

# Stanford

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## James Priest

Assistant Professor of Pediatrics (Cardiology) at the Stanford University Medical Center

Pediatrics - Cardiology

### CLINICAL OFFICES

- **LPCH Heart Center**

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### Bio

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### CLINICAL FOCUS

- Pediatrics

### ACADEMIC APPOINTMENTS

- Assistant Professor - Med Center Line, Pediatrics - Cardiology
- Member, Cardiovascular Institute
- Member, Child Health Research Institute
- Member, Stanford Neurosciences Institute

### PROFESSIONAL EDUCATION

- Medical Education: Stanford University School of Medicine Registrar (2008) CA
- Fellowship: Stanford Medicine Div of Pediatric Cardiology (2016) CA
- Board Certification: Pediatrics, American Board of Pediatrics (2011)
- Residency: University of Washington Pediatric Residency Pgm (2011) WA
- MA, University of California Berkeley, Molecular Biology (2004)

### Research & Scholarship

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### CURRENT RESEARCH AND SCHOLARLY INTERESTS

Over the last thirty years, our fundamental understanding of the genetics and pathogenesis of congenital heart disease has lagged the tremendous advances in the surgical and clinical care of infants with this group of disorders. With my combined research training in genomics and clinical training in pediatric cardiology I endeavor to close this gap with investigation into the genetic basis of congenital heart malformations and developing new models of disease. My goal is translate an improved molecular genetic and developmental understanding of congenital heart disease from the laboratory into clinically actionable models, diagnostics, and ultimately therapeutic interventions.

## Teaching

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### STANFORD ADVISEES

#### Postdoctoral Faculty Sponsor

Aldo Cordova Palomera, Catherine Ines Tcheandjieu Gueliatcha

### GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Cardiovascular Medicine (Fellowship Program)
- Pediatric Cardiology (Fellowship Program)

## Publications

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### PUBLICATIONS

- **First Trimester Plasma Glucose Values in Women without Diabetes are Associated with Risk for Congenital Heart Disease in Offspring.** *The Journal of pediatrics*  
Helle, E. I., Biegley, P., Knowles, J. W., Leader, J. B., Pendergrass, S., Yang, W., Reaven, G. R., Shaw, G. M., Ritchie, M., Priest, J. R.  
2018; 195: 275–78
- **Beyond Gene Panels: Whole Exome Sequencing for Diagnosis of Congenital Heart Disease.** *Circulation. Genomic and precision medicine*  
Paige, S. L., Saha, P., Priest, J. R.  
2018; 11 (3): e002097
- **A primer to clinical genome sequencing.** *Current opinion in pediatrics*  
Priest, J. R.  
2017; 29 (5): 513–19
- **Transcriptomic Profiling Maps Anatomically Patterned Subpopulations among Single Embryonic Cardiac Cells** *DEVELOPMENTAL CELL*  
Li, G., Xu, A., Sim, S., Priest, J. R., Tian, X., Khan, T., Quertermous, T., Zhou, B., Tsao, P. S., Quake, S. R., Wu, S. M.  
2016; 39 (4): 491-507
- **Early somatic mosaicism is a rare cause of long-QT syndrome** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
Priest, J. R., Gawad, C., Kahlig, K. M., Yu, J. K., O'Hara, T., Boyle, P. M., Rajamani, S., Clark, M. J., Garcia, S. T., Ceresnak, S., Harris, J., Boyle, S., Dewey, et al  
2016; 113 (41): 11555-11560
- **Standards of Evidence and Mechanistic Inference in Autosomal Recessive Hypercholesterolemia** *ARTERIOSCLEROSIS THROMBOSIS AND VASCULAR BIOLOGY*  
Priest, J. R., Knowles, J. W.  
2016; 36 (8): 1465-1466
- **Prepregnancy Diabetes and Offspring Risk of Congenital Heart Disease A Nationwide Cohort Study** *CIRCULATION*  
Oyen, N., Diaz, L. J., Leirgul, E., Boyd, H. A., Priest, J., Mathiesen, E. R., Quertermous, T., Wohlfahrt, J., Melbye, M.  
2016; 133 (23): 2243-2253
- **De Novo and Rare Variants at Multiple Loci Support the Oligogenic Origins of Atrioventricular Septal Heart Defects.** *PLoS genetics*  
Priest, J. R., Osoegawa, K., Mohammed, N., Nanda, V., Kundu, R., Schultz, K., Lammer, E. J., Girirajan, S., Scheetz, T., Waggott, D., Haddad, F., Reddy, S., Bernstein, et al  
2016; 12 (4)
- **Medical implications of technical accuracy in genome sequencing.** *Genome medicine*  
Goldfeder, R. L., Priest, J. R., Zook, J. M., Grove, M. E., Waggott, D., Wheeler, M. T., Salit, M., Ashley, E. A.  
2016; 8 (1): 24-?
- **Maternal Midpregnancy Glucose Levels and Risk of Congenital Heart Disease in Offspring** *JAMA PEDIATRICS*  
Priest, J. R., Yang, W., Reaven, G., Knowles, J. W., Shaw, G. M.  
2015; 169 (12): 1112-1116

