

Enduring Learner Notification

Cervical Spine Research Society
2023 Annual Meeting - Enduring
Date of CE Release: 12-02-2023
Date of CE Expiration: 12-02-2024
Location: Online

Acknowledgement of Financial Commercial Support

No financial commercial support was received for this educational activity.

Acknowledgement of In-Kind Commercial Support

No in-kind commercial support was received for this educational activity.

Satisfactory Completion

Learners must listen to each self-directed audio recording while following along with the visual slides/read the articles and complete an evaluation form to receive a certificate of completion. Your chosen sessions must be attended in their entirety. You must participate in the entire activity as partial credit is not available. If you are seeking continuing education credit for a specialty not listed below, it is your responsibility to contact your licensing/certification board to determine course eligibility for your licensing/certification requirement.

Joint Accreditation Statement



In support of improving patient care, this activity has been planned and implemented by Amedco LLC and Cervical Spine Research Society. Amedco LLC is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC), to provide continuing education for the healthcare team.

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Physicians

ACCME Credit Designation Statement

Amedco LLC designates this material for a maximum of 13.75 *AMA PRA Category 1 Credits™* for physicians. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Objectives - After Attending This Program You Should Be Able To

1. Present the results of current cervical spine research data.
2. Promote discussion of new developments and techniques.
3. Foster research concerning the diagnosis and treatment of cervical spine injury and disease.

Disclosure of Conflict of Interest

The following table of disclosure information is provided to learners and contains the relevant financial relationships that each individual in a position to control the content disclosed to Amedco. All of these relationships were treated as a conflict of interest, and have been resolved. (C7 SCS 6.1-6.2, 6.5)

All individuals in a position to control the content of CE are listed below.

Name	AM2023 Disclosure
Abtahi, Amir (MD)	No Relevant Financial Relationships
Agarwal, Nitin (MD)	Consultant relationship with Springer International Publishing; Consultant relationship with Thieme Medical Publishers; Author relationship with Springer International Publishing; Author relationship with Thieme Medical Publishers; Fellowship relationship with AO Spine; Fellowship relationship with AO Spine

Ahmed, Wasil (BS)	No Relevant Financial Relationships
Alqazzaz, Aymen (MD)	No Relevant Financial Relationships
	Royalties relationship with Stryker; Editorial Board relationship with Operative Neurosurgery; Consultant relationship with K2M; Consultant relationship with Medtronic; Royalties relationship with Medtronic; Royalties relationship with K2M; Royalties relationship with Next Orthosurgical; Royalties relationship with Nuvasive; Royalties relationship with Biomet Zimmer Spine; Executive Committee relationship with ISSG; Royalties relationship with DePuy Synthes; Research Grant relationship with International Spine Study Group (ISSG); Consultant relationship with DePuy Synthes; Consultant relationship with Medtronic; Research Grant relationship with Titan Spine; Research Grant relationship with DePuy Synthes; Editorial Board relationship with Operative Neurosurgery; Executive Committee relationship with ISSG; Director relationship with Global Spinal Analytics; Director relationship with Global Spinal Analytics; Consultant relationship with Agada Medical; Consultant relationship with Carlsmed; Research relationship with DePuy Synthes; Chair relationship with SRS Safety and Value Committee; Grant relationship with Scoliosis Research Society
Ames, Christopher (MD)	
Anwar, Fatima (BA)	No Relevant Financial Relationships
Arnold, Paul (MD)	No Relevant Financial Relationships
Arzani, Artine (BS)	No Relevant Financial Relationships
Asada, Tomoyuki (MD)	No Relevant Financial Relationships
Bak, Alex (BHSc)	No Relevant Financial Relationships
Bernatz, James (MD)	No Relevant Financial Relationships
Boakye, Maxwell (MD, FAANS)	No Relevant Financial Relationships
Bible, Jesse (MD)	No Relevant Financial Relationships
	Consultant relationship with Medtronic; Consultant relationship with MiRus; Stock Shareholder relationship with nView; Consultant relationship with Medtronic; Stock Shareholder relationship with Proprio; Stock Shareholder relationship with nView; Stock Shareholder relationship with Proprio; Consultant relationship with Stryker; Consultant relationship with MiRus; Consultant relationship with Stryker
Bisson, Erica (MD, MPH)	
Brodke, Darrel (MD)	Consultant relationship with Orthofix; Consultant relationship with CTL Amedica
Buell, Thomas (M.D.)	No Relevant Financial Relationships
Carroll, Austin (MD)	No Relevant Financial Relationships
Chan, Andrew (M.D.)	No Relevant Financial Relationships
Chan, Justin (MD)	No Relevant Financial Relationships
Changoor, Stuart (MD)	No Relevant Financial Relationships
Chen, Daniel (BS)	No Relevant Financial Relationships
Chen, Xiongsheng (MD)	No Relevant Financial Relationships
Choi, Hoon (MD PhD)	Speakers Bureau relationship with Globus Medical; Consultant relationship with Globus Medical
Choi, Sung Hoon (MD)	No Relevant Financial Relationships
Choi, Ji Uk (MD)	No Relevant Financial Relationships
Chryssikos, Timothy (MD, PhD)	No Relevant Financial Relationships
	Consultant relationship with Spinal Elements; Research Grant Site Principal Investigator relationship with CSRS; Consultant relationship with OrthoFix, Inc; Research Grant Overall Principal Investigator relationship with CSRS; Speakers Bureau relationship with Orthofix, Inc; Consultant relationship with K2M/Stryker Spine; Speakers Bureau relationship with DePuy, A Johnson & Johnson Company; Consultant relationship with Alphatec Spine
Colman, Matthew (MD)	
Croft, Andrew (MD)	No Relevant Financial Relationships

