

Stanford



John W. MacArthur

Assistant Professor of Cardiothoracic Surgery (Adult Cardiac Surgery)

CLINICAL OFFICE (PRIMARY)

- **Thoracic Surgery**

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ACADEMIC CONTACT INFORMATION

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Bio

CLINICAL FOCUS

- Thoracic and Cardiac Surgery

ACADEMIC APPOINTMENTS

- Assistant Professor - University Medical Line, Cardiothoracic Surgery
- Member, Cardiovascular Institute

PROFESSIONAL EDUCATION

- Board Certification: Thoracic and Cardiac Surgery, American Board of Thoracic Surgery (2019)
- Fellowship: Stanford University Thoracic Surgery Fellowship (2018) CA
- Board Certification, Cardiothoracic Surgery, American Board of Thoracic Surgery (2019)
- Fellowship: Stanford University Dept of Cardiothoracic Surgery (2018) CA
- Board Certification: General Surgery, American Board of Surgery (2016)
- Residency: Hospital of University of Pennsylvania Surgery Residency (2016) PA
- Medical Education: Columbia University College of Physicians and Surgeons (2008) NY

Research & Scholarship

CLINICAL TRIALS

- IMPROVE-AD, Not Recruiting
- REPAIR, Not Specified

Teaching

COURSES

2025-26

- Introduction to Cardiothoracic Surgery: CTS 203 (Spr)

2024-25

- Introduction to Cardiothoracic Surgery: CTS 203 (Spr)

2023-24

- Introduction to Cardiothoracic Surgery: CTS 203 (Spr)

2022-23

- Introduction to Cardiothoracic Surgery: CTS 203 (Win)

Publications

PUBLICATIONS

- **Heart-Liver Transplantation Utilizing the En Bloc Technique: A Single-Center Experience Over Two Decades.** *The Journal of thoracic and cardiovascular surgery*
Mullis, D. M., Garrison, A., Heng, E., Zhu, Y., Elde, S., Nilkant, R., Boyd, J., Hiesinger, W., Lee, A., Shudo, Y., Gallo, A., Bonham, C. A., Woo, et al
2024
- **Survival, Function, and Immune Profiling after Beating Heart Transplantation.** *The Journal of thoracic and cardiovascular surgery*
Krishnan, A., Elde, S., Ruaengsri, C., Guenthart, B. A., Zhu, Y., Fawad, M., Lee, A., Currie, M., Ma, M. R., Hiesinger, W., Shudo, Y., MacArthur, J. W., Woo, et al
2024
- **Beating Heart Transplantation: How to Do It.** *Innovations (Philadelphia, Pa.)*
Krishnan, A., Guenthart, B. A., Ruengesri, C., Elde, S., Zhu, Y., MacArthur, J. W., Woo, Y. J.
2024: 15569845231220678
- **Reconstruction of the aorta and pulmonary artery during heart-liver transplantation in an adult congenital patient.** *JTCVS techniques*
Mullis, D. M., Limbu, L., Bonham, C. A., MacArthur, J. W.
2023; 21: 129-131
- **Blood transfusion in cardiac surgeries - Toward a personalized protocol.** *American journal of surgery*
Min, Y., Dalal, A. R., Pedroza, A. J., Pham, T. D., Panigrahi, A. K., Goldstone, A. B., MacArthur, J. W., Woo, Y. J., Baiocchi, M., Fischbein, M. P.
2023
- **Successful Heart Transplants from Over 2,000 Miles Away.** *The Journal of heart and lung transplantation : the official publication of the International Society for Heart Transplantation*
Weininger, G., Choi, A. Y., Joseph Woo, Y., MacArthur, J. W.
2023
- **Percutaneous Bailout Technique for Trapping an Embolized Valve During Valve-in-Valve TAVR.** *The Journal of invasive cardiology*
Stathogiannis, K. E., MacArthur, J. W., Lee, J. T., Sharma, R. P.
2023; 35 (3): E160
- **Strategies for Transcatheter Aortic Valve Replacement in Patients With a Right Aortic Arch.** *Structural heart : the journal of the Heart Team*
Wang, H., Akanbi, O., MacArthur, J. W., Sharma, R. P.
2023; 7 (2): 100099
- **Blood transfusion in aortic root surgery impairs midterm survival.** *JTCVS open*
Dalal, A. R., Pedroza, A. J., Krishnan, A., Min, Y., Tognozzi, E., Yokoyama, N., Nakamura, K., Mitchel, O. R., Baiocchi, M., Woo, Y. J., MacArthur, J. W., Fischbein, M. P.
2023; 13: 9-19
- **Outcomes after concomitant arch replacement at the time of aortic root surgery.** *JTCVS open*
Krishnan, A., Dalal, A. R., Pedroza, A. J., Nakamura, K., Yokoyama, N., Tognozzi, E., Woo, Y. J., Fischbein, M., MacArthur, J. W.
2023; 13: 1-8

