

2018-2019 SPINE FELLOWSHIP DIRECTORY & SF MATCH TIMETABLE

(August 1, 2018-July 31, 2019 for August 2020 Fellowships)

Dear Potential Spine Fellow:

Thank you for your interest in the NASS Spine Fellowship Directory. There are more than 100 positions for spine fellowships throughout the United States and Canada. This directory has been growing steadily since we first offered it over 16 years ago. They are listed alphabetically by state and city beginning on page 5.

Each year we get several requests from other programs wishing to add their listing to our directory. **The directory is open only to those programs participating in the Spine Fellowship Match.** NASS does not rank nor does it have an affiliation with any of the programs other than a large majority of program directors being active members of the society. This recourse is offered as a benefit to those residents and fellows who are interested in spine and to connect potential candidates with the programs that fit their criteria (and vice-versa). This directory is not to be used for marketing purposes by pharmaceutical or medical device companies.

Program directors participating in the Match are asked to update their fellowship listing every year. The listings provided are current (as of 7/20/17).

NASS, along with the Cervical Spine Research Society (CSRS) and the Scoliosis Research Society (SRS) participates in the Spine Fellowship Match because 1) Prospective fellows are being asked at the time of interview to accept or reject an offer without being allowed to visit other programs; 2) Interview dates are earlier and earlier. We have tried to be leaders by establishing interview and acceptance date guidelines for the last few years. We work with the San Francisco Match to implement this program. The dates for the Spine Match are as follows:

- Monday, August 6, 2018
 - Applicant registration begins (www.sfmatch.org)
 - Please note that although registration is open up until the match deadline, applicants are encouraged to register as early as possible to allow time for application and interviews.
- Thursday, September 6, 2018
CAS Target Date
 - This is the Target Date for applicants to complete the requirements for application distribution.
 - This is **NOT** a deadline. Some programs accept applications at any time; others may set a deadline. It is the applicant's responsibility to contact training programs for individual deadline dates. Programs are not expected to review any applications prior to this date.
- Monday, December 10, 2018 - Friday, April 12, 2019
INTERVIEW PERIOD Prior to December 10th, interviews are not allowed to take place with the following exceptions:
 - September 26-29, 2018 NASS Annual Meeting in Los Angeles (*For interview space at NASS, contact Colleen O'Brien at cobrien@spine.org.*)
 - December 6-8 at CSRS Annual Meeting in Scottsdale, AZ
- Tuesday, March 12 - Saturday, March 16, 2019
Interview space will be available during the AAOS Annual Meeting in Las Vegas for Program Directors to conduct interviews. Space is limited and will be assigned on a first-come, first-served basis. Sign up information will be forthcoming in late 2018 or early 2019.
- Tuesday, April 16, 2019
Program Rank List Submission Deadline
 - Programs rank lists must be submitted by 12:00 PM, PT.

- Tuesday, April 16, 2019
Applicant Rank List Submission Deadline
 - Applicants rank lists must be submitted by 12:00 PM, PT.

- Tuesday, April 30, 2019
Match Results & Post-Match Vacancies
 - Match results are made available to programs, applicants and US medical schools through the SF Match system. Login is required to view results.
 - Any vacancies which remain after the match will be announced on the Immediate Vacancies page, unless otherwise requested by programs. The vacancies page is updated as often as new information becomes available to SF Match.

- August 2020
 - Spine Surgery fellowship training begins.

SPINE SURGERY FELLOWSHIP MATCH OVERVIEW

Spine Surgery Fellowship Match

The Spine Surgery Fellowship Match (SFM) was established in 2008. Its goal is to coordinate fellowship appointments, thus relieving the pressure of uncoordinated appointments and forced early choices. The participating programs will not make any appointments until the match has been completed.

Sponsorship

The North American Spine Society (NASS) sponsors the matching process and is responsible for enforcement of applicable rules. The SF Match office does not sponsor or approve any of the participating programs. The function of the Matching Program is strictly limited to processing of the match. Listing or not listing of any program in the directory does not imply any form of approval, disapproval or endorsement.

About the Match

The Match takes place in April and will be used to process all applicants who want to start their fellowship training in August of the following year. Applicants and programs must abide by the [Codes of Conduct and SPINE SURGERY FELLOWSHIP MATCH PARTICIPATION AGREEMENT](#). By applying to the Match, you are agreeing to abide by the Codes of Conduct and SPINE SURGERY FELLOWSHIP MATCH PARTICIPATION AGREEMENT.

Registration

There is a \$100 non-refundable applicant registration fee that covers registration and matching. Once registered, applicants can manage their account by logging into their account profile. To register, click on "Register" and follow the steps. Registration fee can be paid with a Visa or a MasterCard. All match participants must agree and abide by the SF Match rules and policies as well as any additional rules stated by the sponsoring group. Please review the Rules page prior to registering.

Eligibility

Applicants must be eligible for Board Certification in Orthopaedic Surgery or Neurosurgery. Certain programs only accept applications from physicians who are eligible for US or Canadian Board Certification. Other programs also accept applications from those who are eligible for Orthopaedic Surgery or Neurosurgery Board Certification in other countries. Please check each individual program description for determination of eligibility for that particular program.

Central Application Service (CAS)

SF Match's Central Application Service (CAS) distributes complete applications to programs electronically. The use of CAS is mandatory for both programs and applicants. For more information, visit the Central Application Service (CAS) tab.

Applicants Registered in More Than One Match

Applicants who have registered for more than one orthopaedic fellowship match must be aware that upon successfully matching to an orthopaedic specialty, he/she will be withdrawn from all other specialty matches. The fees paid to register/apply to other specialties are not refundable once the applicant has matched.

Please read the information on this website and contact SF Match if you need assistance. For questions arising after you have matched to a program, *especially if there are any issues regarding the possibility of not fulfilling your match commitment*, contact the Match Committee immediately, simultaneous with or preferably before communicating with the program you matched with. [See [Codes of Conduct and SPINE SURGERY FELLOWSHIP MATCH PARTICIPATION AGREEMENT.](#)]

The NASS Spine Fellowship Match Committee

Edward J. Dohring, MD, Chair

Serena Hu, MD

K. Daniel Riew, MD

Jeffrey C. Wang, MD

Contact: Colleen O' Brien at cobrien@spine.org

University of Alabama Birmingham Fellowship

Number of Positions: 1

Steven M. Theiss, MD, Fellowship Director

Jason Pittman, MD, PhD

Sathivel Rajaram, MD

FOT 960

1530 3rd Avenue South

Birmingham, AL 35294

Phone: (205) 996-7258; Fax: (205) 975-4701

Contact: Anita Mollica

Email: dmollica@uabmc.edu

Percent of Fellowship devoted to Operative Care: 80%

Non-Operative Care: 20%

Research/Publication Obligation: Yes

Approximate percentage of exposure to the Spine by region:

Cervical: 40%

Thoracic: 20%

Lumbar: 40%

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

Degenerative: 25%

Trauma: 25%

Deformity: 25%

Tumor: 10%

Pediatric: 15%

Goals:

The UAB Spine Fellowship is a combined Orthopaedic and Neurosurgical Adult and Pediatric Spine Program offering a comprehensive spectrum of spinal disorders with non-operative and operative interventions. UAB is a Level I Trauma Center as well as a tertiary referral center for reconstructive spine surgery. The Fellow will have progressive responsibilities which will include all facets of operative and non-operative care and teaching students and residents. The Fellow will be expected to develop his own research project which should be completed by the conclusion of his Fellowship. A stipend equivalent to PGY 6 will be offered as well as benefits including malpractice coverage.

Sonoran Spine Center PC
Adult Deformity and Spinal Reconstruction Surgery Fellowship
Number of Positions: 1

Michael S. Chang, MD, Fellowship Director
Dennis G. Crandall, MD
Terrence T. Crowder, MD
Jason C. Datta, MD
Robert Waldrop, MD
Lyle Young, MD

Sonoran Spine Center
1255 W Rio Salado Parkway #107
Tempe, AZ 85281
Phone: (602) 602-443-4164; Fax: (480) 962-0590
Contact: Susan Dylo
Email: sdyl@sonoranspine.com
Website: www.sonoranspine.com

Location Phoenix/Scottsdale/Mesa, AZ

Percent of Fellowship devoted to Operative Care: 80%
Non-Operative Care: 20%
Research/Publication Obligation: Yes

Approximate percentage of exposure to the Spine by region:

Cervical: 25%
Thoracic: 25%
Lumbar: 50%

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

Degenerative: 55%
Trauma: 5%
Deformity: 35% (Both Adult and Pediatric)
Tumor: 5%

Goals:

Sonoran Spine Center provides an outstanding opportunity to learn and work in a tertiary referral center for complex disorders of the cervical, thoracic and lumbar spine in an academic private practice setting in the Greater Phoenix, AZ, region. Fellows will be exposed to the latest techniques in all spine disciplines, from minimally-invasive to complex deformity and revision surgery. The fellow will gain experience in critical and creative thinking, decision making, operative and non-operative management of patients with virtually all types of spinal disorders (deformity, degenerative, traumatic, pediatric and tumor). The Sonoran case load consists of approximately 1300-1500 surgical cases per year: 25% cervical, 25% thoracic, 50%

lumbar. An opportunity to learn interventional pain injection techniques, private practice management, and/or robotic surgery is also available if desired.

Sonoran Spine Center utilizes a multi-disciplinary approach consisting of spine surgeons, pain management and physical therapy. The fellow will participate in teaching orthopedic surgery residents as well as attending weekly spine conferences. Research funding is available through the Sonoran Spine Research and Education Foundation and includes prospective and retrospective studies on new implants, biomechanics, deformity correction techniques, computer modeling, BMP, and clinical outcomes.

Fellowship includes a stipend of \$70,000 per year. The fellowship extends from August 1 to July 31st. All candidates must be Board eligible in orthopedic surgery or neurosurgery.

Scottsdale Spine Institute of Arizona Spine Surgery Fellowship
Number of Positions: 2

Edward J. Dohring, MD, Fellowship Director (Orthopaedic Spine Surgeon)
Paul R. Gause, MD Fellowship Co-Director (Orthopaedic Spine Surgeon)
Mark Wang MD (Orthopaedic Spine Surgeon)
Luis Tumialan, MD (Neurosurgeon)
John Faryna, MD (Orthopaedic Spine Surgeon)

Spine Institute of Arizona
9735 North 90th Place
Scottsdale, Arizona 85258
Phone: (602) 953-9500;
Fax (602) 953-1782

E-mail: spineinstituteofaz@msn.com; chao@spineaz.com
Website: www.spineaz.com

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| Percent of Fellowship devoted to Operative Care: | 80% |
| Non-Operative Care: | 20% |
| Research/Publication Obligation: | Optional |

Approximate percentage of exposure to the Spine by region:

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|-----------|-----|
| Cervical: | 35% |
| Thoracic: | 15% |
| Lumbar: | 50% |

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

| | |
|---------------|-----|
| Degenerative: | 50% |
| Trauma: | 15% |
| Deformity: | 25% |
| Pediatric: | 5% |
| Tumor: | <5% |

Goals:

The Spine Institute of Arizona Fellowship provides a unique experience for training in a multidisciplinary spine care setting, with providers who specialize in Orthopaedic Spine Surgery, Neurosurgical Spine Surgery, Pain Management, Physical Medicine and Rehabilitation, Chiropractic Care and Physical Therapy.

Our comprehensive spine clinic will allow the Fellow to gain expertise in both the surgical and non-surgical treatment of spinal disorders. The Fellow will be instructed by a faculty of five surgeons while he/she rotates through coordinated orthopaedic and neurosurgical spine services that focus on cervical, thoracic and lumbar pathology. These disorders include degenerative diseases, deformity, trauma, tumors, and infection. Various surgical approaches to these conditions will be taught, including anterior, posterior and direct lateral exposures utilizing both minimally invasive and open techniques for nerve decompression and spinal fusion. Additionally the Fellow will be exposed to artificial disc technology and kyphoplasty procedures. Along with this strong surgical experience, the Fellow will have the opportunity to learn how to perform cervical and lumbar injections through an optional rotation with our Physical Medicine

and Rehabilitation Specialists. The Fellow will have the ability to participate in clinical research projects as well as multiple IDE studies involving emerging technology.

Our goal is to prepare individuals for a strong, competitive community private practice. The Fellowship emphasizes not only surgical skills, but also the clinical skills necessary to have successful surgical outcomes: precise diagnosis, appropriate conservative care prior to surgery, and proper judgment regarding patient selection. Fellows will learn the “survival skills” critical to the management of a spine surgery practice, including marketing, contracting, proper medical/legal documentation, billing & collections, and second opinion & medical/legal opinion skills.

Applicants must be Board-eligible/Board Certified by the ABOS/ AOBOS or ABNS/ AOBNS, graduates of an accredited U.S. Orthopaedic or Neurosurgery residency program, and eligible for an unrestricted Arizona medical license, malpractice insurance, and hospital privileges. Associates will be provided with health insurance, malpractice insurance with tail coverage. Yearly stipend is \$65,000. The Fellowship begins August 1st and ends July 31st .

Hoag Orthopedic Institute Spine Fellowship Program
Number of Positions: 1

Jeremy Smith, MD, Director

Hoag Orthopedic Institute
16250 Sand Canyon
Irvine, CA 92618
Phone: (714) 937-4849 Fax: (714) 937-4896
Contact: Vanessa Andronaco
Email: vandreronaco@orthoeri.org

Percent of Fellowship devoted to Operative Care: 40%
Non-Operative Care: 40%
Research/Publication Obligation: 20%

Approximate percentage of exposure to the Spine by region:

Cervical: 20%
Thoracic: 20%
Lumbar: 60%

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

Degenerative: 60%
Trauma: 5%
Deformity: 20%
Tumor: 5%
Pediatric: 10%

Hoag Orthopedic Institute is offering a one-year Spine Fellowship. Hoag Orthopedic Institute (HOI) is an enterprise in Orange County, California consisting of a 70-bed orthopedic specialty hospital and two free standing surgery centers. Collectively, these three are responsible for over 10,000 orthopedic cases per year. The enterprise is staffed by approximately 40 orthopedic specialty surgeons. The HOI Spine Fellowship is one of three subspecialty fellowships together with Total Joint and Sports. For an in-depth understanding, see "hoioutcomes.com."

Responsibilities

The fellow will be exposed to a high volume of spine surgical procedures. In 2012, between 900-1,000 spine surgical cases were performed. The fellow, at all times, will be under the direct and indirect supervision of the program director and spine faculty. Two days a week will be spent in clinic seeing spine patients, 2 days will be spent in surgery, and 1 day a week will be free to pursue research activities. There is no scheduled night or weekend call. A typical week would include 50-60 hours of work. There must be at least 1 free day in 7 days.

Goals and Objectives

Upon completing the fellowship year, the spine fellow will be competent in all 6 Core ACGME Competencies, and will be able to perform spine surgery independently without any direct supervision. The fellow will be comfortable in examining, diagnosing, and treating spine-related trauma and spinal disorders.

Academic Expectations

Didactic weekly core curriculum lectures will be presented by fellow, faculty, guest faculty, and selected non-orthopaedic faculty. Weekly didactic topics will be presented by the fellow to attending faculty for discussion. Monthly grand rounds with significant fellow involvement is expected. A weekly medical grand round topic is available by teleconference from Hoag Memorial Hospital. A monthly journal club with selected faculty and a quarterly morbidity and mortality conference with active participation by the fellow is anticipated. A minimum of 2 publishable clinical or basic science research projects are expected by the fellow. A research fellow and a basic science lab are available as resources.

Stipend and Benefits

The salary is \$60,000.00 per year with benefits, which includes health, malpractice and workers' compensation insurances.

USC; Keck Medical Center of USC, Orthopaedic Surgery Spine Fellowship

Number of Positions: 2

Jeffrey C. Wang, MD & John Liu, MD

Frank Acosta, MD

Thomas Chen, MD, PhD

Patrick Hsieh, MD

Mark J. Spoonamore, MD

Raymond Hah, MD

Keck Medical Center of USC, Spine Center
1450 San Pablo Street, Suite 5400
Los Angeles, CA 90033
Phone: (323) 442-5303; Fax: (323) 442-5301

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| Percent of Fellowship devoted to Operative Care: | 80% |
| Non-Operative Care: | 20% |
| Research/Publication Obligation: | Yes |

Approximate percentage of exposure to the Spine by region:

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|-----------|-----|
| Cervical: | 40% |
| Thoracic: | 20% |
| Lumbar: | 40% |

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

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|---------------|-----|
| Degenerative: | 45% |
| Trauma: | 20% |
| Deformity: | 25% |
| Tumor: | 10% |
| Pediatric: | 5% |

Goals:

The, The USC Spine Fellowship at the Keck Medical Center of USC, is a combined Orthopaedic Surgery and Neurosurgery fellowship, that encompasses one year of specialized spine surgery. The Fellows will work along with the Orthopaedic Surgery Faculty and the Neurosurgery Faculty in the USC Spine Center. The Fellow will participate in all areas of clinical spine including cervical, thoracic, lumbar and degenerative and deformity diagnoses. The Fellowship entails the use of all types of current instrumentation and surgical techniques and is very well balanced.

The Fellow will be exposed to all areas of the spine including minimally invasive spine surgery, deformity, complex cervical surgery, spinal tumors, adult degenerative, and scoliosis. The Fellow is welcome to participate in any number of basic science and clinical research projects, which are fully funded. The basic stipend is approximately \$60,000 for the academic year. The day-to-day responsibilities of the Fellow include clinical patient care and extensive participation in surgical care. Academically, he or she will be responsible for running the Spine Service, supervising the Orthopaedic Surgery and Neurosurgery Residents who are participating on the Service, as well as helping to organize a weekly Spine Conference The Fellowship is from August 1 to July 31.

Our goal is to prepare individuals for a strong, competitive community private practice. The Fellowship emphasizes not only surgical skills, but also the clinical skills necessary to have successful surgical outcomes: precise diagnosis, appropriate conservative care prior to surgery, and proper judgment regarding patient selection. Fellows will learn the “survival skills” critical to the management of a spine surgery practice, including marketing, contracting, proper medical/legal documentation, billing & collections, and second opinion & medical/legal opinion skills.

Applicants must be Board-eligible/Board Certified by the ABOS/ AOBOS or ABNS/ AOBNS, graduates of an accredited U.S. Orthopaedic or Neurosurgery residency program, and eligible for an unrestricted Arizona medical license, malpractice insurance, and hospital privileges. Associates will be provided with health insurance, malpractice insurance with tail coverage. Yearly stipend is \$65,000. The Fellowship begins August 1st and ends July 31st.

Cedars-Sinai Spine Center

Number of Positions: 2

Hyun Bae, MD, Spine Fellowship Director

Theodore Goldstein, MD

J. Patrick Johnson, MD

Sang Kim, MD

Terrence Kim, MD

Edward Nomoto, MD

Tiffany Perry, MD

Cedars-Sinai Medical Center

Department of Surgery - Spine Center

444 S. San Vicente Blvd. Ste. 800/901

Los Angeles, CA 90048

Phone: (310) 423-9975; Fax: (310) 248-7390

Contact: Elissa Rosenberg

Email: rosenberge@cshs.org

Website: www.csmc.edu/spine

Percent of Fellowship devoted to Operative Care: 80%

Non-Operative Care: 20%

Research/Publication Obligation: Yes

Approximate percentage of exposure to the Spine by region:

Cervical: 45%

Thoracic: 10%

Lumbar: 45%

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

Degenerative: 60%

Trauma: 10%

Deformity: 15%

Tumor: 10%

Pediatric: 5%

Goals:

The Spine Fellowship Program at Cedars-Sinai Spine Center of Excellence offers an extensive, comprehensive, post-graduate training to prepare for a career in academia or private practice. The requirements are completion of accredited residency program in orthopaedic surgery or neurosurgery and eligibility for California Licensure. The Program offers an all-encompassing experience in the evaluation and management of a multitude of adult and adolescent disorders. The Fellow will be exposed to a comprehensive multidisciplinary approach. The Fellow will gain expertise in many aspects of spinal surgery consisting of very active operating room experience, including anterior and posterior cervical; thoracic and thoracoscopic, lumbar approaches; lumbar laparoscopic and open techniques; exposure to image guided systems and diverse types of instrumentation and fusion procedures. The spine service performs more than 2500 procedures per year including cervical spinal disorders; lumbar degenerative disorders; adult and pediatric deformities and trauma and tumors. The fellow will gain experience in advanced techniques in minimally invasive spinal surgery including scoliosis correction as well as the most current clinical studies, and new technologies.

In addition, the Fellows will be active in weekly conferences, didactic conferences, office clinics, and will be expected to prepare at least one research project (clinical or basic science) that is suitable for publication in a peer reviewed journal. It is expected that abstracts and presentations at national meetings would result from these works. The Spine Fellowship is one year in duration and the annual stipend is \$70,076.45 plus benefits and meeting/travel stipend.

Please use the San Francisco Match at www.sfmatch.org.

Elissa Rosenberg, Cedars-Sinai Spine Center

rosenberge@cshs.org

Phone: (310) 423-9975

Kaiser Permanente Northern California Regional Spine Center

Ravi S. Bains, MD - Chief
Josef Gorek, MD
Timothy Huang, MD
Calvin Kuo, MD
Todd Lincoln, MD
Kamran Majid, MD
Andrew Slucky, MD
Alem Yacob, MD

Kaiser Permanente – Oakland Spine Center
280 West MacArthur Blvd.
Oakland, CA 94611
Phone: (510)-752-1531 or (510) 752-7040; Fax: (510) 752-1530
Email: ravi.s.bains@kp.org or jane.c.prather@kp.org
Website: <http://www.permanente.net/homepage/kaiser/pages/d16042-top.html>

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| Percent of Fellowship devoted to Operative Care: | 70% |
| Non-Operative Care: | 20% |
| Research/Publication Obligation: | 10% |

Approximate percentage of exposure to the Spine by region:

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| Cervical: | 30% |
| Thoracic: | 10% |
| Lumbar: | 60% |

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

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|---------------|-----|
| Degenerative: | 60% |
| Trauma: | 5% |
| Deformity: | 20% |
| Tumor: | 5% |
| Pediatric: | 10% |

Goals:

The Kaiser Permanente Northern California Regional Spine Center is offering an extraordinary opportunity to complete a fellowship at the Kaiser Permanente's flagship institution in Oakland. This fellowship program offers a unique experience for a hard-working candidate interested in comprehensive spinal care. All areas of spinal care are well covered including degenerative spinal pathology, herniated discs, spinal stenosis, degenerative disc disease, scoliosis, spondylolisthesis, adult and pediatric deformity and tumor.