Dailey, Andrew (MD)	Consultant relationship with Zimmer Biomet; Research Grant Overall Principal Investigator relationship with Zimmer Biomet
Daubs, Michael (MD)	No Relevant Financial Relationships
Eastlack, Robert (MD)	Speakers Bureau relationship with Radius; Consultant relationship with Carevature; Consultant relationship with ControlRad; Consultant relationship with Seaspine; none relationship with Alphatec; Stock Shareholder relationship with Seaspine; Consultant relationship with Seaspine; other relationship with Nuvasive; Consultant relationship with Depuy; Consultant relationship with Silony; Consultant relationship with Neo; Patent Holder relationship with Globus; Consultant relationship with Biedermann-Motech; Consultant relationship with Spinal Elements; Scientific/Medical Advisory Board Member relationship with Medtronic; Research Grant Site Principal Investigator relationship with Seaspine; none relationship with Nuvasive; Patent Holder relationship with Nuvasive; other relationship with SI Bone; Patent Holder relationship with SI Bone
Easton, Richard (MD)	No Relevant Financial Relationships
Federico, Vincent (MD)	No Relevant Financial Relationships
Fehlings, Michael (MD, PhD, FRCSC)	President and Founder relationship with Inteligex
Ferriter, Pierce (BS)	No Relevant Financial Relationships
Foley, David (MD/MBA)	No Relevant Financial Relationships
FRANCE, JOHN (MD)	No Relevant Financial Relationships
Funaba, Masahiro (MD, PhD)	No Relevant Financial Relationships
Furlan, Julio (MD,LLB,MBA,MSc,PhD)	Research Grant Overall Principal Investigator relationship with J P Bickell Foundation; Research Grant Overall Principal Investigator relationship with Ontario Neurotrauma Foundation; Research Grant Overall Principal Investigator relationship with Ministry of Health of Ontario; Research Grant Overall Principal Investigator relationship with Ministry of Health of Ontario; Research Grant Overall Principal Investigator relationship with Cervical Spine Research Society; Research Grant Overall Principal Investigator relationship with Cervical Spine Research Society; Research Grant Overall Principal Investigator relationship with Craig H Neilsen Foundation; Research Grant Overall Principal Investigator relationship with Craig H Neilsen Foundation
Gerlach, Erik (MD)	No Relevant Financial Relationships
Ghogawala, Zoher (MD)	Intellectual Property relationship with NidusAI; Intellectual Property relationship with NidusAI
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Guyer, Richard (MD)	Consultant relationship with Centinel; Consultant relationship with Zimvie; Consultant relationship with Elevation Spine; Consultant relationship with Nuvasive; Consultant relationship with Aesculap
Haid, Regis (MD)	Royalties (IP) relationship with Medtronic; Stock Shareholder relationship with Remedy Health Media (formerly Vertical Health/SpineUniverse); Stock Shareholder relationship with SpineWave; Consultant relationship with NuVasive; Royalties (IP) relationship with NuVasive; Stock Shareholder relationship with NuVasive; Royalties (IP) relationship with Globus Medical; Stock Shareholder relationship with Globus Medical
Hang, Nicole (B.S.)	No Relevant Financial Relationships
Harrop, James (MD)	Scientific/Medical Advisory Board Member relationship with Depuy Spine; scientific education relationship with Abvie; product discussions relationship with Nuvasive; Speakers Bureau relationship with Stryker; Speakers Bureau relationship with Globus spine
Hashimoto, Jun (MD-PhD)	joint research relationship with RICOH Co., Ltd.
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Hoang, Timothy (BA)	No Relevant Financial Relationships
Hoffman, Clayton (BS)	No Relevant Financial Relationships
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Hsu, Wellington (MD)	Consultant relationship with Surgalign; Consultant relationship with Bioventus; Consultant relationship with Asahi; Consultant relationship with Surgalign; Owner relationship with Amphix Bio; Consultant relationship with Promimic; Consultant relationship with medtronic; Consultant relationship with Stryker; Consultant relationship with Promimic; Consultant relationship with Stryker; Consultant relationship with Medtronic; Consultant relationship with Asahi
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Janjua, M. Burhan (MD)	No Relevant Financial Relationships
Javeed, Saad (MD)	No Relevant Financial Relationships
Jiang, Liang (MD)	No Relevant Financial Relationships
Kanda, Yutaro (MD, PhD)	No Relevant Financial Relationships
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Kang, Kyung-Chung (MD)	No Relevant Financial Relationships
Karamian, Brian (MD)	No Relevant Financial Relationships
Kepler, Chris (MD, MBA)	Research Grant Site Principal Investigator relationship with NIH; Deputy Editor relationship with Clinical Spine Surgery; Royalty Agreement relationship with Camber; Royalty Agreement relationship with Inion
Kesler, Kyle (MD)	No Relevant Financial Relationships
Kim, Han Jo (MD)	Research Grant Site Principal Investigator relationship with SI BONE; Research Grant Site Principal Investigator relationship with ISSGF; Consultant relationship with Acuity Surgical; Fellowship Support relationship with AO Spine; Consultant relationship with K2M-Stryker; Consultant relationship with Zimmerbiomet; Consultant relationship with Nuvasive; Scientific/Medical Advisory Board Member relationship with Vivex Biology; Scientific/Medical Advisory Board Member relationship with Aspen Medical; Inventor relationship with Acuity Surgical; Inventor relationship with Stryker; Inventor relationship with Zimvie; Fellowship Director relationship with AO SPINE; ; Scientific/Medical Advisory Board Member relationship with NUVASIVE; Scientific/Medical Advisory Board Member relationship with MIRUS
Kim, Nam Yeop (MD)	No Relevant Financial Relationships
Lambrechts, Mark (MD)	No Relevant Financial Relationships
Lavadi, Raj (M.B.B.S.)	No Relevant Financial Relationships
Lawrence, Brandon (MD)	Corporate Board Member relationship with Medtronic; Corporate Board Member relationship with AO Spine North America; Corporate Board Member relationship with AO Spine North America; Corporate Board Member relationship with Medtronic
Lee, Sang Hun (MD)	Consultant relationship with elliquence; Consultant relationship with medtronic; Consultant relationship with Elliquence; Consultant relationship with Medtronic
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Lee, Yunsoo (MD)	No Relevant Financial Relationships
Levy, Hannah (MD)	No Relevant Financial Relationships
Liang, Guoyan (MD)	No Relevant Financial Relationships