- **Outcomes of Reoperative Aortic Root Replacement After Previous Acute Type A Dissection Repair.** *Seminars in thoracic and cardiovascular surgery*
Pedroza, A. J., Dalal, A. R., Krishnan, A., Yokoyama, N., Nakamura, K., Tognozzi, E., Woo, Y. J., MacArthur, J. W., Fischbein, M. P.
2023
- **Surgical management of severe mitral annular calcification.** *Asian cardiovascular & thoracic annals*
Elde, S., Zhu, Y., MacArthur, J. W., Woo, Y. J.
2022: 2184923221136935
- **Resection of a synovial cell sarcoma by cardiac autotransplantation: A case report.** *JTCVS techniques*
Mullis, D. M., Zhu, Y., Guenthart, B. A., Bonham, S. A., Trope, W. L., Berry, G. J., Woo, Y. J., MacArthur, J. W.
2022; 16: 123-127
- **Intraoperative Considerations in a Patient on Intravenous Epoprostenol Undergoing Minimally Invasive Cardiac Surgery.** *Journal of cardiothoracic and vascular anesthesia*
Tull, C. M., Abraham, A. M., MacArthur, J. W., Vanneman, M. W., Feng, T. R.
2022
- **Extracorporeal membrane oxygenator as a bridge to heart-liver en bloc transplant in a patient with Fontan circulation.** *JTCVS techniques*
Kim, J. L., Vaikunth, S. S., Haeffele, C., MacArthur, J. W.
2022; 12: 171-174
- **Continuous Serratus Anterior Plane Block: A Team Approach** *JOURNAL OF CARDIOTHORACIC AND VASCULAR ANESTHESIA*
Kim, R. K., Brodt, J., MacArthur, J. W., Tsui, B. C. H.
2022; 36 (4): 1217-+
- **Applications of Tissue Decellularization Techniques in Ventricular Myocardial Biofabrication.** *Frontiers in bioengineering and biotechnology*
Krishnan, A., Wang, H., MacArthur, J. W.
2022; 10: 802283
- **Post-Transplant Extracorporeal Membrane Oxygenation for Severe Primary Graft Dysfunction to Support the Use of Marginal Donor Hearts.** *Transplant international : official journal of the European Society for Organ Transplantation*
Shudo, Y., Alassar, A., Wang, H., Lingala, B., He, H., Zhu, Y., Hiesinger, W., MacArthur, J. W., Boyd, J. H., Lee, A. M., Currie, M., Woo, Y. J.
2022; 35: 10176
- **Analysis of the revised heart allocation policy and the influence of increased mechanical circulatory support on survival.** *The Journal of thoracic and cardiovascular surgery*
Elde, S., He, H., Lingala, B., Baiocchi, M., Wang, H., Hiesinger, W., MacArthur, J. W., Shudo, Y., Woo, Y. J.
1800
- **Biomechanical engineering comparison of four leaflet repair techniques for mitral regurgitation using a novel 3-dimensional-printed left heart simulator** *JTCVS TECHNIQUES*
Paulsen, M. J., Cuartas, M., Imbrie-Moore, A., Wang, H., Wilkerson, R., Farry, J., Zhu, Y., Ma, M., MacArthur, J. W., Woo, Y.
2021; 10: 244-251
- **Extended Static Hypothermic Preservation In Cardiac Transplantation: A Case Report.** *Transplantation proceedings*
Guenthart, B. A., Krishnan, A., Koyano, T., La Francesca, S., Chan, J., Alassar, A., MacArthur, J. W., Shudo, Y., Hiesinger, W., Woo, Y. J.
2021
- **Resection of a Giant Epithelioid Hemangioendothelioma Arising from the Superior Vena Cava.** *The Annals of thoracic surgery*
Elliott, I. A., Kasinpila, P., Guenthart, B. A., MacArthur, J. W., Berry, M. F.
2021
- **Operative Technique of Donor Organ Procurement for En Bloc Heart-Liver Transplantation.** *Transplantation*
Elde, S. n., Brubaker, A. L., Than, P. A., Rinewalt, D. n., MacArthur, J. W., Alassar, A. n., Bonham, C. A., Esquivel, C. O., Shudo, Y. n., Concepcion, W. n., Woo, Y. J.
2021
- **First lung and kidney multi-organ transplant following COVID-19 Infection.** *The Journal of heart and lung transplantation : the official publication of the International Society for Heart Transplantation*

