

AMERICAN SOCIETY FOR STEREOTACTIC AND FUNCTIONAL NEUROSURGERY

FELLOWS COURSE 2026

University of Colorado Anschutz Medical Campus — Center for Surgical Innovation (CSI)

AGENDA

FRIDAY, OCTOBER 23, 2026

DIDACTIC SESSION

6:30 am	WALK FROM BENSON HOTEL TO LAB
6:50-7:00 am	REGISTRATION, BREAKFAST WITH EXHIBITORS & WELCOME/COURSE OVERVIEW <i>Steven Ojemann</i>
7:00-7:15 am	SURGERY FOR PARKINSON'S DISEASE <i>Doris Wang</i>
7:15-7:30 am	SURGERY FOR ESSENTIAL TREMOR <i>Dan Kramer</i>
7:30-7:45 am	SURGERY FOR DYSTONIA <i>Phil Starr</i>
7:45-8:00 am	SURGERY FOR PSYCHIATRIC DISORDERS <i>Rachel Davis</i>
8:00-8:15 am	BREAK WITH EXHIBITORS & SNACK
8:15-8:30 am	NEUROMODULATION FOR STROKE <i>Rushna Ali</i>
8:30-8:45 am	NEUROPHYSIOLOGY AND MICROELECTRODE RECORDING IN FUNCTIONAL NEUROSURGERY <i>Yasin Temel</i>
8:45-9:00 am	ANATOMY FOR FUNCTIONAL NEUROSURGERY <i>Vanessa Milanese</i>
9:00-9:15 am	NEUROMODULATION TARGETS FOR EPILEPSY <i>David Satzer</i>
9:15-9:30 am	IMAGING FOR FUNCTIONAL NEUROSURGERY <i>Jonathon Parker</i>
9:30-9:45 am	FUNDAMENTALS OF STEREOTAXY <i>Jason Schwalb</i>
9:45-10:00 am	BREAK WITH EXHIBITORS & SNACK
10:00-10:15 am	CT AND MRI GUIDED STEREOTAXY <i>Ellen Air</i>
10:15-10:30 am	FOCUSED ULTRASOUND <i>Steve Harward II</i>
10:30-11:00 am	MECHANISMS OF DBS <i>Phil Starr</i>
11:00-11:30 am	CELL AND GENE THERAPIES FOR PARKINSON'S DISEASE <i>Paul Larson</i>
11:30 am-12:30 pm	LUNCH WITH DISCUSSION
11:45 am-12:15 pm	LUNCH LECTURE: BRAIN-COMPUTER INTERFACE, PLASTICITY, AND STROKE <i>Jeff Ojemann</i>
12:30-1:30 pm	HANDS-ON LAB: MICROELECTRODE RECORDING — LAB SESSION 1 <i>CSI Conference Room</i>
1:30-2:45 pm	LAB SESSION 2 <i>CSI Conference Room</i>
2:45-3:00 pm	BREAK WITH EXHIBITORS & SNACK
3:00-4:00 pm	LAB SESSION 3 <i>CSI Conference Room</i>
4:00-5:00 pm	LAB SESSION 4 <i>CSI Conference Room</i>
5:00 pm	WALK BACK TO BENSON HOTEL
6:00-9:00 pm	DINNER & LECTURE: "Career Planning for Functional Neurosurgery" <i>Joseph Neimat — Faculty Club, 2nd Floor</i>

AGENDA

SATURDAY, OCTOBER 24, 2026

- 6:30 am WALK TO LAB FROM BENSON HOTEL
- 7:00-7:15 am **BREAKFAST & LECTURE: EVALUATION OF PATIENTS FOR EPILEPSY SURGERY**
Lesley Kaye — CSI Conference Room
- 7:15-7:30 am **DECISION PATHWAYS FOR EPILEPSY SURGERY**
Kai Miller
- 7:30-8:00 am **INVASIVE MONITORING & RADIOFREQUENCY THERMOCOAGULATION FOR EPILEPSY**
Jon Willie
- 8:00-8:15 am **IMAGING FOR EPILEPSY SURGERY**
Erik Middlebrooks
- 8:15-8:30 am **LASER ABLATION FOR EPILEPSY**
Chen Wu
- 8:30-8:45 am BREAK WITH EXHIBITORS & SNACK**
- 8:45-10:15 am **HANDS-ON LAB SESSION 1 (2 stations)**
Stereotaxis, Implantation & Radiological Control
- 10:15-10:30 am BREAK WITH EXHIBITORS & SNACK**
- 10:30 am-12:00 pm **LAB SESSION 2 (2 stations)**
- 12:00-12:20 pm **LUNCH LECTURE: TEMPORAL LOBECTOMY**
Nitin Tandon — Fitzsimmons Conference Room
- 12:20-12:40 pm **LUNCH LECTURE: NEUROMODULATION FOR EPILEPSY**
Jamie Van Gompel
- 12:45-2:15 pm **LAB SESSION 3 (2 stations)**
- 2:15-2:30 pm BREAK WITH EXHIBITORS & SNACK**
- 2:30-4:45 pm **LAB SESSION 4 (3 stations)**
- 4:45-5 pm **WRAP UP**
Steven Ojemann — Fitzsimmons Conference Room
- 5 pm WALK TO HOTEL