Each fellow will evaluate patients in the clinic and actively participate in the pre-operative decision-making as well as the surgical procedures. The fellow will become expert in performing complex pre-surgical evaluations and have an effective command of intricate surgical procedures. The Regional Spine Center sees approximately 3,000 new patients each year. Over 1100 surgical cases are performed each year at the center. Each fellow participates in 40-60 procedures per month. Frequently performed procedures include: lumbar discectomy, lumbar laminectomy, lumbar disc replacement, ALIFs, PLIFs, TLIFs, vertebral resections, thoracic & lumbar osteotomies, complex scoliosis surgery, structure sparing & minimally invasive decompression instrumented fusions. Cervical procedures include ACDFs, cervical disc replacement, ant-post reconstructions, cervical laminoplasties, occipital-cervical, C1/C2

post. instrumented fusions. Our surgeons perform all their own anterior lumbar and thoracic approaches.

Our large volume of cases will allow the fellow to choose a particular area of interest such as cervical or deformity, etc. to better focus one's skills. Our focus is on education and clinical skills. We have 3 spine PA's to manage the post-op patient care and have a dedicated hospitalist service who sees every spine patient postoperatively, takes all evening call including weekends, and primarily admits transfer patients 24/7. Kaiser's vast resources and electronic medical records allow for easy and thorough access to a patient's medical history and imaging.

Research is also emphasized. Kaiser Permanente is beginning a spine registry which will allow an unprecedented access to large volumes of cases efficiently. Each fellow is required to complete at least one clinical research project suitable for presentation or publication. The fellow is also responsible for a resident education series that meets monthly during the entire fellowship.

The duration of the fellowship is one year, beginning on August 1st and concluding on July 31st of the following year. The annual stipend is \$75,000 plus benefits. All candidates must be board-eligible in orthopaedic surgery or neurosurgery and have a California medical license by August 1 of the fellowship year.

University of California, Irvine (UCI) Spine Fellowship

Number of Positions: 2

Yu-Po Lee, MD, Fellowship Co-Director, Spine Surgeon
Nitin Bhatia, MD, Fellowship Co-Director, Spine Surgeon
P. Douglas Kiester, MD, Spine Surgeon
Charles Rosen, MD, Spine Surgeon

UC Irvine Spine Center
Attn: Maria Lampino
101 The City Drive South, Pavilion 3
Orange, CA 92868
Phone: 714-456-7513; Fax: (714) 456-8971
Email: yupo90025@yahoo.com

Percent of Fellowship devoted to Operative Care: 70%
Non-Operative Care: 30%
Research/Publication Obligation: 1 project

Approximate percentage of exposure to the Spine by region:

Cervical: 35%
Thoracic: 20%
Lumbar: 45%

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

Degenerative: 60%
Trauma: 20%
Deformity: 15%
Tumor: 5%

Goals:

To provide training in spinal disorders, with emphasis on adult spine care, including operative (including minimally invasive surgery) and non-operative techniques for the treatment of degenerative, reconstructive and traumatic conditions of the spine. This program offers comprehensive training in spine surgery with faculty from both Orthopedic Surgery and Neurosurgery backgrounds. Participation in clinical and laboratory research is expected as well as active participation in resident teaching programs. The fellowship includes the UC Irvine Medical Center and the Veteran's Administration Hospital in Long Beach.

Two Fellows will be trained per year. The duration of the fellowship is one year. Salary and full benefits are offered. Fellows must be Board-qualified or Board-certified and California licensed prior to commencement of the fellowship. The University of California is an Equal Opportunity/Affirmative Action Employer. We honor the NASS guidelines and match program concept.

VA Palo Alto and Stanford University Combined Neurosurgery Orthopedic Spine Fellowship

Number of Positions: 1

Suzanne Tharin, Ph.D, MD, Fellowship Director

Serena S. Hu, MD

Ivan Cheng, MD

Todd Alamin, MD

Veterans Administration Health Care System

Department of Neurosurgery

3801 Miranda Avenue, MC 112

Palo Alto, CA 94304

Phone: (650) 852-3450; Fax: (650) 849-1265

Attention: Hansni Prasad

Email: hansni.prasad@va.gov

Website: www.stanfordhospital.com/clinicsmedservices/COE/orthopaedics/spinecenter

Percent of Fellowship devoted to Operative Care: 50%

Non-Operative Care: 10%

Research/Publication obligation: 40%

Approximate percentage of exposure to the Spine by region:

Cervical: 50%

Thoracic: 10%

Lumbar: 40%

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

Degenerative: 70%

Trauma: 5%

Deformity: 15%

Tumor: 10%

Pediatric: 0%

Goals:

This is a one-year fellowship at Veterans Administration Palo Alto Health Care System and Stanford University Medical Center open to both Orthopedic and Neurosurgery applicants. The fellow will obtain a comprehensive experience in adult spinal pathologies with emphasis on diagnostic techniques as well as surgical and non-surgical treatment. Optional experience in stereotactic radiosurgery to spine tumors is also available. Research is required for completion; there are opportunities for clinical and basic science research.

Upon completion the fellow will be experienced in the multidisciplinary and surgical treatment approach to spinal problems. Fellows will be trained in anterior approaches to the spine and minimally invasive techniques, as well as traditional methods of fusion.

The fellow will be involved in teaching residents. An unrestricted California medical license is required.

University of California-Davis Spine Disorders Fellowship

Number of Positions: 2

Rolando F. Roberto, MD

Eric O. Klineberg, MD

Yashar Javidan, MD

University of California-Davis
Department of Orthopaedic Surgery
4860 Y Street, Suite 3800
Sacramento, CA 95817

Phone: (916) 734-2937; Fax: (916) 734-7904

Email: eoklineberg@ucdavis.edu

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| Percent of Fellowship devoted to Operative Care: | 60% |
| Non-Operative Care: | 40% |
| Research/Publication Obligation: | Paper |

Approximate percentage of exposure to the Spine by region:

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|-----------|-----|
| Cervical: | 25% |
| Thoracic: | 10% |
| Lumbar: | 65% |

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

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|---------------|-----|
| Degenerative: | 30% |
| Trauma: | 15% |
| Deformity: | 30% |
| Tumor: | 5% |
| Pediatric: | 20% |

Goals:

The Spine Fellowship is a one-year program that provides extensive clinical exposure to the evaluation and treatment of pediatric and adult spinal deformities including kyphosis, neuromuscular scoliosis, congenital disorders, degenerative problems of the cervical and lumbar spine, and spine trauma and spinal cord injury. The fellow will work closely with four attending surgeons in the Department of Orthopaedic Surgery.

The fellowship is designed to allow increasing responsibility in the clinics and in surgery. The fellow will also have weekly time allotments for basic science and clinical research projects. Current basic science research in the department involves animal models and biomechanical analysis of spinal implants in the cervical and thoracolumbar spine.

The fellowship is oriented toward training a qualified individual in all aspects of spinal surgery in preparation for an academic position after completion of the program.

University of California, San Diego Spine Fellowship

Number of Positions: 2

R. Todd Allen, MD, PhD, Spine Fellowship Director

Steven Garfin, MD, Chair

Vinko Zlomislic, MD

Sina Pourtaheri, MD

UCSD Orthopaedic Surgery

Yesenia Rodriguez, Spine Fellowship Coordinator

200 W. Arbor, #8894

San Diego, CA 92103-8894

Phone: (619) 543-7412; Fax: (619) 543-2540

Email: spine@ucsd.edu

Percent of Fellowship devoted to Operative Care: 70%

Non-Operative Care: 30%

Research/Publication Obligation: Yes

Approximate percentage of exposure to the Spine by region:

Cervical: 35%

Thoracic: 20%

Lumbar: 45%

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

Degenerative: 60%

Trauma: 15%

Deformity: 20%

Tumor: 5%

Goals:

This spine fellowship program provides comprehensive training in the surgical and nonsurgical management of adult spinal disorders, covering degenerative, deformity, and traumatic spine conditions, as well as tumor, congenital conditions, and revision strategies for complex cervical, thoracic and lumbar spines. Open and minimally invasive techniques are utilized from anterior, posterior, and lateral approaches, for primary and revision surgeries, and for simple and complex spine reconstructions. The fellows work closely with attendings to gain a comprehensive approach to spinal pathologies, develop an understanding of the natural history of spine conditions, and gain clinical and surgical autonomy, particularly during trauma cases. Emphasis is on fellow education to optimize patient care, surgical and nonsurgical decision-making and technique, and research. Participation in clinical and laboratory research is expected as well as active participation in resident and medical student teaching. The fellowship includes two UCSD Medical Centers and the VA in San Diego. Monthly cadaveric training is often available to improve technical skills and a greater understanding of anatomy.

Each fellow works with orthopaedic residents and medical students as well, and will have teaching responsibilities throughout their experience. Fellows are responsible for one major clinical or basic science research project and several lectures, and presentation at national meetings is encouraged. Lectures include weekly Spine Indications Conference, combined Orthopaedic/Neurosurgical conferences, and required monthly or bimonthly educational presentations at spine conference. Fellows are active participants in spine journal clubs, research

Several excellent research opportunities are available, in clinical and basic science, including comprehensive spine muscle research, biomechanics, molecular and cellular biology, and animal surgeries. Clinical research is ongoing and often includes clinical trials. Fellows are expected to complete at least one major research project of publishable quality within the year.

Two Fellows will be trained per year (August 1 - July 31). Salary and full benefits are offered. This one-year fellowship is offered to board-eligible or board-certified Orthopaedic Surgeons and Neurosurgeons, and fellows must be able to obtain a California Medical license prior to start of fellowship training. The University of California is an Equal Opportunity/Affirmative Action Employer. We honor the NASS guidelines and match program concept.

San Diego Spine Fellowship

Number of Positions: 2

Robert K. Eastlack, MD, Co-Director

Gregory M. Mundis, Jr, MD, Co-Director

Behrooz A. Akbarnia, MD, Director Emeritus

San Diego Spine Foundation
6190 Cornerstone Ct., Suite 212
San Diego, CA 92121
Phone: (858) 246-6305

Contact : Pat Kostial, BSN, RN
Direct line: (903) 383-7295
Email: fellowship@sandiegospinefoundation.org

Duration: 1 year (August 1 to July 31)

Application Deadline: November 1

Stipend: \$65,000 with benefits

Location: Scripps Clinic; Scripps Green Hospital, Scripps Memorial Hospital and Scripps Mercy Hospital; Sharp Memorial Hospital; Rady Children's Hospital, San Diego

Application Process: The San Diego Spine Fellowship participates in the SF Match program. Please visit the SF Match website (<https://www.sfmatch.org/>) for more information and to complete your application.

Percent of Fellowship devoted to operative care: 70%

Percent of Fellowship devoted to non-operative care: 20%

Research/Publication obligation? 10%

Approximate percentage of exposure to the Spine by region:

Lumbar: 50%
Cervical: 30%
Thoracic: 20%

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

Degenerative: 60%
Adult Deformity: 30%
Pediatric Deformity: 5%
Trauma/Tumor: 5%

Goals and characteristics:

The SDSF Spine Fellowship Program is designed to provide the orthopaedic surgeon or neurosurgeon, who has successfully completed residency, with comprehensive exposure to the diagnosis and treatment of all spinal disorders. Surgical procedures include anterior, posterior and minimally invasive techniques. Individuals completing the fellowship will have comprehensive exposure to pediatric and adult patient populations. This fellowship is capable of tailoring each fellow's experience to prepare for academic, private or hybrid post-fellowship spine-related opportunities.

Participating faculty are nationally and internationally recognized specialists in both non-operative and operative spine care. Fellows will participate in outpatient and inpatient care. The Fellow is given

increasing responsibility throughout the year based on individual achievements. Clinical and basic science research projects are ongoing. Fellows are expected to complete at least one major research project of publishable quality within the year. Each fellow is offered the opportunity to participate in a one week medical mission trip during their training year.

Applicants must be Board-eligible or Board-certified and be eligible to apply for a California Physicians and Surgeons full medical license 12 months in advance of commencement of the fellowship (mandatory). The use of the SF Match Central Application Service (CAS) is mandatory. Applicants fill out only one application form and provide one set of documents and CAS will distribute these documents to the applicant's designated programs. Per SF Match guidelines, three letters of recommendation are required, including one from a residency program director. Applicants who are seriously considered for the fellowship will be asked for an interview as outlined in the matching guidelines.

UCSF Spine Fellowship

Bobby K-B Tay, MD, Fellowship Director

Sigurd Berven, MD

Shane Burch, MD

Vedat Deviren, MD

Lionel Metz, MD

Murat Pekmezci, MD

Christopher P. Ames, MD

Dean Chou, MD

Department of Orthopaedic Surgery
University of California, San Francisco
500 Parnassus, MU320W
San Francisco, CA 94143-0728

Phone: (415) 476-6548; Fax: (415) 476-1304

Email: spinefellow@orthosurg.ucsf.edu

Website: <http://orthosurg.ucsf.edu/>

| | |
|---|-----|
| Percent of Fellowship devoted to Operative Care: | 70% |
| Non-Operative Care: | 30% |
| Research/Publication Obligation: | Yes |

Approximate percentage of exposure to the Spine by region:

| | |
|-----------|-----|
| Cervical: | 20% |
| Thoracic: | 40% |
| Lumbar: | 40% |

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

| | |
|---------------|-----|
| Degenerative: | 35% |
| Trauma: | 10% |
| Deformity: | 40% |
| Tumor: | 10% |
| Pediatric: | 20% |

There is overlap, i.e., degenerative deformity

Goals:

The UCSF Spine Surgery Fellowship is designed to provide fellows with a comprehensive and rigorous training in the evaluation and operative management of a wide variety of spinal disorders. Our mission is to train surgeons to be compassionate and capable care providers, with the knowledge and skills to care for patients presenting along a broad spectrum of complexity. Unique aspects of this fellowship include significant exposure to deformity, degenerative and complex reconstruction spine surgery cases and a strong educational program with teaching and research conferences 3 days per week. In addition to traditional instrumentation procedures, the fellowship also offers exposure to new technologies including minimally invasive approaches and investigational studies involving new devices and clinical trials. The faculty of the UCSF Spine Service performs over 1000 operative procedures per year, encompassing a balance of simple and complex spinal pathologies.

Research components:

Extensive research opportunities exist in the fellowship, and all fellows are required to prepare one manuscript based upon original research for publication.

Opportunities exist for clinical research through the UCSF Orthopaedic Surgery Health Outcomes Center, a multi-disciplinary research center that includes orthopaedic surgeons, epidemiologists, and other health services researchers. Basic science facilities are also available, including bioengineering, biomechanics, and molecular biology laboratories. Specific research responsibilities include:

1. To work with the UCSF Orthopaedic Outcomes Institute Research Coordinator to improve the quality and consistency of data collection.
2. To assist residents and medical students in designing and carrying out research projects.
3. To submit at least one research manuscript for publication in a peer-reviewed journal, based on research done during the fellowship year.

Didactic components:

Monday: Spine Lecture Series – every other week 5:00 pm

Spine Conference – Inman Resident’s Room 7 am, didactic, interactive, topic directed conferences.

Case conference: 8 am: review of pre and postoperative cases for the week.

Wednesday: UCSF Grand Rounds- Grand Rounds is held weekly September through June and covers general orthopaedic topics. Grand Rounds are organized by the UCSF Department of Orthopaedic Surgery

Thursday: Research conference. 7 am. MU605

Other conferences:

Journal Club: Every month

City-wide Grand Rounds: Occurs quarterly, and is attended by bay area orthopaedic surgeons. The topics are of interest to the general orthopaedic surgeon.

Stipend: \$65,005.00 plus benefits

Stanford University Orthopaedic Spine Fellowship

Number of Position(s): 1

Todd Alamin, MD, Fellowship Director

Eugene Carragee, MD

Serena Hu, MD

Ivan Cheng, MD

Kirkham Wood, MD

Stanford University Medical Center

Department of Orthopaedic Surgery

300 Pasteur Drive

Edwards Building – Room R171

Stanford, CA 94305

Phone: (650) 725-6797; Fax: (650) 723-9805

Attention: Sue Gokey Gonzalez

Email: sgokey@stanford.edu

Website: www.stanfordhospital.com/clinicsmedservices/COE/orthopaedics/spinecenter

Percent of Fellowship devoted to Operative Care: 80%

Non-Operative Care: 10%

Research/Publication Obligation: 10%

Approximate percentage of exposure to the Spine by region:

Cervical: 25%

Thoracic: 15%

Lumbar: 60%

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

Degenerative: 60%

Trauma: 10%

Deformity: 15%

Tumor: 10%

Pediatric: 5%

Goals:

This is a one full year fellowship at Stanford University Medical Center where the fellow will obtain a comprehensive experience in adult spinal problems with emphasis on diagnostic techniques as well as surgical and non-surgical treatment. Optional experience is also available to treat pediatric deformity at Lucile Packard Children's Hospital. Research is required for completion.

Upon completion, the fellow will be experienced in the multidisciplinary and surgical treatment approach to spinal problems. Fellows will be trained in anterior approaches to the spine, minimally-invasive techniques, motion-preserving technology, as well as traditional methods of fusion.

The fellow will be involved in teaching residents. An unrestricted California medical licensure is required.

University of Colorado Denver
Number of Positions: 2

Vikas Patel, MD
C.J. Kleck, MD

University of Colorado Denver
Department of Orthopedics
12631 E. 17th Avenue, Mail Stop B-202
Aurora, CO 80045
Phone: (303) 724-2963
Contact: Jaclyn Widhalm

Email: Jaclyn.widhalm@ucdenver.edu
Website: www.cuortho.org

Percent of Fellowship devoted to Operative Care: 70%
Non-Operative Care: 20%
(Outpatient office or clinic care, inpatient hospital care, etc.)
Research/Publication Obligation: 10%

Approximate percentage of exposure to the Spine by region:

Cervical: 40%
Thoracic: 10%
Lumbar: 50%

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

Degenerative: 40%
Trauma: 15%
Deformity 35%
Tumor: 5%
Pediatric: 5%

Goals:

The fellow will gain expertise in adult and adolescent degenerative and deformity care and will be exposed to numerous cases of trauma, spinal tumors and neoplastic diseases, pediatric spinal disorders, and spinal rehabilitation. He/she will stay abreast of the newest techniques such as minimally invasive exposures, motion preservation, kyphoplasty, and surgical navigation techniques.

The one year fellowship will be spent at University of Colorado Hospital, Denver Health Medical Center, the VA and Children's Hospital Colorado. The fellow will interact with residents from the orthopedic and neurosurgical programs at the University.

The fellow will be expected to be involved in at least one research project worthy of publication or presentation to a national spinal meeting.

The fellow will have access to the extensive resources and the world-class facilities on the University of Colorado Denver campus, one of the foremost research campuses in the country, located in the beautiful Denver Metro area.

ClinTech Spine Surgery Fellowship

Number of Positions: 2

Fernando Techy, MD

ClinTech Center for Spine Health
44 Union Street, Suite 200
Johnstown, CO 80534
Phone: (970) 661-2801; Fax: (970) 315-5554

Contact: Michaela Zochniak
reserach@clintechspine.org
Program Website: www.clintechspine.org

Percent of Fellowship devoted to Operative Care: 70%

Non-Operative Care: 30%

Research/Publication Obligation: Yes

Approximate percentage of exposure to the Spine by region:

| | |
|-----------|-----|
| Cervical: | 40% |
| Thoracic: | 25% |
| Lumbar: | 45% |

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

| | |
|---------------|-----|
| Degenerative: | 50% |
| Trauma: | 10% |
| Deformity: | 15% |
| Tumor: | 10% |
| Pediatric: | 5% |
| Other: | 10% |

Pain Management; Medial Branch Block, Nerve Ablation, Kyphoplasty and Stem Cell Therapy

Goals:

ClinTech Spine Surgery Clinical Fellowship provides a unique experience for training in a multidisciplinary spine care setting encompassing all aspects of conservative and surgical treatment of cervical, thoracic and lumbar spine disorders. The Fellow will be exposed to a high volume of spine surgeries (about 400/year/fellow), including classic open procedures as well as the latest minimally invasive techniques. Surgeries are performed at University of Colorado Health Medical Centers and Arete Surgical Center. The Fellow will progressively gain experience in making decisions for operative and non-operative management of patients with all types of spinal disorders (degenerative, deformity, traumatic and tumor). There is ample opportunity to also learn pain management procedures performed by our pain management department including epidural injections, medial branch blocks and ablations, injections of biologics into the disc (PRP and Stem Cells) and cement augmentation of fractures.

Fellows must be Board-eligible or Board-certified in Orthopedic Surgery or Neurosurgery and Colorado licensed prior to commencement of the fellowship. International Medical Graduates are also accepted with the prerequisite of ECFMG certification, and a completed residency in Orthopedic Surgery or Neurosurgery. The duration of the fellowship is one year, beginning on August 1st and concluding on July 31st of the following year. The annual stipend is \$70,000 plus benefits.