- **Activating Mutations Affecting the Dbl Homology Domain of SOS2 Cause Noonan Syndrome** *HUMAN MUTATION*  
Corceddu, V., Yin, J. C., Gunnarsson, C., Virtanen, C., Drunat, S., Lepri, F., De Luca, A., Rossi, C., Ciolfi, A., Pugh, T. J., Bruselles, A., Priest, J. R., Pennacchio, et al  
2015; 36 (11): 1080-1087
- **Sequence to Medical Phenotypes: A Framework for Interpretation of Human Whole Genome DNA Sequence Data** *PLOS GENETICS*  
Dewey, F. E., Grove, M. E., Priest, J. R., Waggott, D., Batra, P., Miller, C. L., Wheeler, M., Zia, A., Pan, C., Karzcewski, K. J., Miyake, C., Whirl-Carrillo, M., Klein, et al  
2015; 11 (10)
- **Molecular diagnosis of long QT syndrome at 10 days of life by rapid whole genome sequencing** *HEART RHYTHM*  
Priest, J. R., Ceresnak, S. R., Dewey, F. E., Malloy-Walton, L. E., Dunn, K., Grove, M. E., Perez, M. V., Maeda, K., Dubin, A. M., Ashley, E. A.  
2014; 11 (10): 1707-1713
- **Self-reported history of childhood smoking is associated with an increased risk for peripheral arterial disease independent of lifetime smoking burden.** *PloS one*  
Priest, J. R., Nead, K. T., Wehner, M. R., Cooke, J. P., Leeper, N. J.  
2014; 9 (2)
- **Self-reported history of childhood smoking is associated with an increased risk for peripheral arterial disease independent of lifetime smoking burden.** *PloS one*  
Priest, J. R., Nead, K. T., Wehner, M. R., Cooke, J. P., Leeper, N. J.  
2014; 9 (2)
- **Ebstein anomaly and Trisomy 21: A rare association.** *Annals of pediatric cardiology*  
Siehr, S. L., Pun, R., Priest, J. R., Lowenthal, A.  
2014; 7 (1): 67-69
- **Triiodothyronine supplementation and cytokines during cardiopulmonary bypass in infants and children** *JOURNAL OF THORACIC AND CARDIOVASCULAR SURGERY*  
Priest, J. R., Slee, A., Olson, A. K., Ledee, D., Morrish, F., Portman, M. A.  
2012; 144 (4): 938-?
- **Rare copy number variants in isolated sporadic and syndromic atrioventricular septal defects** *AMERICAN JOURNAL OF MEDICAL GENETICS PART A*  
Priest, J. R., Girirajan, S., Vu, T. H., Olson, A., Eichler, E. E., Portman, M. A.  
2012; 158A (6): 1279-1284
- **Relationships of the Location and Content of Rounds to Specialty, Institution, Patient-Census, and Team Size** *PLOS ONE*  
Priest, J. R., Bereknyei, S., Hooper, K., Braddock, C. H.  
2010; 5 (6)
- **A near null variant of 12/15-LOX encoded by a novel SNP in ALOX15 and the risk of coronary artery disease** *ATHEROSCLEROSIS*  
Assimes, T. L., Knowles, J. W., Priest, J. R., Basu, A., Borchert, A., Volcik, K. A., Grove, M. L., Tabor, H. K., Southwick, A., Tabibiazar, R., Sidney, S., Boerwinkle, E., Go, et al  
2008; 198 (1): 136-144
- **Common polymorphisms of ALOX5 and ALOX5AP and risk of coronary artery disease** *HUMAN GENETICS*  
Assimes, T. L., Knowles, J. W., Priest, J. R., Basu, A., Volcik, K. A., Southwick, A., Tabor, H. K., Hartiala, J., Allayee, H., Grove, M. L., Tabibiazar, R., Sidney, S., Fortmann, et al  
2008; 123 (4): 399-408
- **Brucellosis and sacroiliitis: A common presentation of an uncommon pathogen** *JOURNAL OF THE AMERICAN BOARD OF FAMILY MEDICINE*  
Priest, J. R., Low, D., Wang, C., Bush, T.  
2008; 21 (2): 158-161
- **Polymorphisms in hypoxia inducible factor 1 and the initial clinical presentation of coronary disease** *AMERICAN HEART JOURNAL*  
Hlatky, M. A., Quertermous, T., Boothroyd, D. B., Priest, J. R., Glassford, A. J., Myers, R. M., Fortmann, S. P., Iribarren, C., Tabor, H. K., Assimes, T. L., Tibshirani, R. J., Go, A. S.  
2007; 154 (6): 1035-1042
- **Comparative genomics: a tool to functionally annotate human DNA.** *Methods in molecular biology (Clifton, N.J.)*

Cheng, J., Priest, J. R., Pennacchio, L. A.  
2007; 366: 229-251

● **Genomic sequencing of Pleistocene cave bears** *SCIENCE*

Noonan, J. P., Hofreiter, M., Smith, D., Priest, J. R., Rohland, N., Rabeder, G., KRAUSE, J., Detter, J. C., Paabo, S., Rubin, E. M.  
2005; 309 (5734): 597-600

● **Human-zebrafish non-coding conserved elements act in vivo to regulate transcription** *NUCLEIC ACIDS RESEARCH*

Shin, J. T., Priest, J. R., Ovcharenko, I., Ronco, A., Moore, R. K., Burns, C. G., MacRae, C. A.  
2005; 33 (17): 5437-5445

● **The DNA sequence and comparative analysis of human chromosome 5** *NATURE*

Schmutz, J., Martin, J., Terry, A., Couronne, O., Grimwood, J., Lowry, S., Gordon, L. A., Scott, D., Xie, G., Huang, W., Hellsten, U., Tran-Gyamfi, M., She, et al  
2004; 431 (7006): 268-274