	Consultant relationship with K2M/Stryker; Scientific/Medical Advisory Board Member relationship with NuVasive; Stock Shareholder relationship with Innovative Surgical Designs; Stock Shareholder relationship with Advance Spinal Intellectual Property; Research Grant Site Principal Investigator relationship with Thieme, Quality Medical Publishers; Research Grant Overall Principal Investigator relationship with AOA Omega Grant; Consultant relationship with DePuy Synthes
Ludwig, Steven (MD)	
Macki, Mohamed (MD, MPH)	No Relevant Financial Relationships
Malhotra, Armaan (MD)	No Relevant Financial Relationships
MALOMO, TOLUYEMI (MD, MSc, FWACS)	No Relevant Financial Relationships
Martinez, Orlando (BS)	No Relevant Financial Relationships
Matsukura, Yu (MD-PhD)	No Relevant Financial Relationships
Matsumoto, Shogo (MD)	No Relevant Financial Relationships
Mesfin, Addisu (MD)	Speakers Bureau relationship with Medtronic; Stock Shareholder relationship with Axiomed
Milestone, Zachary (BA)	No Relevant Financial Relationships
Miller, Alex (MD)	No Relevant Financial Relationships
Mir, Jamshaid (MD)	No Relevant Financial Relationships
Moore, Tim (MD)	Speakers Bureau relationship with Globus Medical
Moore, Don (MD)	No Relevant Financial Relationships
Mroz, Thomas (MD)	royalties relationship with stryker
	Fellowship funding relationship with Pacira Biosciences; Research grant relationship with NIH/NIAMS U19AR076737; Consultant relationship with Depuy Spine; Consultant relationship with Globus; Consultant relationship with Nuvasive; Consultant relationship with BK Medical; Royalty relationship with Depuy Spine; Royalty relationship with Thieme Publishing; Royalty relationship with Springer Publishing; Stock Shareholder relationship with Spinicity/ISD; Speakers Bureau relationship with Brainlab; Speakers Bureau relationship with SI Bone; Research Grant Site Principal Investigator relationship with AO Spine; Research Grant Site Principal Investigator relationship with ISSG; Research Grant Site Principal Investigator relationship with NREF; Research Grant Site Principal Investigator relationship with PCORI
Mummaneni, Praveen (MD, MBA)	
Nagata, Kosei (MD, PhD)	No Relevant Financial Relationships
Nam, Hyunwook (MD)	No Relevant Financial Relationships
	Research Grant Site Principal Investigator relationship with 3 Spine; Research Grant Site Principal Investigator relationship with Premise Spine; Research Grant Site Principal Investigator relationship with 3 Spine; Research Grant Site Principal Investigator relationship with AO Spine NA; Research Grant Site Principal Investigator relationship with AO Spine NA; Fellowship director relationship with AO Spine NA; Fellowship director relationship with AO Spine NA; Research Grant Site Principal Investigator relationship with Premise Spine
Nassr, Ahmad (MD)	
Neo, Masashi (MD, PhD)	Consultant relationship with DePuy Synthes Products, LLC
Overley, Samuel	Speaker relationship with Globus; Research Grant Site Principal Investigator relationship with medtronic
Oyekan, Anthony (MD)	No Relevant Financial Relationships
Palmer, Ryan (B.S.)	No Relevant Financial Relationships
Park, Sehan (MD)	No Relevant Financial Relationships
	Research Grant Overall Principal Investigator relationship with Cervical Scoliosis Research Society; Speakers Bureau relationship with Globus Medical; Consultant relationship with Medtronic; Consultant relationship with Royal Biologics; Editorial or governing board relationship with Spine; Other financial or material support relationship with Cerapedics; Editorial or governing board relationship with Journal of Neurosurgery: Spine; Other financial or material
Passias, Peter (MD)	