Yale Comprehensive Spine Fellowship

Number of Positions: 1

Jonathan Grauer, MD, Director

Peter Whang, MD

Khalid Abbed, MD

Arya Varthi, MD

Yale University School of Medicine

Department of Orthopaedic Surgery

47 College Place, Room 221

PO Box 208071

New Haven, CT 06520

Phone: (203) 785-2579; Fax: (203) 785-7132

Fellowship Coordinator : Kathryn Umlauf (203) 785-6907

Email: Kathryn.umlau@yale.edu

Website: www.orthopaedics.yale.edu

Percent of Fellowship devoted to Operative Care: 60%

Non-Operative Care: 40%

Research/Publication Obligation: Yes

Approximate percentage of exposure to the Spine by region:

Cervical: 40%

Thoracic: 10%

Lumbar: 50%

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

Degenerative: 40%

Trauma: 15%

Deformity: 20%

Tumor: 10%

Pediatric: 15%

Goals:

Applications are now being accepted for a one-year Spinal Fellowship beginning August 1-July 31. The Fellow will gain extensive clinical experience in the evaluation and treatment of complex primary and revision spinal surgery and disorders. The fellow will participate in activities of the orthopaedic / neurosurgery spine surgery sections. These clinical activities include degenerative, traumatic, neoplastic, and scoliotic surgery of the cervical, thoracic, and lumbar spine performed through multiple approaches. Teaching of residents and active involvement in research are integral components of the fellowship. All candidates must have successfully completed an orthopaedic surgery or neurosurgery residency and must be Board-eligible or Board-certified prior to the fellowship.

For any questions, please e-mail Jonathan.Grauer@yale.edu.

Please apply through the SF Match.

The B.A.C.K. Center
Number of Positions: 1

James B. Billys, MD, Fellowship Director

Devin K. Datta, MD
Richard A. Hynes, MD
S. Farhan Zaidi, MD

The B.A.C.K. Center
2222 South Harbor City Blvd.
Melbourne, Fl. 32901
321-723-7716

Fellowship Contact: Debbi Warren, RN, CCRC
Email: dwarren@foreonline.org

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| Percent of Fellowship devoted to Operative Care: | 80% |
| Non-Operative Care: | 20% |
| Research/Publication Obligation: | Yes |

Stipend: 60 k plus benefits including health and malpractice coverage, Two weeks' vacation per year. Each fellow receives travel and accommodation expenses to attend the annual Castellvi Spine Course in Duck Key, Fl.

Approximate percentage of exposure to the Spine by region:

| | |
|-----------|-----|
| Cervical: | 35% |
| Thoracic: | 15% |
| Lumbar: | 50% |

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

| | |
|---------------|------------|
| Degenerative: | 60% |
| Trauma: | 5% |
| Deformity: | <u>30%</u> |
| Other: | 5% |

Program Description/Goals:

The B.A.C.K Center is located in Melbourne, Florida. The fellowship involves extensive exposure to minimally invasive surgical techniques. The three fellowship trained spine surgeons are in the forefront of multiple surgical techniques most notably the OLIF approach. They have done extensive design and development of the technique and do many courses, publications and offer a visiting surgeon program. We have had visiting surgeons both from the United States, as well as internationally. This technique is the foundation of our degenerative/deformity surgery allowing for surgical correction and indirect decompression with an MIS technique. We will offer extensive training in robotics and navigation employing both the O-Arm and Mazor Robot. In addition, we offer training in bread and butter surgery including MIS discectomy, cervical and lumbar TDR, MIS pedicle/cortical screw placement etc. We also offer full time pain management in our practice allowing the fellow to learn how to do diagnostic and therapeutic spinal injections. In terms of research, we have a full-time research staff and publish multiple papers a year.

Fellows also attend a weekly spine conference where they will present cases, and didactic lectures on timely topics along with the other attendings.

Fellows are required to engage in ongoing research or to generate new research projects. They are expected to present research findings for a successful completion of fellowship and produce at least one

publishable project. This fellowship opportunity would be excellent for someone who wants to do academic or private practice spine surgery. Our goal is to have our fellows well trained in complex as well as routine spine care.

Deuk Spine Institute Spinal Surgery Fellowship

Ara Deukmedjian, MD

Deuk Spine Institute
8043 Spyglass Hill Road, Suite 101
Melbourne, FL 32940
Phone: (321) 751-3385 ext. 224; Fax: (321) 751-3305
Contact: Jillian Papapietro
Email: hr@deukspine.com
Website: www.deukspine.com

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| Percent of Fellowship devoted to Operative Care: | 70% |
| Non-Operative Care: | 25% |
| Research/Publication Obligation: | 5% |

Approximate percentage of exposure to the Spine by region:

| | |
|-----------|-----|
| Cervical: | 45% |
| Thoracic: | 10% |
| Lumbar: | 45% |

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

| | |
|---------------|-----|
| Degenerative: | 85% |
| Trauma: | 10% |
| Tumor: | 5% |

Goals:

Deuk Spine Institute is a “state of the art” multispecialty medical practice devoted to the diagnosis and treatment of spine related disorders with an emphasis on common degenerative conditions including disc and facet disease. The spine surgery fellowship is 1 year of training beginning on August 1 at the Deuk Spine Institute in Florida. Dr. Ara Deukmedjian, spine fellowship director, is a board certified neuro-spine surgeon and associate professor of neurosurgery, with expertise in treatment of degenerative spine disease.

The fellow will care for surgical patients with spine conditions, including symptomatic degenerative disc disease, facet disease, fractures, and spinal stenosis in a private practice setting. Exposure to all aspects of spine care is anticipated including clinic evaluation, interventional pain management and surgical treatment of the patient. The fellow will have the opportunity to learn how to utilize integrated management strategies to care for patients with symptomatic spinal disease. The focus of the fellowship is complex and minimally invasive spine surgery.

The majority of our patients present with degenerative spinal conditions and multimodality treatment including therapy, pain management and surgery are utilized to provide optimal results. Deuk Spine Institute processes over 1,500 patient encounters every month and averages over 50 complex spinal surgeries each month. On staff physicians include neurology, physiatry, neurosurgery, orthopedics, interventional pain management and chiropractic.

Duration of Fellowship is one year July 1 to June 30. The current Spinal Surgery Fellowship salary is \$75,000 plus benefits.

Application will be accepted from BC/BE neurosurgeons and/or orthopedic surgeons, who have participated in an ACGME accredited residency program. To process the application we will need a

current CV, 3 letters of recommendation and a copy of your current medical license. Fellows must obtain a valid Florida medical license, DEA number and will be required to meet staff privilege requirements at participating hospitals.

University of Miami/Jackson Memorial Medical Center Spine Fellowship

Frank Eismont, MD
Mark D. Brown, MD, PhD
Nathan Lebowhl, MD
Seth Williams, MD
Harry Shufflebarger, MD

Department of Orthopaedics
University of Miami Miller School of Medicine
PO Box 016960 (D-27)
Miami, FL 33101
Phone: (305) 585-7138; Fax: (305) 324-7658

Percent of Fellowship devoted to Operative Care: 60%
Non-Operative Care 20%
Research/Publication Obligation: 20%

Approximate percentage of exposure to the Spine by region:

Cervical: 30%
Thoracic: 10%
Lumbar: 60%

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

Degenerative: 60%
Trauma: 15%
Deformity: 15%
Tumor: 10%

Goals:

The goal of the fellowship is to provide a good spine education enabling the Fellow to be a well-rounded clinician capable of assessment and treatment of all spine problems. This fellowship will allow someone to continue with academic pursuits or go into private practice.

The combined patients of four full-time spine attendings will provide the Fellow with ample exposure to all areas of spine pathology including trauma, tumors, infection, deformity and degenerative problems of the spine, and spinal instrumentation. Nonoperative treatment as well as operative treatment of cervical, thoracic, and lumbar spine problems is emphasized. The surgery would include both anterior as well as posterior approaches to each of these areas. There is a close working relationship with the Neurosurgery Department in order to broaden the fellowship exposure. The Fellow will be exposed to 300-400 surgical cases during the one-year period.

One week is set aside each month for reading and clinical as well as basic research by the Fellow. Publication is the final goal of this research.

The fellowship is ACGME accredited.

The duration of the fellowship is one year (July 1 to June 30) and the deadline is December 1. Annual stipend in 2008 is \$57,815 plus benefits.

University of Miami **Neurosurgical** Spine Fellowship

Training Director Contact: Allan Levi, MD, PhD, FACS

Department of Neurosurgery, University of Miami

1095 NW 14 Terrace, 2nd floor

Miami, FL 33136

Phone: (305) 243-2088; Fax: (305) 243-3337 Email: alevi@med.miami.edu

Website: www.med.miami.edu/neurosurgery/faculty.htm

Training Surgeons: Barth A. Green, MD; James Guest, MD, PhD; Allan D. Levi, MD, PhD, FACS, Steve Vanni, DO; Michael Wang, MD

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| Percent of Fellowship devoted to Operative Care: | 80% |
| Non-Operative Care: | 20% |
| Research/Publication Obligation: | Yes |

Approximate percentage of exposure to the Spine by region:

| | |
|-----------|-----|
| Cervical: | 60% |
| Thoracic: | 10% |
| Lumbar: | 30% |

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

| | |
|---------------|-----|
| Degenerative: | 40% |
| Trauma: | 30% |
| Deformity: | 5% |
| Tumor: | 10% |
| Other: | 15% |

Goals:

The Neurospine Fellow is a fully trained neurological surgeon who is Board eligible or Board Certified and has elected to spend one full year of more learning advanced diagnostic and therapeutic techniques and procedures related to spinal diseases and injuries including their surgical and non-surgical management. All applicants are required to submit a complete curriculum vitae, three letters of reference, and are encouraged to visit our program. In addition, a fellow applicant must fulfill the requirements for house staff status at the University of Miami/Jackson Memorial Hospital.

At the end of the fellowship, the trainee will be familiar with anterior/posterior and lateral approaches to all levels of the spinal column. The fellow will have an excellent knowledge as well as technical expertise in the application of spinal instrumentation including anterior/posterior cervical plates and screws, transarticular screws, various techniques of occipital cervical fusion, anterior thoracolumbar plates, and thoracolumbar instrumentation including hooks and pedicle screws. The fellow will develop the technical skills to manage a variety of tumors and trauma of the spine including spinal cord untethering. The fellow will be able to perform minimally invasive spine decompressive and fusion surgery.

The purpose of stated goals of the fellowship is to develop diagnostic and therapeutic skills of the candidate such that he/she is able to compete for top academic positions and perform as a leader in neurosurgical spine surgery both nationally and internationally.

We currently have five dedicated neurosurgical spinal surgeons who perform over 1300 cases per year, many which are complex spinal cases requiring instrumentation. The University of Miami Department of Neurosurgery spinal program has a close relationship with orthopedic surgery and neuroradiology.

The fellowship has a strong emphasis on both clinical and basic science research. The combination of a large clinical practice as well as the experience and resources of the Miami Project to Cure Paralysis provides an excellent opportunity for the applicant to perform research.

Florida Orthopaedic Institute Spine Fellowship

Number of Positions: 2

Steven Tresser, MD, Fellowship Director

Sheyan Armaghani, MD, Assistant Director

John Small, MD

Marc Weinstein, MD

Adil Samad, MD

Florida Orthopaedic Institute

13020 Telecom Parkway N

Tampa, FL 33637

Phone: (813) 978-9700 x 6766

Fellowship Contact: Debbi Warren, RN, CCRC

Email: dwarren@foreonline.org

Percent of Fellowship devoted to Operative Care: 80%

Non-Operative Care: 20%

Research/Publication Obligation: Yes

Approximate percentage of exposure to the Spine by region:

Cervical: 40%

Thoracic: 15%

Lumbar: 45%

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

Degenerative: 70%

Trauma: 5%

Deformity: 20%

Other: 5%

Goals:

Our fellowship offers a unique experience and a diverse learning environment. The fellowship incorporates five attending physicians that offer hands-on training and individual time with the fellow. The fellows will interact with the residents from the University of South Florida's Department of Orthopaedic Surgery & Sports Medicine, working as educators themselves through this interaction. Our program operates in such a way that seamlessly combines the fellow's clinical, surgical, research, and educational experience. A dedicated research team including clinical research professionals, biomedical engineers, and a statistician are available to support fellow research. The fellows also have access to a surgical training lab as well as a state-of-the-art orthopaedic biomechanics laboratory.

The Florida Orthopaedic Institute's main campus in North Tampa is a 12 acre, 100,000 square foot outpatient facility with an adjoining surgery center. Several other outpatient offices and a second ambulatory surgery center are located throughout the area. More than 7,000 spine patients are seen in our clinic and more than 1,300 spine surgical cases are performed annually. The Tampa hospitals at which the spine surgeons operate include (1) Florida Hospital, Tampa Bay Division-Carrollwood, and (2) Tampa General Hospital, which is a Level 1 Trauma center with tremendous dedication to orthopedics.

The fellow will attend a weekly, 2 hour ACCME-certified conference with the attending physicians, neurosurgeons, anesthesiologists, pain management physicians, chiropractors, radiologists, members of the clinical research team, nurses and other members involved in the care and treatment of spine patients. Attendings, fellows, and residents lecture on assigned topics. Participants present and discuss interesting cases and a monthly journal article review.

Each fellow is required to complete a minimum of one research project that is worthy of submission to a peer reviewed medical journal. Projects can be clinical or biomechanical in nature. Each fellow presents their research project at the ACCME-accredited annual "Orthopaedic Research Day" conference sponsored by the Foundation for Orthopaedic Research and Education (FORE).

Annual salary is approximately \$60,000. Health care coverage and malpractice insurance are included as well as two weeks of vacation per year. Each fellow receives travel and accommodation expenses to attend the annual Castellvi Spine Course held in Duck Key, FL.

Emory University Spine Fellowship

Number of Positions: 4

John G. Heller, MD (Director)
Thomas E. Whitesides, Jr., MD (Emeritus)
Scott D. Boden, MD
S. Tim Yoon, MD, PhD
John M. Rhee, MD
Dheera Ananthakrishnan, MD
Keith Michael, MD
Steven Presciutti, MD

The Emory Spine Center
59 Executive Park South, Suite 3000
Atlanta, GA 30329
Website: <http://ortho.emory.edu/>
Fellowship Coordinator: Nandi Ali
Phone: (404) 778-6970
Email: nali3@emory.edu

| | |
|---|-----|
| Percent of Fellowship devoted to Operative Care: | 85% |
| Non-Operative Care: | 15% |
| Research/Publication Obligation: | Yes |

Approximate percentage of exposure to the Spine by region:

| | |
|-----------|-----|
| Cervical: | 35% |
| Thoracic: | 10% |
| Lumbar: | 55% |

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

| | |
|------------------|-----|
| Degenerative: | 70% |
| Trauma: | 10% |
| Deformity: | 10% |
| Infection/Tumor: | 5% |
| Pediatric: | <5% |

The Program:

This fellowship experience is intended to help the Fellows master the principles of diagnosing and managing the spectrum of spinal disorders, and provide him/her with a well-balanced exposure to cervical, thoracic and lumbar pathology. The experience is principally comprised of a tutorial relationship with the attending physicians. The Fellows are expected to assimilate skills in evaluation and management of all spinal disorders. The surgical methods include a full spectrum of anterior and posterior procedures, including minimally invasive technologies. The majority of the adult cases are performed at the Emory University Orthopaedic and Spine Hospital. Independent patient management is available through the VA Hospital (degenerative and neoplastic disorders) and Grady Memorial Hospital (trauma and infections), with dedicated spine faculty at each of these facilities. The Fellows may also spend time with any of our ten full-time spine physiatrists, who have considerable expertise in diagnostic and therapeutic interventions. Fellows are expected to complete two research projects suitable for publication. Scott Boden,

MD, Tim Yoon, MD, PhD and Steve Presciutti, MD, coordinate and direct basic science investigations. The Fellows will have resident teaching obligations, organize monthly case-oriented Socratic conferences, and present a Grand Rounds lecture to the Faculty and Staff.

The duration of the fellowship is one year (August 1 to July 31) and the deadline is November 4, 2016. Annual stipend is approximately \$55,000 plus benefits. Applications are encouraged from qualified orthopaedic surgeons interested in an academic career. Emory University is an EEO/AA employer.

McGaw Medical Center of Northwestern University Spine Fellowship
Number of Positions: 1

Alpesh Patel, MD, Fellowship Director
Wellington Hsu, MD
Michael Schafer, MD
Tyler Koski, MD

676 North St. Clair Street, Suite 1350
Chicago, IL 60611
Phone: (312) 926-4444; Fax: (312) 926-4643
Contact: Maryte Zavala
Email: maryte.zaval@nm.org

Percent of Fellowship devoted to Operative Care: 50%
Non-Operative Care: 40%
Research/Publication Obligation: 10% includes 2 months of research rotations

Approximate percentage of exposure to the Spine by region:

Cervical: 40%
Thoracic: 10%
Lumbar: 50%

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

Degenerative: 70%
Trauma/Tumor: 10%
Deformity: 20%

Goals:

This is an ACGME-accredited program.

The Spine Fellowship provides a comprehensive experience in adult spine disorders at Northwestern Medicine covering the spectrum of degenerative, traumatic and deformity procedures. Our fellows will have increasing surgical responsibilities based on their progress through the year, will be expected to publish and present their research, and will be engaged in resident and student education. The Spine Fellowship incorporates both Orthopaedic Surgery and Neurosurgery faculty from Northwestern Medicine.

EDUCATION We accept one new fellow every year for our ACGME-accredited program. Educational experiences include: indications conference, departmental grand rounds and a year-long core educational curriculum. We are an AO Spine North America Fellowship site. Fellows will attend the two AO Spine North America Fellows courses as well as additional courses throughout the year.

Research is critically important for our fellowship. Our fellows are heavily involved in all aspects of clinical research: from developing critical study questions all the way to presentations and publications. This exposure is vital to developing a critical eye on the literature, providing high quality evidence-based care, and launching our fellows' professional careers. Completion of one research project publishable in a high-quality, peer-reviewed journal is a requirement of the fellowship. We expect our fellows to exceed that requirement.

APPLICATION REQUIREMENTS Applicants must have completed either an ACGME-accredited orthopaedic residency or neurosurgery residency and be board-eligible or certified.

Rush University Spine Fellowship

Howard An, MD, Director
Frank Phillips, MD, Co-Director
Gunnar Andersson, MD
Chris DeWald, MD
David Fardon, MD
Edward Goldberg, MD
Kern Singh, MD
Kim Hammerberg, MD

Attention: Susan Dvojack
Midwest Orthopaedics
1611 West Harrison Street, #300
Chicago, IL 60612
Phone: (312) 243-4244; Fax: (312) 563-4437
Email: Susan_Dvojack@rush.edu

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|---|-----|
| Percent of Fellowship devoted to Operative Care: | 75% |
| Non-Operative Care: | 25% |
| Research/Publication Obligation: | Yes |

Approximate percentage of exposure to the Spine by region:

| | |
|-----------|-----|
| Cervical: | 35% |
| Thoracic: | 25% |
| Lumbar: | 40% |

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

| | |
|---------------|-----|
| Degenerative: | 63% |
| Trauma: | 2% |
| Deformity: | 30% |
| Tumor: | 5% |

Goals:

The Rush University Medical Center Spine Fellowship program is built on the philosophy of progressively increasing responsibility. The one-year Spine Fellowship is offered to board eligible or board certified Orthopaedic or Neurosurgeons. This fellowship program provides comprehensive training in the surgical and conservative treatment of spinal disorders, covering pediatric spinal disorders, cervical spine, acute spinal injuries, degenerative disorders, minimally invasive procedures, spinal injection techniques, adult deformities, and tumors. The emphasis is on patient care, education, surgery and research.

Each fellow works with orthopaedic residents, attending surgeons and medical students. In addition, the fellows will have teaching responsibilities throughout their experience. Fellows are responsible for at least two clinical or basic science research projects and several lectures. Lectures include indication spine conferences and combined pediatric-adult spine deformity conferences which are held weekly. A monthly Combined Spine Conference is held with Neurosurgery on the 4th Friday of the month at Rush University Medical Center.

Research (biochemistry and biomechanics) meetings, research conferences monthly and journal clubs are organized bi-monthly. Research facilities in the Department of Orthopedic Surgery include the biomechanics laboratory, lifting and gait laboratories, biomaterial and histopathology laboratories,

biochemistry and molecular biology, and an animal surgery facility. The duration of the fellowship is one year (August 1 to July 31).

Rush University **NeuroSpine** Fellowship

Vincent C. Traynelis, MD, Director
John O'Toole, MD
Harel Deutsch, MD

Attention: Jolynne Litzenberger
Rush University Medical Center, Department of Neurosurgery
Chicago, IL 60612
Phone: (312) 942-6628; Fax: (312) 563-3358
Email: Jolynne.Litzenberger@rush.edu

Percent of Fellowship devoted to Operative Care: 70%
Non-Operative Care: 30%
Research/Publication Obligation:

Approximate percentage of exposure to the Spine by region:

| | |
|-----------|-----|
| Cervical: | 40% |
| Thoracic: | 10% |
| Lumbar: | 50% |

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

| | |
|---------------|-----|
| Degenerative: | 65% |
| Trauma: | 4% |
| Deformity: | 20% |
| Tumor: | 8% |
| Other: | 3% |

Goals:

The Spine Fellowship is a one-year appointment offered to a candidate who has completed an ACGME accredited neurosurgery residency program or its' foreign equivalent.

The Fellowship will focus on the development of comprehensive patient management clinical skills to diagnose and treat a broad range of spinal disorders that includes; degenerative spinal disorders, spinal deformity, complex fractures, infections, and spinal tumors. There is a broad exposure to modern spinal instrumentation, minimally invasive surgical techniques, intraoperative image guidance, and sophisticated intraoperative imaging.

The Fellow will actively participate in the dedicated teaching conferences, by presenting of a topic of their choice, select journal club articles for review and discussion, provide a spine anatomy cadaver course to the residents, and attend monthly department meetings. There is ample opportunity to participate in clinical, anatomic, biomechanical and/or neuroscience research.

Lastly, the Spine Fellowship Program adheres to the policies and program requirements set forth by the RRC/ACGME with regards to the training, supervision, duty hours, core competencies, goals and objectives, evaluations, etc.

