



EDUCATION

- 2019–2025 **University of California, Davis Medical Center**, Sacramento, CA
Integrated Cardiothoracic Surgery Residency, expected completion 2025
- 2013–2019 **University of California, Davis School of Medicine**, Sacramento, CA
Doctor of Medicine
- 2015–2017 **Johns Hopkins University School of Medicine**, Baltimore, MD
Master of Arts, Medical and Biological Illustration
Thesis: *Designing customized 3D printed models for surgical planning in repair of congenital heart defects*
Advisors: Narutoshi Hibino, MD, PhD and Juan García, MA, CCA
- 2010–2011 **California State University, Monterey Bay**, Seaside, CA
Graduate Certificate, Science Illustration
Internship: LAC + USC Medical Center, Division of Acute Care Surgery, Los Angeles, CA
Mentor: Peep Talving, MD, PhD, FACS
- 2007–2010 **University of California, Santa Cruz**, Santa Cruz, CA
Bachelor of Science, Health Sciences, *magna cum laude*, Highest Honors in the Major

WORK EXPERIENCE

- 2019–Present **Resident Physician, Cardiothoracic Surgery**, UC Davis Medical Center, Sacramento, CA
- 2021–Present **Editorial Board Member**, *The Annals of Thoracic Surgery*
Associate Editor – Digital Media and Digital Scholarship, Medical Illustrator
 - Appointed by the Society of Thoracic Surgeons (STS) Board of Directors to a team focusing on improving Digital Media and Scholarship, headed by Senior Editor Dr. Thomas Varghese
 - Provide curated monthly cover illustrations for *The Annals of Thoracic Surgery***Visual Abstract Editorial Member** (2021–2023)
 - Develop a standardized process to evaluate and ensure the quality and content of Visual Abstracts included with manuscripts reaching acceptance to *The Annals of Thoracic Surgery*
- 2011–Present **Medical and Scientific Illustrator**, Freelance, online portfolio at SarahAChen.com
Creation of accurate, informative, and engaging scientific and medical visuals for varied clientele
 - Board Certified Medical Illustrator (CMI) since 2020
 - Create work in traditional media including graphite, watercolor, pen & ink, and colored pencil
 - Specialize in 2D/3D digital media including Adobe Photoshop, Illustrator, InDesign, Autodesk Meshmixer, Materialise Mimics, 3DSlicer, and other related software
 - Design and 3D print medical models for pre-surgical planning and simulation
 - Clients include: UC Davis SOM, UCSF, Stanford Medicine, Keck Medical Center of USC, and others
- 2016–17 **3D Printer Technician**, Carnegie Center for Surgical Innovation, Johns Hopkins School of Medicine
Performed weekly cleaning and maintenance of a Stratasys Objet260 Connex3 3D Polyjet printer

HONORS, AWARDS & CERTIFICATIONS

- 2024 **TSRA/STS Traveling Fellowship in Cardiothoracic Surgery**, Thoracic Surgery Resident Association
Awarded a fellowship to fund a week-long traveling observership to a host institution, chosen at the University of Michigan with Dr. Bo Yang, MD, PhD
- 2023 **Chitwood Award**, ISMICS Annual Meeting, Boston, MA
Travel award granted by the International Society for Minimally Invasive Cardiothoracic Surgery (ISMICS) Research and Education Fund, through a generous contribution by former ISMICS President, Dr W. Randolph Chitwood, Jr.
- 2023 **ISMICS 2023 Subramanian Award finalist**, ISMICS Annual Meeting, Boston, MA
Selected as one of three finalists for the Subramanian Innovation Award for abstract titled "Use Of 3D Printed Ribcage Models to Investigate Ideal Intrathoracic Ratio For Robotic Left Internal Thoracic Artery Harvesting"
- 2023 **Poster Competition Finalist**, ISMICS Annual Meeting, Boston, MA
Finalist for ePoster Competition at the 2023 ISMICS Annual Meeting for "*Utility of Robot-assisted Bronchoscopy with Radial Endobronchial Ultrasound for Marking of Subcentimeter Pulmonary Nodules for Resection*," by Xue AH, Anderson DA, Chen SA, Phan CT, Brown LM, Cooke DT, Godoy LG
- 2023 **Best Clinical Science Research Award as a Full Oral Presentation**, UC Davis Medical Center
For "Use of 3D Printed Ribcage Models to Investigate Ideal Intrathoracic Ratio for Robotic Left Internal Thoracic Artery Harvest," UC Davis Department of Surgery Research Day, Sacramento, CA
- 2022 **J. Nilas Young Award for Exceptional Overall Performance in Cardiothoracic Surgery**, UC Davis Medical Center, Sacramento, CA
- 2022 **Poster Competition Winner**, ISMICS Annual Meeting, Warsaw, Poland
Awarded Best Poster and subsequent Oral Presentation for "*Cardiothoracic Surgery Resident Perspective on Training In Robotic Cardiac Surgery Utilizing Simulation Team Approach*," presented during the 2022 ISMICS Annual Meeting; by Xue AH, Chen SA, Carnegie P, Catrip JM, Kiaii B
- 2021 **DAISY Team Award**, UC Davis Children's Hospital, Sacramento, CA – Plastic Surgery Team
Awarded to the UCD Nursing, Neurosurgery, Plastic Surgery and Anesthesia teams for the successful separation of craniopagus twins separated on October 24, 2020
- 2021 **Kaiser Simply the Best**, Kaiser Permanente, South Sacramento, CA
Recognized by a patient for "creating caring moments by providing personalized and exceptional experiences for patients and their families"
- 2020 **Board Certification in Medical Illustration (CMI)**, granted by the BCMI
The Board of Certification of Medical Illustrators (BCMI) is an independent body that administers this certification program designed to provide the practicing medical illustrator with the recognizable and valuable CMI credential. A CMI has successfully passed examinations in business practices, ethics, biomedical science, and drawing skills and has undergone a rigorous portfolio review. Competencies are maintained by meeting continuing education requirements and must be renewed every five years. CMI certification is administered by the Board of Certification of Medical Illustrators and is based on standards of the National Commission for Certifying Agencies (NCCA)
- 2019 **Outstanding Medical Student in Surgery Award**, UC Davis School of Medicine, Sacramento, CA

