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# Stanford MEDICINE | Department of Cardiothoracic Surgery

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Earlier this quarter, our community faced many discussions and challenges related to the nursing strike - we sincerely appreciate your patience, strength, and dedication to our patients. We are one community, and with the nursing strike beyond us now, we are eager to continue serving our patients and their families.

Spring was an exciting time for our colleagues and friends to come together at major academic conferences. We had robust participation from our faculty and residents who [participated](#) in the AATS 102nd Annual Meeting in Boston, Massachusetts, in May.

Last month, we celebrated five individuals who completed their fellowships and residency: Drs. Irmina Elliott (Thoracic Fellow), Kevin Goodwin (Cardiac Fellow), Brandon Guenthart (Transplant Fellow), Sumanth Kidambi (I6 Resident), and Melissa Medina (Cardiac Fellow). We are excited by their future endeavors, including two who will transition to full-time faculty. Five new [residents](#) and [fellows](#) will join our department: Drs. Ioana Baiu, Kelly Higa, Hannah McMullen, Alexander Reed, and Matthew Wingo.

Please join me in congratulating Dr. Ngan F. Huang for her recent [promotion](#) to Associate Professor with tenure. As one of the few research-only faculty in our department, we value her extensive background in bioengineering and cardiovascular medicine.

We look forward to welcoming Dr. Louise Sun as the new Division Chief of Cardiac Anesthesiology, starting Fall 2022. We look forward to our collaboration.

Thank you all for your many contributions to our mission and commitment to our community.

Sincerely,

**Joseph Woo, MD**

Norman E. Shumway Professor and Chair  
Stanford Department of Cardiothoracic Surgery

## In the News



### Stanford Health Care receives 2022 Mitral Valve Repair Reference Center Award

The American Heart Association and the Mitral Foundation have recognized Stanford Health Care as a reference center for mitral valve repair surgery. This is the third consecutive year that Stanford has achieved this recognition. [Read more.](#)



## Lucile Packard Children's Hospital Stanford among top 10 children's hospitals in the nation

Lucile Packard Children's Hospital Stanford has been named among the top 10 children's hospitals in the nation, according to the U.S. News & World Report 2022–23 Best Children's Hospitals. [Read more.](#)



## Stanford Health Care ranked top hospital in 2022 Healthgrades Award Ranking

Stanford Health Care is ranked among the top hospitals for cardiac surgery according to the 2022 Healthgrades State Hospitals Ranking. Stanford is ranked #1 in California for cardiac surgery. [Read more.](#)



## Stanford heart transplant: Exceptional growth, outcomes and accomplishments

Stanford Health Care continues to distinguish itself as a national leader in heart transplants for its high volumes, innovations, and expertise. [Read more.](#)



## Toddler takes on jungle gym after life-changing heart reconstruction

A multidisciplinary team of cardiovascular surgeons, cardiologists, and congenital heart disease specialists at Stanford Children's Health helped save Liam who was born with a congenital heart defect. [Read more.](#)



## Stanford's successful heart transplantation using COVID-19 positive donor

A team of heart surgeons and health care specialists from the Department of Cardiothoracic Surgery recently performed their first reported heart transplant on a patient using a COVID-19 positive donor. [Read more.](#)



## Dr. Leah Backhus named 2022-2023 ELAM Executive Leadership in Health Care Fellow

The Hedwig van Ameringen Executive Leadership in Academic Medicine® Program for Women at Drexel University College of Medicine has selected Leah Backhus, MD, to its Executive Leadership in Health Care. [Read more.](#)



### Department welcomes four new clinical faculty

The Department of Cardiothoracic Surgery is excited to welcome four clinical faculty to the department. Please welcome Drs. Irmina Elliott, Brandon Guenthart, and Yihan Lin, who will join as Clinical Assistant Professors, and Dr. Pierre Theodore as Clinical Associate Professor.



