago

9/75 - 6/78  
Technical Manager, Stage Manager, Director  
University Theatre, University of Chicago

1/75 - 6/78

Technical Manager, Stage Manager, Director  
Blackfriars, University of Chicago

### **Athletic Leadership**

9/73 - 6/74

Co-Team Captain  
Walt Whitman High School Track and Field Team

9/73 - 6/74

Varsity Letterman  
Cross Country Team, Walt Whitman High School  
Track and Field Team, Walt Whitman High School

11/10 - 6/11

Referee Coordinator  
AYSO Pacific Palisades All Stars Soccer

### **Military Service**

7/94 - 2/97

Commander  
1466th Med. Detachment, Neurosurgery  
and Major, Medical Corps  
United States Army Reserve  
Fort Lawton, Bldg. S-544  
Seattle, WA 98199  
Phone: 206 281-3081, Fax: 206 281-3499

3/97 - 08/01

Major, United States Army Reserve, Medical Corps  
Independent Ready Reserve

08/01 – 10/02

Lieutenant Colonel, United States Army Reserve, Medical  
Corps Independent Ready Reserve

10/02 – present

Lieutenant Colonel, United States Army Reserve, Medical  
Corps, Retired.

## Publications

### Published Articles

- Filler AG, Bell BA. Axonal transport and nerve compression. *Brit. J. Neurosurg.* 6:(4) 293-295 (1992).  
(PMID: 1382450)
- Howe FA, Filler AG, Bell BA, Griffiths JR. Magnetic resonance neurography. *Magn. Reson. Med.* 28: 328-338 (1992).  
(PMID: 1461131)
- Filler AG, Howe FA, Hayes CE, Kliot M, Winn HR, Bell BA, Griffiths JR, Tsuruda JS. Magnetic resonance neurography. *Lancet* 341:659-661 (1993).  
(PMID: 8095572)
- Filler AG. Reverse transcriptase microassay. *Matrix Application Notes, Packard Instrument Company.* PAN0035/MAN-016:1-8 (1993).
- Filler AG. Axonal transport and MRI: prospects for contrast agent development. *JMRI* 4:259-267 (1994).  
(PMID: 7520308)
- Howe FA, Saunders D, Filler AG, McLean MA, Heron C, Brown MM, Griffiths JR. Magnetic resonance neurography of the median nerve. *Brit. J. Radiol.* 67:1169-1172 (1994).  
(PMID: 7874414)
- Filler AG, Britton JA, Uttley D, Marsh HT. Adult post-repair myelo-meningocele & tethered cord syndrome: Good surgical outcome after abrupt neurological decline. *Brit. J. Neurosurg.* 9:659-666 (1995).  
(PMID: 8561939)
- Britz GW, Dailey AT, West GA, Kuntz C, Grant GA, Filler AG, Tsuruda JS, Goodkin R, Haynor DR, Maravilla K, Kliot M. Magnetic resonance imaging in the evaluation and treatment of peripheral nerve problems. *Perspectives in Neurosurgery* 6:53-66 (1995).
- Dailey AT, Tsuruda JS, Goodkin R, Haynor DR, Filler AG, Hayes CE, Kliot M. Magnetic resonance neurography for cervical radiculopathy: a preliminary report. *Neurosurgery* 38:488-492 (1996).  
(PMID: 8837800)
- Filler AG, Kliot M, Hayes CE, Howe FA, Saunders DE, Bell BA, Winn HR, Griffiths JR, Tsuruda JS. Application of magnetic resonance neurography in the evaluation of patients with peripheral nerve pathology. *Journal of Neurosurgery* 85:299-309 (1996).  
(PMID: 8755760)



- Kuntz C, Blake L, Britz G, Filler A, Goodkin R, Tsuruda J, Hayes C, Maravilla K, Kliot M. Magnetic resonance neurography of peripheral nerve lesions in the lower extremity. *Neurosurgery* 39:750-757 (1996).  
(PMID: 8880769)
- Filler AG, Lever AML. Effects of cation substitution on reverse transcriptase and on human immunodeficiency virus production. *AIDS Research and Human Retroviruses* 13:291-299 (1997).  
(PMID: 9071428)
- Hayes CE, Tsuruda JS, Mathis CM, Maravilla KR, Kliot M, and Filler AG. Brachial plexus: MR imaging with a dedicated phased array surface coils. *Radiology* 203:286-289 (1997).  
(PMID: 9122409)
- Dailey A, Tsuruda JS, Filler AG, Maravilla K, Goodkin R, Kliot M. Magnetic resonance neurography of peripheral nerve degeneration and regeneration. *Lancet* 350: 1221-1222 (1997).  
(PMID: 9652565)
- Johnson, JP, Ahn SS, Choi WC, Masciopinto JE, Kim KD, Filler AG, DeSalles AAF. Thoracoscopic sympathectomy: techniques and outcomes. *Neurosurgical Focus* 4 (2): Article4 (1998).  
(PMID: 17206769)
- Johnson JP, Filler AG, McBride DC, Batzdorf U. Anterior cervical foraminotomy for unilateral radicular disease. *Spine* 25 (8): 905-909 (2000).  
(PMID: 10767800)
- Johnson JP, Filler AG, McBride DC. Endoscopic thoracic discectomy. *Neurosurg. Focus* 9(4): Article 11 (2000).  
(PMID: 16833241)
- Filler AG, Maravilla KR, Tsuruda JS. MR Neurography and muscle MR imaging for image diagnosis of disorders affecting the peripheral nerves and musculature. *Neurologic Clinics* 22(3):643-682, (2004).  
(PMID: 15207879)
- Filler AG, Haynes J, Jordan S, Prager J, Villablanca JP, Farahani K, McBride DQ, Tsuruda JS, Morisoli B, Batzdorf U, Johnson JP. Sciatica of Non-Disk Origin & Piriformis Syndrome: Diagnosis by MR Neurography and Interventional MRI with Outcome Study of Resulting Treatment. *Journal of Neurosurgery – Spine* 2:99-115 (2005).  
(PMID: 15739520)
- Filler AG. The emergence and optimization of upright posture among hominiform hominoids and the evolutionary pathophysiology of back pain. *Neurosurgical Focus* 23(1):E4 (2007).  
(PMID: 17961059)

