



## Evan Zucker

Associate Professor of Radiology (Pediatric Radiology)  
Radiology - Pediatric Radiology

### CLINICAL OFFICE (PRIMARY)

- **LPCH Pediatric Radiology**

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### Bio

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#### BIO

Dr. Zucker serves as Director of Cardiovascular Imaging for Stanford Children's Health. He is a board-certified pediatric and cardiovascular radiologist with a special interest in CT and MRI for congenital heart disease.

#### CLINICAL FOCUS

- Diagnostic Radiology

#### ACADEMIC APPOINTMENTS

- Associate Professor - University Medical Line, Radiology - Pediatric Radiology
- Member, Maternal & Child Health Research Institute (MCHRI)

#### PROFESSIONAL EDUCATION

- Fellowship: Massachusetts General Hospital Dept of Radiology (2016) MA United States of America
- Fellowship: Lucile Packard Childrens Hospital Pediatric Radiology Fellowship (2014) CA
- Residency: Tufts Medical Center Radiology Residency (2013) MA
- Internship: Newton-Wellesley Hospital Transitional Year (2009) MA
- Medical Education: Harvard Medical School (2008) MA
- Board Certification: Cardiovascular Magnetic Resonance, Council for Certification in Cardiovascular Imaging (2020)
- Board Certification: Cardiovascular Computed Tomography, Council for Certification in Cardiovascular Imaging (2016)
- Board Certification: Pediatric Radiology, American Board of Radiology (2015)
- Board Certification: Diagnostic Radiology, American Board of Radiology (2013)

## Publications

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### PUBLICATIONS

- **Commentary: Verify before trust: real-world application of an FDA-approved adult-trained artificial intelligence model for intracranial hemorrhage detection in children.** *Pediatric radiology*  
Zucker, E. J., Soares, B. P., Jaimes, C.  
2026
- **Leveraging Large Language Models to Harmonize Linguistic Variation in Radiology Reporting: Insights From RadLex Terms Applied to Chest CT.** *AJR. American journal of roentgenology*  
Zucker, E. J.  
2026
- **Correction: AI implementation in pediatric radiology for patient safety: a multi-society statement from the ACR, ESPR, SPR, SLARP, AOSPR, SPIN.** *Pediatric radiology*  
Shelmerdine, S. C., Naidoo, J., Kelly, B. S., Laborie, L. B., Toso, S., D'Antonoli, T. A., Arthurs, O. J., Blumer, S. L., Ciet, P., Damasio, M. B., Doria, A. S., Haque, S., Ho, et al  
2026
- **AI implementation in pediatric radiology for patient safety: a multi-society statement from the ACR, ESPR, SPR, SLARP, AOSPR, SPIN.** *Pediatric radiology*  
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2025
- **Artificial Intelligence Implementation in Pediatric Radiology for Patient Safety: A Multisociety Statement From the ACR, ESPR, SPR, SLARP, AOSPR, SPIN.** *Journal of the American College of Radiology : JACR*  
Shelmerdine, S. C., Naidoo, J., Kelly, B. S., Laborie, L. B., Toso, S., D'Antonoli, T. A., Arthurs, O. J., Blumer, S. L., Ciet, P., Damasio, M. B., Doria, A. S., Haque, S., Ho, et al  
2025
- **Deep learning reconstruction for improving image quality of pediatric abdomen MRI using a 3D T1 fast spoiled gradient echo acquisition.** *Pediatric radiology*  
Zucker, E. J., Milshteyn, E., Machado-Rivas, F. A., Tsai, L. L., Roberts, N. T., Guidon, A., Gee, M. S., Victoria, T.  
2025
- **Practical Utilization of Artificial Intelligence Algorithms for Low-Dose Lung Cancer Screening CT-Finding the Sweet Spot.** *AJR. American journal of roentgenology*  
Zucker, E. J.  
2025
- **Editorial Comment: Computer-Aided Detection of Lung Nodules on Low-Dose Pediatric Chest CT-A Cautionary Tale.** *AJR. American journal of roentgenology*  
Zucker, E. J.  
2025; 224 (1): e2432185
- **Case 39-2024: A 30-Month-Old Boy with Recurrent Fever.** *The New England journal of medicine*  
Casey, A., Madhavan, V. L., Zucker, E. J., Farmer, J. R.  
2024; 391 (23): 2256-2265
- **Case 35-2024: A Newborn with Hypoxemia and a Lung Opacity.** *The New England journal of medicine*  
Kinane, T. B., Zucker, E. J., Sparger, K. A., Kelleher, C. M., Shih, A. R.  
2024; 391 (19): 1838-1846
- **Editorial for "Fractal Analysis of Left Ventricular Trabeculae in Patients With End-Stage Renal Disease: A Random Survival Tree Analysis".** *Journal of magnetic resonance imaging : JMRI*  
Zucker, E. J.  
2024; 60 (5): 1962-1963
- **Cardiac Computed Tomography in Congenital Heart Disease.** *Radiologic clinics of North America*