- Guenthart, B. A., Krishnan, A., Alassar, A., Madhok, J., Kakol, M., Miller, S., Cole, S. P., Rao, V. K., Acero, N. M., Hill, C. C., Cheung, C., Jackson, E. C., Feinstein, et al
2021
- **Intracardiac paragangliomas: surgical approach and perioperative management.** *General thoracic and cardiovascular surgery*
Guenthart, B. A., Trope, W., Keeyapaj, W., Weiel, J. J., Edmonson, A., MacArthur, J. W., Annes, J. P., Woo, Y. J., Lui, N. S.
2020
 - **Ex Vivo Analysis of a Porcine Bicuspid Aortic Valve and Aneurysm Disease Model.** *The Annals of thoracic surgery*
Zhu, Y., Imbrie-Moore, A. M., Park, M. H., Paulsen, M. J., Wang, H., MacArthur, J. W., Woo, Y. J.
2020
 - **Donors after circulatory death heart trial.** *Future cardiology*
Shudo, Y., Benjamin-Addy, R., Koyano, T. K., Hiesinger, W., MacArthur, J. W., Woo, Y. J.
2020
 - **Relation of Length of Survival After Orthotopic Heart Transplantation to Age of the Donor.** *The American journal of cardiology*
Shudo, Y., Guenther, S. P., Lingala, B., He, H., Hiesinger, W., MacArthur, J. W., Currie, M. E., Lee, A. M., Boyd, J. H., Woo, Y. J.
2020
 - **A novel cross-species model of Barlow's disease to biomechanically analyze repair techniques in an exvivo left heart simulator.** *The Journal of thoracic and cardiovascular surgery*
Imbrie-Moore, A. M., Paulsen, M. J., Zhu, Y., Wang, H., Lucian, H. J., Farry, J. M., MacArthur, J. W., Ma, M., Woo, Y. J.
2020
 - **Comprehensive Ex Vivo Comparison of 5 Clinically Used Conduit Configurations for Valve-Sparing Aortic Root Replacement Using a 3-Dimensional-Printed Heart Simulator.** *Circulation*
Paulsen, M. J., Imbrie-Moore, A. M., Baiocchi, M. n., Wang, H. n., Hironaka, C. E., Lucian, H. J., Farry, J. M., Thakore, A. D., Zhu, Y. n., Ma, M. n., MacArthur, J. W., Woo, Y. J.
2020; 142 (14): 1361–73
 - **Operative Techniques and Pitfalls in Donor Bilateral Lung Procurement.** *Transplantation proceedings*
Dalal, A. R., Rinewalt, D. E., MacArthur, J. W., Shudo, Y. n., Woo, Y. J.
2020
 - **Impact of Surgical Approach in Double Lung Transplantation: Median Sternotomy vs Clamshell Thoracotomy.** *Transplantation proceedings*
Shudo, Y. n., Rinewalt, D. n., Lingala, B. n., Kim, F. Y., He, H. n., Boyd, J. H., Lee, A. M., Hiesinger, W. n., Currie, M. E., MacArthur, J. W., Woo, Y. J.
2020
 - **Signalosome-Regulated SRF Phosphorylation Determining Myocyte Growth in Width versus Length as a Therapeutic Target for Heart Failure.** *Circulation*
Li, J. n., Tan, Y. n., Passariello, C. L., Martinez, E. C., Kritzer, M. D., Li, X. n., Li, X. n., Li, Y. n., Yu, Q. n., Ohgi, K. n., Thakur, H. n., MacArthur, J. W., Ivey, et al
2020
 - **A Bioengineered Neuregulin-Hydrogel Therapy Reduces Scar Size and Enhances Post-Infarct Ventricular Contractility in an Ovine Large Animal Model.** *Journal of cardiovascular development and disease*
Cohen, J. E., Goldstone, A. B., Wang, H. n., Purcell, B. P., Shudo, Y. n., MacArthur, J. W., Steele, A. N., Paulsen, M. J., Edwards, B. B., Aribeana, C. N., Cheung, N. C., Burdick, J. A., Woo, et al
2020; 7 (4)
 - **Three-Dimensional Multi-layered Microstructure using Laser Direct-Writing System.** *Tissue engineering. Part A*
Shudo, Y. n., MacArthur, J. W., Kunitomi, Y. n., Joubert, L. M., Kawamura, M. n., Ono, J. n., Thakore, A. D., Jaatinen, K. J., Eskandari, A. n., Hironaka, C. E., Shin, H. S., Woo, Y. J.
2020
 - **Mitral chordae tendineae force profile characterization using a posterior ventricular anchoring neochordal repair model for mitral regurgitation in a three-dimensional-printed ex vivo left heart simulator.** *European journal of cardio-thoracic surgery : official journal of the European Association for Cardio-thoracic Surgery*
Paulsen, M. J., Imbrie-Moore, A. M., Wang, H., Bae, J. H., Hironaka, C. E., Farry, J. M., Lucian, H. J., Thakore, A. D., MacArthur, J. W., Cutkosky, M. R., Woo, Y. J.

