



Joshua Aaron Villarreal

- Affiliate, Department Funds
- Resident in Surgery

Bio

BIO

Dr. Villarreal is a current clinical informatics fellow at Stanford Medicine and first surgical resident to enter the program. He began general surgery training at Stanford in 2020. Dr. Villarreal is a Texas native and hometown is in McAllen TX. He completed medical school at Baylor College of Medicine in 2020 and undergraduate studies in Human Biology at the University of Texas.

During residency, Dr. Villarreal has published numerous articles in a wide range of surgical fields including: pediatric surgery, liver transplantation, trauma critical care and surgical data science. He currently holds the role as president of the resident led surgical research group Surgeon's Writing About Trauma (SWAT) and mentors medical students and undergrads in conducting surgical related clinical research. He is a member of the Artificial Intelligence in Surgery research group at Stanford focused on leveraging methods in machine learning in the care of transplant patients.

His long-term goals are to apply clinical informatics frameworks to optimize surgical care workflows, enhance intraoperative decision making, and increase accessibility of outpatient surgical services to lower income patients.

CLINICAL FOCUS

- Clinical Informatics
- General Surgery
- Critical Care
- Residency

Publications

PUBLICATIONS

- **Scoping review of traumatic hemothorax: Evidence and knowledge gaps, from diagnosis to chest tube removal.** *Surgery*
Choi, J., Villarreal, J., Andersen, W., Min, J. G., Touponse, G., Wong, C., Spain, D. A., Forrester, J. D.
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- **Hepatic separation of conjoined twins: Operative technique and review of three-dimensional model utilization.** *Journal of pediatric surgery*
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2020; 55 (12): 2828-2835
- **Combined Lung-Liver and Delayed Kidney Transplantation for Cystic Fibrosis Clinical Approach and Outcome: A Case Report.** *Transplantation proceedings*
Zhang, T., Price, M. B., Bravo, N., Villarreal, J. A., Kueht, M. L., Vierling, J. M., Cotton, R., Galvan, T., O'Mahony, C. A., Goss, J. A., Rana, A.

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- **Are We Out of the Woods Yet? The Aftermath of Resuscitative Thoracotomy.** *The Journal of surgical research*
Fitch, J. L., Dieffenbaugher, S., McNutt, M., Miller, C. C., Wainwright, D. J., Villarreal, J. A., Wilson, C. T., Todd, S. R.
2020; 245: 593-599
- **Intraoperative blood loss and transfusion during primary pediatric liver transplantation: A single-center experience.** *Pediatric transplantation*
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- **Evidence Versus Practice in Early Drain Removal After Pancreatectomy.** *The Journal of surgical research*
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2019; 236: 332-339
- **Extracorporeal Liver Support in Patients with Acute Liver Failure.** *Texas Heart Institute journal*
Villarreal, J. A., Sussman, N. L.
2019; 46 (1): 67-68
- **Cutaneous Mucormycosis in Solid Organ Transplant Recipients after Hurricane Harvey: Short- and Long-term Management.** *Plastic and reconstructive surgery. Global open*
Kueht, M., Villarreal, J. A., Reece, E., Galvan, N. T., Mysore, K., Restrepo, A., Quintanilla, N., Rana, A., Goss, J.
2019; 7 (1): e2041