Stanford

Michael Paulsen

Clinical Instructor, Cardiothoracic Surgery

CLINICAL OFFICE (PRIMARY)

- **Cardiothoracic Surgery**

  870 Quarry Rd

  Falk Bldg CVRC 2nd Fl

  Stanford, CA 94305

  Tel (650) 721-6400 **Fax** (650) 736-0901

Bio

CLINICAL FOCUS

- Thoracic and Cardiac Surgery

ACADEMIC APPOINTMENTS

- Clinical Instructor, Cardiothoracic Surgery
- Member (Postdoc), Cardiovascular Institute

PROFESSIONAL EDUCATION

- Residency: Stanford University Dept of Cardiothoracic Surgery (2023) CA
- Internship: Stanford University Dept of General Surgery (2015) CA
- Medical Education: University of Michigan Medical School (2014) MI
- Post-Doctoral Research Fellow, Stanford University Department of Cardiothoracic Surgery
- Residency, Stanford University Medical Center , Cardiothoracic Surgery
- Internship, Stanford University Medical Center , Cardiothoracic Surgery (2015)
- MD, University of Michigan Medical School (2014)
- BBA, University of Michigan Ross School of Business (2009)

Publications

PUBLICATIONS

- **Trimmed central venous catheters do not increase endothelial injury in an ovine model.** *The journal of vascular access*
  Wang, H., Williams, K. M., Elde, S., Bulterys, P. L., Thakore, A. D., Lucian, H. J., Farry, J. M., Mullis, D. M., Zhu, Y., Paulsen, M. J., Woo, Y. J.
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- **Force Profiles of Single Ventricle Atrioventricular Leaflets in Response to Annular Dilation and Leaflet Tethering.** *Seminars in thoracic and cardiovascular surgery*
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- **FDA Emergency Use Authorization-Approved Novel Coronavirus Disease 2019, Pressure-Regulated, Mechanical Ventilator Splitter That Enables Differential Compliance Multiplexing.** *ASAIO journal (American Society for Artificial Internal Organs : 1992)*
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- **Biomechanical engineering analysis of an acute papillary muscle rupture disease model using an innovative 3D-printed left heart simulator.** *Interactive cardiovascular and thoracic surgery*
  Marin-Cuartas, M., Zhu, Y., Imbrie-Moore, A. M., Park, M. H., Wilkerson, R. J., Leipzig, M., Pandya, P. K., Paulsen, M. J., Borger, M. A., Woo, Y. J.
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- **Natural cardiac regeneration conserves native biaxial left ventricular biomechanics after myocardial infarction in neonatal rats.** *Journal of the mechanical behavior of biomedical materials*
  Wang, H., Wisneski, A., Imbrie-Moore, A. M., Paulsen, M. J., Wang, Z., Xuan, Y., Lopez Hernandez, H., Hironaka, C. E., Lucian, H. J., Shin, H. S., Anilkumar, S., Thakore, A. D., Farry, et al
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- **Electrophysiologic Conservation of Epicardial Conduction Dynamics After Myocardial Infarction and Natural Heart Regeneration in Newborn Piglets.** *Frontiers in cardiovascular medicine*
  Wang, H., Pong, T., Obafemi, O. O., Lucian, H. J., Aparicio-Valenzuela, J., Tran, N. A., Mullis, D. M., Elde, S., Tada, Y., Baker, S. W., Wang, C. Y., Cyr, K. J., Paulsen, et al
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- **Biomechanical engineering comparison of four leaflet repair techniques for mitral regurgitation using a novel 3-dimensional-printed left heart simulator** *JTCVS TECHNIQUES*
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- **From hardware store to hospital: a COVID-19-inspired, cost-effective, open-source, in vivo-validated ventilator for use in resource-scarce regions.** *Bio-design and manufacturing*
  Park, M. H., Zhu, Y., Wang, H., Tran, N. A., Jung, J., Paulsen, M. J., Imbrie-Moore, A. M., Baker, S., Wilkerson, R., Marin-Cuartas, M., Mullis, D. M., Woo, Y. J.
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- **A neonatal leporine model of age-dependent natural heart regeneration after myocardial infarction.** *The Journal of thoracic and cardiovascular surgery*
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- **Economic Analysis and Long-Term Follow-Up of Distant Referral for Degenerative Mitral Valve Repair.** *The Annals of thoracic surgery*
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- **Ex Vivo Analysis of a Porcine Bicuspid Aortic Valve and Aneurysm Disease Model.** *The Annals of thoracic surgery*
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- **Novel bicuspid aortic valve model with aortic regurgitation for hemodynamic status analysis using an exvivo simulator.** *The Journal of thoracic and cardiovascular surgery*
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- **Artificial papillary muscle device for off-pump transapical mitral valve repair.** *The Journal of thoracic and cardiovascular surgery*

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  Zhu, Y. n., Imbrie-Moore, A. M., Paulsen, M. J., Priromprintr, B. n., Park, M. H., Wang, H. n., Lucian, H. J., Farry, J. M., Woo, Y. J.

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- **In Vivo Validation of Restored Chordal Biomechanics After Mitral Ring Annuloplasty in a Rare Ovine Case of Natural Chronic Functional Mitral Regurgitation.** *Journal of cardiovascular development and disease*

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  Wang, H., Bennett-Kennett, R., Paulsen, M. J., Hironaka, C. E., Thakore, A. D., Farry, J. M., Eskandari, A., Lucian, H. J., Wu, M. A., Imbrie-Moore, A., Steele, A. N., Stapleton, L. M., Dauskardt, et al

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- **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

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- **Modeling conduit choice for valve-sparing aortic root replacement on biomechanics with a 3-dimensional-printed heart simulator** *JOURNAL OF THORACIC AND CARDIOVASCULAR SURGERY*

  Paulsen, M. J., Kasinpila, P., Imbrie-Moore, A. M., Wang, H., Hironaka, C. E., Koyano, T. K., Fong, R., Chiu, P., Goldstone, A. B., Steele, A. N., Stapleton, L. M., Ma, M., Woo, et al

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- **Ex Vivo Biomechanical Study of Apical Versus Papillary Neochord Anchoring for Mitral Regurgitation**
  Imbrie-Moore, A. M., Paulsen, M. J., Thakore, A. D., Wang, H., Hironaka, C. E., Lucian, H. J., Farry, J. M., Edwards, B. B., Bae, J., Cutkosky, M. R., Woo, Y.
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- **Rapid Self-Assembly of Bioengineered Cardiovascular Bypass Grafts From Scaffold-Stabilized, Tubular Bilevel Cell Sheets** *CIRCULATION*
  von Bornstadt, D., Wang, H., Paulsen, M. J., Goldstone, A. B., Eskandari, A., Thakore, A., Stapleton, L., Steele, A. N., Truong, V. N., Jaatinen, K., Hironaka, C., Woo, Y.
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- **A Novel, Shear-Thinning and Rapidly Self-Healing Polymer Nanoparticle Hydrogel Diminishes Post-Operative Adhesions in Rodent and Ovine Models of Cardiac Adhesion Formation**
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- **Experimental Insights Into Transapical Neochordplasty: A Quantitative Examination of Neochord Placement Using an Ex Vivo Left Heart Simulator**
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- **Angiogenesis precedes cardiomyocyte migration in regenerating mammalian hearts** *JOURNAL OF THORACIC AND CARDIOVASCULAR SURGERY*
  Ingason, A. B., Goldstone, A. B., Paulsen, M. J., Thakore, A. D., Truong, V. N., Edwards, B. B., Eskandari, A., Bollig, T., Steele, A. N., Woo, Y.
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