Indiana Spine Group / Indiana University

Number of Positions: 1

Rick C. Sasso, MD

Paul Kraemer, MD, Fellowship Director

Kenneth Renkens, MD

Thomas Reilly, MD

Kevin Macadaeg, MD

Jonathan P. Gentile, MD

John Arbuckle, MD

8402 Harcourt Road, Suite 400

Indianapolis, IN 46260

Phone: (317) 228-7000; Fax: (317) 715-4887

Email: pkraemer@indianaspinegroup.com

Website: www.indianaspinegroup.com

| | |
|---|-----|
| Percent of Fellowship devoted to operative care: | 70% |
| Non-operative care: | 30% |
| Research/Publication obligation: | Yes |

Approximate percentage of exposure to the Spine by region:

| | |
|-----------|-----|
| Cervical: | 40% |
| Thoracic: | 20% |
| Lumbar: | 40% |

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

| | |
|---------------|-----|
| Degenerative: | 60% |
| Trauma: | 10% |
| Deformity: | 20% |
| Tumor: | 5% |
| Pediatric: | 5% |

Goals and characteristics:

The Indiana Spine fellowship is a one year experience for an exceptional graduate of a US orthopaedic or neurosurgical residency program. The fellow will learn all aspects of non-operative and surgical care of spinal disorders from spine surgeons with backgrounds in neurosurgery and orthopaedic spine surgery as well as non-operative physicians dedicated to the diagnosis and treatment of spine pathology.

Unique features of the fellowship include a high volume exposure to many routine and complex cases from around Indiana and the Midwest; dedicated time with three busy surgeons from diverse backgrounds and training; exposure to the latest technology including participation in FDA IDE trials, next generation implants, and routine use of O-Arm 3D intraoperative navigation; a large, well maintained database for research possibilities; exposure to both University practice and a well run, successful private business model; and an excellent, collegial working relationship with all members of the team.

The fellow is a critical aspect of the orthopaedic residency program at Indiana University assisting in the responsibility for spine education of the residents. The stipend is commensurate with a PGY 6 salary as well as benefits which include malpractice insurance and health insurance for the fellow and family.

Goals:

1. Provide the Fellow with the most well-rounded and diverse exposure to spinal disorders.
2. Expose the Fellow to the most up-to-date and modern diagnostic procedures for the evaluation of spinal disorders.
3. Teach the Fellow the entire range of operative treatment of spinal disorders - from occiput to ilium; from routine decompression and stabilization to complex deformities; (approached both anterior and posterior) - running the spectrum of pathology including pediatric and adult deformities, trauma, tumors, and Intradural anomalies.

Characteristics:

1. Extensive clinical exposure in multi-specialty spine practice that includes orthopaedic spine surgery, neurosurgery spine surgery, and anesthesia spine diagnostic experts.
2. Large clinical research department involved in many FDA, IDE trials.
3. Productive design and development of next-generation spinal implants and minimally invasive spine surgery techniques.

Ortho Indy Spine Surgery Fellowship

Number of Positions: 0

David G Schwartz, MD

John W. Dietz, MD

Gabriel E. Jackson, MD

Kevin R. O'Neill, MD

Gregory Poulter, MD

8450 Northwest Blvd.

Indianapolis, IN 46278

Phone: (317) 802-2880; Fax: (317) 802-2170

Email: jsallee@orthoindy.com

Website: www.orthoindy.com

Percent of Fellowship devoted to operative care: 60%

Non-operative care: 35%

Research/Publication obligation: 5%

Approximate percentage of exposure to the Spine by region:

Cervical: 35%

Thoracic: 10%

Lumbar: 55%

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

Degenerative: 63%

Trauma: 10%

Deformity: 20%

Tumor: 1%

Pediatric: 5%

Other: 1%

Goals:

The Ortho Indy Spine Fellowship is a one-year experience designed to combine an exceptionally strong clinical experience with a number of research opportunities. Training will include operative and nonoperative treatment of spinal pathology at all levels of the spine from C1 to the sacrum in both adult and pediatric patients. Exposure will include treatment of degenerative cervical and lumbar disease, pediatric and adult spinal deformity, and trauma at all levels of the spine. Several of the OrthoIndy Spine surgeons utilize minimally invasive surgical techniques and surgical navigation. Roughly 1,200 cases a year are performed between our five spine surgeons.

The fellows will rotate with each of the five fellowship trained surgeons and will work closely with the orthopedic spine surgeon and their staff. During each rotation, the fellow will learn and participate in the clinical decision making and operative procedures.

The fellow will be required to attend a multiple teaching conference and bi-monthly journal club, and will be responsible for completing at least one research project during the fellowship year. In addition to the above, the OrthoIndy Spine fellowship exposes the candidate to multiple non operative treatment modalities and educates the fellow on the business of practicing spine surgery in today's market.

University of Iowa **Neurosurgery** Spine Fellowship

Directors:

Patrick W. Hitchon, MD

Matthew Howard III, MD

Arnold Menezes, MD

University of Iowa Hospitals and Clinics

Department of Neurosurgery

200 Hawkins Drive, 1846 JPP

Iowa City, IA 52242

Phone: (319) 356-2775; Fax: (319) 353-6605

Email: patrick-hitchon@uiowa.edu

Website: <http://www.uihealthcare.com/depts/med/neurosurgery/index.html>

Percent of Fellowship devoted to Operative Care: 70%

Non-Operative Care: 20-30%

Research/Publication Obligation: Yes

Approximate percentage of exposure to the Spine by region:

Cervical: 50%

Thoracic: 20%

Lumbar: 30%

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

Degenerative: 40%

Trauma: 20%

Deformity: 20%

Tumor: 10%

Pediatric: 10%

Time allocation:

Operating room 75%

In-house and clinic patient care 15%

Biomechanical/clinical research 10%

Goals:

The Neurosurgery Spine Fellowship is a one year appointment with the Department of Neurosurgery at the University of Iowa College of Medicine. **This Fellowship is accredited by the Society of Neurological Surgeons Committee on Accreditation of Subspecialty Training (CAST).** The Fellow will have completed a Neurosurgery or Orthopedic Residency, thus allowing her/him the ability to participate actively in spine surgery from the outset. The fellow will thus acquire skills in the management of diseases of the cervical, thoracic, and lumbar spines, be they traumatic, neoplastic, degenerative, congenital or infectious in the pediatric and adult populations. The Fellow will scrub on cases of the faculty listed below, as well as cases by other neurosurgical staff. The Department performs approximately 750 spine cases per year, and is the only Neurosurgical/Orthopedic Residency Program in

the state. In addition to elective cases, the Fellow will avail himself where needed and for emergencies, abiding by the same time constraints afforded residents. In addition to the operating room, the fellow will participate with the faculty in their clinics before and subsequent to surgery. The Fellow will be given opportunity and encouraged to become involved in the Neurosurgery Spine Biomechanics Laboratory. The Fellow will be given opportunity to prepare manuscripts on clinical and research topics for publication and presentation. Participation in weekly Mortality and Morbidity and Spine Conference is mandatory.

Approximate Stipend: \$60,000 USD/year.

For paper or poster presentation, at any of the national spine meetings, the fellow will be sponsored to attend one meeting during his/her fellowship.

Faculty:

Patrick W. Hitchon, MD has had a long interest in the treatment of fractures, infection, and tumors of the spine. In addition to antero-lateral approaches to the spine, Dr. Hitchon has a particular interest in minimally invasive surgery in the treatment of degenerative disease, trauma, and tumors. Together with Nicole Grosland PhD professor of Orthopedic Surgery, he oversees biomechanical investigations, where participation by the fellow is encouraged. The fellow may pursue his own or ongoing projects.

Matthew Howard III, MD has an extensive clinical practice that includes spine diseases. He also has ongoing research in spinal cord neuromodulation for control of pain and spasticity. He is actively involved with Orthopedic Surgery in basic and clinical investigations involving the spinal cord and myelopathy.

Arnold Menezes, MD is an internationally renowned neurosurgeon with interest in the craniovertebral junction and pediatric spine pathologies. The fellow will be afforded a unique opportunity to analyze and participate in the management of this complex group of adult and pediatric patients

Norton Leatherman Spine Center Fellowship

Number of Positions: 4

Steven D. Glassman, MD

Rolando M. Puno, MD

John R. Dimar, MD

Mitchell J. Campbell, MD

Mladen Djurasovic, MD

Charles H. Crawford, III, MD

R. Kirk Owens, MD

Jeffrey L. Gum, MD

Norton Leatherman Spine Center

210 East Gray Street, Suite 900

Louisville, KY 40202

Phone: (502) 584-7525; Fax: (502) 584-6851

Percent of Fellowship devoted to Operative Care: 50%

Non-Operative Care: 25%

Research/Publication Obligation: 25%

Approximate percentage of exposure to the Spine by region:

Cervical: 30%

Thoracic: 20%

Lumbar: 50%

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

Degenerative: 50%

Trauma: 10%

Deformity: 15%

Tumor: 10%

Pediatric: 15%

Goals:

This program considers applications from all qualified applicants with appropriate training. The Leatherman Spine Fellowship Program is affiliated with Norton Healthcare and the University of Louisville, Department of Orthopaedic Surgery in Louisville, Kentucky. We offer the development of advanced skills in all phases of spine surgery. This is a well-rounded program involving spinal deformities, fractures, tumors and degenerative diseases in all age groups. The Leatherman Spine Center includes a clinical outcomes research center with extensive health-related outcomes data available on thousands of patients to facilitate fellow research. The fellow assists the staff physician performing surgery, managing patient care from the private office and participating in scoliosis and fracture clinics. Surgeries involve 20 to 30 spine procedures performed each week and include anterior and posterior procedures utilizing the most up-to-date instrumentation. He/She will prepare publications and presentations for teaching conferences and recognized spine meetings. Weekly rounds and conferences are held. The program also offers a combined orthopaedic and neurosurgical service. Our primary hospital affiliations include the regional trauma center, University of Louisville Hospital, Norton Healthcare and Norton Children's Hospital which is Louisville's only hospital for children. The program offers up to four fellowship positions per year. In addition, these four fellows work with one rotating orthopaedic resident. Please submit a recent photograph of yourself along with your application materials.

University of Louisville Neurological Surgery of the Spine Fellowship

Number of Position(s): 1

Maxwell Boakye, MD, MPH, MBA, FACS; Neurosurgeon and Fellowship Director

Thomas Alstadt, MD; Neurosurgeon

Brian Williams, MD; Neurosurgeon

Susan Harkema, PhD; Spinal Cord Injury Research

Scott Whittemore, PhD; Spinal Cord Injury Research

Beatrice ugiliweneza, PhD, MPH; Outcomes Research

Camilo Castillo, MD; Physiatry

Matt Adamkin, MD; Physiatry

Sushma Chandan, MD; Physiatry

220 Abraham Flexner Way, Suite 1500

Louisville, KY 40202

Phone: (502) 588-0492

Fax: (502) 407-3256

Contact: Kathy Nickel; klnick01@louisville.edu

Website:

<http://louisville.edu/medicine/departments/neurosurgery/residency/neuroresidency/cast-approved-spine-fellowship>

| | |
|---|---|
| Percent of Fellowship devoted to Operative Care: | 80% |
| Non-Operative Care: | 10% |
| Research/Publication Obligation: | 10%, at least 1 project with at least 1 publication completed |

Approximate percentage of exposure to the Spine by region:

| | |
|-----------|-----|
| Cervical: | 40% |
| Thoracic: | 20% |
| Lumbar: | 40% |

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

| | |
|---------------|-----|
| Degenerative: | 65% |
| Trauma: | 20% |
| Deformity: | 5% |
| Tumor: | 5% |
| Infection: | 5% |

Goals:

The Department of neurosurgery offers a twelve month combined research and clinical CAST approved spine fellowship designed for individuals in their final years of a U.S. residency program, or having completed a U.S. neurosurgical residency and contemplating a career in spinal neurosurgery, or seeking a more comprehensive subspecialty training in spinal disorders. The fellow will receive extensive exposure to spinal trauma, fracture management, degenerative disorders, spinal oncology, spinal deformity, spinal navigation, minimally invasive spine surgery, including neuroendoscopic discectomy, cyberknife radiosurgery, and spinal cord injury management. There are extensive research opportunities including spine outcomes research with access to clinical and Administrative claims databases (e.g. NIS, Medicare, Marketscan), spinal biomechanics research, 3D printing applications in spinal surgery, Kentucky spinal cord injury center with many animal models of spinal cord injury, epidural stimulation

research program, and porcine spinal cord injury research program. The fellow will also have access to neuromuscular, neuroimaging, neurophysiology, cardiovascular, metabolic cores in our translational spinal cord injury program. Extensive opportunities exist for clinical research supported by an infrastructure of research coordinators, statisticians, IRB and grants management, and editorial support.

Fellows will participate in weekly didactic and educational conferences, office clinics, and will be expected to complete at least one research project (clinical or basic science) and submit at least one manuscript for publication and present abstracts of their research at national meetings.

Anticipated approximate stipend is \$70,000.00.

Beth Israel Deaconess Medical Center / Harvard Medical School Combined Spine Fellowship

Andrew P. White, MD, Fellowship Director, Orthopaedic Surgery
Umesh Metkar, MD, Orthopaedic Surgery
Efstathios Papavassiliou, MD, Neurosurgery
Martina Stippler, MD, Neurosurgery
Paul A. Glazer, MD, Orthopaedic Surgery
Stefan C. Muzin, MD, Physiatry

Department of Orthopedic Surgery
Stoneman 10, BIDMC
330 Brookline Ave.
Boston, MA 02215
Phone: (617) 667-2133; Fax: (617) 667-2155
Email: ameady@bidmc.harvard.edu

Percent of Fellowship devoted to Operative Care: 70%
Non-Operative Care: 30%
Research/Publication Obligation: Yes

Approximate percentage of exposure to the Spine by region:

Cervical: 40%
Thoracic: 10%
Lumbar: 50%

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

Degenerative: 40%
Trauma: 20%
Deformity: 20%
Other: 20%

Goals:

This fellowship is ACGME accredited.

The primary focus of this combined orthopaedic and neurosurgical ACGME accredited fellowship is on education and training. The goal is to ensure that trainees will be well prepared to begin an academic or private practice spine surgery career with confidence.

Beth Israel Deaconess Medical Center (BIDMC) is a Level One Trauma center, a regional referral facility for complex cases, and a teaching hospital of Harvard Medical School. In this environment, our spine surgery fellow is trained to treat the gamut of adult spinal disorders with confidence. A high volume of complex disorders is seen, including traumatic, congenital, degenerative, neoplastic, iatrogenic, and deformity conditions. This offers the fellow a broad clinical experience.

The training background of our multi- departmental teaching staff is diverse, exposing the fellow to a wide variety of surgical and other interventional techniques. The fellow also has directed experience in the multi-disciplinary Spine Center, inpatient wards, and emergency department.

A reading program, indications conference, and M&M conference augment our Harvard Combined spine journal club and spine fellows lecture series, which are shared between Harvard affiliated teaching hospitals.

The fellowship also offers research opportunities. A monthly meeting brings together spine researchers from all Harvard combined institutions to provide the fellow with high impact, well directed, collaborative research projects. The Fellow must complete one project suitable for publication during the year.

All candidates must have successfully completed an orthopaedic residency and be board eligible or board certified.

Boston University Medical Center Spine Fellowship

Number of Positions: 1

Tony Tannoury, MD, Fellowship Director (Adult and Adolescent Spine)

Chadi Tannoury, MD (Adult and Adolescent Spine)

T. Desmond Brown, MD (Pediatric Spine)

Louis Gerstenfeld, PhD (Research Lab)

Boston University Medical Center

850 Harrison Avenue

Dowling 2 North

Boston, MA 02118

Phone: (617) 638-8934; Fax: (617) 414-4003

Contact : Lynnette St. Louis

Email: Lynnette.StLouis@bmc.org

Program Website : www.bumc.bu.edu/orthopaedics

Percent of Fellowship devoted to Operative Care: 70%

Non-Operative Care: 30%

Research/Publication Obligation: Yes

Approximate percentage of exposure to the Spine by region:

Cervical: 40%

Thoracic: 20%

Lumbar: 40%

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

Degenerative: 50%

Trauma: 25%

Deformity: 10%

Tumor: 10%

Pediatrics: 5%

Goals:

Our fellowship is an intense one-year program intending to foster academic careers for those Orthopaedics and or Neurosurgery trained graduates who are interested in pursuing further expertise in spinal surgery. At present, there is a significant enthusiasm and shift toward less invasive spine techniques, and our fellowship offers the unique training with some of the worldwide leaders in this field. Additionally, the consistency and diversity of cases allow the trainee to formulate the appropriate management and deliver the standard of care to a wide spectrum of spinal pathologies. Furthermore, our training will help the fellow acquire the surgical expertise to tackle the various pathologies of the cervical, thoracic, and lumbar spine via standard open and minimally invasive techniques. Additional academic opportunities are offered, and active participation of the fellow is required in the following areas: spine biomechanical testing projects, basic science, and clinical investigations. Our ultimate goal is to help our fellow become a sound clinician, and expert surgeon, and a leading scientist.

Candidates must complete a neurosurgery or orthopaedic surgery residency program.

Massachusetts General – Brigham and Women’s Hospital/Harvard Medical School Orthopaedic Spine Surgery Fellowship

Christopher M. Bono, MD, Fellowship Director

Thomas D. Cha, MD, MGH Site Director

Joseph H. Schwab, MD MS

James D. Kang, MD

Mitchel B. Harris, MD FACS

Andrew J. Schoenfeld, MD, MSc

Jay Zampini, MD

Stuart H. Hershman, MD

75 Francis Street

Boston, MA 02115

Phone: (617) 732-5322

Contact: Justin Blucher

Email: jblucher@bwh.harvard.edu

Percent of Fellowship devoted to Operative Care: 70%

Non-Operative Care: 30%

Research/Publication Obligation: Yes

Approximate percentage of exposure to the Spine by region:

Cervical: 30%

Thoracic: 20%

Lumbar: 50%

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

Degenerative: 50%

Trauma: 15%

Deformity: 15%

Tumor: 10%

Pediatric: 5%

Other: 5%

Goals

At present, postgraduate fellowship training in spinal surgery offers a wide variation in terms of surgical experience, diversity of exposure to the various components of spinal disorders, facility support, and research opportunities. The duration of our fellowship is 1 year in order to gain sufficient experience and expertise. The teaching staff and hospital administration are committed to providing an educational environment in order to avoid making the fellowship a pure *service-oriented* experience. There will be an adequate amount of inpatient and outpatient experiences, with graduated responsibility for the Fellow in order to gain the necessary expertise in evaluation, surgical decision analysis and follow-up care. The Fellowship will provide the necessary education so that the Fellow obtains competence as a specialist in surgery of the spine, including operative and nonoperative care as well as a broad-based education in spinal disorders. The educational program will consist of both academic and technical components. The academic environment will emphasize approaches to clinical problem-solving, encouraging self-directed study, and the development of analytic skills and sound surgical judgment. A clearly defined research program with the Fellow playing a significant role in formulating the project(s) and carrying out the work is an important component of the Fellowship year.

The salary for the academic year is expected to be \$60,000 per year plus benefits which includes family health insurance.

New England Baptist Hospital Spine Fellowship

Number of Positions: 2

Scott G. Tromanhauser, MD, MBA, Chief, Spine Surgery

New England Baptist Hospital, Orthopaedic Surgery

125 Parker Hill Avenue

Boston, MA 02120

Phone: (617) 754-6742; Fax: (617) 754-6443

Contact : Debby DiMartino

Email : ddimarti@nebh.org

Percent of Fellowship devoted to Operative Care: 80%

Non-Operative Care: 20%

Research/Publication Obligation: Yes

Approximate percentage of exposure to the Spine by region:

Cervical: 25%

Thoracic: 25%

Lumbar: 50%

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

Degenerative: 70%

Trauma: 0%

Deformity: 29%

Tumor: 1%

Goals:

This program offers extensive experience in evaluation and management of adult spinal disorders. The Fellow is exposed to a multidisciplinary approach, working with six full-time orthopaedic spine surgeons, three neurosurgical spine surgeons, three neuroradiologists, and five spine physiatrists. This experience will prepare you well to evaluate and treat the overwhelming majority of spinal conditions you are likely to see in a typical spine surgery specialty setting. The New England Baptist Hospital has won multiple awards for its patient care and outcomes, and was recently granted “5 Star” status by CMS, the **only** hospital in Massachusetts to have this highest rating. The Fellow gains expertise in many facets of spinal surgery with an active operating room experience, including anterior and posterior cervical, thoracic, and lumbar approaches, microscopic, minimally invasive and open techniques, exposure to image guidance systems, instrumentation, decompression and fusion procedures. The spine service performs more than 1,500 procedures per year including cervical and lumbar degenerative spine disorders, and adult spinal deformity. Experience in the clinical office setting is an integral part of the program and essential for developing surgical decision making skills. The Fellow will be active in resident teaching, office clinics, and weekly conferences. With the support of an attending sponsor and the Orthopaedic Research Department each Fellow is expected to prepare at least one research project suitable for presentation at a national meeting and publication in a peer-reviewed journal. Each Fellow will present at least one Grand Rounds presentation for the orthopaedic department. Attendings instruct the Fellow by presenting a spine core curriculum of 30 lectures. Other conferences include weekly Orthopaedic Grand Rounds, bimonthly spine indications conference, monthly journal club, and monthly M & M Conference. In addition to the spine didactic program, the Fellows will have access to all other orthopaedic specialty teaching offerings within the New England Baptist Hospital. An academic appointment with Tufts University School of Medicine is available during the fellowship year.

The duration of the fellowship is one year (August 1 to July 31). The annual stipend is \$73,000 plus benefits. This fellowship participates in the match program.