2019

- **Heart-lung transplantation with concomitant aortic arch reconstruction for Eisenmenger syndrome and type B interrupted aortic arch.** *The Journal of heart and lung transplantation : the official publication of the International Society for Heart Transplantation*
Wang, H., Shudo, Y., MacArthur, J. W., Woo, Y. J.
2019
- **A modified implantation technique for temporary right ventricular assist device: Enabling ambulation and less invasive decannulation.** *Journal of cardiac surgery*
Rinewalt, D., Shudo, Y., MacArthur, J. W., Woo, Y. J., Hiesinger, W.
2019
- **Bioengineered analog of stromal cell-derived factor 1 alpha preserves the biaxial mechanical properties of native myocardium after infarction** *JOURNAL OF THE MECHANICAL BEHAVIOR OF BIOMEDICAL MATERIALS*
Wang, H., Wisneski, A., Paulsen, M. J., Imbrie-Moore, A., Wang, Z., Xuan, Y., Hernandez, H., Lucian, H. J., Eskandari, A., Thakore, A. D., Parry, J. M., Hironaka, C. E., von Bornstaedt, et al
2019; 96: 165–71
- **Surgical Management for Aorto-esophageal Fistula After Endovascular Aortic Repair.** *The Annals of thoracic surgery*
Zhu, Y. n., MacArthur, J. W., Lui, N. n., Lee, A. M.
2019
- **Surgical excision of a free floating ascending aortic thrombus.** *Journal of cardiac surgery*
Dalal, A. R., Kabirpour, A. n., MacArthur, J. W.
2019
- **Bioengineered analog of stromal cell-derived factor 1 α preserves the biaxial mechanical properties of native myocardium after infarction.** *Journal of the mechanical behavior of biomedical materials*
Wang, H. n., Wisneski, A. n., Paulsen, M. J., Imbrie-Moore, A. n., Wang, Z. n., Xuan, Y. n., Hernandez, H. L., Lucian, H. J., Eskandari, A. n., Thakore, A. D., Farry, J. M., Hironaka, C. E., von Bornstaedt, et al
2019; 96: 165–71
- **A 3D Printed Ex Vivo Left Heart Simulator Quantifies and Validates Posterior Ventricular Anchoring Neochordoplasty**
Paulsen, M. J., Bae, J., Imbrie-Moore, A. M., Wang, H., Farry, J. M., Lin, M. A., Hironaka, C. E., Lucian, H. J., Edwards, B. B., Thankore, A. D., MacArthur, J. W., Steele, A. N., Stapleton, et al
LIPPINCOTT WILLIAMS & WILKINS.2018
- **Computationally-Engineered Analog of Stromal Cell-Derived Factor 1[α] Preserves the Mechanical Properties of Infarcted Myocardium Under Planar Biaxial Tension**
Wang, H., Wisneski, A., Paulsen, M. J., Wang, Z., Hernandez, L., Xuan, Y., von Bornstaedt, D., Steele, A. N., Stapleton, L. M., Lucian, H. J., Anahita, E., Thakore, A. D., Farry, et al
LIPPINCOTT WILLIAMS & WILKINS.2018
- **SDF 1-alpha Attenuates Myocardial Injury Without Altering the Direct Contribution of Circulating Cells** *JOURNAL OF CARDIOVASCULAR TRANSLATIONAL RESEARCH*
Goldstone, A. B., Burnett, C. E., Cohen, J. E., Paulsen, M. J., Eskandari, A., Edwards, B. E., Ingason, A. B., Steele, A. N., Patel, J. B., MacArthur, J. W., Shizuru, J. A., Woo, Y.
2018; 11 (4): 274–84
- **SDF 1-alpha Attenuates Myocardial Injury Without Altering the Direct Contribution of Circulating Cells.** *Journal of cardiovascular translational research*
Goldstone, A. B., Burnett, C. E., Cohen, J. E., Paulsen, M. J., Eskandari, A., Edwards, B. E., Ingason, A. B., Steele, A. N., Patel, J. B., MacArthur, J. W., Shizuru, J. A., Woo, Y. J.
2018
- **The tip of the iceberg: Evaluating the mechanism behind dehiscence of mitral annuloplasty rings.** *The Journal of thoracic and cardiovascular surgery*
MacArthur, J. W., Boyd, J.
2017
- **Stem Cell Therapy: Healing or Hype? Why Stem Cell Delivery Doesn't Work** *CIRCULATION RESEARCH*
Steele, A. N., MacArthur, J. W., Woo, Y.