- 2018 **Student Surgery Leadership Weekend Scholarship**, University of Michigan, Ann Arbor, MI
Granted admission, lodging, and travel expenses to attend the annual Student Surgery Leadership Weekend hosted by the Academic Surgeon Development Program at the University of Michigan
- 2018 **STS Looking to the Future Scholarship**, The Society of Thoracic Surgeons
Granted admission, lodging, and travel expenses to the STS 54th Annual Meeting, Fort Lauderdale, FL
- 2017 **Alpha Omega Alpha Service Award**, UC Davis School of Medicine, Sacramento, CA
Funding to implement Project PEARL (Promising Excitement in science through Art, Rhymes, and Learning), an educational outreach intervention on science interest for middle school students
- 2017 **Medical Student Research Travel Award**, UC Davis School of Medicine, Sacramento, CA
- 2017 **Honorable Mention**, Vesalius Trust Poster Session, Association of Medical Illustrators Conference, Austin, TX
- 2017 **Alan Cole Scholarship**, The Vesalius Trust for Visual Communication in the Health Sciences
Top research award in the field of visual communication in the health sciences
- 2016 **Orville Parkes Best of Show**, Association of Medical Illustrators Annual Salon, Atlanta, GA
Awarded for the salon entry in the Still Media category judged to be of the highest quality
- 2016 **Award of Excellence**, Association of Medical Illustrators Annual Salon, Atlanta, GA
- 2016 **Frank H. Netter, MD, Memorial Scholarship in Medical Art**, Johns Hopkins School of Medicine, Department of Art as Applied to Medicine, Baltimore, MD
Scholarship to recognize a student who has excelled in academic coursework, displayed exceptional art expression, and utilized both resources to create well designed and effective didactic illustrations
- 2016-17 **W. B. Saunders Company Fellowship in Art as Applied to Medicine**, Johns Hopkins School of Medicine
Fellowship established in 1964 in honor of Lawrence Saunders upon his retirement after 50 years of distinguished leadership in medical publishing
- 2015–16 **William P. Didusch Scholarship**, Johns Hopkins School of Medicine, Department of Art as Applied to Medicine, Baltimore, MD
- 2015–16 **Ranice W. Crosby Memorial Scholarship**, Johns Hopkins School of Medicine, Department of Art as Applied to Medicine, Baltimore, MD
- 2015 **Morton Levitt Memorial Fund**, UC Davis School of Medicine, Sacramento, CA
Research support for Medical Student Research Fellowship
- 2008–10 **University of California Regents Scholarship**, UC Santa Cruz, Santa Cruz, CA
Scholarship considered the highest honor awarded by UC Santa Cruz to undergraduates
- 2008 **National Society of Collegiate Scholars Merit Award**, Washington, DC
- 2006 **Leadership Award**, University of California Berkeley, Berkeley, CA (attended UC Berkeley 2006–7)