### Dr. Ngan F. Huang promoted to Associate Professor

The Department of Cardiothoracic Surgery congratulates Ngan F. Huang, PhD, for her recent promotion to Associate Professor with tenure. Dr. Huang has built her extensive research career in bioengineering, stem cell biology, and cardiovascular medicine. [Read more.](#)



### Dr. Ngan F. Huang receives 2022 CVI Seed Grant Award

CVI awarded Ngan F. Huang, PhD, the 2022 Seed Grant Award for her project entitled, "Engineering protease-guided drug delivery to implanted stem cells for treatment of peripheral arterial disease." [Read more.](#)



### Dr. Kiah Williams receives two distinguished scholarships

Cardiothoracic surgery resident Kiah Williams, MD, was recently awarded the 2022 Women in Thoracic Surgery Thistlethwaite Scholarship and Dartmouth National Implementation Science Scholarship. [Read more.](#)

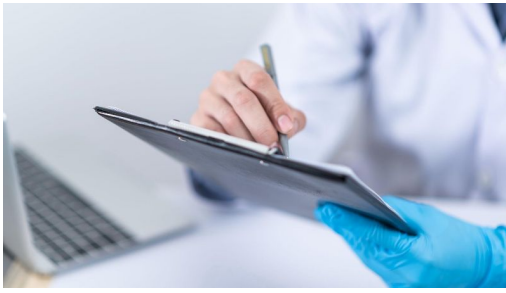
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## Research



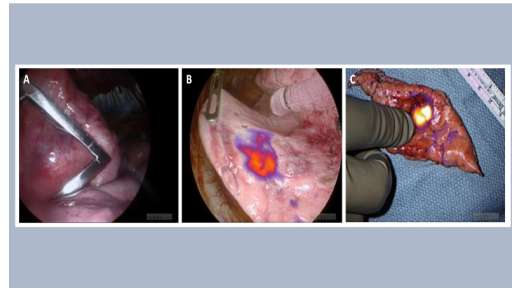
### Heart transplantation over five decades

Hear from experts in the Department of Cardiothoracic Surgery on a study that found long-term survival after heart transplantation has improved over the last 50 years at Stanford. [Watch video.](#)



## Assessment of bias in patient safety reporting systems

Stanford researchers, including Elan Burton, MD, MHA, examined whether bias exists in patient safety reporting systems based on demographic characteristics of physicians who are the subject of the event report. [Read more.](#)



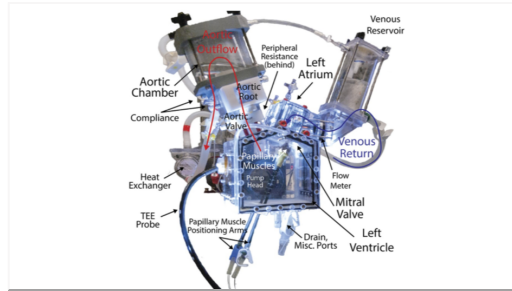
## The next frontier in thoracic surgical oncology

In this piece co-authored by Natalie Liu, MD, intraoperative molecular imaging is a promising technology with several potential applications in thoracic surgical oncology. [Read more.](#)



## Children's Fund Researcher Spotlight: Dr. Michael Ma

Michael Ma, MD, was featured in the Children's Fund Update published by the Lucile Packard Foundation for Children's Health. He received a Pilot/Early Career Award from Stanford Maternal & Child Health Research Institute. [Read more.](#)



## Biomechanical engineering analysis of an acute papillary muscle rupture disease model

Findings from a study on the simulation and biomechanical analysis of acute papillary muscle is featured as Editor's Choice in the European Journal of Cardiothoracic Surgery. [Read more.](#)

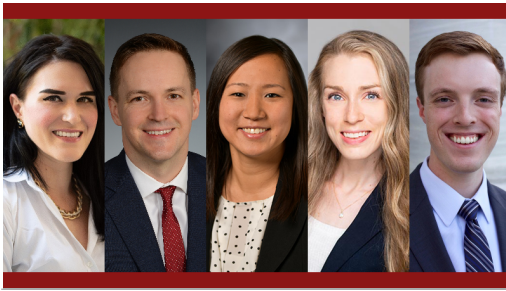
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## Education



## Department celebrates graduating residents

In June, the Department of Cardiothoracic Surgery celebrated five individuals who completed the Traditional Cardiothoracic Surgery Fellowship and Integrated Cardiothoracic Surgical Training Program. Congrats to our trainees! [Read more.](#)



## New residents and fellows join department starting summer 2022

We are excited to welcome the newest residents and fellows to the Department of Cardiothoracic Surgery! Please welcome Ioana Baiu, Kelly Higa, Hannah McMullen, Alexander Reed, and Matthew Wingo. Read about our [residents](#) and [fellows](#).