- Filler AG. The first recorded neurosurgical operation – An historical hypothesis: Isis, Osiris, Thoth & the origin of the djed cross spinal symbol. *Neurosurgical Focus* 23(1):E6 (2007).  
(PMID: 17961051)
- Filler AG. Homeotic evolution in the Mammalia: Diversification of Therian axial seriation and the morphogenetic basis of human origins. *PLOS ONE* 2(10): e1019, (2007).  
(PMID: 17925867)
- Filler AG. Diagnosis and management of pudendal nerve entrapment syndromes: Impact of MR Neurography and open MR-guided injections. *Neurosurgery Quarterly* 18:1-6 (2008).
- Filler AG. Piriformis and related entrapment syndromes: Diagnosis and management. *Neurosurgery Clinics of North America*. 19:609-622, (2008).  
(DOI: 10.1016/j.nec.200907.029) (PMID: 19010285)
- Filler AG. Diagnosis and treatment of pudendal nerve entrapment syndrome subtypes: imaging, injections, and minimal access surgery. *Neurosurg Focus* 26 (2) E9: (2009).  
(PMID: 19323602)
- Filler AG. Minimal access nerve surgery and interventional MRI. *Neurosurgery* 65: (4 Suppl), pA212-A221 (2009).  
(DOI: 10.1227/01.NEU.0000346253.89837.6C) (PMID: 19927071)
- Filler AG. MR Neurography and Diffusion Tensor Imaging: Origins, history, & clinical impact of the first 50,000 cases with an assessment of efficacy and utility in a prospective 5,000 patient study group. *Neurosurgery* 65: (4 Suppl), pA29-A43 (2009).  
(DOI: 10.1227/01.NEU.0000351279.78110.00) (PMID: 19927075)
- Filler AG. The history, development and impact of computed imaging in neurological diagnosis and neurosurgery: CT, MRI, DTI. *Internet Journal of Neurosurgery*, 7:(1) (2010)  
<http://ispub.com/IJNS/7/1/12184>
- Filler AG, Lever AML, Bacon M, Munglani R, Abell C, Frederickson M, and Whiteside G. Tri-partite complex for axonal transport drug delivery achieves pharmacological effect. *BMC Neuroscience* 11:8 (2010).  
(DOI: 10.1186/1471-2202-11-8) (PMID: 20085661)

## **Granted Patents**

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- Filler AG. Interventional MRI Percutaneous Procedures for Extended Relief and Cure of Thoracic Outlet Syndrome. International Brain Mapping & Intraoperative Surgical Planning Society – World Congress. 8<sup>th</sup> Annual Meeting. UCSF, San Francisco, CA. June 8-10, 2011.
- Filler AG. Interventional MRI Percutaneous Procedures for Extended Relief and Cure of Thoracic Outlet Syndrome. Congress of Neurological Surgeons, Washington Convention Center, Washington, DC October 1-6, 2011.
- Filler AG. Real time Open MRI Guidance for Percutaneous Nerve Decompression. Society for Brain Mapping & Therapeutics, 10<sup>th</sup> Annual World Congress. Baltimore Convention Center, Baltimore, MD. May 12-14, 2013.

### **Presentations and Invited Lectures**

- Filler AG. Axial Function in Terrestrial Amniotes. The Amniote Seminar. Museum of Comparative Zoology, Romer Library, Harvard University, 10/7/80.
- Filler AG. Bipedal Apes Before the Dawn of Man. Presented at the Darwin Festival (on Darwin's Birthday), Dept. of Biology, The Biology Society, Salem State College, Salem, Mass. 2/12/82.
- Filler AG. Evolutionary origins of the human upright spine. Presented at 5th annual meeting, Joint Section for Peripheral Nerve and Spine, AANS/CNS, 2/12/89.