AGENDA

SUNDAY, OCTOBER 25, 2026

6:30 am	WALK TO LAB FROM BENSON HOTEL — BRING LUGGAGE
7:00-7:30 am	BREAKFAST & LECTURE: DBS PROGRAMMING <i>Drew Kern — Fitzsimmons Conference Room</i>
7:30-10:00 am	HANDS-ON LAB: DBS PROGRAMMING & ABLATION — LAB SESSION 1
10:00-10:15 am	BREAK WITH EXHIBITORS & SNACK
10:15 am-12:30 pm	LAB SESSION 2
12:30-1:00 pm	LUNCH
1:00-1:30 pm	STARTING A BRAIN COMPUTER INTERFACE LAB EFFORT <i>Brian Lee</i>
1:30-2:00 pm	AI IN FUNCTIONAL NEUROSURGERY <i>Kai Miller</i>
2:00-2:30 pm	NEUROMODULATION AND FOCUSED ULTRASOUND FOR CHRONIC PAIN DISORDERS <i>Julie Pilitsis</i>
2:30-2:45 pm	MEETING WRAP-UP, COURSE EVALUATIONS, AND ADJOURN <i>Steven Ojemann</i>
2:45 pm	SHUTTLES DEPART TO AIRPORT

COURSE OBJECTIVES

Upon completion of this continuing medical education activity, participants should be able to:

- Correctly attach stereotactic devices to cadaveric heads and phantoms;
- Perform stereotactic targeting using available neuronavigation platforms;
- Identify targets used in functional neurosurgery in the basal ganglia using mapping techniques;
- Target brain regions for radiosurgical ablation; and,
- Demonstrate radiofrequency and laser ablation of brain targets and use of 2D fluorography and CT scanning intraoperatively.

FRIDAY LAB DESCRIPTION — FRIDAY, OCTOBER 23, 2026

HANDS ON LAB: MICROELECTRODE RECORDING LAB

STATION 1

Targeting and Mapping Vim

FACULTY: Stephen Harward II, Jason Schwalb, Shervin Rahimpour, Vanessa Milanese, Julie Plitsis

TECH: Alpha Omega, Stealth or Brainlab

STATION 2

Targeting and Mapping GPi with Guideline 4000 (FHC)

FACULTY: Jon Willie, Adam Hebb, Jonathon Parker, Andrew Ko, Phil Starr, Kai Miller

TECH: FHC, Stealth or Brainlab

STATION 3

Targeting and Mapping STN

FACULTY: Yasin Temel, Cameron McIntyre, Brian Lee, Doris Wang, Joseph Neimat, Ellen Air

TECH: Alpha Omega, Stealth or Brainlab

STATION 4

Targeting ANT / CM / VC / VS

FACULTY: David Satzer, Jamie Van Gompel, Nitin Tandon, Paul Larson, Rushna Ali

TECH: Stealth or Brainlab

SATURDAY LAB DESCRIPTION — SATURDAY, OCTOBER 24, 2026

HANDS ON LAB: STEREOTAXIS, IMPLANTATION AND RADIOLOGICAL CONTROL

LAB: Use of stereotactic planning software; stereotactic guidance systems (frame and frameless); burr hole and dural opening; micropositioners; components of neuromodulation system for epilepsy. Participants will rotate through hands-on work stations for instruction and practice of each of the following stereotactic approaches:

- Stealth Stereotactic Image Guided System
- WayPoint Stereotactic System, STarFix Platform for Direct Targeting, microTargeting/STarDrive (FHC)
- iPlan (Brainlab), Leksell Stereotactic System, NeuroNav Drive (Alpha Omega)
- ClearPoint MRI-guided Stereotactic System (ClearPoint Neuro Inc)
- ROSA robotic stereotactic system (Zimmer), Renishaw robotic system, Globus Robotic System, Geniant Robotic System (Koh Young)
- Components and placement of Responsive Neural Stimulator (NeuroPace) and Vagus Nerve Stimulators (LivaNova, Vivistim, Setpoint)

LAB: Neurophysiological mapping. Participants will rotate through hands-on workstations for instruction and practice performing neurophysiological mapping using re-enactments of real microelectrode recording tracks (Microguide and NeuroNav, Alpha Omega; Guideline 4000, FHC):

- Mapping the Vim nucleus for tremor
- Mapping the globus pallidus for Parkinson's disease and dystonia
- Mapping the subthalamic nucleus for Parkinson's disease
- Mapping the CM, ANT, VC/VS and SCC targets for Epilepsy and Psychiatric Indications

LAB: Radiological verification of DBS position. Participants will rotate through hands-on workstations for instruction and practice using various radiological approaches to intraoperative verification of DBS lead position:

- Using Loop X Surgical Imaging System (Brainlab) for intraoperative verification
- Using the O-Arm Surgical Imaging System (Medtronic) for intraoperative verification
- Using the portable CT scanner (NeuroLogica) for intraoperative verification

STEREOTAXIS, IMPLANTATION AND RADIOLOGICAL CONTROL — STATIONS (continued)

STATION 1

Placement of RNS (NeuroPace)

FACULTY: Jonathon Parker, Shervin Rahimpour, Jamie Van Gompel

TECH: NeuroPace

STATION 2

MRI Targeting Platform (ClearPoint Neuro Inc.)