The Johns Hopkins Spine Surgery Fellowship

Number of Positions: 3

Khaled M. Kebaish, MD, Director

David B. Cohen, MD

Johns Hopkins Outpatient Center
601 N. Caroline St., Room 5231
Baltimore, MD 21287-0882

Phone: (410) 955-8344; Fax: (410) 614-0619

Contact : Vicky Norton

Email: vnorton1@jhmi.edu

Website: www.hopkinsortho.org

Percent of Fellowship devoted to Operative Care: 80%

Non-Operative Care: 20%

Research/Publication Obligation: Yes

Approximate percentage of exposure to the Spine by region:

Cervical: 25%

Thoracic: 5%

Lumbar: 70%

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

Degenerative: 50%

Trauma: 5%

Deformity: 35%

Tumor: 5%

Pediatric: 5%

Goals:

The Johns Hopkins Spine Fellowship provides comprehensive training in degenerative lumbar, cervical spine, adult spinal deformity, tumor, infection and trauma surgery. An opportunity for exposure to adolescent deformity surgery is also available. There is collaboration with the Neurosurgery Spine Service through joint conferences, combined cases and clinical rotations. The two services perform approximately 1400 cases per year.

Fellows have ample opportunity to become proficient in a broad spectrum of surgical techniques and invasive diagnostic and therapeutic procedures including facet blocks, discography, nerve root injections, kyphoplasty and vertebroplasty over the course of the fellowship. The Spine Division has an active outcomes research team and database that can be used for research. Opportunities to perform research in biomechanics, cell biology, and tumor biology are also available.

Candidates are expected to have successfully completed a neurosurgery or orthopaedic surgery residency.

The University of Maryland Spine Fellowship

Number of Positions: 3

Andrew Pollak, MD, Chairman

Steve Ludwig, MD, Fellowship Director

University of Maryland Medical System

110 S. Paca Street, Floor 6, Suite 300

Baltimore, MD 21201

Phone: (410) 328-3330 Fax: (410) 328-0534

Contact: Kelsey Fitzpatrick

Email: kfitzpatrick@umoa.umm.edu

Website: www.umortho.org

Percent of Fellowship devoted to Operative Care: 70%

Non-Operative Care: 30%

Research/Publication Obligation: Yes

Approximate percentage of exposure to the Spine by region:

Cervical: 40%

Thoracic: 10%

Lumbar: 50%

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

Degenerative: 45%

Trauma: 25%

Deformity: 15%

Tumor: 10%

Pediatric: 5%

Goals:

The Spine Fellowship at the University of Maryland Medical System is dedicated to providing the fellow with exposure to a variety of clinical and operative experiences, in an effort to create competent, thoughtful clinicians, surgeons and researchers that are able to practice in most any environment. The University of Maryland Medical Center is comprised of University Hospital, the R. Adams Cowley Shock Trauma Center, and the Baltimore VA Medical Center. All of which are contiguously located on the downtown campus. The fellow also receives exposure to a community practice when he/she rotates at the University of Maryland Baltimore Washington Medical Center. Collectively, these hospitals provide the fellow with exposure to a variety of spinal disorders, including the management of spine trauma and other complex conditions.

Additionally, the Fellowship is focused on educational and research related goals. Each fellow is responsible for one research project and one written text (case report, article, chapter) during the course of the fellowship. The fellow participates in weekly indications conference, and attends monthly department conferences such as Morbidity and Mortality and Grand Rounds

The fellowship experience includes a cohesive 12-month spine curriculum that focuses on topic specific current and classic literature, evidence based practice, and current treatment algorithms. The fellows are responsible for giving a 45-60-minute presentation monthly on an assigned topic. Current and relevant literature and appropriate journal club articles are referenced, distributed and discussed.

Maryland Spinal Reconstruction Surgery Fellowship

Number of Positions: 2

Paul McAfee, MD, MBA, Director

Ira Fedder, MD

John Seftor, DO

Mike Dabbah, MD

Bryan Cunningham, MSc

7505 Osler Drive

Baltimore, MD 21204

Phone: (410) 337-8888; Fax: (410) 823-4833

Contact: Kendra Cleslik

Email: spinefellows@gmail.com

Website: <http://www.towsonortho.com>

Percent of Fellowship devoted to Operative Care: 70%

Non-Operative Care: 30%

Research/Publication Obligation: Yes

Approximate percentage of exposure to the Spine by region:

Cervical: 30%

Thoracic: 10%

Lumbar: 60%

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

Degenerative: 70%

Trauma: 5%

Deformity: 15%

Tumor: 5%

Pediatric: 5%

Goals:

The goal of this Fellowship is to provide individuals with surgical, non-surgical, administrative and academic experience to facilitate a career in reconstructive spine surgery. Graduates of the program are currently providing spine care in diverse clinical settings nationally and internationally, including academic, private and military practices. There are more than 50 graduates, many of whom are internationally recognized as chiefs of service, fellowship directors and department chairs.

The Fellowship will provide the applicant with a large volume of clinical experience managing surgical and non-surgical spinal pathology. Working with several faculty, the fellow will get broad surgical experience including anterior, antero-lateral, posterior, and combined cervical, thoracic and lumbar procedures. Degenerative conditions as well as tumor, trauma and deformity will form the bulk of your experience.

There is a major emphasis on motion preservation, and the fellow will have significant surgical experience with both anterior disc replacements and posterior motion preservation/dynamic stabilizing devices.

The fellow may also have the opportunity to work with fellowship-trained interventional pain management physicians. At the conclusion of the fellowship, the fellow should be prepared to address

any spine-related problem or diagnosis. The Spine Center has a long history of being involved in clinical trials, and clinical research opportunities are available.

The stipend is \$50,000 plus benefits. There is \$5,000 available for books, educational materials and meetings, etc.

Spinal Reconstructive Fellowship at MedStar Union Memorial Hospital

Number of Positions: 1

P. Justin Tortolani MD, Chief and Fellowship Director
Paul Asdourian MD, Regional Director of Spine Surgery
Zeena Dorai MD, Chief of Neurosurgery
Mesfin Lemma MD, Director of Minimally Invasive Surgery
Brad Moatz MD
Bryan Cunningham, PhD
Brent Parks MSc, Director of Biomechanics Research

MedStar Union Memorial Hospital
3333 N. Calvert St., Suite 655 JPB
Baltimore, MD 21218
Phone: (410) 554-6865; Fax: (410) 261-8105

Contact: Trish Koehler: patricia.koehler@medstar.net

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|---|-----------|
| Percent of Fellowship devoted to Operative Care: | 75% |
| Non-Operative Care: | 15% |
| Research/Publication Obligation: | Yes (10%) |

Approximate percentage of exposure to the Spine by region:

| | |
|-----------|-----|
| Cervical: | 30% |
| Thoracic: | 10% |
| Lumbar: | 60% |

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

| | |
|---------------|-----|
| Degenerative: | 40% |
| Trauma: | 2% |
| Deformity: | 40% |
| Tumor: | 5% |
| Pediatric: | 10% |
| Other: | 3% |

Goals and characteristics:

This one-year ACGME accredited program follows the program requirements for Graduate Medical Education in Orthopaedic Surgery of the Spine. One fellow will be trained for all spinal diseases and conditions of the cervical, thoracic, and lumbar spine: both degenerative and deformity; trauma and tumor; pediatric and adult. Fellows will learn minimally invasive techniques including MIS TLIF, XLIF, and DLIF and will be exposed to open deformity surgery including anterior and posterior approaches. All spinal afflictions including neoplastic, infectious, traumatic, metabolic, deformity and degenerative will be covered in the outpatient setting. A formal didactic program includes weekly indications and case-based spine conference as well as visiting professorships and monthly journal clubs. This is a combined ortho spine and neurosurgery fellowship with four orthopaedic spine attendings and one neurosurgeon. The program is led by Spine Division and Fellowship Director, Justin Tortolani, MD. Dr. Paul Asdourian, Dr. Mesfin Lemma and Dr. Bradley Moatz all bring unique training backgrounds and subspecialty perspectives and Zeena Dorai, MD, Chief of Neurosurgery, offers exposures to intradural surgery. The fellow will be exposed to more than 600 operative cases per year and there are no "trauma call" responsibilities. A newly constructed 3,000 sq ft

Musculoskeletal Education and Research Institute directed by Dr Bryan Cunningham is designed to engage the fellow in cutting edge in vivo and in vitro research and innovation in a state-of-the-art facility. Furthermore, a Surgical Training and Techniques (STAT) Laboratory directed by Brent Parks MSc is available 24 hours per day for additional hands-on cadaveric dissections. The fellow is encouraged to participate in and complete at least two research projects. Individuals completing the fellowship will be well suited for a career in academics or private practice.

This fellowship participates in the San Francisco match program.

This fellowship is ACGME accredited.

Approximate Stipend: \$68,300

Applicants must have completed Steps 1 -3

Beaumont Health Orthopaedic Surgery of the Spine Fellowship
Number of Positions: 2

Director: Jeffrey S. Fischgrund, MD

Staff Surgeons: Jeffrey S. Fischgrund, MD; Jad G. Khalil, MD; David M. Montgomery, MD; Daniel K. Park, MD.

Department of Orthopaedic Surgery
William Beaumont Hospital
3535 West Thirteen Mile Road, #744
Royal Oak, MI 48073
Phone: (248) 551-0195; Fax: (248) 551-5404
Email: Jessica.Thomas@beaumont.org
Website: www.beaumont.edu/medical-education

Percent of Fellowship devoted to Operative Care: 75%

Non-Operative Care: 25%

Research/Publication Obligation: Yes

Approximate percentage of exposure to the Spine by region:

Cervical: 25%

Thoracic: 15%

Lumbar: 60%

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

Degenerative: 45%

Trauma: 15%

Deformity: 20%

Tumor: 10%

Pediatric: 10%

Goals:

This program is fully accredited by the ACGME.

Our program is a comprehensive program encompassing spinal problems and their evaluation, nonoperative and operative care. The emphasis is on degenerative cervical and lumbar spine but the full range of adult and pediatric problems is included. The fellows are responsible for the overall function of the spine service and resident education.

Outpatient experience is available in addition to lectures, pre-op conferences and a high-volume surgical experience.

Research is required and full facilities are available.

The duration of the fellowship is one year (August 1 to July 31) and there are two positions.

The annual stipend is \$62,982 plus benefits.

We participate in the San Francisco Match (www.sfmach.org).

Twin Cities Spine Center Fellowship

Number of Positions: 4

Director: Kevin J. Mullaney, MD

Staff Surgeons: Christopher Alcala Marquez, MD; Eduardo J. Beauchamp, MD; Timothy A. Garvey, MD; Amir A. Mehbod, MD; Benjamin Mueller, MD, PhD; Kevin J. Mullaney, MD; Joseph H. Perra, MD; Manuel R. Pinto, MD; James D. Schwender, MD; Eiman Shafa, MD; Ensor E. Transfeldt, MD

Twin Cities Spine Center
913 E. 26th Street, Suite 600
Minneapolis, MN 55404
Phone: (612) 775-6257 Fax: (612) 775-6105
Email: education@tcspine.com
Website: www.tcspine.com
Fellowship Manager: Lyla R. Westrup

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| Percent of Fellowship devoted to Operative Care: | 45% |
| Non-Operative Care: | 45% |
| Research/Publication Obligation: | 10% |

Approximate percentage of exposure to the Spine by region:

| | |
|-----------|-----|
| Cervical: | 35% |
| Thoracic: | 15% |
| Lumbar: | 50% |

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

| | |
|---------------|-----|
| Degenerative: | 50% |
| Trauma: | 5% |
| Deformity: | 20% |
| Tumor: | 5% |
| Pediatric: | 20% |

Goals:

This fellowship stresses a comprehensive exposure to all types of spinal pathology including deformity, trauma, tumor, and degenerative problems in the pediatric, adolescent, adult and aged populations. Both surgical and non-surgical treatment modes are emphasized.

This fellowship is open to orthopaedic and neurosurgical surgeons who are either Board eligible or Board certified; have completed a certified orthopaedic or neurosurgical residency; and are eligible for a Minnesota State License. Applicants who have not completed at least two years of formal US or Canadian Residency training will not be considered.

The educational program is supported by conferences, lectures, and journal clubs. The Fellows participate as presenters and organizers. Fellows participate in at least one clinical research project during the year of training.

The duration of the fellowship is one year, August 1 to July 31. Annual stipend is \$67,000 plus benefits.

This fellowship participates in the San Francisco Match.

Mayo Clinic Spine Fellowship

Number of Positions: 2

Director: Bradford L. Currier, M.D.

Associate Director: Ahmad Nassr, M.D.

Staff Surgeons: Bradford L. Currier, M.D.; Brett A. Freedman, M.D.; Paul M. Huddleston, M.D.; Ahmad Nassr, M.D.; Peter S. Rose, M.D.; Michael J. Yaszemski, M.D., Ph.D; Arjun Sebastian, M.D.

Mayo Clinic

200 First Street SW

Rochester, MN 55905

Phone: (507) 284-3316; Fax: (507) 266-4234

Email: davidson.olena@mayo.edu

Website: <http://www.mayo.edu/msgme/residencies-fellowships/orthopedic-surgery/spine-surgery-fellowship-minnesota>

| | |
|---|-----|
| Percent of Fellowship devoted to Operative Care: | 70% |
| Non-Operative Care: | 30% |
| Research/Publication Obligation: | Yes |

Approximate percentage of exposure to the Spine by region:

| | |
|-----------|-----|
| Cervical: | 30% |
| Thoracic: | 20% |
| Lumbar: | 50% |

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

| | |
|---------------|-----|
| Degenerative: | 40% |
| Trauma: | 20% |
| Deformity: | 20% |
| Tumor: | 10% |
| Pediatric: | 3% |
| Other: | 7% |

Goals:

The goal of the Spine Surgery Fellowship is to provide board-eligible graduates of orthopedic surgery training programs with a well-rounded experience involving all aspects of spinal surgery. Fellows will be exceptionally well prepared to enter academics, private practice, or a hybrid program.

The fellows gain expertise in treating a wide range of spine pathology and performing a comprehensive array of surgical techniques, including anterior and posterior decompression, instrumentation, microsurgery, and minimally invasive surgery at all levels of the spine.

Clinical responsibilities are divided among seven orthopedic staff spinal surgeons. The fellows participate in the preoperative assessment, surgical care, postoperative management and follow-up evaluation of patients.

Clinical and basic science research opportunities are available. Fellows are required to produce at least one peer-reviewed publication and participate in the design of a second project during their tenure. They also are expected to carry out a quality improvement project and actively participate in the education of residents. Fellows help to organize a weekly combined Orthopedic/Neurosurgery spine conference and may scrub with the spine surgeons in the Department of Neurosurgery on an ad hoc basis.

A multitude of other resources are available to the fellows, including a state of the art cadaver lab and a simulation center.

Accreditation:

The Spine Surgery Fellowship is accredited by the Accreditation Council for Graduate Medical Education (ACGME). Applicants must have completed an ACGME-accredited orthopedic surgery residency or an equivalent Canadian residency program.

The Fellowship is sponsored by AO Spine, providing additional networking opportunities, free trips, and academic resources.

University of Missouri Spine Fellowship

Number of Positions: 1

Theodore J. Choma, MD

Christine L. Goldstein, MD

Don Moore, MD

Robert Gaines, MD (emeritus)

University of Missouri

1100 Virginia Avenue

Columbia, MO 65212

Phone: (573) 884-7796; Fax: (573) 884-9021

Contact: Darcey Snethen, Medical Education Manager, snethend@health.missouri.edu

Website: <https://medicine.missouri.edu/departments/orthopaedic-surgery/fellowship-program/spine-fellowship>

Percent of Fellowship devoted to Operative Care: 80%

Non-Operative Care: 20%

Research/Publication Obligation: Yes

Approximate percentage of exposure to the Spine by region:

Cervical: 30%

Thoracic: 10%

Lumbar: 60%

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

Degenerative: 60%

Trauma: 20%

Deformity: 15%

Tumor: 5%

Pediatric Elective

Program Overview: The Spine Fellowship offers a broad mix of exposure to degenerative conditions, trauma, infections, metastatic tumors and deformity. Our fellows log over 300 cases each year and have elective opportunities to learn with our neurosurgical colleagues, pediatric scoliosis exposure, as well as injection procedures from our non-operative colleagues. The fellow will take primary call with the orthopaedic spine attending as back-up. No in-house call is required. This fellowship is currently sponsored by AO Spine North America and the fellows participate in two off-site AO events during the course of the year.

Interview Dates: January – March 2019

Interview Location: Columbia, MO

Application Deadline: November 1, 2018

Affiliated Institutions: University Hospital, Missouri Orthopaedic Institute, Women's & Children's Hospital

Primary Hospital Size: 600 Beds at University Hospital + 40 beds at Missouri Orthopaedic Institute

Stipend/Benefits: \$70,000 (PGY6 Level) + benefits

Rotation Obligations: The fellowship is exclusively spine and the fellow will not be expected to rotate outside of this service.

Research Opportunities:

Clinical and basic science research projects are ongoing and fellows are highly encouraged to participate in research and produce a manuscript at the end of the fellowship year. We have a very robust research support staff that will make the fellow's research efforts as efficient and productive as possible.

Call Responsibility as primary staff: Yes, with orthopaedic spine attending as backup with progressive responsibilities, generally 5-6 nights per month. There is no in-house call required.

Any Away Rotations from Primary Institution: No

Meetings Opportunities: Fellows may attend two of the AOSpine events.

License Requirements: Fellow must be able to obtain a permanent Missouri State License prior to beginning fellowship.

Washington University School of Medicine/Barnes-Jewish Hospital Spine Fellowship

Number of Positions: 4

Keith H. Bridwell, MD

Jacob M. Buchowski, MD, MS (Director)

Munish C. Gupta, MD

Michael P. Kelly, MD, MSc

Scott J. Luhmann, MD

Wilson Z. Ray, MD

Neill M. Wright, MD, FAANS

Lukas P. Zebala, MD

660 South Euclid

Campus Box 8233

St. Louis, MO 63110

Phone: (314) 747-2536; Fax: (314) 747-2600

Email: jbondurant@wustl.edu (Fellowship Coordinator)

Website: www.ortho.wustl.edu/spinefellowship

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|---|-----|
| Percent of Fellowship devoted to Operative Care: | 50% |
| Non-Operative Care: | 50% |
| Research/Publication Obligation: | Yes |

Approximate percentage of exposure to the Spine by region:

| | |
|----------------------|-----|
| Cervical: | 40% |
| Thoracic and Lumbar: | 60% |

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

| | |
|---------------------|-----|
| Degenerative: | 35% |
| Deformity: | 50% |
| Tumor and Fracture: | 15% |
| Pediatric: | 30% |
| Adult: | 70% |

Goals:

The Washington University School of Medicine/Barnes-Jewish Hospital Spine Fellowship began in 1991. Barnes-Jewish, St. Louis Children's and St. Louis Shriners hospitals are participating institutions. Participating physicians are Keith H. Bridwell, MD, Jacob M. Buchowski, MD, MS (Director), Munish C. Gupta, MD, Michael P. Kelly, MD, MSc, Scott J. Luhmann, MD, Wilson Z. Ray, MD (Neurosurgery), Neill M. Wright, MD, FAANS (Neurosurgery), and Lukas P. Zebala, MD.

Four positions are available per academic year (August 1-July 31). A PGY-6 stipend for Orthopaedic or a PGY-7 stipend for Neurosurgery graduates is offered, with three weeks (15 working days) of vacation. It is anticipated that the fellows will attend one or two meetings a year, typically the annual meeting of the Scoliosis Research Society or the Cervical Spine Research Society, or potentially the American Academy of Orthopaedic Surgeons or the North American Spine Society. Another meeting could also conceivably be substituted.

Purpose: To train individuals to treat all spinal diseases and conditions of the cervical, thoracic and lumbar spine: both degenerative and deformity; trauma and tumor; pediatric and adult. Individuals completing the fellowship will be well-suited for either a career in academics or in private practice. As of August 1, 2017, 74 fellows have been trained.

Case Load: Each fellow can anticipate doing approximately 250-300 cases per year (see percentages under exposure to the spine by region and diagnostic category.) Each fellow will operate and see patients with eight attendings. Over 90% of the cases will be "complex." Each of the four spine fellows rotates twice with four services of the eight participating faculty. The attendings are covered by four fellows, one chief/senior resident and seven physician extenders.

Fellows' Responsibilities: The fellows are responsible for covering the cases being done in the operating room and seeing patients in the office with the attendings. Clinical and basic science research projects are ongoing, and the fellows are encouraged to participate and obliged to complete at least two projects/papers. The educational process for the fellows includes a core curriculum of lectures, indications/case conferences, journal clubs and research meetings, which are held in the mornings Monday through Friday, with some weekly and others monthly.

**Ortho Carolina Spine Center
Presbyterian-Orthopaedic Hospital
Number of Positions: 2**

**Bruce V. Darden, II, MD
Alfred L. Rhyne III, MD
Eric B. Laxer, MD
R. Alden Milam, IV, MD – Co-Director
Leo R. Spector, MD – Co-Director
P. Bradley Segebarth, MD
T. Matt Chapman, MD**

Ortho Carolina Spine Center
2001 Randolph Road
Charlotte, NC 28207
Phone: (704) 323-3657 Fax: (704) 323-3985

Email: Annette.wilson@orthocarolina.com
Website: www.orthocarolina.com

Percent of Fellowship devoted to Operative Care: 75%
Non-Operative Care: 25%
Research/Publication Obligation: Yes

Approximate percentage of exposure to the Spine by region:

Cervical: 30%
Thoracic: 10%
Lumbar: 60%

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

Degenerative: 50%
Trauma: 10%
Deformity: 20%
Tumor: 10%
Pediatric: 10%

Goals and Characteristics:

This fellowship provides the Fellow with the skills necessary to become a well-rounded clinician as well as a skilled surgeon and is best suited for an individual planning adult spine surgical practice.

The fellowship is under the auspices of seven full-time practicing spine surgeons and four physiatrists who specialize in conservative care of spinal condition. The fellowship provides ample exposure to all areas of spinal pathology including trauma, infection, deformity and degenerative condition of the spine.

The surgical aspect of the fellowship emphasizes both anterior and posterior approaches to the entire spine, as well as exposure to numerous instrumentation systems and a robotic navigational system. The fellow will be exposed to approximately 450 surgical cases during a one-year period.