- Filler AG. Imaging of Axonal Transport. Grand Rounds. Department of Neurological Surgery, University of Washington Medical Center, Seattle, WA, 12/15/89.
- Filler AG. Progress in the design of axonally transported intraneural contrast agents for peripheral nerve imaging with MRI. Royal Post-Graduate Medical School, NMR Unit, Hammersmith Hospital, London, UK. 9/24/90.
- Filler AG. Mathematical analysis of multiple diffusion gradients for neuronal tract tracing. Resident Research Rounds, Harborview Medical Center, Dept. of Neurol. Surg., University of Washington, Seattle, WA, 8/7/91
- Filler AG. Sir Richard Owen, Sir Arthur Keith, and the lost styloid process: Serial homology and the evolution of the human spine. Section of Neurology, Royal Society of Medicine, Registrar's Meeting, London, February 6<sup>th</sup>, (1992)
- Filler AG. Spinel Ferrites and Superparamagnetism in MR Imaging. Division of Biochemistry, Department of Cell & Molecular Biology, St. George's Hospital Medical School, London, 3/15/92.
- Magnetism, Spinels, and the Design of Tracers for In Vivo Imaging of Axoplasmic Flow. Neuroscience Seminar, Department of Neurological Surgery, University of Washington, Seattle, 7/25/92.
- Filler AG. Diffusion Anisotropy in Magnetic Resonance: Neurography and In Vivo Neural Tract Imaging. Neuroscience Seminar, Department of Neurological Surgery, University of Washington, Seattle, 12/30/92.
- Filler AG. Axonal Transport of MR Contrast Agents. Nycomed Imaging, Oslo, Norway, 4/10/93.
- Filler AG. MR Neurography in Clinical Medicine. Department of Neurology and Neurosurgery, Columbia University Neurologic Institute, New York, New York, 8/12/93
- Filler AG. Evolution of the Axial Skeleton in the Hominoid Apes and Man. Department of Orthopedics, Harborview Medical Center, Seattle, WA, 10/16/93
- Filler AG. MR Neurography for Peripheral Nerve Diagnosis. Department of Orthopedics, Harborview Medical Center, Seattle, WA, 1/19/94
- Filler AG. Diffusion Anisotropy and Axonal Transport in MR Imaging of Neural Structures. Neurology Study Unit, Seattle, WA, 2/8/94
- Filler AG. Diffusion Anisotropy and MR Neurography. Department of Radiology, Addenbrooke's Hospital, Cambridge University, Cambridge, U.K., 11/17/94.

- Filler AG. MR Neurography: Clinical Prospects. Presented at meeting of the South of England Neurosciences Association, London, 5/19/95.
- Filler AG. Diffusion Anisotropy, Axonal Transport and Endoneurial Fluid in Clinical Magnetic Resonance Neurography. Section of Neurosurgery, Yale University, New Haven, CT, 12/20/95.
- Filler AG. New Techniques in MR Imaging: MR Neurography. The role of MRI neurography in imaging of the brachial plexus. Medical Imaging Center of Southern California, Santa Monica, CA, 7/1/96.
- Filler AG. Interpretation of MR Neurograms. Long Beach Memorial MRI Center. 11/11/96.
- Filler AG. Diffusion Imaging and T2 Neurography in MR Diagnosis of Peripheral Nerve Pathology. UCLA Department of Neurology Outpatient Conference. 11/20/96.
- Filler AG, Johnson JP, Farahani K, Lufkin RB. Neurography of the lumbar and sacral spinal nerves. Federation of Spine Associations, American Academy of Orthopaedic Surgeons, February 16, 1997, San Francisco, CA (1997).
- Filler AG. Case Presentation: MR Neurography in the Diagnosis of Thoracic Outlet Syndrome in a Patient with Bilateral Hand Pain. Chairman's conference, UCLA Department of Neurology, 3/97.
- Filler AG. The Role of Black Blood Contrast Agents and Intraneural Contrast Agents in Magnetic Resonance Neurography. Nycomed Torsten Almen Research Center (TARC), Wayne PA., 6/24/97.
- Filler AG. Black Blood Contrast Agents and Intraneural Contrast Agents in Magnetic Resonance Neurography. Nycomed Imaging, Oslo, Norway. 10/14/97.
- Filler AG. MR Neurography and Open MRI in the Diagnosis and Management of Extremity Pain. Atkinson Morley's Hospital, London, England, U.K. 10/21/97.
- Filler AG. MR Neurography and Interventional MRI in the Diagnosis and Management of Spine and Peripheral Nerve Disorders. General Electric Medical Systems, IntraOperative MRI Medical Advisory Board. Chicago, IL 11/10/97.
- Filler AG. MR Neurography for the Evaluation of Nerve Tumors and the Effects of Cancer on Nerves. UCLA Advances in Neurosurgery. 11/15/97.
- Filler AG. Progress in the Use of MRI for Management of Peripheral Nerve Disorders. Department of Radiology, UCLA Medical Center. 5/1/98.