	support relationship with Spinevision; Consultant relationship with Terumo; Consultant relationship with SpineWave
Patel, Alpesh (MD, MBA, FACS)	Consultant relationship with Johnson and Johnson; Scientific/Medical Advisory Board Member relationship with nView; Deputy Editor relationship with Journal of American Academy of Orthopaedic Surgeons; Consultant relationship with Alphatec; Consultant relationship with CTL Amedica; Investor relationship with Cytonics; Investor relationship with Nocimed; Consultant relationship with CTL Amedica; Investor relationship with Endoluxe; Investor relationship with TDI Inc; Consultant relationship with Zimmer Biomet; Scientific/Medical Advisory Board Member relationship with Kuros Biosciences; Consultant relationship with Depuy Synthes; Consultant relationship with Nuvasive; Consultant relationship with Nuvasive; Consultant relationship with Alphatec
Patel, Vikas (MD)	Research grant relationship with Medtronic; Research grant relationship with Pfizer; Research grant relationship with Mainstay Medical; Consultant relationship with Zimmer Biomet; Consultant relationship with Baxter Healthcare; Consultant relationship with Stryker; Consultant relationship with Aesculap; Consultant relationship with DePuy Synthes; Research grant relationship with Spinal Kinetics
Pinter, Zachariah (MD)	No Relevant Financial Relationships
Prasarn, Mark (MD)	Speakers Bureau relationship with Stryker Spine
Protopsaltis, Themistocles (MD)	Consultant relationship with Medtronic; Stock Shareholder relationship with OnePoint Surgical; Research Grant Site Principal Investigator relationship with Medtronic; Consultant relationship with Stryker K2M; Consultant relationship with Altus; Consultant relationship with NuVasive; Consultant relationship with Globus