RESEARCH

- 2016–2017 **Graduate Research**, Johns Hopkins School of Medicine, Baltimore, MD
Department of Art as Applied to Medicine; Johns Hopkins Hospital, Division of Cardiac Surgery
- Developed a novel workflow for creating CT, 3D ultrasound, and 3D fetal ultrasound-derived 3D printed heart models, focusing on surgical simulation models for hypoplastic left heart syndrome
 - Explored the utility of several segmentation and 3D modeling software options
- 2015 **Medical Student Research Fellowship**, UC Davis School of Medicine, Sacramento, CA
Lab of Aijun Wang, PhD and Diana Farmer, MD, Department of Surgery
- Quantified the effects of conditioned media collected from placenta-derived mesenchymal stromal cell secretome on the length and number of neurite outputs of primary postmitotic neurons.
 - Performed experiments *in vitro*, in the greater context of assessing the ability of PMSCs to restore neurologic function in the fetal ovine model of spina bifida
- 2011 **Science Illustration Internship**, LAC + USC Medical Center, Los Angeles, CA
Division of Acute Care Surgery
- Studied anatomy and trauma procedure simulations at the Keck School of Medicine Fresh Tissue Dissection Lab
 - Worked with trauma surgeons to create accurate surgical illustrations for textbook publication including *Rich's Vascular Trauma, 3e*

PUBLICATIONS

- Brescia AA, **Chen SA**, Monaghan K, Yang B. Aortic Annular Enlargement with Y-Incision/Rectangular Patch: Tips and Pitfalls. *Operative Techniques in Thoracic and Cardiovascular Surgery: A Comparative Atlas*. 2024. (Accepted, pending publication)
- Dimagli A, Malas J, **Chen SA**, Sandner S, Schwann T, Tatoulis J, Puskas J, Bowdish ME, Gaudino M. Coronary Artery Aneurysms, Arteriovenous Malformations, and Spontaneous Dissections – A Review of the Evidence. *Ann Thorac Surg*. 2023 Dec 9:S0003-4975(23)01249-3. doi: 10.1016/j.athoracsur.2023.11.033
- Anderson D, **Chen SA**, Catrip JM, Kiaii. (2023). Hybrid Coronary Revascularization. *Atlas of Cardiac Surgery*. Elsevier. (Accepted, pending publication)
- Chen SA**. The 10 Commandments of Building 3D-Printed Models for Surgical Simulation. *Innovations*. 2023;18(5):408-413. doi:10.1177/15569845231204233
- Xue AH, **Chen SA**, Ranade A, Smith K, Kasten J, Catrip JM, Kiaii B. How to implement a clinical robotic mitral valve surgery program. *Annals of Cardiothoracic Surgery*. 2022.11(5):504-509. doi: 10.21037/acs-2022-rmvs-14
- Anderson D, **Chen SA**, Southard J, Catrip JM, Kiaii, B. Multidisciplinary approach to coronary artery revascularization: optimal strategy for high-risk patients. *Journal of Cardiac Surgery*. 2022; 37:2900–2902. doi:10.1111/jocs.16685
- Sherazee, EA, **Chen SA**, Li D, Li D, Frank P, Kiaii, B. Pain Management Strategies for Minimally Invasive Cardiothoracic Surgery. *Innovations*. 2022; 17(3), 167–176. doi:10.1177/15569845221091779
- Anderson D, **Chen SA**, Godoy LA, Brown LM, Cooke DT. Comprehensive Review of Chest Tube Management: A Review. *JAMA Surg*. 2022; 157(3):269–274. doi:10.1001/jamasurg.2021.7050