- Filler AG. Magnetic Resonance Neurography: Application to the Study of Peripheral Nerve Pathology. American Association of Electrodiagnostic Medicine. Orlando, FL. 10/14/98.
- Filler AG. MR Neurography and interventional MRI in the diagnosis of sciatica. Department of Surgery Grand Rounds, UCLA Medical Center, 11/18/98.
- Filler AG. Imaging of peripheral nerve tumors. Symposium on Peripheral Nerve Tumors. 15th Annual Meeting. Joint Section on Disorders of the Spine and Peripheral Nerves of the AANS/CNS. Orlando, FL 2/11/99.
- Filler AG. Open MRI in the management of spine and peripheral nerve pathology. UCLA iMR Program Presentation. Los Angeles, CA 2/17/99.
- Filler AG. Imaging of brachial plexus lesions. XIIth Symposium on Brachial Plexus Surgery (A. Narakas Club). Barcelona, Spain 3/14/99.
- Filler AG. Magnetic Resonance Neurography for improved preoperative evaluation of brachial plexus disorders. Brachial Plexus Symposium, Obstetrical and Adult. American Association of Hand Surgery & International Society for Reconstructive Microsurgery. Los Angeles, CA 6/22/99.
- Filler AG. MR Neurography and open MRI in the management of spine and extremity pain. Grand Rounds, Department of Orthopedics, UCLA Medical Center, Los Angeles, CA 10/9/99.
- Filler AG. MR Neurography and Open MRI in the Management of Spine and Extremity Pain. Visiting Professor, Department of Anesthesia, Beth Israel/Deaconess Hospital, Boston, MA 11/3/99.
- Filler AG. Diffusion Anisotropy, CNS Tract Tracing and MR Neurography. Research Meeting of Professor John Mazziotta's Brain Mapping Group, December 8, 1999.
- Filler AG. Nerve imaging. AANS/CNS Joint Section on Disorders of the Spine and Peripheral Nerves, Annual Meeting, Indian Wells, CA 2/24/00.
- Filler AG. Evolution of the human spine. UCLA Comprehensive Spine Program, Joint Spine Conference, Los Angeles, CA 3/00.
- Filler AG. MR Neurography & Open MRI for diagnosis and treatment of spine and peripheral nerve pathology. American Association of Neurological Surgeons, Annual Meeting, San Francisco, CA, 4/12/00.
- Filler AG. Neurography for peripheral nerve diagnosis. Department of Neurology Grand Rounds, West Los Angeles Veterans Administration Medical Center. Los Angeles, CA 4/21/00.

- Filler AG. MR Neurography, open MRI, and axonally delivered therapy. Millenium Sir Wylie McKissock Neuroscience Lecture. Atkinson Morley's Hospital, Wimbledon, UK. 11/24/2000.
- Filler AG. Outcome study of diagnosis and treatment for sciatic of non-disk origin. UCLA Comprehensive Spine Center, UCLA, Los Angeles, CA 3/5/01.
- Filler AG. Advances in the diagnosis and treatment of nerve disorders. Department of Surgery Grand Rounds, UCLA, Los Angeles, CA. 4/4/01.
- Filler AG. MR Neurography in the diagnosis and treatment of thoracic outlet syndromes. Medical staff grand rounds, Los Robles Regional Medical Center, Thousand Oaks, CA, 5/4/01.
- Filler AG. Advances in the diagnosis and treatment of nerve disorders. Medical Center Grand Rounds, Daniel Freeman Memorial Hospital, Los Angeles, CA 6/4/01.
- Filler AG. Advances in the diagnosis and treatment of nerve disorders. UCLA Department of Surgery Third Year Medical Student Lecture Series, UCLA Medical Center, Los Angeles, CA 6/8/01.
- Filler AG. MR Neurography for diagnosis of spine and peripheral nerve disorders. Institute for Spinal Disorders, Cedars Sinai Medical Center, Los Angeles, CA 8/16/01.
- Filler AG. MR Neurography, Open MRI and Axonal Transport in Advanced Diagnosis and Treatment of Nerve Disorders. Grand Rounds, Department of Neurosurgery, Massachusetts General Hospital, Harvard University, Boston, MA, November 1, 2001.
- Filler AG. Image diagnosis and surgical neurolysis for neurogenic thoracic outlet syndrome. Symposium on Advances in Vascular Surgery, Chicago, IL, December, 2001.
- Filler AG. MR Neurography for the diagnosis of peripheral nerve disorders. Panel Discussion: Innovations in Peripheral Nerve Surgery, American Society for Peripheral Nerve, Cancun, Mexico, January 2002.
- Filler AG. Failed lumbar spine surgery & sciatica of non-disk origin: Diagnosis, treatment & outcomes. Grand Rounds, Los Robles Regional Medical Center, Thousand Oaks, CA, June 21, 2002.
- Filler AG. Image diagnosis and neuroplasty for neurogenic thoracic outlet syndrome. Dept. of Vascular Surgery Grand Rounds, Cedars Sinai Medical Center, Los Angeles, CA July, 2002.

Filler AG. Chaos and the evolutionary emergence of the human spinal design. Systems Biology Seminar, Santa Monica, CA August, 2002.

Filler AG. MSD Review of Potential for Neurography in Surgical Image Guidance. Philadelphia, PA, September 24, 2002.

Filler AG. MR Neurography and Open MRI in the Diagnosis and Treatment of Disorders Affecting the Spine and Nerves. Grand Rounds, Department of Neurosurgery, University of California Irvine, Orange, CA, April 22, 2003.

Filler AG. Intraneural Drug Delivery via Axonally Transported Molecular Carriers: Novel Pharmaceutical Designs for Intractable Pain Problems. Discovery Research Seminar. Purdue Pharma, Cranbury, New Jersey, September 12, 2003.