The fellows are involved in numerous clinical and basic research projects. He/she is in charge of running a weekly multi-specialty spine conference. The Fellow will develop a close working relationship with neuroradiologists, physical therapists, physiatrists and pain anesthesiologists. Participation in national spine specialty meetings and state meetings are expected.

We participate in the San Francisco Match Program.

Duke University Spinal Surgery Fellowship

Number of Positions: 2

Melissa M. Erickson, MD

William J. Richardson, MD

Christopher R. Brown, MD

Sergio Mendoza Lattes, MD

Phillip H. Horne, MD, PhD

Anand B. Joshi, MD

Gloria G. Liu, MD, MS

Division of Orthopaedic Surgery

Duke University Medical Center

Box 3077

Durham, NC 27710

Phone: (919) 684-5711; Fax: (919) 681-7366

Contact : Emily Berthold

Email: emily.berthold@duke.edu

Website:

<http://ortho.duke.edu/education-and-training/fellowship-programs/adult-spinal-surgery-fellowship>

Percent of Fellowship devoted to Operative Care: 70%

Non-Operative Care: 30%

Research/Publication Obligation: Yes

Approximate percentage of exposure to the Spine by region:

Cervical: 30%

Thoracic: 20%

Lumbar: 50%

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

Degenerative: 50-60%

Trauma: 20%

Deformity: 15%

Tumor: 5-10%

Goals:

To provide training in the evaluation and treatment of the full spectrum of spinal disorders including trauma, degenerative, deformity, tumor and reconstructive. Priority will be given to applicants who have a commitment to a career in academic orthopaedics. Experience will be obtained in both nonoperative and operative treatment of primarily adult spinal disorders. Exposure as an observer for surgical treatment of spine deformity in children and adolescents will also be available. There is a close working relationship with the Division of Neurosurgery, which will allow the Fellows to broaden their experience for evaluation and treatment of spinal disorders. Fellows will be encouraged to complete a clinical research project while in training. Time will be allotted weekly to participate in basic science research in a fully toolled and manned Biomechanics Laboratory. There are ongoing weekly conferences related to spinal conditions and, in addition, the Fellow will be encouraged to participate in resident education. All applicants must have successfully completed an ACGME accredited residency in orthopaedic surgery and hold a North Carolina medical license.

The duration of the fellowship is one year (August 1 to July 31). The annual stipend varies with the level of training.

Duke University Spinal Surgery Fellowship (Division of Neurosurgery)

Number of Positions: 1

Carlos A. Bagley, M.D., Program Director

Oren N. Gottfried, M.D.

Robert Isaacs, M.D.

Division of Neurosurgery

Duke University Medical Center

Box 3807

Durham, NC 27710

Fellowship Program Coordinator: Sherolyn Patterson

Phone: (919) 684-3053

Email: sherolyn.patterson@duke.edu

Website: <http://neuro.surgery.duke.edu/education-and-training/fellowship-programs/neurosurgery-adult-spine-fellowship>

Percent of Fellowship devoted to Operative Care: 70%

Non-Operative Care: 30%

Research/Publication Obligation: Yes

Approximate percentage of exposure to the Spine by region:

Cervical: 30%

Thoracic: 20%

Lumbar: 50%

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

Degenerative: 50%

Trauma: 15%

Deformity: 20%

Tumor: 15%

Goals:

The fellowship training provides broad educational experience in neurologic surgery of the spine, which complements training received during neurosurgery residency and promotes further acquisition of knowledge and skills in the subspecialty. A minimum of 12 months of fellowship training will be spent in a clinical spinal neurosurgery experience under the direction of the clinical faculty. This period of time will provide the trainee with an organized, comprehensive, supervised, full-time educational experience in the field of spinal neurosurgery, including comprehensive patient care, diagnostic modalities, the performance of surgical procedures, and the integration of non-operative and surgical therapies into clinical patient management. The fellowship will provide a broad exposure to clinical evaluation and appropriate patient selection for operative and non-operative management in both the inpatient and outpatient settings. Each fellow will actively participate in the operative management of a wide range of spinal disorders including traumatic, degenerative, neoplastic, and congenital conditions. Progressive responsibility in patient management will be provided. A broad exposure to modern minimally invasive and reconstructive spinal instrumentation techniques will also be provided. The duration of the fellowship is one year (July 1 to June 30). The annual stipend varies with the level of training.

Albany Medical College Spine Fellowship

Allen Carl, MD
Darryl DiRisio, MD

Albany Medical College
Division of Orthopaedics
1367 Washington Avenue, Suite 202
Albany, NY 12206
Phone: (518) 453-3079; Fax: (518) 453-1463

Percent of Fellowship devoted to Operative Care: 70%
Non-Operative Care: 30%
Research/Publication Obligation: Yes

Approximate percentage of exposure to the Spine by region:

Cervical: 30%
Thoracic: 20%
Lumbar: 50%

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

Degenerative: 35%
Trauma: 25%
Deformity: 10%
Tumor: 5%
Pediatric: 25%

Goals:

Fellowship is developed jointly by Orthopaedics and Neurosurgery services. Increased responsibility will be afforded to the Fellow as he/she improves efficiency. Fellow will be obligated to perform a research project in clinical or basic science that is of presentation/publication quality. Fellow will have his/her own clinic of patients with responsibility to attending MD. Present collaborations exist with bioengineering, instrumentation, imaging and biochemical engineering companies. Opportunities to become involved in long-range projects with these companies also exist. At the completion of this fellowship a comprehensive education of spine will be accomplished. The Fellow will be competent in conservative treatment, minimally invasive, and open surgical modalities.

The duration of the fellowship is one year (August 1 to July 31) and the deadline is May 1. The annual stipend is \$55,000 plus benefits.

Columbia Orthopedics Adult and Pediatric Comprehensive Spine Fellowship

Number of Positions: 3

K. Daniel Riew, MD, Director

Lawrence G. Lenke, MD, Co-Director

Ronald A. Lehman, Jr., MD, Co-Director

Yongjun J. Kim, MD

Charla Fischer, MD

Mark Weidenbaum, MD

Columbia University Medical Center/New York Presbyterian Hospital

622 West 168th Street, PH-11

New York, NY 10032

Phone: (212) 305-5974; Fax: (212) 305-6193

Contact: Jewel Williams

Email: jw2712@cumc.columbia.edu

Website: <http://columbiaortho.org>

Percent of Fellowship devoted to Operative Care: 70%

Non-Operative Care: 30%

Research/Publication Obligation: Yes

Approximate percentage of exposure to the Spine by region:

| | |
|-----------|-----|
| Cervical: | 35% |
| Lumbar: | 50% |
| Thoracic | 15% |

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

| | |
|---------------|-----|
| Deformity: | 35% |
| Degenerative: | 30% |
| Pediatric: | 15% |
| MIS | 10% |
| Trauma | 5% |
| Tumor | 5% |

Goals:

The Inaugural Adult and Pediatric Comprehensive Spine Fellowship will commence in 2015 at New York Presbyterian Hospital (NYP), Morgan Stanley Children's Hospital of New York at NYP, NYP Lawrence Hospital and the Global Spine Institute at the NYP The Allen Hospital and participating institutions. Participating physicians are Lawrence G. Lenke, M.D., K. Daniel Riew, MD, Ronald A. Lehman, Jr., MD, Yongjun J. Kim, MD, Charla Fischer, MD and Mark Weidenbaum, MD.

Three positions are available per academic year (August 1-July 31). A PGY-6 stipend for Orthopaedic or a PGY-7 stipend for Neurosurgery graduates is offered, with four weeks (20 work days) of vacation. One or two spine meetings of the fellow's choice are included during the fellowship year.

Purpose: To train individuals to treat all spinal diseases and conditions of the cervical, thoracic and lumbar spine: both degenerative and deformity; trauma and tumor; pediatric and adult. Individuals completing the fellowship will be adept at performing every type of surgical case from complex scoliosis and kyphosis corrections with three-column osteotomies, to cervical, lumbar degenerative and minimally invasive surgery (MIS). This will facilitate a career in either academic or private practice.

Case Load: The overall case-load profile is 40% deformity, 45% degenerative (cervical and lumbar), and 10% tumor/fracture. 40% of cases are cervical, while 60% are thoracic/lumbar in nature, with a minimally invasive (MIS) exposure for many pathologies as well. Age distribution equates to 70% adult and 30% pediatric. T

The attendings are covered by three fellows, one chief/senior resident and multiple physician assistants (PAs) and nurse practitioners (NPs).

Fellows' Responsibilities: The fellows are responsible for covering the cases being performed in the operating room and seeing patients in the office with the attendings. Clinical and basic science research projects are numerous with the ability to participate in prospective outcomes studies, biomechanics and basic science projects. The fellows are encouraged to participate and obliged to complete at least two projects/papers. The educational process for the fellows includes a core curriculum of lectures, teaching case conferences and journal clubs. Formal teaching conferences for the fellows are held weekly on a variety of didactic topics, case presentations and interactive discussions and complex deformity conference.

NYU Langone Orthopedic Hospital (Hospital for Joint Diseases) Spine Fellowship
Number of Positions: 5

Jeffrey Goldstein, MD, Fellowship Director
Charla Fischer, MD, Associate Fellowship Director

Erich Anderer, MD
John Bendo, MD
Aaron Buckland, MD
Alexandre DeMoura, MD
Joseph Dryer, MD
Anthony Frempong, MD
Jason Gallina, MD
Kolawole Jegede, MD
Jeffrey Klein, MD
Angel Macagno, MD
Ronald Moskovich, MD
Peter Passias, MD
Noel Perin, MD
Anthony Petrizzo, DO
Martin Quirno, MD
Themistocles Protopsaltis, MD
Tina Raman, MD
Afshin Razi, MD
Michael Smith, MD
Jeffrey Spivak, MD
Jonathan Stieber, MD

301 East 17th Street
New York, NY 10003
Phone: (212) 598-6509; Fax: (212) 598-6581
Contact: Randie Godette

Email: Randie.godette@nyumc.edu

<https://www.med.nyu.edu/orthosurgery/education-training/fellowship-programs/orthopaedic-spine-and-deformity-surgery-fellowship>

Percent of Fellowship devoted to Operative Care: 80%
Non-Operative Care: 20%
Research/Publication Obligation: 2 papers

Approximate percentage of exposure to the Spine by region:

Cervical: 30%
Thoracic: 20%
Lumbar: 50%

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

Degenerative: 40%
Trauma: 5%
Deformity: 35%
Tumor: 5%
Pediatric: 15%

Goals:

The NYU Langone Orthopedic Hospital (formerly known as The Hospital for Joint Diseases) spine fellowship is designed for three orthopedic spine fellows (ACGME accredited) and two additional orthopedic or neurosurgical spine and/or foreign fellows (non-accredited). The fellows rotate between three NYU Langone Health institutions (NYU Kimmel & Tisch Hospital Center, NYU Langone Orthopedic Hospital, and NYU Brooklyn Medical Center). There are 20 board certified orthopaedic surgeons and neurosurgeons who are directly involved with the fellowship program.

The fellows are exposed to a wide range of pathology including degenerative diseases, complex adult and pediatric deformity, and spinal tumors. At the end of their fellowship, they will have been trained in spine surgery from the occiput to the sacrum, both anterior and posterior, with and without instrumentation. They will gain particular expertise in the pre-op evaluations of spinal deformity patients including surgical indications and pre-operative medical optimization. Complex deformity surgery is routinely performed including revisions, long fusions to the pelvis, pedicle subtraction osteotomies, and posterior vertebral column resections. Additionally, they will be exposed to many new and cutting edge techniques such as cervical disc arthroplasty and minimally invasive surgery including MIS decompressions and MIS fusions. Both navigation and robotics is growing in clinical application and has an increasing presence in the fellow training. NYU Langone has both a spine robot and navigation. Since the fellows are always on separate services, each fellow is separately involved in approximately 250 to 300 cases per annum. Clinical judgment is vital in training a spine surgeon; therefore, the fellow spends one day a week in the private office or clinic. There is also the opportunity to learn epidural injections with our spine surgeons, as well as our pain medicine specialists.

Opportunities exist for clinical and biomedical research. The Spine Division participates in several ongoing FDA clinical trials. Past/present trials include the NIH SPORT Trial, NIH ASLS Trial, ProDisc trials, and Coflex™ trial. The fellows are given one research day per week and are expected to complete and submit for publication in peer reviewed journals two research projects during the academic year. They are sponsored to attend a major meeting during the year.

In addition to research involvement, the fellow has a major teaching and leadership role in the orthopedic residency program as they will prepare residents for weekly spine conferences, as well as teach them both diagnostic and surgical skills. The duration of the fellowship is one year (August 1 to July 31). Approximate stipend for PGY-6 is \$75,72.75 plus benefits.

**Icahn School of Medicine at Mount Sinai
Spine Surgery Fellowship**

Number of Positions: 2

Andrew Hecht, MD (Chief of Service)
Samuel Cho, MD (Director of Fellowship)
Saad Chaudhary (Associate Director of Fellowship)
Michael Neuwirth, MD
Baron Lonner, MD
Paul Kuflik, MD
James Iatridis, PhD (Director of Spine Research Lab)

Mount Sinai School of Medicine
5 East 98th Street, Box 1188
New York, NY 10029
212.241.1621 Tel 212.241.9429
Email: bridgette.hyde@mountsinai.org

Percent of Fellowship devoted to Operative Care: 80%
Non-Operative Care: 20%
Research/Publication Obligation: Yes

Approximate percentage of exposure to the Spine by region:

Cervical: 40%
Thoracic: 15%
Lumbar: 45%

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

Degenerative: 40%
Trauma: 5%
Deformity: 25%
Tumor: 10%
Pediatric: 20%

Goals:

Applications are now being accepted for a one year Spine Surgery Fellowship (2 positions) beginning August 1, 2019 through July 31, 2020. The fellows will gain extensive and well founded clinical experience in the evaluation and treatment of complex primary and revision spinal surgery.

The fellow will be exposed to the full range of degenerative, traumatic, oncologic, deformity, arthroplasty, and minimally invasive surgical treatments of disorders of the cervical, thoracic and lumbar spine. The fellow will also have the opportunity to participate in clinical activities with neurosurgery. The fellow will also be involved in the teaching of residents, organizing spine conference and conducting research that will lead to at least a single publication. The fellow will attend weekly clinical and research conferences. Lastly, opportunities will exist for participation in basic science research with Dr. James Iatridis.

All candidates must have completed an Orthopaedic or Neurosurgery residency and must be Board- eligible or Board certified prior to fellowship.

Hospital for Special Surgery-New York Spine Fellowship Program

Number of Positions: 4

Han Jo Kim, MD

Frank Schwab, MD

Hospital for Special Surgery

Attn: GME Fellowship Coordinator

Email: academictraining@hss.edu

Website: www.hss.edu

535 East 70th Street

New York, NY 10021

Phone: (212) 606-1466; Fax: (212) 606-1477

Percent of Fellowship devoted to Operative Care: 70%

Non-Operative Care: 10%

Research/Publication Obligation: 20%

Approximate percentage of exposure to the Spine by region:

Cervical: 35%

Thoracic: 15%

Lumbar: 50%

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

Degenerative: 35%

Trauma: 5%

Deformity: 40%

Tumor: 7%

Pediatric: 13%

Goals:

The Spine Surgery fellowship program at the Hospital for Special Surgery is a mentorship model-based fellowship program with a comprehensive exposure to Cervical, Pediatric and Adult Deformity, Lumbar Degenerative and Minimally Invasive Spine Surgery. In addition, through our collaboration with Memorial Sloan Kettering Cancer Center, there is a unique exposure to Spine Tumor Surgery.

Throughout the year, the fellows will gain an ongoing, in-depth experience in the management of patients with spinal diseases. This experience includes both surgical and non-surgical management. There are didactic and clinical conferences with other services, which are essential to the comprehensive education of the fellows. Participation in either clinical or basic science research projects is required. Although not a prerequisite for acceptance into the clinical program, there is an option for fellows to pursue a one-year research track prior to the clinical fellowship.

Fellows will have appointments at Hospital for Special Surgery, New York-Presbyterian Hospital and Memorial Sloan Kettering. Fellows will be able to attend all of the Orthopaedic and Neurosurgical educational conferences, which are held at HSS and other sites.

The duration of the fellowship is one year (August 1 to July 31). The annual stipend is \$83,892 plus benefits.

Louis A. Goldstein University of Rochester Spinal Surgery Fellowship
Number of Position(s): 1

Emmanuel Menga MD
Addisu Mesfin, MD, Fellowship Director
Robert W. Molinari, MD, Spine Division Chief
Paul T. Rubery, MD, Orthopaedic Surgery Chairman
James Sanders, MD, Pediatric Orthopaedics Division Chief

Department of Orthopaedic Surgery
University of Rochester Medical Center
601 Elmwood Avenue, Box 665
Rochester, NY 14642
Phone: (585) 275-1733; Fax: (585) 756-4726
Email: Jackie_cotto@urmc.rochester.edu
Website: <https://www.urmc.rochester.edu/orthopaedics/spinal-surgery.cfm>

Percent of Fellowship devoted to Operative Care: 80%
Non-Operative Care: 20%
Research/Publication Obligation: Yes

Approximate percentage of exposure to the Spine by region:

Cervical: 30%
Thoracic: 20%
Lumbar: 50%

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

Degenerative: 50%
Trauma: 20%
Deformity: 20%
Tumor: 10%

Goals:

Louis A. Goldstein MD, is the name sake of the spine surgery fellowship at the University of Rochester. Dr. Goldstein was one of the founders of the Scoliosis Research Society (SRS) and the SRS annual meeting the Louis A. Goldstein award is given for the best clinical poster. He was one of the pioneers of Harrington Instrumentation for adolescent idiopathic scoliosis. More than 34 fellows have completed the spine surgery fellowship.

Our Spinal Surgery Fellowship is a yearlong departmental program that encompasses a full range of spinal surgery with additional opportunities in clinical and basic science research. Our Fellows are trained by surgeons renowned in surgery of the spine with an emphasis on

- Cervical and lumbar degenerative conditions
- Fractures, infections, and tumors of the spine
- Adult and pediatric spinal deformity, including corrective osteotomies
- Spinal cord injury
- Minimally-invasive and microscope-assisted techniques
- Early-onset scoliosis

The fellowship offers a comprehensive experience spanning all aspects of adult and pediatric spinal surgery. The University of Rochester Medical Center is the Level I trauma center, regional cancer center and spinal cord injury center for the Finger Lakes Region of New York State. Emphasis is on the management of complex trauma, tumors, deformity, degenerative cervical and thoracolumbar disorders.

Over 750 surgical cases are performed annually with the following percentage: Degenerative (50%), Deformity (20%), trauma (20%), Tumor (10%). The fellow will have progressive responsibilities and will be exposed to a variety of procedures and instrumentation techniques from the occiput to pelvis. There is no in-house call.

Complex spinal surgery including anterior/posterior reconstructions, revision procedures, posterior based three column osteotomies are performed. Additional cadaver training is provided throughout the year. Fellows can attend one national meeting per year as well as additional courses.

The Fellow is exposed to clinic and non-operative management of spinal disorders at our comprehensive spine center. Weekly fellow teaching conferences and a fellow core educational curriculum are provided. Participation in clinical or basic science research resulting in a paper suitable for peer-reviewed publication is strongly recommended.

Our Fellows will work closely with faculty to:

- Manage a spine clinic with faculty support
- Gain valuable spinal trauma experience at a Level-1 Trauma Unit
- Participate in a busy surgical spine center
- Learn injection and interventional physiatry techniques

Surgical venues include the Clinton Crossings procedure room, Strong Memorial Hospital, Highland Hospital, and Sawgrass Surgery Center. Our Fellows will also enjoy the opportunity to become involved in basic and clinical research in our Center for Musculoskeletal Research. Our fellowship begins August 1 each year. Interested applicants should apply via the SF match.

State University of New York (SUNY) Spinal Surgery Fellowship
Number of Positions: 1

William F. Lavelle, MD, Fellowship Director

State University of New York
Upstate Medical University
750 East Adams Street
Syracuse, NY 13210
Phone: (315) 464-5226; Fax: (315) 464-6470
Residency & Spine Fellowship Coordinator: Julie Bordeau/bordeauj@upstate.edu

Percent of Fellowship devoted to Operative Care: 85%
Non-Operative Care: 15%
Research/Publication Obligation: Involvement in 1 or 2 projects

Approximate percentage of exposure to the Spine by region:

Cervical: 40%
Thoracic: 10%
Lumbar: 50%

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

Degenerative: 50%
Trauma: 25%
Deformity: 10%
Tumor: 10%
Pediatric: 5%
Other:

Goals:

This fellowship is ACGME accredited.

There are three goals of this fellowship program:

1. To develop the physician's knowledge and surgical techniques for treating diseases of the spine.
2. To provide experience in conducting appropriate research in the laboratory and/or clinical setting.
3. To demonstrate an ability to transmit information to other professionals through education and dissemination of research results.

The fellow will be involved in a variety of education activities. The Fellow can expect to gain experience with the diagnosis and management of degenerative, traumatic, infectious, and neoplastic conditions involving the cervical, thoracic, and lumbar regions of the spine. Exposure to patients with spine deformities is also available. The Fellow is actively involved in the outpatient clinic. Clinical and basic science research is carried out under the guidance of research and clinical faculty members. Surgical experience is gained under the supervision of faculty members from the orthopedic and neurosurgical departments.