- Firriolo JM, **Chen SA**, Wong GB. Craniopagus Separation using a Novel Tissue Expander Design. *Plastic and Reconstructive Surgery - Global Open*. 2021; 9(10S):65–66. doi:10.1097/01.GOX.0000799432.74728.03
- Guenther, TM, **Chen SA**, Gustafson JD, Ing FF, Brothers JA, Raff GW. Total anomalous origin of the coronary arteries from the pulmonary artery: a systematic review. *Cardiology in the Young*. 2021; 1-8. doi:10.1017/S1047951121002997.
- Theodorou CM, Trappey AF, **Chen SA**, McCracken K, Saadai P. Surgical Management of an Obstructive Müllerian Anomaly in a Patient with Anorectal Malformation. *Journal of Pediatric Surgery Case Reports*. Published online May 2021:101908. doi:10.1016/j.epsc.2021.101908.
- Guenther TM, Godoy LA, **Chen SA**, Rodriguez VM. Homograft aortic root replacement with modified Cabrol extension using cryopreserved femoral artery for bioprosthetic aortic valve endocarditis. *JTCVS Techniques*. 2020; 4:65-67. doi:10.1016/j.jtc.2020.08.019.
- Guenther TM, **Chen SA**, Wozniack C, Leshikar D. Fatal cardiac injury sustained from an air gun: Case report with review of the literature. *Int J. Surg Case Rep*. 2020; 70:133-136. doi:10.1016/j.ijscr.2020.04.039.
- Singh GD, Rogers JH, **Chen SA**, Yap J, Smith TWR, Fan D, Stripe BR, Aman E. Adjunctive use of fluoroscopy during MitraClip implantation reduces procedural complexity: The Parallax Technique. *Catheterization and Cardiovascular Interventions*. 2020; 1-10. doi:10.1002/ccd.29323.
- Guenther TM, **Chen SA**, Balkhy HH, Kiaii B. Robotic Coronary Artery Bypass Grafting: The Whole 9 Yards. *Innovations (Phila): Technology and Techniques in Cardiothoracic and Vascular Surgery*. 2020; 15(3):204-210. doi:10.1177/1556984520922931.
- Yap J, **Chen SA**, Smith TWR, Rogers JH, Singh GD. Transjugular mitral valve repair with the MitraClip: A Step-by-step guide. *Catheterization and Cardiovascular Interventions*. 2020; 96:699-705. doi:10.1002/ccd.28902.
- Yap J, **Chen SA**, Stripe BR, Smith TWR, Rogers JH, Singh GD. Transseptal access for left heart structural interventions in the setting of prior atrial septal defect closure. *Catheterization and Cardiovascular Interventions*. 2020; 95(3):414-419. doi:10.1002/ccd.28548.
- Guenther TM, Godoy LA, **Chen SA**, Yeh J, Raff GW. Left ventricle to right atrial shunt associated with ventricular-atrial malalignment, double outlet right atrium, and subaortic membrane. *Seminars in Thoracic and Cardiovascular Surgery*. 2020; 32(1):140-142. doi:10.1053/j.semtcvs.2019.09.004
- Eng M, **Chen SA**, Southard JA, Smith TWR, Agrawal G, Wong G, Boyd WD, Low RI, Singh GD. Multi-pigtail technique is associated with decreased contrast use and fluoroscopic adjustment for transcatheter aortic valve replacement. *Structural Heart: The Journal of the Heart Team*. 2020; 4(2):131-138. doi:10.1080/24748706.2019.1682211.
- Chen SA**, Ong CS, Hibino N, Baschat AA, García JR, Miller JL. 3D printing of the fetal heart using 3D ultrasound imaging data. *Ultrasound in Obstetrics & Gynecology*. 2018; 52(6):808-809. doi:10.1002/uog.19166.
- Chen SA**, Ong CS, Malguria N, García JR, Vricella L, Hibino N. Digital design and 3D printing for surgical simulation and training of aortic arch reconstruction. *World Journal for Pediatric and Congenital Heart Surgery*. 2018; 9(4):454-458. doi:10.1177/2150135118771323.

Chen SA. (2018). Poster abstract: Designing customized 3D printed models for surgical planning in repair of congenital heart defects. *Journal of Biocommunication*, 42(1).
<http://journals.uic.edu/ojs/index.php/jbc/article/view/9188/7512>.

PUBLISHED ILLUSTRATIONS IN JOURNAL ARTICLES, CHAPTERS, OTHERS

Louis C, Luc J, Wilder F, Hameed I, Blitzer D, Lin Y, Bhagat R. (2023). Thoracic Surgery Residents Association (TSRA) Operative Dictations in Cardiothoracic Surgery, 2e. (**Cover illustration**)

Chen SA, Godoy LA. (2022). Thoracic Surgery Residents Association (TSRA) Review of Cardiothoracic Surgery, 3e, edited by Brescia AA, Louis C. (**Chapter contents + Inside artwork**)

- Chapter 1: Thoracic and Pulmonary Anatomy
- Chapter 42: Anatomy and Surgical Approaches to the Mediastinum

Farmer D, Hirose S, Saadai P, Sabiston. (2021). Chapter 73: Fetal Surgery. Textbook of Surgery: The Biological Basis of Modern Surgical Practice, 21e. Elsevier Saunders. (**Inside artwork**).

Guenther TM, Sherazee EA, Gustafson JD, Wozniak CJ, Brothers J, Raff GW. Anomalous Origin of the Circumflex or Left Anterior Descending Artery From the Pulmonary Artery. *World Journal for Pediatric and Congenital Heart Surgery*. 2020;11(6):765-775. doi: 10.1177/2150135120938705. (**Inside artwork**).