Filler AG. MR Neurography and Open MRI for Diagnosis and Treatment of Spine and Nerve Disorders. CME Spine Conference, Institute for Spinal Disorders, Cedars Sinai Medical Center, Los Angeles, CA, December 3, 2003.

Filler AG. Thoracic Outlet Syndrome Does Exist. Controversies in Peripheral Nerve. Joint Section on Spine and Peripheral Nerve AANS/CNS, San Diego, CA, March 20, 2004.

Filler AG. MR Neurography and Open MRI Guided Procedures for Diagnosis and Treatment of Nerve Disorders. Grand Rounds, University of California at San Diego, San Diego, CA, January 13, 2005.

Filler AG. New Developments in Nerve Imaging. Course 202. American Society for Peripheral Nerve, 14th Annual Meeting, Fajardo, Puerto Rico. January 16, 2005.

Filler AG. Diagnosis and Treatment of Sciatica from Piriformis Syndrome: The Impact of New Methods on 'Spine-Related' Peripheral Nerve Symptoms. Current Concepts in Spinal Disorders: Clinical Symposia Series, Cedars Sinai Institute for Spinal Disorders, February 9, 2005.

Filler AG. MR Neurography and Open MRI Guided Procedures for Diagnosis and Treatment of Nerve Disorders. San Diego Neurological Society, San Diego, CA, February 17, 2005.

Filler AG. Open MR Guided Injections in Spine, Nerve and Neuromuscular Disorders. American Society for Spine Radiology, Isla Verdes, Puerto Rico February 24, 2005.

Filler AG. MR Neurography and Open MRI Guided Procedures for Diagnosis and Treatment of Nerve Disorders. AANS Section on Peripheral Nerve, Special Symposium, New Orleans, LA 4-19-05 (2005).

Filler AG. MR Neurography and Open MRI Guided Procedures for Diagnosis and Treatment of Nerve Disorders. San Diego Academy of Neurological Surgery, San Diego, CA 5-25-05. (2005)

Filler AG. Evolution and Comparative Anatomy of Vertebrae in Reptiles and Mammals and the Emergence of Upright Posture in the Apes and Early Ancestors of Humans. Visiting Professor. Cedars Sinai Medical Center, Los Angeles, CA 6-1-05 (2005)

Filler AG. MR Neurography, Open MR Injections & Minimal Access Surgery in the Management of Thoracic Outlet Syndrome. Department of Neurosurgery Grand Rounds, University of California at Irvine, Orange, CA 8-3-05 (2005)

Filler AG. Nerve Imaging Techniques. American Society for Peripheral Nerve, Tucson, Arizona, 1-16-06 (2006)

Filler AG. New Advanced Imaging Techniques In the Diagnosis of Pain Syndromes – Update Session 402: Sciatica of Non-Disc Origin and Piriformis Syndrome. American Academy of Pain Medicine – Annual Meeting, San Diego, CA 2-25-06 (2006)

Filler AG. How to read an MR Neurography Image. Joint Section for Disorders of Spine and Peripheral Nerve, AANS/CNS, 22nd Annual Meeting, Orlando, Florida, 3-17-06 (2006)

Filler AG. Diagnosis and treatment of sciatica of non-disc origin and piriformis syndrome. In: Controversies in Peripheral Nerve Surgery: Piriformis syndrome – Is it real? American Association for Neurological Surgery, Annual Meeting, San Francisco, CA, 4-26-06, (2006)

Filler AG. MR Neurography, Open MR intervention, minimal access operations and physical exam for brachial and lumbo-sacral plexus disorders. Cedars Sinai Medical Center Neurosurgery Residents Lecture. Cedars Sinai Medical Center, Los Angeles, CA 1-26-07 (2007)

Filler AG. Advances in MR Neurography. ABCs of Peripheral Nerve Course, Joint Section for Disorders of Spine and Peripheral Nerve, AANS/CNS, 23rd Annual Meeting, Phoenix, Arizona 3-9-07, (2007)

Filler AG. MR Neurography – Assessment of the first 5,000 cases. The Kline Festschrift – an International Symposium on Nerve. LSU Health Sciences Center, New Orleans, Louisiana. 10-19-07. (2007)

Filler AG. Minimal access surgery for pelvic nerve entrapments and thoracic outlet syndrome. The Kline Festschrift – an International Symposium on Nerve. LSU Health Sciences Center, New Orleans, Louisiana. 10-20-07 (2007)

Filler AG. Diagnostic distinction – lumbo-sacral radiculopathy vs sciatica of non-disc origin: When to consider piriformis syndrome. Cedars Sinai Medical Center, Institute for Spinal Disorders, Clinical Symposium, Los Angeles, CA 2-13-08 (2008)

Filler AG. Piriformis Syndrome: Real or Not – David Cahill Memorial Controversies Session, Joint Section for Spine and Peripheral Nerve of AANS and CNS. Orlando, FL 3-1-08 (2008).

Filler AG. The Humanian Theory of Human Evolution. Evidence fore early homeotic origin of an upright bipedal hominiform lineage. Los Angeles, MENSA Society. Woodland Hills, CA 2-13-09 (2009).