Spine and Spinal Cord Injury Fellowship

Number of Position(s): 1

Christopher G. Furey, MD (Fellowship Director)

Nicholas U. Ahn, MD

Zachary L. Gordon, MD

Jason D. Eubanks, MD

University Hospitals Case Medical Center/Case Western Reserve University School of Medicine

Department of Orthopaedic Surgery

11100 Euclid Avenue

Cleveland, OH 44106

Phone: (216) 844-7822

Contact : Julie Bunkelman

Email: julie.bunkelman@UHhospitals.org

Percent of Fellowship devoted to Operative Care: 90%

Non-Operative Care: 10%

Research/Publication Obligation: Yes

Approximate percentage of exposure to the Spine by region:

Cervical: 40%

Thoracic: 10%

Lumbar: 50%

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

Degenerative: 60%

Trauma: 20%

Deformity: 10%

Tumor: 5%

Pediatric: 5%

Goals:

The goal of the Fellowship is to provide in-depth knowledge of the diagnosis, operative as well as non-operative treatment, and rehabilitation of adult spine disease as well as spinal cord injuries. The Acute SCI Service at the VA Medical Center is a 600+ bed regional referral center for active duty military patients with spine and spinal cord injuries. About 70 admissions per year are first-time spinal cord injuries. The spine Fellow is directly involved in their Orthopaedic care, surgery and rehabilitation. These include anterior and posterior cervical spine surgery, anterior trans-thoracic decompressions and fusions, posterior stabilization, anterolateral lumbar decompression and fusion, posterior decompressions with or without fusions and instrumentation, and cervical as well as lumbar osteotomies for correction of the ankylosed spine. The spinal surgery experience includes the treatment of 500 patients per year at University Hospitals of Cleveland with kyphoses, spinal infections, tumors, spinal stenosis and herniated cervical, thoracic and lumbar discs, with and without paralysis. At MetroHealth, a major trauma center, there is a 25-bed SCI unit, and General Orthopaedic Service, which treats 300 spine patients per year. The Fellow will participate in clinical/laboratory research with the goal of presenting papers and publishing.

The duration of the fellowship is one year (July to June) and the deadline is December 31. The annual stipend is \$50,600.

Spine Surgery Fellowship at the Cleveland Clinic
Number of Positions: 3

Tom Mroz, MD, Fellowship Director

Cleveland Clinic Foundation
9500 Euclid Avenue #S40
Cleveland, OH 44195
Phone: (216) 445-9234; Fax (216) 636-2607

Contact: Leslie Berdecia
Email: spinefellowship@ccf.org

Percent of Fellowship devoted to Operative Care: 70%
Non-Operative Care: 30%
Research/Publication Obligation: Required: 2 Publications, 1 presentation prior to completion

Approximate percentage of exposure to the Spine by region:

Cervical: 40%
Thoracic: 20%
Lumbar: 40%

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

Degenerative: 45%
Trauma: 10%
Deformity: 25%
Tumor: 10%
Pediatric: 10%

Goals:

Welcome to the Center for Spine Health and the Spine Surgery Fellowship at Cleveland Clinic. Our fellowship is a combined Orthopaedic and Neurological Surgery experience that is one year in length, with an option to do an additional year of research for select candidates.

Our philosophy is simple. We strive to recruit the top candidates and provide them with superior clinical and surgical training. As a “hybrid” program comprised of five fellowship-trained Orthopaedic Surgeons and five fellowship-trained Neurosurgeons, each fellow will gain ample exposure to a wide range of spinal pathologies ranging from degenerative diseases, infections, intra- and extra-dural tumors, deformity, and trauma. In general, the surgical techniques employed by Orthopaedic and Neurological surgeons vary, and as a Fellow in this program you will become proficient with all techniques, including deformity, microsurgery and minimally invasive surgery. A primary goal of our fellowship is to graduate fellows with a highly refined clinical acumen and surgical skill set that will allow them to most effectively treat any type of spinal malady. Approximately 2500 spine surgeries are performed annually at the Cleveland Clinic - providing an excellent opportunity to excel in spinal surgery, both technically and clinically.

Our yearly curriculum includes a very thorough series of didactic sessions provided by Staff and guest lecturers, fellow-directed case presentations, biomechanical and controversy conferences, in addition to monthly grand rounds lectures and journal clubs. The curriculum was designed to provide a strong evidence-based foundation on all topics pertinent to spine surgery.

Collectively, the Spine Surgery Staff surgeons have published over 500 articles in the peer-reviewed medical literature, over 400 book chapters and over 30 books in the field of spine surgery and related topics. All of the staff at Cleveland Clinic are involved nationally and internationally in teaching, and are members on numerous academic societies. This underscores our philosophy, enthusiasm and commitment to education as well as the breadth of experience among our staff. As a requirement in our Fellowship, each fellow must complete at least one project prior to graduation. There are a multitude of areas of research available to our fellows, including basic science, pre-clinical, clinical, and biomechanical research opportunities. We believe this is a valuable educational experience, and certainly a strength of this program.

Thank you for your interest in the Spine Surgery Fellowship Program at Cleveland Clinic.

The duration of the fellowship is one year (August 1 to July 31)

Application Deadline is October 30th. Annual stipend is \$62,000-64,400 plus benefits.

Spine Medicine at the Cleveland Clinic

Russell DeMicco, DO, Fellowship Director
Santhosh Thomas, DO, MBA Co-Fellowship Director
Adrian Zachary, DO, MPH Co-Fellowship Director

Cleveland Clinic Center for Spine Health
9500 Euclid Avenue
Cleveland, OH 44195
Phone: (216) 445-9234; Fax: (216) 636-2607

Contact: Leslie Berdecia
Email: spinefellowship@ccf.org
Email: demiccr@ccf.org

Website: http://my.clevelandclinic.org/neurological_institute/spine/medical-professionals/fellowships.aspx

Medical Care: 100% (40-50% interventional)
Research/Publication Obligation: Yes

Approximate percentage of exposure to the Spine by region:

| | |
|-----------|-----|
| Cervical: | 35% |
| Thoracic: | 5% |
| Lumbar: | 60% |

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

| | |
|---------------|-----|
| Degenerative: | 60% |
| Trauma: | 5% |
| Deformity: | 10% |
| Tumor: | 5% |
| Pediatric: | 5% |
| Other | 20% |

The Ohio State University Wexner Medical Center
Number of Positions: 1

Elizabeth Yu, MD, Fellowship Director

The Ohio State University Wexner Medical Center
376 W. 10th Avenue, Suite 725, Prior Hall
Columbus, OH 43210
Phone: (614) 293-6194; Fax: (614) 293-3596

Contact: Julia Panzo

Email: Julia.Panzo@osumc.edu

Program Website: <https://wexnermedical.osu.edu/departments/orthopaedics>

| | |
|---|-----|
| Percent of Fellowship devoted to Operative Care: | 45% |
| Non-Operative Care: | 45% |
| Research/Publication Obligation: | 10% |

Approximate percentage of exposure to the Spine by region:

| | |
|-----------|-----|
| Cervical: | 40% |
| Thoracic: | 20% |
| Lumbar: | 40% |

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

| | |
|---------------|-----|
| Degenerative: | 45% |
| Trauma: | 20% |
| Deformity: | 30% |
| Tumor: | 5% |

Goals:

The training faculty members of The Ohio State University Surgery of the Spine Fellowship Program are committed to the education of all fellows and wish to prepare these physicians to function as well-qualified, independent specialists. We believe that fellows require training in basic science, and clinical care as it relates to orthopaedics. Our role as educators is to instill trainees with those traits essential to success including honesty and integrity, objectivity, self-motivation, curiosity, timeliness, and a sense of responsibility.

The Department of Orthopaedics at The Ohio State University have designed a teaching program that includes comprehensive didactics, in which all areas of Surgery of the Spine are represented. The curriculum allows the fellow to be involved with all spine surgery faculty. The variety of styles in the management of spinal problems, surgical indication, patient/physician relationships, charting/documentation, and billing methods that exist in this broad spectrum of practices offers an experience that is truly comprehensive.

The fellow will be exposed to the full spectrum of spinal disorders, both operative and non-operative. During the program, the fellow have access to a high volume of spine surgical procedures by rotating with the three orthopaedic spine surgeons on staff and will be exposed to cervical, thoracic, and lumbar pathology, including degenerative diseases, trauma, deformity, infections, and tumors. Anterior, posterior, and direct lateral exposures will be taught as well as minimally invasive and open techniques for spinal fusion and decompression. The fellow will be involved in all phases of care for the patient,

including pre-op, surgical care, postop follow-up, and long term surveillance care. The fellow will also participate in an on-call schedule, where they will see and evaluate patients with residents in the emergency department. He or she will see patients in the clinic and will direct appropriate diagnostic studies as needed and participate in the surgical and postoperative care of patients and also supervise outpatient therapy until the patient is recovered.

Research is also an important component of the Spine Surgery Fellowship program. The fellow will be responsible for at least one research project during their training. This will include study design, IRB application, statistical analysis, and writing. Resources are available in all of these areas within our division and department. Research projects are presented at the research day. Ample time is provided to the fellow throughout the program to complete their project.

The fellow will be provided with a PGY6 salary and benefits. The fellowship extends from August 1 to July 31st.

Oregon Health & Science University Adult Spine Fellowship
Number of Positions: 2

Jayne Hiratzka, MD
Spine Fellowship Director

Physicians also participating in this program include:
Jung Yoo, MD (Professor and Chair), Clifford Lin, MD (Assistant Professor)

Oregon Health and Science University School of Medicine
Department of Orthopaedics and Rehabilitation
3181 SW Sam Jackson Park Road, OP31
Portland, OR 97239
Phone: 503/494-5842 Fax: 503/494-5050
Email: Robin Sasaoka; sasaokar@ohsu.edu
Website: http://www.ohsu.edu/xd/health/services/ortho/index.cfm?WT.mc_id=ortho_bnj_jr_ppc_vurl5/

Percent of Fellowship devoted to Operative Care: 80%
Non-Operative Care: 20%
Research/Publication Obligation: Yes

Approximate percentage of exposure to the Spine by region:

Cervical: 30%
Thoracic: 10%
Lumbar: 60%

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

Degenerative: 45%
Trauma: 20%
Deformity: 25%
Tumor: 5%
Pediatric: 5%

Goals:

It is our goal to provide our fellows with the clinical and surgical skills to manage all aspects of a modern spine surgical practice. We strongly emphasize decision-making based on principles derived from the spine surgical literature. Our fellows will obtain in depth exposure to primary and revision degenerative problems of the cervical and lumbar spine, adult spinal deformity, and spinal trauma including spinal cord injury patients. Exposure to minimally invasive techniques and pediatric spinal deformity is also available.

Protected time for study and research is assured. Fellows are expected to complete one clinical and one basic science project for publication. Fellows also participate in 2 weekly educational conferences with the orthopaedics residents. No general orthopaedic call is required. Fellows are on call for spine trauma approximately one week per month at our Level-1 trauma center.

OHSU Orthopaedics does approximately 700 inpatient adult spine surgeries per year, including 150 cervical procedures, 100 adult deformity cases, 60 fractures, and 30 tumor patients.

Operative involvement will increase with maturity with the clear goal that the Fellows be able to operate independently and manage a complex spine surgical case load by the end of the fellowship.

The duration of the fellowship is one year (August 1 – July 31). Estimated stipend is \$66,800.

Geisinger Spine Surgery Fellowship

Number of Position(s): 1

Dirk H. Alander, MD

Michael H. Haak, MD

Geisinger Medical Center

100 North Academy Avenue, M.C. 21-30

Danville, PA 17822

Phone: (570) 271-6541; Fax: (570) 271-5872

Percent of Fellowship devoted to Operative Care: 65%

Non-Operative Care: 35%

Research/Publication Obligation: Yes

Approximate percentage of exposure to the Spine by region:

Cervical: 35%

Thoracic: 20%

Lumbar: 45%

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

Degenerative: 40%

Trauma: 15%

Deformity: 25%

Tumor: 5%

Pediatric: 15%

Goals:

This spine fellowship is a comprehensive experience in spinal surgery. A successful candidate must be eligible to obtain an unrestricted medical license in the state of Pennsylvania and have successfully completed an MD or DO orthopaedic or neurosurgical residency training program.

Geisinger Medical Center (GMC) is a Level 1 Trauma Center serving central and northeast Pennsylvania. The fellowship will include exposure to all areas of spinal pathology including trauma, degenerative, deformity, and tumor of the entire spine. Degenerative cases will include adult reconstruction as well as minimally invasive surgery. Pediatric spine exposure will include trauma, congenital and idiopathic scoliosis.

The fellowship is in conjunction with the orthopaedic residency-training program at Geisinger Medical Center. Participating faculty include Dirk Alander, Michael Haak, David Andreychik, Fred Hess and Hemil Maniar. Participation with orthopaedic residents and educational conferences is required. Salary will be at a PGY-6 level. A minimum of one publishable research paper is required by the end of the fellowship year.

Interested individuals should send their CV, including residency information, 2 reference letters, and USMLE scores, if applicable, to: orthoresearch@geisinger.edu

The Rothman Institute/TJUH Spine Surgery Fellowship

Number of Positions: 4

Alan S. Hilibrand, MD, MBA: Director

Alexander R. Vaccaro, MD, PhD, MBA

D. Gregg Anderson, MD

Jeffrey A. Rihn, MD

Kris Radcliff, MD

Chris K. Kepler, MD, MBA

Mark Kurd, MD

Gregory Schroeder, MD

Faculty of the Department of Neurological Surgery (Drs. Harrop, Prasad, and Heller)

Department of Orthopaedic Surgery
Thomas Jefferson University
1025 Walnut Street, Room 516 College
Philadelphia, PA 19107
Phone: (215) 955-1500; Fax: (215) 503-0530

Contact: Susan Randolph: susan.randolph@jefferson.edu

Percent of Fellowship devoted to Operative Care: 80%

Non-Operative Care: 20%

Research/Publication Obligation: Yes

Approximate percentage of exposure to the Spine by region:

| | |
|-----------|-----|
| Cervical: | 40% |
| Thoracic: | 10% |
| Lumbar: | 50% |

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

| | |
|---------------------------|---------------------|
| Degenerative: | 50% |
| Trauma: | 20% |
| Deformity: | 20% |
| Tumor: | 8% |
| Pediatric: | 2% |
| Minimally Invasive Cases: | 20% of degenerative |

Goals:

This is a one-year spine fellowship with the spine surgeons of The Rothman Institute, which is affiliated with Thomas Jefferson University Hospital. The surgical experience at our institution includes over 3,500 cases. The Regional Spinal Cord Injury Center of Delaware Valley is centered at Thomas Jefferson University Hospital and approximately 250 inpatients with spinal fractures are treated each year. Over 500 operative cases of adult spinal deformity are another component of the fellowship experience. In addition, one of the four rotations is focused on minimally-invasive surgical treatment of spinal pathology. The majority of the surgical cases include treatment of degenerative disorders, including herniated disk, spondylosis, instability, stenosis, and spondylolisthesis of the cervical and lumbar spine. Fellows train in a preceptorship environment with attendings in four 3-month rotations. Each rotation includes operative cases, office hours, and opportunities for clinical and basic science research.

University of Pennsylvania Orthopaedic Spine Surgery Fellowship

Number of Positions: 2

Harvey E. Smith, MD

University of Pennsylvania
Department of Orthopaedic Surgery
3737 Market Street
Philadelphia, PA 19104
Phone: (215) 662-3340; Fax: (215) 349-5128

Contact: Harvey Smith, MD

Email: Harvey.smith@uphs.upenn.edu

Percent of Fellowship devoted to Operative Care: 70%

Non-Operative Care: 30%

Research/Publication Obligation: Yes

Approximate percentage of exposure to the Spine by region:

| | |
|-----------|-----|
| Cervical: | 35% |
| Thoracic: | 15% |
| Lumbar: | 55% |

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

| | |
|---------------|------|
| Degenerative: | 30% |
| Trauma: | 2.5% |
| Deformity: | 15% |
| Tumor: | 2.5% |
| Pediatric: | 50% |

Goals:

The University of Pennsylvania Orthopaedic Spine Surgery Fellowship offers a unique opportunity for training in both adult degenerative and deformity as well as pediatric spine surgery. We are partnering with Shriner's Hospital for Children for a combined adult/pediatric spine education. There will be 2 fellows/year who will spend 50% of their time at Penn and 50% at Shriner's. At Penn the fellow will work with Drs. Vincent Arlet and Harvey Smith, focusing on adult deformity and degenerative disease. At Shriner's the fellow will work with Dr. Amer Samdani. It is the expectation that the fellow will acquire surgical expertise in the management of a wide spectrum of spinal pathology, both adult and pediatric. The fellow will be expected to participate in all aspects of patient care, academic conferences, and research. A minimum of one research project suitable for peer-reviewed publication is required. Operative volume should be well over 400 cases/year the majority of which are complex deformity or degenerative spine.

University of Pittsburgh Spine Surgery Fellowship

Number of Positions: 2

William F. Donaldson III, MD

Joon Y. Lee, MD

W. Timothy Ward, MD

University of Pittsburgh Medical Center
3471 Fifth Avenue, Suite 1010
Pittsburgh, PA 15213
Phone: (412) 687-3900 x-218; Fax: (412) 687-3724
Email: donaldsonwf@upmc.edu

| | |
|---|------------|
| Percent of Fellowship devoted to Operative Care: | 80% |
| Non-Operative Care: | 20% |
| Research/Publication Obligation: | 2 projects |

Approximate percentage of exposure to the Spine by region:

| | |
|-----------|-----|
| Cervical: | 35% |
| Thoracic: | 15% |
| Lumbar: | 40% |

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

| | |
|---------------|-----|
| Degenerative: | 60% |
| Trauma: | 15% |
| Deformity: | 10% |
| Tumor: | 5% |
| Pediatric: | 5% |
| Other: | 10% |

Goals:

A wide variety of spinal disorders are treated. The University Hospital of Pittsburgh has a busy spine service consisting of operative and conservative treatments of spinal trauma, tumors, infections, degenerative conditions, and deformity of the cervical, thoracic and lumbar spine. Over 800 surgical procedures are performed each year at the service. There is opportunity to be involved with deformity cases at the Children's Hospital. The fellow will be involved with cases at the VAMC. All aspects of surgical and non-surgical treatments are emphasized. Various approaches and instrumentation types are being used and are always evolving. Weekly spinal conferences and teaching conferences will be an integral part of the program. There is ample opportunity to become involved in both clinical and basic science research. We have a very productive research program that allows significant exposure to research, if desired.

The duration of the fellowship is one year (August 1 to July 31) and the deadline is January. The annual stipend varies with the level of training.

Brown University Spine Fellowship
Number of Positions: 2

Mark A. Palumbo, MD (Co-Director)
Alan H. Daniels, MD (Co-Director)
Phillip R. Lucas, MD
Alexander P. Robertson, MD
John K. Czerwein, MD
Craig P. Ebersson, MD

University Orthopedics, Inc.
2 Dudley Street, Suite 200
Providence, RI 02905

Phone: (401) 330-1420; Fax: (401) 330-1495

Email: Alan_Daniels@Brown.edu

Website: <http://biomed.brown.edu/orthopaedics/>

| | |
|---|------------|
| Percent of Fellowship devoted to Operative Care: | 65% |
| Non-Operative Care: | 35% |
| Research/Publication Obligation: | Encouraged |

Approximate percentage of exposure to the Spine by region:

| | |
|-----------|-----|
| Cervical: | 35% |
| Thoracic: | 10% |
| Lumbar: | 55% |

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

| | |
|------------------|-----|
| Degenerative: | 60% |
| Trauma: | 15% |
| Deformity: | 20% |
| Tumor: | 5% |
| Adult cases: | 85% |
| Pediatric cases: | 15% |

Goals:

The Fellowship involves a one year experience of intensive post-residency training in disorders and injuries of the spine in adult and pediatric patients. The fellowship combines a diverse and active operative and clinical schedule with the opportunity for clinical research.

With a reasonable call schedule and an active operating room experience, the Fellows will be expected to participate in resident education, didactic conferences and research. Our interest is in training surgeons who will undertake a career in either academics or private practice.

The goal of this Fellowship is to produce well-rounded and competent spinal surgeons with a broad knowledge of patient evaluation, clinical decision making, pre-operative planning, operative technique and post-operative care. The Fellow is also expected to become adept at analysis of the literature and will have the ability to contribute to orthopaedic research.

Approximately 750 operative cases are undertaken in the Division of Adult Spine Surgery each year with an additional 50 operative pediatric spine cases. The Fellows play an extremely active role in the majority of these cases. The Fellows will be expected to teach and direct the resident staff in both the hospital care of in-patients and the operative and non-operative care of out-patients. In addition, each Fellow will be responsible for managing his/her own limited private practice of spine patients and will be responsible for evaluating and managing the care of spine trauma patients admitted through the Level I Trauma Center at Rhode Island Hospital. The Fellows will also have the opportunity to work with our affiliated community-based spine surgeons, with a focus on minimally invasive spine surgery.

Lastly, the Fellowship Directors will provide instruction in the business side of organizing and managing a spine practice. Instruction will be provided in all aspects of practice management.

The salary is competitive with typical post-graduate year six level for orthopaedic trainees and post-graduate year eight level for neurosurgical trainees including benefits. The fellowship year will run from August 1 to July 31. Three weeks of vacation are provided (not including meetings) and flexibility is available for the purpose of job interviews.

Dallas Spine and Reconstructive Fellowship

Number of Positions: 2 – (1) Ortho (through SF Match); (1) Neuro (outside match)

Orthopaedic Spine Faculty

Andrew E. Park, MD, Director

Huntly G. Chapman, MD

Kendall E. Carll, MD

Robert G. Viere, MD

Neurosurgical Spine Faculty

J. Michael Desaloms, MD

Jon A. Krumerman, MD

Jeremy W. Denning, MD

3900 Junius Street, Suite 705

Dallas, TX 75246

Phone: (214) 370-3535; Fax: (214) 821-3478

Contact: Joe Zapata

Email: JZapata@TexasSpineConsultants.com

Website: www.texasspineconsultants.com

Percent of Fellowship devoted to Operative Care: 70%

Non-Operative Care: 25%

Research/Publication Obligation: 5%

Approximate percentage of exposure to the Spine by region:

Cervical: 40%

Thoracic: 20%

Lumbar: 40%

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

Degenerative: 65%

Trauma: 10%

Deformity: 20%

Tumor: <5%

Pediatric: <5%

Goals:

The Dallas Spine and Reconstructive fellowship offers comprehensive exposure to all types of spinal pathology. The goal of the fellowship is to provide the experience and mindset to master the diagnosis and treatment (non-operative and operative) of these conditions. The Fellow will be exposed to the varied philosophies and techniques of fellowship-trained orthopaedic spinal surgeons and neurosurgeons.