Freischlag JA, Williams TK. (2019). Thoracic Outlet Syndrome. Current Surgical Therapy, 13e. Elsevier, 1038–1043. (**Inside artwork**).

Freischlag JA, Orion KC. (2018). Venous Thoracic Outlet Syndrome. Current Management of Venous Diseases, 1e. Springer Science and Business Media, 363-370. (**Inside artwork**).

Hadfield C, Clayton L. (2018). Clinical Guide to Fish Medicine. John Wiley & Sons, Inc. (**Inside artwork**).

Qin EY, Cooper DD, Abbott KL, et al. Neural precursor-derived pleiotrophin mediates subventricular zone invasion by glioma. *Cell*. 2017; 170(5):845-59.e19. (**Cover illustration concept, graphical abstract, inside artwork**).

Venkatesh H, Monje M. Neuronal activity in ontogeny and oncology. *Trends in Cancer*. 2017; 3(2):89-112 (**Inside artwork**).

Transaxillary First Rib Resection for Thoracic Outlet Syndrome, for Johns Hopkins Heart and Vascular Institute. (2016). www.hopkinsmedicine.org/heart_vascular_institute/conditions_treatments/conditions/thoracic_outlet_syndrome.html. (**Animation**). https://youtu.be/4ADbPso_vyM

Demetriades D, Talving P, Inaba K. (2015). Blunt Thoracic Aortic Injury. Rich's Vascular Trauma, 3e. Elsevier, Inc., 100-112. (**Inside artwork**).

Perry PA, Young N. Aortic root enlargement with ascending-to-descending aortic bypass in repair of coarctation. *Journal of Heart Valve Disease*. 2015; 24(4):516-8. (**Inside artwork**).

Skora AD, Douglass J, Hwang MS, et al. Generation of MANA bodies specific to HLA-restricted epitopes encoded by somatically mutated genes. *Proceedings of the National Academy of Sciences USA*. 2015; 112(32):9967-72. (**Cover illustration, 2 versions**).

Venkatesh HS, Johung TB, Caretti V, et al. Neuronal activity promotes glioma growth through neuroligin-3 secretion. *Cell*. 2015; 161(4):803-16. (**Graphical abstract, inside artwork**).

Nerman M. (2014). Healing Pain and Injury. Bay Tree Publishing. (**160+ book illustrations**).

Gibson EM, Purger D, Mount CW, et al. Neuronal activity promotes oligodendrogenesis and adaptive myelination in the mammalian brain. *Science*. 2014; 344(6183):1252304. (**Graphical abstract, inside artwork**).

Hinck L. Tumor suppressors: heroes and villains. *Journal of Mammary Gland Biology and Neoplasia*. 2011; 16(3):169-71. (**Cover illustration**).

PRESENTATIONS & POSTERS

Aribindi K, Addepalli S, Miller J, Adams JY, **Chen SA**, Evans SA, Kiaii B, Black HB. (2042). Veno-arterial Extracorporeal Membrane Oxygenation Complicated By Heparin Induced Thrombocytopenia And Use Of Hboc-201 In A Jehovah'S Witness Patient: A Novel Blood Preservation Technique
- **Poster Presentation** for American Thoracic Society Meeting, San Diego, CA, May 2024

Chen SA, Catrip JM, Kiaii B. (2023). Use Of 3D Printed Ribcage Models to Investigate Ideal Intrathoracic Ratio For Robotic Left Internal Thoracic Artery Harvesting
- **Oral Presentation** for Association of Medical Illustrators (AMI) Meeting, Henderson, NV, July 22, 2023
- **Oral Presentation** for the International Society for Minimally Invasive Cardiothoracic Surgery (ISMICS) Annual Meeting, Boston, MA, June 1, 2023
- **Oral Presentation** for UC Davis Department of Surgery Research Day Symposium, Sacramento, CA, April 11, 2023

Xue AH, **Chen SA**, Evans S, Raff GW, Kiaii B. (2022). Repair of Isolated Giant Right Coronary Artery Aneurysm
- **Oral Presentation** for International Coronary Congress (ICC), Tokyo, Japan, Dec 1, 2022

Catrip JM, **Chen SA**. (2022). Advanced Therapies – Mechanical Circulatory Support
- **Oral Presentation** for UC Davis Heart Failure Summit, Sacramento, CA, October 29, 2022