2017; 120 (12): 1868–70

- **Injectable Bioengineered Hydrogel Therapy in the Treatment of Ischemic Cardiomyopathy.** *Current treatment options in cardiovascular medicine*
MacArthur, J. W., Steele, A. N., Goldstone, A. B., Cohen, J. E., Hiesinger, W., Woo, Y. J.
2017; 19 (4): 30-?
- **An innovative biologic system for photon-powered myocardium in the ischemic heart.** *Science advances*
Cohen, J. E., Goldstone, A. B., Paulsen, M. J., Shudo, Y. n., Steele, A. N., Edwards, B. B., Patel, J. B., MacArthur, J. W., Hopkins, M. S., Burnett, C. E., Jaatinen, K. J., Thakore, A. D., Farry, et al
2017; 3 (6): e1603078
- **Biochemically engineered stromal cell-derived factor 1-alpha analog increases perfusion in the ischemic hind limb.** *Journal of vascular surgery*
Edwards, B. B., Fairman, A. S., Cohen, J. E., MacArthur, J. W., Goldstone, A. B., Woo, J. B., Hiesinger, W., Woo, Y. J.
2016; 64 (4): 1093-1099
- **Cell transplantation in heart failure: where do we stand in 2016?** *EUROPEAN JOURNAL OF CARDIO-THORACIC SURGERY*
MacArthur, J. W., Goldstone, A. B., Cohen, J. E., Hiesinger, W., Woo, Y.
2016; 50 (3): 396–99
- **Isolation and trans-differentiation of mesenchymal stromal cells into smooth muscle cells: Utility and applicability for cell-sheet engineering.** *Cytherapy*
Shudo, Y., Cohen, J. E., Goldstone, A. B., MacArthur, J. W., Patel, J., Edwards, B. B., Hopkins, M. S., Steele, A. N., Joubert, L., Miyagawa, S., Sawa, Y., Woo, Y. J.
2016; 18 (4): 510-517
- **A Tissue-Engineered Chondrocyte Cell Sheet Induces Extracellular Matrix Modification to Enhance Ventricular Biomechanics and Attenuate Myocardial Stiffness in Ischemic Cardiomyopathy** *TISSUE ENGINEERING PART A*
Shudo, Y., Cohen, J. E., MacArthur, J. W., Goldstone, A. B., Otsuru, S., Trubelja, A., Patel, J., Edwards, B. B., Hung, G., Fairman, A. S., Brusalis, C., Hiesinger, W., Atluri, et al
2015; 21 (19-20): 2515-2525
- **Evaluation of late aortic insufficiency with continuous flow left ventricular assist device†.** *European journal of cardio-thoracic surgery*
Hiraoka, A., Cohen, J. E., Shudo, Y., MacArthur, J. W., Howard, J. L., Fairman, A. S., Atluri, P., Kirkpatrick, J. N., Woo, Y. J.
2015; 48 (3): 400-406
- **A "Repair-All" Strategy for Degenerative Mitral Valve Disease Safely Minimizes Unnecessary Replacement** *ANNALS OF THORACIC SURGERY*
Goldstone, A. B., Cohen, J. E., Howard, J. L., Edwards, B. B., Acker, A. L., Hiesinger, W., MacArthur, J. W., Atluri, P., Woo, Y. J.
2015; 99 (6): 1983-1991
- **A "Repair-All" Strategy for Degenerative Mitral Valve Disease Safely Minimizes Unnecessary Replacement.** *Annals of thoracic surgery*
Goldstone, A. B., Cohen, J. E., Howard, J. L., Edwards, B. B., Acker, A. L., Hiesinger, W., MacArthur, J. W., Atluri, P., Woo, Y. J.
2015; 99 (6): 1983-1990
- **Non-resectional leaflet remodeling mitral valve repair preserves leaflet mobility: A quantitative echocardiographic analysis of mitral valve configuration** *INTERNATIONAL JOURNAL OF CARDIOLOGY*
Shudo, Y., Cohen, J. E., MacArthur, J. W., Goldstone, A. B., Hiraoka, A., Howard, J., Fairman, A. S., Patel, J., Edwards, B. B., Atluri, P., Woo, Y. J.
2015; 186: 16-18
- **Shear-Thinning Supramolecular Hydrogels with Secondary Autonomous Covalent Crosslinking to Modulate Viscoelastic Properties In Vivo** *ADVANCED FUNCTIONAL MATERIALS*
Rodell, C. B., MacArthur, J. W., Dorsey, S. M., Wade, R. J., Wang, L. L., Woo, Y. J., Burdick, J. A.
2015; 25 (4): 636-644
- **Shear-Thinning Supramolecular Hydrogels with Secondary Autonomous Covalent Crosslinking to Modulate Viscoelastic Properties In Vivo.** *Advanced functional materials*
Rodell, C. B., MacArthur, J. W., Dorsey, S. M., Wade, R. J., Wang, L. L., Woo, Y. J., Burdick, J. A.
2015; 25 (4): 636-644