The fellowship provides ample exposure to all areas of spinal pathology including trauma, infections, deformity and degenerative conditions of the spine. Patient evaluation and decision-making for surgery are emphasized. The fellow will evaluate patients in the clinic and actively participate in the pre-operative decision making as well as the surgical procedures.

The experience will include extensive surgical training, including cervical, thoracic and lumbar spine anterior- and posterior-instrumented procedures, minimally invasive approaches as well as motion preservation procedures. The Fellow will participate in approximately 500 cases. The majority of these

cases will be performed at a state-of-the-art specialty hospital that focuses on spine care. The Fellow will also gain exposure to traumatic spinal injuries at a Level 1 trauma center.

Two fellowship positions are available (one position will be filled through the SF Match and another will be reserved for a neurosurgeon outside of the match process). The compensation is estimated to be \$60,000-65,000. Vacations and job interview time allotted.

Houston Methodist Spine Surgery Fellowship

(formerly Texas Medical Center Spine Fellowship)

Rex A.W. Marco, MD

Houston Methodist Orthopedics & Sports Medicine

6445 Main Street

Outpatient Center, Suite 2500

Houston, TX 77030

Phone: (713) 363-7514; Fax: (713) 790-6202

Contact: Stephanie Holloway

Email: spholloway@houstonmethodist.org

***Applicants must successfully complete an ACGME accredited orthopedic residency and be a United States citizen or a permanent resident.**

Stipend: \$64,565

Percent of Fellowship devoted to Operative Care: 70%

Non-Operative Care: 30%

Research/Publication Obligation: Yes

Approximate \$percentage of exposure to the Spine by region:

Cervical: 30%

Thoracic: 20%

Lumbar: 50%

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

Degenerative: 45%

Trauma: 10%

Deformity: 20%

Tumor: 15%

Pediatric: 10%

Goals and characteristics:

The fellowship offers excellent clinical training for orthopaedic surgeons in the evaluation and treatment of the entire spectrum of spinal disorders. Our fellowship has specific rotations that emphasize cervical and lumbar degenerative disorders, spinal column trauma, spinal column and spinal cord tumors, pain management, and adult and pediatric spinal deformity. The fellow will rotate with neurosurgical and orthopaedic spine surgeons as well as a pain management specialist.

The rotations will be at Houston Methodist Hospital emphasizing adult spinal deformity, degenerative spine conditions, and spine tumors; MD Anderson Cancer Center emphasizing spinal column and spinal cord tumors; Shriner's Hospital and Texas Children's Hospital emphasizing pediatric spinal deformity; and Texas Orthopaedic Hospital emphasizing degenerative spinal disorders.

The Fellow will develop expertise in the following surgical procedures: microscopic discectomy, ACDF, TLIF, transthoracic and retroperitoneal corpectomy and reconstruction, occiput to pelvis spinal instrumentation, kyphoplasty, en bloc spondylectomy, transpedicular osteotomy and both hook and pedicle screw posterior spinal instrumentation for spinal deformity correction.

The curriculum includes rotations with specific attendings, where the Fellow functions as an apprentice under the attending. The Fellow will participate in 350 to 400 cases per year.

The Texas Back Institute Spine Fellowship

Richard D. Guyer, MD

Jack E. Zigler, MD

Texas Back Institute

6020 W. Parker Road, Suite 200

Plano, TX 75093

Phone: (972) 608-5148; Fax: (972) 608-5137

Contact : Astrid Easter

Email: aeaster@texasback.com

Website: www.texasbackresearchfoundation.org , www.texasback.com

Percent of Fellowship devoted to Operative Care: 70%

Non-Operative Care: 20%

Research/Publication Obligation: 10%

Approximate percentage of exposure to the Spine by region:

Cervical: 30%

Thoracic: 10%

Lumbar: 60%

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

Degenerative: 60%

Trauma: 15%

Deformity: 20%

Tumor: 3%

Pediatric: ≤5%

Goals:

This fellowship is ACGME accredited.

This one year, ACGME accredited fellowship is designed to provide a comprehensive educational experience that prepares participants for practice as spine surgeons. Texas Back Institute offers a multidisciplinary approach devoted solely to the care of spinal disorders and has a staff of fifteen Fellowship-trained Orthopaedic and Neurosurgical spine surgeons, along with conservative care physicians, pain management physicians, and allied health care professionals in a high volume academic private practice setting. By serving on different rotations during the year, Fellows receive maximal clinical experience seeing patients with degenerative spinal disorders, pediatric and adult scoliosis, spine trauma and spine tumors. Fellows learn to perform all anterior and posterior surgical approaches to the cervical, thoracic and lumbar spine, and a plethora of surgical techniques, including decompressions, fusions, discectomies, osteotomies, and lumbar and cervical arthroplasty. Fellows also gain experience with a broad spectrum of minimally invasive surgery techniques, as well as exposure to the use of robotic guided surgery and navigation. In addition to learning indications and implantation techniques for a wide variety of internal fixation devices, Fellows also learn to perform spinal injections, and implant spinal cord stimulators.

Fellows gain exposure to new surgical techniques with ongoing clinical trials, as well as experience with all facets of conservative care, including diagnostic and therapeutic injection techniques, rehabilitation, and outcome measurement. Educational meetings and training

courses are held year-round at a medical conference center on site at TBI, offering Fellows unique opportunities to see new technologies, as well as doing cadaveric dissections.

Fellows attend weekly teaching conferences and are required to participate in and make presentations at regularly scheduled Neuroscience, Interesting Case, and M&M conferences, as well as participate in monthly Journal Club meetings.

All Fellows are required to engage in on-going or new research projects at the Texas Back Institute Research Foundation and are expected to present their research findings for successful completion of the Fellowship. Publication-quality research is encouraged, and supported by a doctoral-level research staff. A state-of-the-art gait lab dedicated exclusively to spinal research is available for clinical research opportunities.

The duration of the Fellowship is on year (August 1st – July 31st). The current stipend is \$65,000. There is opportunity for the Fellows to augment this salary by covering a low-volume emergency room in our main hub.

Applicants must be Board-eligible or Board-certified graduates of an accredited Orthopaedic or Neurosurgery residency program in the United States, Canada, or Puerto Rico and be eligible for an unrestricted Texas medical license.

**University of Utah Spine Fellowship
Number of Positions: 2**

Darrel S. Brodke, MD (Co-Director)
Brandon D. Lawrence, MD (Co-Director)
W. Ryan Spiker, MD
Nicholas Spina, MD

Department of Orthopaedics
University of Utah
590 Wakara Way
Salt Lake City, UT 84108
Phone: (801) 587-5450; Fax: (801) 587-5411
Email: darrel.brodke@hsc.utah.edu
Brandon.lawrence@hsc.utah.edu

Percent of Fellowship devoted to Operative Care: 70%
Non-Operative Care: 30%
Research/Publication Obligation: Yes

Approximate percentage of exposure to the Spine by region:

Cervical: 30%
Thoracic: 25%
Lumbar: 45%

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

Degenerative: 40%
Trauma: 25%
Deformity: 20%
Tumor: 5%
Pediatric: 10%

Goals:

The University of Utah Spine Fellowship provides a complete, well-rounded academic experience in spine surgery with emphasis on clinical experience and research. The clinical experience includes all aspects of both non-operative and operative treatment of cervical, thoracic, and lumbar disorders. The fellow will gain significant experience treating all spinal pathologies and will be comfortable approaching the spine from the skull to the sacrum both anteriorly and posteriorly. The fellow will do well over 300 cases per year. There are two fellows per year and time is shared with the pediatric department where you gain significant exposure to both idiopathic and neuromuscular/congenital deformities.

Research and teaching are integral parts of this Fellowship. The Fellow will participate in ongoing, and original clinical and/or basic science research projects. The Fellow will also participate in and lead spine conferences, teaching both orthopaedic residents and medical students.

We will follow NASS guidelines for interviews and acceptance notification and participate in the SF match. Our deadline for submissions is December 1st of each year.

University of Virginia Spine Fellowship

Number of Position(s): 1

Adam L. Shimer, MD

Francis H. Shen, MD

Mark F. Abel, MD

Hamid Hassanzadeh, MD

Anuj Singla, MD

Keith Bachmann, MD (Pediatric Spine)

Xudong (Joshua) Li, MD, PhD

Department of Orthopaedic Surgery

University of Virginia HSC

PO Box 800159

Charlottesville, VA 22908

Phone: (434) 924-8711; Fax: (434) 243-0252

Contact : Mindy Franke

Email : mcf3@virginia.edu

| | |
|---|-------------------------|
| Percent of Fellowship devoted to Operative Care: | 60% |
| Non-Operative Care: | 40% |
| Research/Publication Obligation: | Minimum one peer review |

Approximate percentage of exposure to the Spine by region:

| | |
|-----------|-----|
| Cervical: | 30% |
| Thoracic: | 20% |
| Lumbar: | 50% |

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

| | |
|---------------|-----|
| Degenerative: | 50% |
| Trauma: | 15% |
| Deformity: | 15% |
| Tumor: | 5% |
| Pediatric: | 10% |
| Other: | 5% |

Goals:

This fellowship is ACGME Accredited.

The goal of this spine fellowship is to train a qualified Orthopaedic surgeon in the diagnosis and management of disorders of the entire spine. This program offers clinical experience in the non-operative and operative treatment of patients of all ages. Clinical conditions include congenital and developmental disorders of the spine, infections, tumors, and trauma of the spine. There will be exposure to anterior and posterior decompression, fusion and instrumentation techniques. The fellow will be expected to take part in the teaching of Residents and seeing spine patients in the clinic. Research productivity is expected.

The duration of the fellowship is one year (August 1 to July 31) and the deadline is December 31. The 2016-2017 stipend is \$62,340 plus benefits.

Harborview Medical Center University of Washington Spine Fellowship

Number of Positions: 3

Richard J. Bransford, MD

Harborview Medical Center
University of Washington School of Medicine
Dept of Orthopaedics, Box 359798
325 Ninth Avenue
Seattle, WA 98104
Phone: (206) 744-3267; Fax: (206) 731-3227
Contact: Sarah Jordan
Email: sjordan@uw.edu

Percent of Fellowship devoted to Operative Care: 75%
Non-Operative Care: 25%
Research/Publication Obligation: Yes

Approximate percentage of exposure to the Spine by region:

Cervical: 50%
Thoracic: 20%
Lumbar: 30%

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

Degenerative: 35%
Trauma: 40%
Deformity: 10%
Tumor: 10%
Pediatric: 5%

Goals:

The spine fellowship is offered as a joint experience with the departments of orthopaedic surgery and neurological surgery and includes a close collaboration with the department of rehabilitation. These departments share a close relationship in the care of patients with spinal disorders, with significant overlap between faculty members of the two departments. Currently, two orthopaedic spine fellows and their neurosurgical colleagues cover primarily two hospitals, one of which is the Level 1 trauma center for almost one-quarter of the U.S land mass. These hospitals are staffed by six orthopaedic surgeons and four neurological surgeons dedicated to spine care. One day per week is also spent treating pediatric deformity conditions at the tertiary care pediatric hospital. This approach permits us to offer an extensive operative experience in decompression and instrumentation techniques within all regions of the spine, from a variety of approaches. The clinical focus at our tertiary-care based program is on operative care of patients throughout the entire spectrum of spinal disorders, ranging from a healthy volume of routine conditions to the most challenging cases in the Pacific Northwest. Our volume of traumatic spine injuries is among the nation's largest, and the spine fellow will receive extensive exposure to both traumatic and non-traumatic cervical spine procedures. The spine fellow is expected to organize various didactic spine conferences, as well as to participate in resident education and basic and clinical research activities. The completion of one publishable research project is required and ample resources are available to assist with this goal. Applicants are expected to be board eligible in orthopaedic surgery.

Complex Spine/Virginia Mason Production System Fellowship

Number of Position(s): 1

Jean-Christophe Leveque, MD & Rajiv Sethi, MD, Program Co-Directors

Farrokh Farrokhi, MD

Roby Ryan, MD

Virginia Mason Medical Center

1100 9th Avenue

P.O. Box 900, Mail Stop X7-NEU

Seattle, WA 98101

Phone: (206) 341-1830

Contact: Julie Katz, RN

Email: Julie.Katz@VirginiaMason.org

Program Website: <https://www.virginiamason.org/fellowship-opportunities-in-neuroscience>

Percent of Fellowship devoted to Operative Care: 65%

Non-Operative Care: 15%

Research/Publication Obligation: 20%

Approximate percentage of exposure to the Spine by region:

Cervical: 30%

Thoracic: 30%

Lumbar: 40%

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

Degenerative: 20%

Deformity: 70%

Tumor: 10%

Pediatric/Adolescent: 10%

Overview:

The neurosurgery section of the Neuroscience Institute at Virginia Mason is a high volume, state-of-the-art service using nationally- and internationally-recognized, system-based approaches to tertiary/complex spine surgery, including adolescent and adult spinal deformity, tumors, neglected trauma and a large volume of routine degenerative cervical and lumbar cases.

In alignment with the Institute's vision to create a comprehensive multi-disciplinary team focused on quality, research, education and innovation, the goal of the Complex Spine/Virginia Mason Production System (VMPS) Fellowship is to train spinal surgeons who possess a broad knowledge base in complex spinal surgery, an ability to generate relevant differential diagnosis based on history and physical examination, an understanding of indications and contraindications of therapeutic procedures, skill at performing these procedures safely and effectively, and an appreciation of the humanistic and ethical aspects of medicine.

Systems approaches to achieving safe outcomes and reducing complications are front and center to our approach to complex spine surgery. The spine fellow will actively study and utilize these VMPS principles throughout the fellowship, leading to deepened understanding of the broader healthcare context and how they can be applied in his/her center of final employment.

Goals:

The goal of the fellowship is to teach requisite cognitive and technical aspects of complex spine surgery, including: understanding relevant disease processes, their presentation and management;

analysis and interpretation of radiographic data; understanding the indications and contraindications for procedures; pre- and post-procedure care of the patient; surgical skills to perform three-column osteotomies and MIS approaches for spinal deformity correction; recognition and management of complications; appropriate documentation and reporting; appropriate communication with the patient and the multidisciplinary team; and most importantly research, presentation and publication.

The fellow is supported by a robust practice of seven physician assistants, who provide routine clinic and inpatient care, and will be mentored and directly supervised by neurosurgery and orthopaedic spine faculty toward achievement of goals in five areas: surgical skill, patient care, medical knowledge, research and teaching, and interpersonal skills and communication.

By the end of the fellowship year, the fellow will complete and submit a minimum of three abstracts to the Scoliosis Research Society or similar forums, author at least three peer-reviewed publications, and will have obtained the knowledge and experience necessary to diagnose, evaluate, and surgically treat spine patients, including the use of three column osteotomies, MIS lateral and anterior approaches for spinal deformity correction, and MIS for decompression in basic lumbar and cervical surgery.

Salary and benefits are competitive at the regionally-determined PGY level. Call responsibility is typically one weekend of four, for matters immediately related to spine care.

We invite applications from neurosurgeons and orthopaedic surgeons. In-folded fellowships can be considered provided the applicant is in the final years of training.

University of Washington Neurosurgery Spine Fellowship

Number of Positions: 2

Fangi Zhang, MD

UW Department of Neurological Surgery

325 Ninth Avenue, Box 359924

Seattle, WA 98104

Phone: (206) 744-9316

Contact: Aubriana Ard

Email: fellowship@neurosurgery.washington.edu

Website: www.neurosurgery.washington.edu

Percent of Fellowship devoted to Operative Care: 85%

Non-Operative Care: 15%

Research/Publication Obligation: No

Approximate percentage of exposure to the Spine by region:

Cervical: 35%

Thoracic: 25%

Lumbar: 40%

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

Degenerative: 55%

Trauma: 25%

Deformity: 10%

Tumor: 5%

Pediatric: 5%

Goals:

West Virginia University Spine Fellowship

John France, MD
Sanford Emery, MD
Scott Daffner, MD

West Virginia University
One Medical Center Drive
Morgantown, WV 26506-9196
Phone: (304) 293-1170; Fax: (304) 293-4261
Email: jfrance@hsc.wvu.edu / semery@hsc.wvu.edu
Website: www.hsc.wvu.edu/som/ortho

Percent of Fellowship devoted to Operative Care: 80%
Non-Operative Care: 20%
Research/Publication Obligation: Clinical research and/or translational research in the lab is expected

Approximate percentage of exposure to the Spine by region:

Cervical: 30%
Thoracic: 20%
Lumbar: 50%

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

Degenerative: 50%
Trauma: 15%
Deformity: 15%
Tumor: 5%
Pediatric: 10%

Goals:

West Virginia University offers a spine fellowship with a tremendous variety of clinical experience and excellent research opportunity. We have three fellowship trained orthopaedic spine faculty and neuro surgical faculty treating spine patients as well. There is a great mix of degenerative, trauma, and deformity surgeries as well as intermittent tumor and infection cases. Outpatient experience is important for training, and is part of the program, but most of the year will be in the operating room.

Experience with our neurosurgical faculty and pediatric orthopaedic faculty is readily available and encouraged. Our research laboratory is on site and either clinical or translational research projects are expected. Favorable consideration will be given applicants interested in an academic career.

Morgantown is a growing community with great outdoor activities and Division I college sports. For more information please contact Dr. John France or Dr. Sanford Emery at the above email addresses or by phone.

University of Wisconsin Spine Fellowship

Number of Positions: 2

Thomas A. Zdeblick, MD

Clifford B. Tribus, MD

Paul A. Anderson, MD

Seth K. Williams, MD

Miranda Bice, MD

Department of Orthopedics and Rehabilitation

University of Wisconsin, 1685 Highland Ave

Madison, WI 53705-2281

Phone: (608) 263-0888; Fax: (608) 265-6375 Contact: Erica White

Email: white@ortho.wisc.edu

Website: <http://www.ortho.wisc.edu>

Percent of Fellowship devoted to Operative Care: 70%

Non-Operative Care: 20%

Research/Publication Obligation: 10%

Approximate percentage of exposure to the Spine by region:

Cervical: 35%

Thoracic: 15%

Lumbar: 50%

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

Degenerative: 50%

Trauma: 20%

Deformity: 20%

Tumor: 10%

Goals & Characteristics:

This fellowship offers an intense experience in all aspects of Spinal Surgery. The University of Wisconsin is a level-one trauma center with a significant amount of operative spinal trauma. We also have an emphasis on degenerative spinal pathology including microsurgery, minimally invasive surgery, percutaneous fixation, anterior approaches, disc replacement, and complex spinal deformity. Each Fellow will participate in approximately 400 surgical procedures during the year and interface with our residents in an educational program. The Spine Team consists of five faculty, two fellows, a PG-2 and PG-4 resident, and four mid-level providers. Spine call is shared equally with Neurosurgery on an alternating week basis for all spinal issues. The Fellow will also be encouraged to travel to 2 national spine meetings throughout the year and have the availability to perform basic and clinical research.

The Fellow will work under the direction of Department of Orthopedic Surgery faculty Dr. Thomas A. Zdeblick, Dr. Clifford B. Tribus, Dr. Paul A. Anderson, Dr. Seth K. Williams, and Dr. Miranda Bice.

Duration & Stipend:

The fellowship is one year in duration, running from August 1 through July 31 of the following year. Compensation for the 2016-2017 year is \$66,775 plus benefits. Fellows are credentialed as Clinical Instructor faculty. The fellowship is located at the University of Wisconsin Hospital & Clinics, UWHealth at the American Center, and the William S. Middleton Veterans Administration Hospital in Madison, Wisconsin.

Application Procedures:

Applicants should apply through the San Francisco Match Program. The applicant must have completed an accredited Orthopedic Surgery or Neurosurgery residency. The applicant must be Board eligible or Board certified and be fully licensed in the state of Wisconsin before the start of the program.

AO North America Spinal Fellowship, McGill University Health Centre

Number of Positions: 1

Jean Ouellet, MD, FRCSC

Montreal General Hospital

1650 Cedar Avenue, T8-200

Montreal, Quebec, Canada

Phone: (514) 934-1934 ext. 42234; Fax: (514) 934-8002

Email: jean.ouellet@muhc.mcgill.ca

Website: www.muhc.ca

Percent of Fellowship devoted to Operative Care: 65%

Non-Operative Care: 25%

Research/Publication Obligation: 10%

Approximate percentage of exposure to the Spine by region:

Cervical: 30%

Thoracic: 30%

Lumbar: 40%

Approximate percentage of Fellowship exposure to the Spine by diagnostic category:

Degenerative: 20%

Trauma: 20%

Deformity: 15%

Tumor: 15%

Pediatric: 30%

Goals:

The fellowship is accredited by the Canadian Equivalent to the ACGME.

The position for the Scoliosis and Spine Fellowship at McGill University Health Centre in Montreal, Quebec, Canada is open for competition. This is an AO North America funded Fellowship under the guidance of four full-time board-certified spine surgeons who will provide a variety of experiences in the management of various spinal pathologies. The one-year fellowship will consist of clinical, surgical and research activities. Time allocation will consist of 3-4 surgical days/week, 1-2 multidisciplinary spine clinics/week (with extensive exposure to pediatric spinal deformity, adult degenerative disease and traumatic injury). A bi-weekly spine conference provides a set time for indication rounds, journal club and morbidity/mortality rounds. Spine call requirements: on-call 1:4. Research requirements: Minimum 1 project completion for publication (fellow will have access to our biomechanical and cellular lab, as well to our deformity database to facilitate research projects). Continuing Education Requirements: Attendance to two spine courses throughout the year. Interested candidates should send their CV to jean.ouellet@muhc.mcgill.ca. For more detailed information or interview, please contact jean.ouellet@muhc.mcgill.ca