Chen SA. (2022). Craniopagus Twin Separation Guided by Novel Virtual and Physical Pre-Surgical Simulation
- **Oral Presentation** for Association of Medical Illustrators (AMI) Meeting, Des Moines, IA, July 22, 2022

Chen SA. (2022). Art Not Just for Artists – Using Art & 3D Printing for Surgical Preparation
- **Invited Oral Presentation** for the International Society for Minimally Invasive Cardiothoracic Surgery (ISMICS) Annual Meeting, Warsaw, Poland, June 18, 2022

Kiaii B, **Chen SA**, Anderson D. (2022). Hybrid Revascularization: How to Do It?
- **Oral Presentation** for STS Coronary Congress, Ottawa, ON, Canada, June 5, 2022

Xue AH, **Chen SA**, Catrip JM, Kiaii B. (2022). How to implement a clinical robotic mitral valve surgery program.
- **Keynote Lecture Series** for Annals of Cardiothoracic Surgery, Virtual, May 2022

- Sherazee EA, Guenther TM, **Chen SA**, Kiaii B. (2022). Review of Graft Patency in Robotically Assisted Coronary Artery Bypass and Totally Endoscopic Coronary Bypass Surgery
- **Oral Presentation** at UC Davis Department of Surgery Research Day Symposium, Sacramento, CA, April 12, 2022
 - **Oral Poster Presentation** at ISMICS Annual Meeting Poster Competition, Warsaw, June 18, 2022
- Kiaii B, **Chen SA**, Catrip JM. (2022). "Robotically assisted coronary bypass grafting – technical tips from expert surgeons"
- **Webinar** for ISMICS, Virtual, February 12, 2022
- Evans S, **Chen SA**. (2022). UC Davis COVID-10 ECMO Experience
- **Grand Rounds Presentation** at UC Davis Medical Center, Sacramento, CA, January 11, 2022
- Chen SA**, Evans S, Catrip JM, Southard JA, Kiaii B. (2021). Optimal Planning in Multidisciplinary Approach for Hybrid Revascularization in a High-Risk Patient with High Grade Left Main Disease.
- **Poster Presentation** for International Coronary Congress (ICC), New York City, NY, Dec 2021
- Chen L, **Chen SA**, Evans S, Catrip JM, Kiaii B, Kesarwani M, Singh GD, Southard JA, Stripe BR. (2021). LVOT Injury After Transcatheter Aortic Valve Replacement.
- **Oral Presentation** for Transcatheter Cardiovascular Therapeutics (TCT), Orlando, FL, Nov 4, 2021
- Kiaii B, **Chen SA**. (2021). Robotic-Assisted Valvular Procedures.
- **Oral Presentation** for ISMICS Workshop along with 5th Annual Conference of Society of Minimally Invasive Cardiovascular & Thoracic Surgeons of India (SMICTSI), Virtual, Sept 25, 2021
- Wong GB, Firriolo JM, **Chen SA**. (2021). Craniopagus Separation Using a Novel Tissue Expander Design.
- **Invited Oral Presentation** at Gary Lees Symposium, Johns Hopkins Department of Art as Applied to Medicine, Baltimore, MD, June 3, 2022
 - **Oral Presentation** at the 79th American Cleft Palate-Craniofacial Association (ACPA) annual meeting, Fort Worth, TX, April 2020
 - **Invited Oral Presentation** at the Lilliputian Surgical Society, Sacramento, CA, Sept 18, 2021
 - **Invited Oral Presentation** at California Society of Plastic Surgeons, Monterey, CA, May 29, 2021
 - **Grand Rounds Presentation** at UC Davis Medical Center, Sacramento, CA, April 27, 2021
 - **Oral Presentation** at UC Davis Department of Surgery Research Day Symposium, Sacramento, CA, April 20, 2021
- Sherazee EA, **Chen SA**, Sarkeshik AA, Guenther TM, Wozniak CJ, Raff GW (2021). Role of Extracorporeal Membrane Oxygenation for COVID-19 Associated Pulmonary Failure–Assessment of a Single Center Experience.
- **Poster Presentation** for 18th Annual Perioperative and Critical Care Conference, STS, Sept 10, 2021
- Kiaii B, **Chen SA**, Evans S, Catrip JM. (2021). Hybrid Coronary Artery Revascularization: Optimal Strategy for High Risk Coronary Artery Disease Patients.
- **Oral Presentation** for Encore Seoul, Virtual, Sept 9, 2021
- Kiaii B, **Chen SA**. (2021). Robotic-Assisted Cardiac Surgery.
- **Oral Presentation** for FAH-SYSU & CITRUS Surgical Robotics Seminar 2, Virtual, August 25, 2021