## Department welcomes new cardiothoracic surgery fellows

The Department of Cardiothoracic Surgery is thrilled to welcome two new fellows to the Traditional Cardiothoracic Surgery Fellowship! Katherine Giuliano Verde and Lillian Tsai will start their training in August of 2023. [Read more.](#)



## AATS 102nd Annual Meeting features department faculty and residents

The American Association for Thoracic Surgery 102nd Annual Meeting featured the latest clinical and research expertise from the Department of Cardiothoracic Surgery in May 2022. [Read more.](#)



## Department clinical and research expertise showcased at WTSA 48th Annual Meeting

The Department of Cardiothoracic Surgery showcased its clinical and research expertise at the Western Thoracic Surgical Association 48th Annual Meeting in June 2022. [See program.](#)

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## Featured Publications

**The Department of Cardiothoracic Surgery is dedicated to conducting cutting-edge research. Check out more of our [faculty publications](#).**

[History of Surgery for Mitral Stenosis: John Mayow to Charles Bailey](#), Bajaj SS, Fann JI. Ann Thorac Surg. 2022 Jun;113(6):2097-2101. doi: 10.1016/j.athoracsur.2021.12.046. Epub 2022 Jan 17. PMID: 35051396

[Mapping Atrial Fibrillation After Surgical Therapy to Guide Endocardial Ablation](#). Bhatia NK, Shah RL, Deb B, Pong T, Kapoor R, Rogers A, Badhwar N, Brodt C, Wang PJ, Narayan SM, Lee AM. Circ Arrhythm Electrophysiol. 2022 May 27;101161CIRCEP121010502. doi: 10.1161/CIRCEP.121.010502. Online ahead of print. PMID: 35622437

[Acute Induced Pressure Overload Rapidly Incites Thoracic Aortic Aneurysmal Smooth Muscle Cell Phenotype](#).

Pedroza AJ, Shad R, Dalal AR, Yokoyama N, Nakamura K, Hiesinger W, Fischbein MP. Hypertension. 2022 Apr;79(4):e86-e89. doi: 10.1161/HYPERTENSIONAHA.121.18640. Epub 2022 Feb 7. PMID: 35124970

[Hybrid Ablation for Atrial Fibrillation: Safety & Efficacy of Unilateral Epicardial Access](#). Pong T, Shah RL, Carlton C, Truong A, Fann B, Cyr K, Aparicio-Valenzuela J, Brodt C, Wang PJ, Lee AM. Semin Thorac Cardiovasc Surg. 2022 Mar 10:S1043-0679(22)00057-0. doi: 10.1053/j.semtcvs.2022.03.003. Online ahead of print. PMID: 35278664

[Silver Nitrate-Coated Versus Standard Indwelling Pleural Catheter for Malignant Effusions: The SWIFT Randomized Trial](#). Shrager JB, Bhatnagar R, Kearney CT, Retzlaff NP, Cohen E, Stanton AE, Keyes C, Wahidi MM, Gillespie C,

[Integration of Reinforcement Learning in a Virtual Robotic Surgical Simulation](#). Bourdillon AT, Garg A, Wang H, Woo YJ, Pavone M, Boyd J. *Surg Innov*. 2022 May 3;15533506221095298. doi: 10.1177/15533506221095298. Online ahead of print. PMID: 35503302

[Biomechanical Analysis of the Ross Procedure in an Ex Vivo Left Heart Simulator](#). Bryan AY, Brandon Strong E, Kidambi S, Gilligan-Steinberg S, Bennett-Kennett R, Lee JY, Imbrie-Moore A, Moyer SC, Hendrickx-Rodriguez S, Wang H, Dauskardt RH, Joseph Woo Y, Ma MR. *World J Pediatr Congenit Heart Surg*. 2022 Mar;13(2):166-174. doi: 10.1177/21501351211070288. PMID: 35238706

[Assessment of Bias in Patient Safety Reporting Systems Categorized by Physician Gender, Race and Ethnicity, and Faculty Rank: A Qualitative Study](#). Burton É, Flores B, Jerome B, Baiocchi M, Min Y, Maldonado YA, Fassiottio M. *JAMA Netw Open*. 2022 May 2;5(5):e2213234. doi: 10.1001/jamanetworkopen.2022.13234. PMID: 35594045