Filler AG. MR Neurography, open MR guided injections, and minimal access surgery in the management of peripheral nerve disorders. Grand Rounds – University of California at Irvine, Department of Neurosurgery. Irvine, CA 10-14-09 (2009)

Filler AG. The Role of MRI in Diagnosis of Traumatic Lesions and Entrapment Syndromes. American Society for Peripheral Nerve. 2010 Annual Meeting, Boca Raton, FL 1-10-10 (2010).

Filler AG. A historical hypothesis: The first recorded neurosurgical operation: Isis, Osiris, Thoth & the Origin of the Djed Cross. 2<sup>nd</sup> Chongqing International Clinical Neuroscience Forum & International NeuroDrug Conference, Chongqing, People's Republic of China, 3-20-10, (2010).

Filler AG. Tri-partite complex for axonal transport drug delivery – Development & demonstration of clinical efficacy. 2<sup>nd</sup> Chongqing International Clinical Neuroscience Forum & International NeuroDrug Conference, Chongqing, People's Republic of China, 3-20-10, (2010).

Filler AG. Diffusion tensor imaging (DTI) & Magnetic Resonance Neurography (MRN): Origins, History & Clinical Impact. 2<sup>nd</sup> Chongqing International Clinical Neuroscience Forum & International NeuroDrug Conference, Chongqing, People's Republic of China, 3-20-10, (2010).

Filler AG. Diffusion Tensor Imaging (DTI) & Magnetic Resonance Neurography (MRN): Origins, History, Physical Basis & Clinical Impact. NeuroTalk BIT 1<sup>st</sup> Annual Congress, Singapore. June 25, 2010.

Filler AG. MRI Neurography, Open MRI Surgery in the Peripheral Nerve Setting & Minimal Access Proximal Plexus Surgery. Association of Extremity Nerve Surgeons. Annual Meeting 2011, Las Vegas Nevada, November 2011

Filler AG. Neuroimaging – MR Neurography, Diffusion Tensor Imaging, and Open MRI for Nerve and Neural Tract Imaging. American Society for Peripheral Nerve – Annual Meeting 2012, Las Vegas, Nevada, January 2012

Filler AG. Diffusion Tensor Imaging, MR Neurography and High Resolution Axonal MRI Techniques for Mapping the Human Connectome & Peripheral Nervous System. International Neuroscience Conference – Omori Medical Center, Toho University, Tokyo, Japan, March 2012

Filler AG. Diffusion Tensor Imaging, MR Neurography and High Resolution Axonal MRI Techniques for Mapping the Human Connectome & Peripheral Nervous System. 周围神经 - 核磁共振成像 - 扩散张量成像技术 International Neuroscience Conference – 2012 Shanghai International Forum on Neuroscience. 8<sup>th</sup> People's Hospital, Shanghai, Peoples' Republic of China, May 2012

Filler AG. Diffusion Tensor Imaging, MR Neurography and High Resolution Axonal MRI Techniques for Mapping the Human Connectome & Peripheral Nervous System. 周围神经 - 核磁共振成像 - 扩散张量成像技术 International Neuroscience Conference – 3<sup>rd</sup> Annual World Congress of NeuroTalk, Beijing, People's Republic of China, May 2012

Filler AG. Advances in Diffusion Anisotropy Imaging – New Mathematical Models: The Anti-symmetric Dyadic Tensor Model. Society for Brain Mapping & Therapeutics, 10<sup>th</sup> Annual World Congress. Baltimore Convention Center, Baltimore, MD. May 12-14, 2013.

Filler AG. Medical and Legal Aspects of Coding and Billing for Peripheral Nerve Surgery. American Society for Peripheral Nerve, Maui, Hawaii, January 12, 2014

Filler AG. Ultrasound and MRI in Nerve Injury. American Society for Peripheral Nerve, Paradise Island, Bahamas, January 24, 2015.

Filler AG. Open MRI Guided Percutaneous Nerve Treatments. Society for Brain Mapping and Therapeutics, Los Angeles Convention Center, Los Angeles, California, March 7, 2015.

Filler AG. Role of the G20+/N20+ Brain Mapping Initiative in the Future of Clinical Neuroscience – Invention and Innovation. Joint Session, Australian Parliament, Canberra, Australia, October 10, 2015

Filler AG. Welcoming Address Society of Brain Mapping 13<sup>th</sup> Annual Meeting – The Role of Technological Advance and Multi-Disciplinary Collaboration in the Future of Neuroscience. Miami, Florida, April 8, 2016.

Filler AG. Policy, Ethics and the Law: The Role of Daubert/Frye and Markman Type Evidentiary Hearings in the Application Neuroscience in the Courtroom. Society of Brain Mapping & Therapeutics, Miami, Florida, April 8, 2016.

Filler AG. From the Laboratory to the Technology Start-Up: Invention, Patents, and Entrepreneurship. Society of Brain Mapping & Therapeutics, Miami, Florida, April 9, 2016.

Filler AG. Role of the G20+/N20+ Brain Mapping Initiative in the Future of Clinical Neuroscience – Invention and Innovation. United States Congress, Brain Mapping Day, April 20, 2016.