- Chen SA**, Guenther TM, Abazid R, Kiaii B. (2020). Do We Need Fancy Anatomic Imaging to Perform Robotic Coronary Surgery?
 - **Online Curriculum** for Robotic Cardiac Surgery, the Society of Thoracic Surgeons Summer 2020 (sts.org/roboticcardiac)
- Chen SA**, Guenther TM, Abazid R, Kiaii B. (2020). Patency Outcomes for Robotic CABG.
 - **Online Curriculum** for Robotic Cardiac Surgery, the Society of Thoracic Surgeons Summer 2020 (sts.org/roboticcardiac)
- Chen SA**. (2020). The HeART of Surgery.
 - **Oral Presentation** at the Association of Medical Illustrators Conference, Phoenix, AZ, 2020 (canceled due to COVID-19)
- Chen SA**. (2019). Utilizing Segmentation-based Cardiac Models for Clinical Education.
 - **Oral Presentation** at the Association of Medical Illustrators Conference, Milwaukee, WI, 2019
- Chen SA**, Chen L, Smith T, Fan D, Stripe B, Boyd WD, Rogers JH, Singh GD. (2019). Adjunctive Use of Fluoroscopy during MitraClip Implantation to Minimize Clip Mal-rotation, Preserve Alignment, Reduce Number of Grasps and Need for Clip Eversion.
 - **Moderated Poster Presentation** at Transcatheter Valve Therapies (TVT), Chicago, IL, 2019
- Chen SA**, Ong CS, Hibino N, García JR, Baschat AA, Miller JL. (2018). 3D Printing of the Fetal Heart from Prenatal Ultrasound Derived Data.
 - **Abstract** accepted for scientific program at the 28th World Congress on Ultrasound in Obstetrics and Gynecology, Singapore, 2018.
- Eng M, Smith TW, Southard JA, Wong G, Stripe BR, Fan D, Choi J, **Chen SA**, Agrawal G, Rajpal G, Low R, Singh GD. (2018). Multi-Pigtail Technique Is Associated with Less Contrast Use and Fluoroscopic Adjustment in Determining Perpendicular Angle of Deployment for Transcatheter Aortic Valve Replacement.
 - **Poster Presentation** at Transcatheter Valve Therapies (TVT), Chicago, IL, 2018
- Trivedi A, **Chen SA**, Thorsell E. (2018). Effects of A Novel Educational Outreach Intervention on Science Interest and Understanding among 8th grade Students in Sacramento.
 - **Poster Presentation** at AOAle, the annual AOA fundraiser, UC Davis School of Medicine, 2018.
 - **Poster Presentation** at the Annual Medical Student Research Forum, UC Davis SOM, 2018.
- Chen SA**, Hibino N, García JR. (2017). Designing Customized 3D Printed Models for Surgical Planning in Repair of Congenital Heart Defects.
 - **Oral Presentation** at the Congenital Heart Surgeons' Society Annual Meeting, Chicago, IL, 2017
 One of 25 abstracts chosen for an oral presentation out of 92 submissions by residents and surgeons
 - **Oral Presentation** at the Association of Medical Illustrators Conference, Austin, TX, 2017
 Invited to speak as the Alan Cole Scholar; also presented a poster at the AMI Conference
 - **Poster Presentation** at the Annual Medical Student Research Forum, UC Davis SOM, 2018.
 - **Poster Presentation** at Materialise 3D Printing in Medicine Conference, Plymouth, MI, 2017
- Chen SA**, Lankford L, Pivetti C, Farmer D, Wang A. (2015). Effects of Placenta-derived Mesenchymal Stromal Cell Secretome on Postmitotic Developing Neurons.
 - **Poster Presentation** at the Annual Medical Student Research Forum, UC Davis SOM, 2015