	<p>Scientific/Medical Advisory Board Member relationship with Spinal Simplicity; Editorial Board relationship with Contemporary Spine Surgery; Scientific/Medical Advisory Board Member relationship with Lifelink.com; Consultant, Royalties relationship with Stryker K2M; Private investments relationship with Vital 5 (Past relationship); Private investments relationship with Tissue Differentiation Intelligence; 1) Publications Committee member (2019-2022) 2) Professional relationship with Cervical Spine Research Society (CSRS); Ownership/Equity/Investment relationship with Tissue Differentiation Intelligence; Consultant relationship with Stryker K2M; 1) Program Committee member 2) Professional Society member 3 relationship with Society of Lateral Access Surgery; Clinical Events Committee member relationship with Simplify Medical, Inc.; Designer relationship with Stryker K2M; Royalties from Intellectual Property relationship with Stryker K2M; Speaker address relationship with RTI Surgical Inc. (Past relationship); Consultant relationship with Paradigm Spine (Past relationship); Consultant relationship with Surgalign; Honoraria relationship with AMOpportunities; Research Grant Site Principal Investigator relationship with Viseon, Inc.; Consultant relationship with Viseon, Inc.; Treasurer relationship with Minimally Invasive Spine Study Group; Consultant relationship with SpineGuard, Inc.; Stock Shareholder relationship with HS2, LLC; Consultant relationship with Globus Medical, Inc.; Speakers Bureau relationship with Globus Medical, Inc.; Scientific/Medical Advisory Board Member relationship with Spinal Simplicity, LLC; Clinical Experience Program relationship with AMOpportunities; Editorial Board/ Senior Associate Editor (2021-2024) relationship with Hospital Special Surgery Journal; Education Committee; 2021 Annual Meeting Program Chair relationship with International Society for the Advancement of Spine Surgery; Research Grant Overall Principal Investigator relationship with Viseon; Consultant relationship with Viseon; Consultant relationship with Suralign; Consultant relationship with SpineGuard, Inc.; Website Committee member; Professional Society member relationship with Lumbar Spine Research Society (LSRS); Professional Society member relationship with The American Orthopaedic Association; Consultant relationship with Viseon; Board of Directors (2021-2024) 4) relationship with Society of Minimally Invasive Spine Surgery (SMISS); Editorial Board relationship with HSS Journal Editorial Board/ Senior Associate Editor; Editorial board member relationship with Annals of Translational Medicine; 1) Program Committee member 2) Professional Society member relationship with Association of Bone and Joint Surgeons; Editorial board member relationship with Contemporary Spine Surgery; Royalties, Speakers' Bureau, Consultant relationship with Globus Medical, Inc.; Scientific/Medical Advisory Board Member relationship with Healthgrades (Past relationship); Consultant relationship with Spineguard; Ownership/Equity/Investment relationship with HS2, LLC; Ownership Interest relationship with HS2; Research Grant Overall Principal Investigator relationship with Viseon; Consultant relationship with Surgalign; Educational role relationship with AMOpportunities; Clinical Events Committee relationship with Simplify Medical; Consultant relationship with Globus Medical, Inc; Speakers Bureau relationship with Globus Medical Inc; Royalties relationship with Globus Medical, Inc; Ownership Interest relationship with Tissue Differentiation Intelligence; Royalties relationship with Stryker K2M; Designer relationship with Stryker K2M; Consulting Fees relationship with Stryker K2M; Political Engagement Cmtte; Payor Policy Review Cmtte; relationship with North American Spine Society; Consultant relationship with Surgalign; Scientific/Medical Advisory Board Member relationship with LifeLink.com Inc.</p>
Qureshi, Sheeraz (MD MBA)	
Raad, Micheal (MD)	No Relevant Financial Relationships
Rawicki, Nathaniel (MD)	No Relevant Financial Relationships
Razzouk, Jacob (BS)	No Relevant Financial Relationships