- **Natural history of coexistent tricuspid regurgitation in patients with degenerative mitral valve disease: Implications for future guidelines** *JOURNAL OF THORACIC AND CARDIOVASCULAR SURGERY*
Goldstone, A. B., Howard, J. L., Cohen, J. E., MacArthur, J. W., Atluri, P., Kirkpatrick, J. N., Woo, Y. J.
2014; 148 (6): 2802-2809
- **Tissue-engineered, hydrogel-based endothelial progenitor cell therapy robustly revascularizes ischemic myocardium and preserves ventricular function.** *journal of thoracic and cardiovascular surgery*
Atluri, P., Miller, J. S., Emery, R. J., Hung, G., Trubelja, A., Cohen, J. E., Lloyd, K., Han, J., Gaffey, A. C., MacArthur, J. W., Chen, C. S., Woo, Y. J.
2014; 148 (3): 1090-1098
- **Combined heart and liver transplantation can be safely performed with excellent short- and long-term results.** *Annals of thoracic surgery*
Atluri, P., Gaffey, A., Howard, J., Phillips, E., Goldstone, A. B., Hornsby, N., MacArthur, J. W., Cohen, J. E., Gutsche, J., Woo, Y. J.
2014; 98 (3): 858-862
- **Bioengineered Stromal Cell- Derived Factor-1 alpha Analogue Delivered as an Angiogenic Therapy Significantly Restores Viscoelastic Material Properties of Infarcted Cardiac Muscle** *JOURNAL OF BIOMECHANICAL ENGINEERING-TRANSACTIONS OF THE ASME*
Trubelja, A., MacArthur, J. W., Sarver, J. J., Cohen, J. E., Hung, G., Shudo, Y., Fairman, A. S., Patel, J., Edwards, B. B., Damrauer, S. M., Hiesinger, W., Atluri, P., Woo, et al
2014; 136 (8)
- **A bioengineered hydrogel system enables targeted and sustained intramyocardial delivery of neuregulin, activating the cardiomyocyte cell cycle and enhancing ventricular function in a murine model of ischemic cardiomyopathy.** *Circulation. Heart failure*
Cohen, J. E., Purcell, B. P., MacArthur, J. W., Mu, A., Shudo, Y., Patel, J. B., Brusalis, C. M., Trubelja, A., Fairman, A. S., Edwards, B. B., Davis, M. S., Hung, G., Hiesinger, et al
2014; 7 (4): 619-626
- **Preclinical evaluation of the engineered stem cell chemokine stromal cell-derived factor 1a analog in a translational ovine myocardial infarction model.** *Circulation research*
MacArthur, J. W., Cohen, J. E., McGarvey, J. R., Shudo, Y., Patel, J. B., Trubelja, A., Fairman, A. S., Edwards, B. B., Hung, G., Hiesinger, W., Goldstone, A. B., Atluri, P., Wilensky, et al
2014; 114 (4): 650-659