PROFESSIONAL MEMBERSHIP

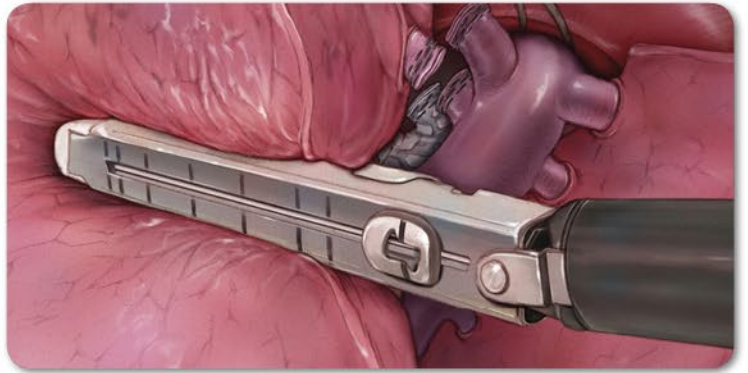
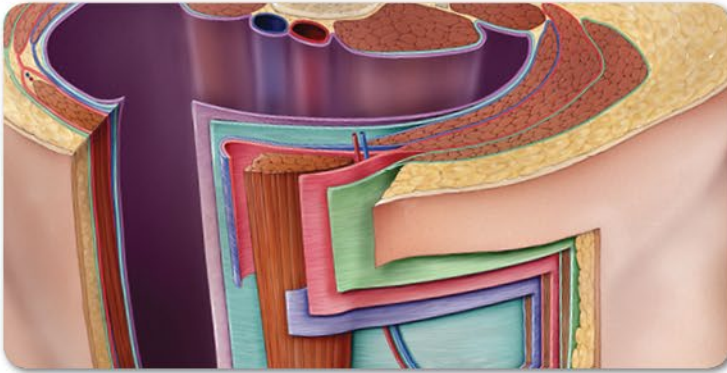
- 2021–Present **The International Society for Minimally Invasive Cardiothoracic Surgery**, Resident Member
- 2018–Present **American College of Surgeons**, Resident Member
- 2018–Present **Women in Thoracic Surgery**, Candidate Member – Contributed to new 2018 WTS logo design
- 2018–Present **Society of Thoracic Surgeons**, Resident Member
- 2016–Present **Association of Medical Illustrators**, Professional Member

LINK TO DEMO REEL

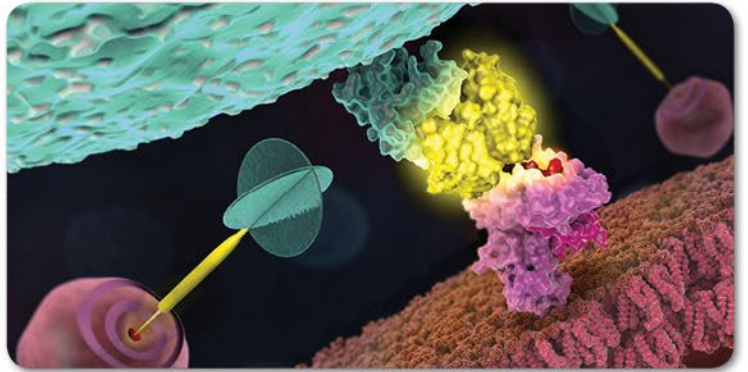
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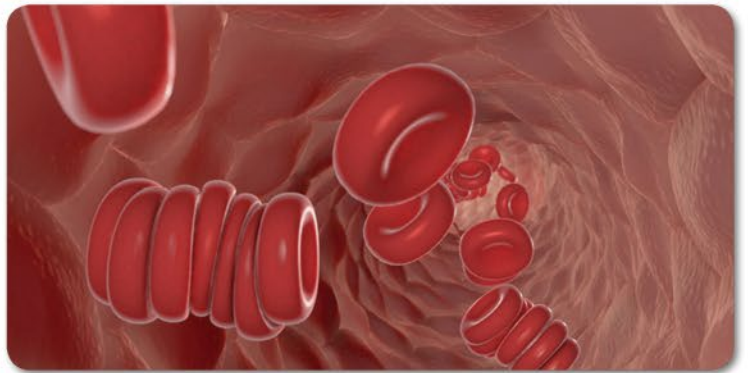
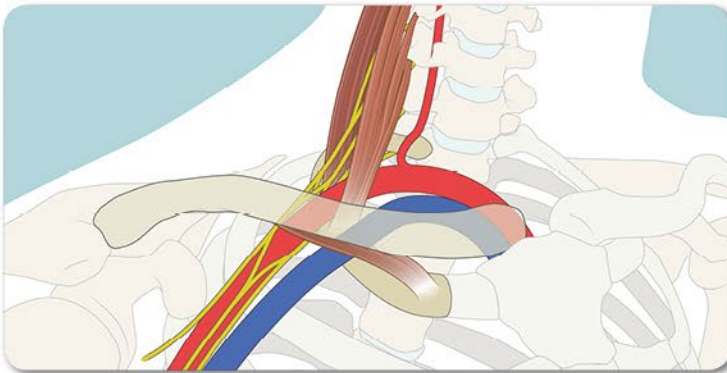
Medical / Surgical Illustration



Biological / Scientific Illustration



2D / 3D Animation



3D Modeling / Printing