Rhee, John (MD)	Speakers Bureau relationship with Stryker; Consultant relationship with Atec; Royalties relationship with Wolters Kluwer Publishing; Speakers Bureau relationship with Zimjmer Biomet; Royalties relationship with Zimmer Biomet; Speakers Bureau relationship with Medtronic; Royalties relationship with Stryker
Riew, K. Daniel (MD)	Consultant, Advisory Board Meetings relationship with Nuvasive; Consultant, Stock Shareholder relationship with HAPPE Spine; Corporate Board Member relationship with Global Spine Journal; Consultant relationship with HAPPE Spine; Stock Shareholder relationship with Benvenue Medical; Stock Shareholder relationship with Expanding Orthopedics; Stock Shareholder relationship with Axiomed; Stock Shareholder relationship with Spineology; Stock Shareholder relationship with Nuvasive; Stock Shareholders relationship with Nuvasive; Patent Holder relationship with Zimmer Biomet; Patent Holder relationship with Biomet Zimmer; Consultant relationship with Nuvasive; Corporate Board Member relationship with North American Spine Society; Patent Holder relationship with HAPPE Spine; Corporate Board Member relationship with Global Spine Journal; Stock Shareholder relationship with Axiomed; Stock Shareholder relationship with Expanding Orthopedics; Stock Shareholder relationship with Spineology; Stock Shareholder relationship with Spinal Kinetics; Stock Shareholder relationship with Amedica; Stock Shareholder relationship with Vertiflex; Stock Shareholder relationship with Benvenue Medical; Stock Shareholder relationship with Paradigm Spine; Stock Shareholder relationship with Spinal Kinetics; Speakers Bureau relationship with Nuvasive; Patent Holder relationship with Nuvasive
Roca, Andrea (MA)	No Relevant Financial Relationships
Saijo, Yusuke (MD)	No Relevant Financial Relationships
Sasso, Rick (MD)	Consultant relationship with NuVasive; Patent Holder relationship with Medtronic
Satin, Alexander (MD)	Consultant relationship with DEGEN; Scientific/Medical Advisory Board Member relationship with AGADA; Research Grant Site Principal Investigator relationship with CSRS
Saturno, Michael (BA)	No Relevant Financial Relationships
Savage, Jason (MD)	Consultant relationship with Stryker Spine
Schallmo, Michael (MD)	No Relevant Financial Relationships
Schroeder, Gregory (MD)	Consultant relationship with Wolters Kluwer, Stryker, Zimmer, Medtronic, Bioventus, RTI,
Segebarth, P. Bradley (MD)	Fellowship Support relationship with AO Spine North America; Fellowship Support relationship with Nuvasive

	Consultant relationship with Medtronic; Research Grant Site Principal Investigator relationship with ISSG Foundation; Research Grant Site Principal Investigator relationship with ISSG Foundation; Research Grant Site Principal Investigator relationship with ISSG Foundation; Consultant relationship with SI Bone; Consultant relationship with SI Bone; Consultant relationship with SI Bone; Patent Holder relationship with NuVasive; Patent Holder relationship with NuVasive; Patent Holder relationship with NuVasive; Patent Holder relationship with Medtronic; Patent Holder relationship with Medtronic; Consultant relationship with Medtronic; Consultant relationship with Medtronic; Patent Holder relationship with Medtronic; Research Grant Site Principal Investigator relationship with Department of Defense; Consultant relationship with Medtronic; Consultant relationship with NuVasive; Consultant relationship with NuVasive; Patent Holder, relationship with NuVasive; Patent Holder, relationship with NuVasive; Patent Holder, relationship with NuVasive; Research Grant Overall Principal Investigator relationship with ISSG Foundation; Research Grant Overall Principal Investigator relationship with ISSG Foundation; Research Grant Overall Principal Investigator relationship with ISSG Foundation; Consultant relationship with NuVasive; Consultant relationship with Medtronic; Consultant relationship with Medtronic; Patent holder, royalties relationship with Medtronic; Consultant relationship with SI Bone; Consultant relationship with SI Bone; Consultant relationship with Proprio; Consultant relationship with Proprio; Consultant relationship with SI Bone; Research Grant Site Principal Investigator relationship with Department of Defense; Consultant relationship with Proprio; Research Grant Site Principal Investigator relationship with Department of Defense; Patent holder, royalties relationship with Medtronic; Patent holder, royalties relationship with Medtronic
Shaffrey, Christopher (MD)	
Shafi, Karim (MD)	No Relevant Financial Relationships
Shah, Akash (MD)	No Relevant Financial Relationships
Shahi, Pratyush (MBBS)	No Relevant Financial Relationships
Shankar, Ganesh (MD)	Consultant relationship with Depuy/J&J; Research Grant Site Principal Investigator relationship with NuVasive
Sheldon, Alexandra (BS)	No Relevant Financial Relationships
Sherrod, Brandon (MD)	Research Grant Site Principal Investigator relationship with AO Spine; Patent Holder relationship with University of Utah; Research Grant Site Principal Investigator relationship with Cervical Spine Research Society
Shimer, Adam (MD)	Consultant relationship with Nuvasive; Consultant relationship with Medtronic; Consultant relationship with Cerapedics
SHIN, JAEWON (MD)	No Relevant Financial Relationships
Silva, Juan (BS)	No Relevant Financial Relationships
Singh, Devender (PhD)	No Relevant Financial Relationships
Sivaganesan, Ahilan (MD)	Consultant relationship with Medtronic; Consultant relationship with MiRus; Consultant relationship with Stryker
Smith, Spencer (MD)	No Relevant Financial Relationships
Song, Junho (BS)	No Relevant Financial Relationships
Soufi, Khadija (BS)	No Relevant Financial Relationships
Spiker, Ryan (MD)	Medical Education relationship with Stryker
Steinmetz, Michael (MD)	speaker relationship with premia spine; Royalties relationship with Globus; Scientific/Medical Advisory Board Member relationship with Cerapedics; Consultant relationship with Globus; royalties relationship with Elsevier; royalties relationship with Zimmer Biomet
Stephens, Byron (MD, MSCI)	PI for research grant relationship with Stryker Spine; PI for research grant relationship with NuVasive
Su, Brian (MD)	No Relevant Financial Relationships
Suematsu, Yu (MD)	No Relevant Financial Relationships