[Positron emission tomography/computed tomography differentiates resectable thymoma from anterior mediastinal lymphoma](#). Byrd CT, Trope WL, Bhandari P, Konsker HB, Moradi F, Lui NS, Liou DZ, Backhus LM, Berry MF, Shrager JB. *J Thorac Cardiovasc Surg*. 2022 Apr 1:S0022-5223(22)00367-1. doi: 10.1016/j.jtcvs.2022.02.055. Online ahead of print. PMID: 35568521

[Half of Anastomotic Leaks after Esophagectomy are Undetected on Initial Postoperative Esophagram](#). Elliott IA, Berry MF, Trope W, Lui NS, Guenthart BA, Liou DZ, Whyte RI, Backhus LM, Shrager JB. *Ann Thorac Surg*. 2022 May 23:S0003-4975(22)00718-4. doi: 10.1016/j.athoracsur.2022.04.053. Online ahead of print. PMID: 35618049

[Advances in three-dimensional bioprinted stem cell-based tissue engineering for cardiovascular regeneration](#). Khanna A, Ayan B, Undieh AA, Yang YP, Huang NF. *J Mol Cell Cardiol*. 2022 May 12;169:13-27. doi: 10.1016/j.yjmcc.2022.04.017. Online ahead of print. PMID: 35569213

[Extracorporeal membrane oxygenator as a bridge to heart-liver en bloc transplant in a patient with Fontan circulation](#). Kim JL, Vaikunth SS, Haeffele C, MacArthur JW. *JTCVS Tech*. 2022 Jan 20;12:171-174. doi: 10.1016/j.jtc.2022.01.018. eCollection 2022 Apr. PMID: 35403048 Free PMC article. No abstract available.

[Applications of Tissue Decellularization Techniques in Ventricular Myocardial Biofabrication](#). Krishnan A, Wang H, MacArthur JW. *Front Bioeng Biotechnol*. 2022 Feb 21;10:802283. doi: 10.3389/fbioe.2022.802283. eCollection 2022. PMID: 35265593 Free PMC article. Review.

[Surgical Repair of Supravalvar Aortic Stenosis in Association With Transverse and Proximal Descending Aortic Abnormalities](#). Mainwaring RD, Collins RT, Ma M, Martin E, Arunamata A, Algaze-Yojay C, Hanley FL. *World J Pediatr Congenit Heart Surg*. 2022 May;13(3):353-360. doi: 10.1177/21501351221085975. PMID: 35446223

[Biomechanical engineering analysis of an acute papillary muscle rupture disease model using an innovative 3D-](#)

Rahman N, Kerry AL, Feller-Kopman D, Nader D, Akulian J, Chen A, Berry M, Majid A, Reddy C, Tremblay A, Maskell NA. *Ann Am Thorac Soc*. 2022 Apr 1. doi: 10.1513/AnnalsATS.202111-1301OC. Online ahead of print. PMID: 35363591

[Extracorporeal Membrane Oxygenation Bridge to Heart-Lung Transplantation](#). Shudo Y, Elde S, Lingala B, He H, Casselman KG, Zhu Y, Kasinpila P, Woo YJ. *ASAIO J*. 2022 Mar 1;68(3):e44-e47. doi: 10.1097/MAT.0000000000001457. PMID: 34843181

[Post-Transplant Extracorporeal Membrane Oxygenation for Severe Primary Graft Dysfunction to Support the Use of Marginal Donor Hearts](#). Shudo Y, Alassar A, Wang H, Lingala B, He H, Zhu Y, Hiesinger W, MacArthur JW, Boyd JH, Lee AM, Currie M, Woo YJ. *Transpl Int*. 2022 Mar 10;35:10176. doi: 10.3389/ti.2022.10176. eCollection 2022. PMID: 35340846 Free PMC article.

[Proton MRS Assessment of Neonatal Brain Metabolism During Cardiopulmonary Bypass \(CPB\) Surgery](#). Spielman DM, Gu M, Hurd RE, Riemer K, Okamura K, Hanley FL. *NMR Biomed*. 2022 Apr 28. doi: 10.1002/nbm.4752. Online ahead of print. PMID: 35483967

[SARS-CoV-2 Susceptibility and ACE2 Gene Variations Within Diverse Ethnic Backgrounds](#). Vadgama N, Kreymerman A, Campbell J, Shamardina O, Brugger C, Research Consortium GE, Deaconescu AM, Lee RT, Penkett CJ, Gifford CA, Mercola M, Nasir J, Karakikes I. *Front Genet*. 2022 Apr 27;13:888025. doi: 10.3389/fgene.2022.888025. eCollection 2022. PMID: 35571054