FACULTY: Doris Wang

TECH: ClearPoint Neuro Inc

STATION 3

Leksell Stereotactic Frame, Inomed Frame; Burr Holes and Lead Fixation (MDT & SJM); Microdrives (Alpha Omega & FHC)

FACULTY: Andrew Ko, Lora Kahn

TECH: Medtronic, Brainlab

STATION 4

VNS (VNS-LivaNova; VNS-Vivistim, VNS- SetPoint, Medtronic-PlasmaBlade)

FACULTY: Rushna Ali, Jon Willie, Julie Pilitsis

TECH: Livanova, Medtronic, SetPoint, Vivistim

STATION 5

O-Arm (Medtronic), Loop X (Brainlab)

FACULTY: David Satzer, Ellen Air, Jason Schwalb

TECH: Clearpoint, Medtronic, Brainlab

STATION 6

Robotic Stereotactic Surgery 1 (Zimmer–ROSA, Renishaw, Koh-Young Geniant)

FACULTY: Nitin Tandon (ROSA), Adam Hebb (Renishaw), Won Seok Chang (Geniant)

TECH: Zimmer-ROSA, Renishaw, DIXI, NeuroOne (Zimmer)

STATION 7

Robotic Surgery 2 (Globus, Brainlab)

FACULTY: Francisco Ponce, Adrian Laxton (Brainlab)

TECH: Globus, DIXI, NeuroOne

STATION 8

Surgery with the microTargeting Platform (FHC/Medtronic/Boston Scientific)

FACULTY: Dan Kramer, Joseph Neimat

TECH: FHC, Medtronic/Boston Scientific

STATION 9

Stereotactic Planning (Brainlab; Stealth/Medtronic)

FACULTY: Cameron McIntyre, Brian Lee, Ben Carroll, Phil Starr, Kai Miller

TECH: Brainlab, Medtronic

SUNDAY LAB DESCRIPTION — SUNDAY, OCTOBER 25, 2026

HANDS ON LAB: DBS PROGRAMMING, ABLATION

LAB: Deep brain stimulation implantation and stereotactic thermoablation. Participants will practice implanting DBS equipment and learn basic programming techniques (cadaver):

- Learn to perform thermoablation using the radiofrequency generator (cadaver)
- Learn to perform thermoablation using stereotactic laser ablation (cadaver)
- Learn the process involved in thermoablation using MRI-guided focused ultrasound (laptop)

STATION 1

Mock Laser Ablations (Visualase/Medtronic, Monteris, Clearpoint)

FACULTY: Nitin Tandon, Adrian Laxton, Jason Schwalb

TECH: Visualase/Medtronic, Monteris, Clearpoint

STATION 2

DBS IPG & Extension Cable Insertion (Medtronic/Abbott/Boston)

FACULTY: Jonathon Parker, Lora Kahn, Adam Hebb, Ben Carroll, Doris Wang

TECH: Medtronic, Abbott/SJM/Boston

STATION 3

Stereotactic Insertion of Laser Fiber Assembly (Visualase/Medtronic, Monteris, Elekta/Vantage frame, Prism–ClearPoint Neuro Inc)

FACULTY: Shervin Rahimpour, David Satzer, Andrew Ko, Jamie Van Gompel

TECH: Visualase/Medtronic, PMT, Leksell Vantage frame, Monteris, fluoroscopy, ClearPoint Neuro Inc

STATION 4

Radiofrequency Ablations in Egg Whites; RF through SEEG

FACULTY: Jon Willie, Kai Miller

TECH: Boston Scientific, NeuroOne

STATION 5A

Programming, Troubleshooting (Abbott)

FACULTY: Alex Baumgartner, Sana Aslam

TECH: Abbott

STATION 5B

Programming, Troubleshooting (Boston Scientific)

FACULTY: Bryan Klassen

TECH: Boston Scientific, Brainlab

STATION 6A

Programming, Troubleshooting (Medtronic)

FACULTY: Drew Kern, John Thompson, Phil Starr

TECH: Medtronic

STATION 6B

Programming, General

FACULTY: John Rolston, Stephen Harward II, Julie Pilitsis, Ben Carroll

TECH: —

STATION 7

MR Guided Focused Ultrasound

FACULTY: Stephen Harward II, Julie Pilitsis, Ben Carroll

TECH: Insightec