Takahashi, Hiroshi (MD, PhD)	No Relevant Financial Relationships
Tamai, Koji (MD)	No Relevant Financial Relationships
TAMAOKA, TAKUYA (MD)	No Relevant Financial Relationships
Tang, Yifan (MD)	No Relevant Financial Relationships
Ton, Andy (B.S.)	No Relevant Financial Relationships
Tran, Jeremy (MD)	No Relevant Financial Relationships
Traynelis, Vincent (MD)	Consultant relationship with Medtronic; Consultant relationship with Thompson Surgical; IP relationship with NuVasive; Consultant relationship with NuVasive; Patent Holder relationship with Medtronic
Tretiakov, Peter (BS)	No Relevant Financial Relationships
Truumees, Eric (MD)	No Relevant Financial Relationships
Uesugi, Go (MD)	No Relevant Financial Relationships
Upfill-Brown, Alexander (MD)	No Relevant Financial Relationships
Vleggeert-Lankamp, Carmen (MD MSc PhD)	Research Grant Site Principal Investigator relationship with Thromboembolic complications in Neurosurgery (Covidien), Fun
Wang, Jeffrey (M.D.)	Stock Shareholder relationship with surgitech; Consultant relationship with bioretec; Consultant relationship with epidutech; Consultant relationship with angitia; royalties relationship with Novapproach; options relationship with Pearldiver; investment relationship with bone biologics; investment relationship with electrocore; royalties relationship with Depuy Synthes; royalties relationship with Zimmer-Biomet; royalties relationship with Seaspine
Weinberg, Douglas (MD)	No Relevant Financial Relationships
Wilson, Jefferson (MD, PhD, FRCSC)	Consultant relationship with Stryker Canada
Woods, Barrett (MD)	Consultant relationship with Altus; Education relationship with Stryker; Product Design relationship with Medtronic; Consultant relationship with Altus; Consultant relationship with Altus
Wright, Neill (MD)	Scientific/Medical Advisory Board Member relationship with Ulrich medical USA; Speakers Bureau relationship with Zimmer Biomet; Consultant relationship with Orthofix; Consultant relationship with Alphatec; Royalties relationship with Alphatec
Yamaguchi, Naoki (MD)	No Relevant Financial Relationships
Yoshii, Toshitaka (MD-PhD)	No Relevant Financial Relationships
Zelenty, William (MD)	No Relevant Financial Relationships
Zygourakis, Corinna (MD)	Consultant relationship with Amgen; Consultant relationship with 7D; Consultant relationship with Stryker