Filler AG. Response to Michel Kliot – Diffusion Tensor Methods and Neurography for Imaging in Peripheral Nerve Management. American Association of Neurological Surgeons, Chicago, IL, May 3, 2016.

Filler AG. Role of the Society for Brain Mapping in the Future of Clinical Neuroscience – Invention & Innovation –通过N20 推进神经科学创新 - N20 Joint Meeting with Chongqing International Neuroscience Forum. Chongqing, People's Republic of China, September 3, 2016.

Filler AG. Diffusion Tensor Imaging & MR Neurography & High Resolution Axonal MRI Techniques for the Evaluation of Peripheral Nerve Entrapments. American Society for Peripheral Nerve, 2017 Annual Meeting, Kona Hawaii, January 13, 2017.

Filler AG. Methodology for Analysis of DTI Images in the Setting of Brain Injury with Memory Loss. Society for Brain Mapping and Therapeutics, 14<sup>th</sup> Annual Meeting, Los Angeles, CA; April 20, 2017

Filler AG. Surgical Treatment of Peripheral Pain: Lower Extremity Nerve Entrapments. Annual Meeting of the AANS/CNS Section on Disorders of the Spine and Peripheral Nerves. Orlando, FL; March 14, 2018.

Filler AG. Methodology for Analysis of DTI Images in the Setting of Brain Injury with Photophobia or Vertigo. Society for Brain Mapping and Therapeutics, 15<sup>th</sup> Annual Meeting, Los Angeles, CA; April 14, 2018

## **Books**

Filler AG. *Apple Thesaurus* (technical text on Apple II microelectronics, lab interfaces, and machine level programming). Datamost, Chatsworth, California. pp. 893. (1984). For information on the book:  
<http://www.amazon.com/Apple-Thesaurus-Aaron-Filler/dp/0881903469>

Filler AG. *Do You Really Need Back Surgery: A Surgeon's Guide to Neck and Back Pain and How to Choose Your Treatment*. Oxford University Press. pp 352.(2004).

<http://www.amazon.com/You-Really-Need-Back-Surgery/dp/019532708X>

Hardcover 1<sup>st</sup> Edition May 2004

Paperback Edition May 2007

Paperback 2<sup>nd</sup> Edition January 2013

Filler AG. *The Upright Ape: A New Origin of the Species*. New Page Books, New Jersey, July 2007.

<http://www.amazon.com/Upright-Ape-New-Origin-Species/dp/1564149331>

Filler AG. *Axial Character Seriation in Mammals: An Historical and Morphological Exploration of the Origin, Development, Use, and Current Collapse of the Homology Paradigm*. Brown Walker Press, Boca Raton, FL, April 2007.

<http://www.amazon.com/Axial-Character-Seriation-Mammals-Morphological/dp/1599424177>

Filler AG. Smart Guide to Patents – SmartGuide Publications (September 2012)

<http://www.amazon.com/Smart-Guide-Patents-Aaron-Filler/dp/098344210X>

Filler AG. Guide to Back Pain, Neck Pain and Nerve Disorders – Smart Guide Series (in prep)

Filler AG. Guide to Medical Imaging for Patients – Smart Guide Series (in prep)

## **Theses**

Filler, AG. *Brain Size and Social Behavior in East African Bovids: Application of Multivariate Statistics, Eigenvectors and Factor Analysis to Relate Behavioral and Morphometric Data*. (BA, University of Chicago) (1977) (Human Behavior & Institutions)

Filler, AG. *Factor analysis and multivariate statistics for the evaluation of cranial morphometrics in Macropodids*. (Medical Student research project (1978) University of Chicago.

Filler AG. *Functional and Evolutionary Perspectives on Axial Anatomy in Hominoids*. (MA, University of Chicago) (1979).

Filler AG. *Axial Character Seriation in Mammals: An Historical and Morphological Exploration of the Origin, Development, Use, and Current Collapse of the Homology Paradigm*. (PhD, Harvard University) (1986).



## Blog Posts

- 1/29/2007 *Oxford University Press Blog*  
Is there an ethical crisis in spinal surgery?  
[http://blog.oup.com/2007/01/is\\_there\\_an\\_eth/](http://blog.oup.com/2007/01/is_there_an_eth/)
- 12/15/2007 *Anthropology.net*  
A human ancestor for the apes? – Morotopithecus & Homo sapiens vertebrae  
<http://anthropology.net/2007/12/15/a-human-ancestor-for-the-apes/morotopithecus-homo-sapiens-vertebrae/>
- 12/24/2007 *Oxford University Press Blog*  
Redefining the word “Human” – Do some apes have human ancestors?  
<http://blog.oup.com/2007/12/human/>
- 8/17/2009 *Research Blogging*  
Diagonal postures & The descent from human to ape  
<http://www.researchblogging.org/blogger/home/id/1142>

## Major Media Coverage of Academic Work

### Print

- 3/16/93 *New York Times* - Magnetic Resonance Gives Better Images of Nerves in the Body. Warren Leary.
- 3/12/93 *LA Times* - Nerve Imaging Could Revolutionize Treatment of Pain. Thomas Maugh.
- 3/12/93 *London Times* - 3D images improve cancer treatment. Nigel Hawkes.
- 3/21/93 *Die Welt* - NMR-Tomographie spürt Nervenstränge auf. Werner Schulz.
- 3/12/93 *Associated Press* - New method lets doctors see nerves more clearly.
- 3/20/93 *Science News* - Seeing the nerves within us
- 9/28/96 *Science News* - Imaging method really shows some nerve
- 7/31/96 *LA Times* - Report touts new nerve imaging technique. Thomas Maugh.