[Tetralogy of Fallot and Aortic Dissection: Implications in Management](#). Vaikunth SS, Chan JL, Woo JP, Bykhovskiy MR, Lui GK, Ma M, Romfh AW, Lamberti J, Mastrodicasa D, Fleischmann D, Fischbein MP. *JACC Case Rep*. 2022 May 18;4(10):581-586. doi: 10.1016/j.jaccas.2022.02.021. eCollection 2022 May 18. PMID: 35615213

[Analyzing the Scholarly Impact of Cardiothoracic Surgery Research Using the Relative Citation Ratio](#). Wang H, Bajaj SS, Williams KM, O'Donnell CT, Heiler JC, Krishnan A, Pickering JM, Sanchez M, Manjunatha K, Kumar SS, Yu MM, Boyd JH. *J Surg Res*. 2022 Mar 17;275:265-272. doi: 10.1016/j.jss.2022.02.007. Online ahead of print. PMID: 35306262

[Electrophysiologic Conservation of Epicardial Conduction Dynamics After Myocardial Infarction and Natural Heart Regeneration in Newborn Piglets](#). Wang H, Pong T, Obafemi OO, Lucian HJ, Aparicio-Valenzuela J, Tran NA, Mullis DM, Elde S, Tada Y, Baker SW, Wang CY, Cyr KJ, Paulsen MJ, Zhu Y, Lee AM, Woo YJ. *Front Cardiovasc Med*. 2022 Mar 9;9:829546. doi: 10.3389/fcvm.2022.829546. eCollection 2022. PMID: 35355973

[Career Progression and Research Productivity of Women in Academic Cardiothoracic Surgery](#). Williams KM, Wang H, Bajaj SS, Hironaka CE, Kasinpila P, O'Donnell CT, Sanchez M, Watkins AC, Lui NS, Backhus LM, Boyd J. *Ann Thorac Surg*. 2022 May 25:S0003-4975(22)00725-1. doi: 10.1016/j.athoracsur.2022.04.057. Online ahead of print. PMID: 35643331

[printed left heart simulator](#). Marin-Cuartas M, Zhu Y, Imbrie-Moore AM, Park MH, Wilkerson RJ, Leipzig M, Pandya PK, Paulsen MJ, Borger MA, Woo YJ. Interact Cardiovasc Thorac Surg. 2022 May 2;34(5):822-830. doi: 10.1093/icvts/ivab373. PMID: 35022737

[Generation of a dual edited human induced pluripotent stem cell Myl7-GFP reporter line with inducible CRISPRi/dCas9](#). Metzl-Raz E, Bharucha N, Arthur Ataam J, Gavidia AA, Greenleaf WJ, Karakikes I. Stem Cell Res. 2022 May;61:102754. doi: 10.1016/j.scr.2022.102754. Epub 2022 Mar 18. PMID: 35325819

[Biomechanical analysis of neochordal repair error from diastolic phase inversion of static left ventricular pressurization](#). Park MH, Marin-Cuartas M, Imbrie-Moore AM, Wilkerson RJ, Pandya PK, Zhu Y, Wang H, Borger MA, Woo YJ. JTCVS Tech. 2022 Jan 26;12:54-64. doi: 10.1016/j.jtc.2022.01.009. eCollection 2022 Apr. PMID: 35403058

[Invited commentary: the choice between mechanical versus biologic mitral valves is becoming clear. what next?](#) Williams KM, Woo YJ. Eur J Cardiothorac Surg. 2022 Mar 29;ezac198. doi: 10.1093/ejcts/ezac198. Online ahead of print. PMID: 35349666

[American Association for Thoracic Surgery \(AATS\) website redesign: An update from the AATS IT Committee](#). Woo YJ, Chen FY, Chen EP. J Thorac Cardiovasc Surg. 2022 Mar 5:S0022-5223(22)00240-9. doi: 10.1016/j.jtcvs.2022.03.001. Online ahead of print. PMID: 35307216

[Ex vivo biomechanical analysis of flexible versus rigid annuloplasty rings in mitral valves using a novel annular dilation system](#). Zhu Y, Imbrie-Moore AM, Wilkerson RJ, Paulsen MJ, Park MH, Woo YJ. BMC Cardiovasc Disord. 2022 Feb 26;22(1):73. doi: 10.1186/s12872-022-02515-x. PMID: 35219298

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