- 9/7/96 *Lancet News* - MRI simplifies diagnosis of peripheral nerve lesions.
- 3/2001 *Discover* - Pulling pain up by the roots. Paul D. Thacker page 11.
- 3/24/01 *The Economist* - Magic bullet for pain-killers. Technology Quarterly, page 20

## Internet

- 4/18/1997 *CNN.com*  
Enhanced MRI reveals nerves that cause pain  
<http://cnn.com/HEALTH/9704/18/nfm/pain/index.html>
- 11/8/2000 *BBC News*  
A Step Forward in Killing Pain  
[http://news.bbc.co.uk/hi/english/health/newsid\\_1011000/1011780.stm](http://news.bbc.co.uk/hi/english/health/newsid_1011000/1011780.stm)
- 11/8/2000 *Web MD*  
New Techniques Get at Pain Where It Hurts: Nerves Carry Pain Medication Directly To Its Target  
<http://my.webmd.com/content/article/1728.63588>
- 11/8/2000 *CBS Healthwatch*  
New Drug Delivery Method May Target Pain Directly  
<http://cbshealthwatch.medscape.com/medscape/p/gcommunity/HNews/hnews.asp?RecID=226860&Channel=0>
- 11/8/2000 *Reuters Health*  
Axonal Transport System Targets Drug to Site of Neuropathic Pain in Rat Model  
<http://www.reutershealth.com/archive/2000/11/08/professional/links/20001108scie002.html>
- 11/8/2000 *New Scientist:*  
Magic Bullet  
<http://www.newscientist.com/dailynews/news.jsp?id=ns9999156>
- 11/8/2000 *Associated Press*  
<http://wire.ap.org/APnews/?SITE=JRC&FRONTID=HOME>
- 11/8/2000 *Wired News*  
Pain Relief's New Delivery System  
<http://www.wirednews.com/news/technology/0,1282,40125,00.html>
- 1/31/2005 *Forbes.com*  
New Clues for Sciatica Pain Relief  
<http://news.healingwell.com/index.php?p=news1&id=523726>

- 7/15/2007 *Reuters*  
Blame that bad back on your ancestors  
<http://uk.reuters.com/article/idUKN1427159120070715>
- 10/10/2007 *MSNBC*  
Human ancestors walked upright, study claims  
<http://www.msnbc.msn.com/id/21223189/wid/11915829/>
- 5/20/2011 *Reuters Legal News*  
Revenge of the Patent Holders  
<http://newsandinsight.thomsonreuters.com/Legal/NY/News/ViewNews.aspx?id=16798&terms=%40ReutersTopicCodes+CONTAINS+>
- 10/7/2019 *Bloomberg Law*  
Federal Circuit Reinstates Brainlab MRI Patent Dispute  
<https://news.bloomberglaw.com/health-law-and-business/fed-cir-reinstates-brainlab-mri-software-patent-dispute>
- 10/7/2019 *Law 360*  
Federal Circuit Reverses Brainlab MRI Patent Win  
<https://www.law360.com/articles/1206835/fed-circ-reverses-brainlab-mri-patent-win>
- 10/24/2019 *Patent Docs*  
NeuroGrafix v. Brainlab, Inc (Fed. Cir. 2019)  
<https://www.patentdocs.org/2019/10/neurografix-v-brainlab-inc-fed-cir-2019.html>
- 11/26/2019 *Lexology*  
No Brainer: Summary Judgment Based on Non-Asserted Grounds Procedurally Improper  
<https://www.lexology.com/library/detail.aspx?g=0c98741c-f586-43e8-a65f-99bddbfa0589>
- 10/24/2019 *Patent Docs*  
NeuroGrafix v. Brainlab, Inc (Fed. Cir. 2019)  
<https://www.patentdocs.org/2019/10/neurografix-v-brainlab-inc-fed-cir-2019.html>

## Television

- 3/12/93 *CNN* Headline News
- 11/8/96 *ABC* World News Tonight with Peter Jennings  
[http://www.aaronfiller.com/Video/AGF\\_Movie.html](http://www.aaronfiller.com/Video/AGF_Movie.html)
- 4/18/97 *CNN* Headline News  
[http://www.aaronfiller.com/Video/AGF\\_Movie.html](http://www.aaronfiller.com/Video/AGF_Movie.html)

- 3/1/05 Fox 11 News
- 7/31/05 Ivanhoe Science Productions  
<http://www.ivanhoe.com/science/story/2005/07/31a.html>
- 11/3/2017 *Megyn Kelly - NBC*  
Is Harvey Weinstein About to Be Arrested  
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<https://www.youtube.com/watch?v=AB9-xAwOUT4>  
(at 33:20 of 44:14)