- Zucker, E. J.  
2024; 62 (3): 435-452
- **Abbreviated cardiac magnetic resonance imaging versus echocardiography for interval assessment of systolic function in Duchenne muscular dystrophy: patient satisfaction, clinical utility, and image quality.** *The international journal of cardiovascular imaging*  
Chandrasekar, H., Kaufman, B. D., Beattie, M. J., Ennis, D. B., Syed, A. B., Zucker, E. J., Maskatia, S. A.  
2023
  - **Improving Radiologic Interpretation of Diffuse Lung Disease in Pediatric Rheumatologic (PR) Patients Using Trained Scoring with Semi-quantitative Chest Computed Tomography (CT) Analysis**  
Cidon, M., Newman, B., Robinson, T., Iskander, P., Thacker, P., Zucker, E., Lee, T., Moats, R.  
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  - **Compact pediatric cardiac magnetic resonance imaging protocols.** *Pediatric radiology*  
Zucker, E. J.  
2022
  - **Pediatric cardiothoracic vasculitis: multimodality imaging review.** *Pediatric radiology*  
Zucker, E. J., Chan, F. P.  
2022
  - **Postoperative Acute Kidney Injury in Williams Syndrome Compared With Matched Controls.** *Pediatric critical care medicine : a journal of the Society of Critical Care Medicine and the World Federation of Pediatric Intensive and Critical Care Societies*  
Yokota, R., Kwiatkowski, D. M., Journal, C., Adamson, G. T., Zucker, E., Suarez, G., Lechich, K. M., Chaudhuri, A., Collins, R. T.  
2022
  - **Multimodal Contrastive Learning for Prospective Personalized Estimation of CT Organ Dose**  
Imran, A., Wang, S., Pal, D., Dutta, S., Zucker, E., Wang, A.  
edited by Wang, L., Dou, Q., Fletcher, P. T., Speidel, S., Li, S.  
SPRINGER INTERNATIONAL PUBLISHING AG.2022: 634-643
  - **Personalized CT organ noise estimation from scout images** *SPIE Medical Imaging: Physics of Medical Imaging*  
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2022
  - **Increasing the Utilization of Moderate Sedation Services for Pediatric Imaging.** *Radiographics : a review publication of the Radiological Society of North America, Inc*  
Zucker, E. J., Wintch, S., Chang, Y., Commerford, L., Diaz, R., Redfern, T. H., Wang, T. N., Lam, L., Frush, D. P., Larson, D. B.  
2021; 41 (7): 2127-2135
  - **Semi-quantitative Chest Computed Tomography (CT) Analysis in Pediatric Rheumatologic (PR) Patients with Diffuse Lung Disease**  
Cidon, M., Robinson, T., Newman, B., Iskander, P., Thacker, P., Zucker, E., Bartholmai, B., Tipre, D., Lee, T., Pooni, R., Moats, R.  
WILEY.2021: 352-355
  - **Computed tomography in tetralogy of Fallot: pre- and postoperative imaging evaluation.** *Pediatric radiology*  
Zucker, E. J.  
2021
  - **Free-breathing Accelerated Cardiac MRI Using Deep Learning: Validation in Children and Young Adults.** *Radiology*  
Zucker, E. J., Sandino, C. M., Kino, A., Lai, P., Vasanawala, S. S.  
2021: 202624
  - **Clinical use of shear-wave elastography for detecting liver fibrosis in children and adolescents with cystic fibrosis.** *Pediatric radiology*  
Levitte, S. n., Lee, L. W., Isaacson, J. n., Zucker, E. J., Milla, C. n., Barth, R. A., Sellers, Z. M.  
2021
  - **Gifsplanation via Latent Shift: A Simple Autoencoder Approach to Counterfactual Generation for Chest X-rays**  
Cohen, J., Brooks, R., En, S., Zucker, E., Pareek, A., Lungren, M., Chaudhari, A.  
edited by Dou, Q., Heinrich, M., DeBruijne, M., Lellmann, J., Schlafer, A., Ernst, F.  
JMLR-JOURNAL MACHINE LEARNING RESEARCH.2021: 74-104

- **Personalized CT Organ Dose Estimation from Scout Images** *International Conference on Medical Image Computing and Computer Assisted Intervention (MICCAI)*  
Imran, A., Wang, S., Pal, D., Dutta, S., Patel, B., Zucker, E., Wang, A.  
2021
- **Rosette Trajectories Enable Ungated, Motion-Robust, Simultaneous Cardiac and Liver T2 \* Iron Assessment.** *Journal of magnetic resonance imaging : JMRI*  
Bush, A. M., Sandino, C. M., Ramachandran, S., Ong, F., Dwork, N., Zucker, E. J., Syed, A. B., Pauly, J. M., Alley, M. T., Vasanawala, S. S.  
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Girod, B. J., Guja, K. E., Davidzon, G., Chan, F., Zucker, E., Franc, B. L., Moradi, F., Iagaru, A., Aparici, C. M.  
2020; 15 (2): 117–19
- **Image-based scaling laws for somatic growth and pulmonary artery morphometry from infant- to adulthood.** *American journal of physiology. Heart and circulatory physiology*  
Dong, M. L., Yang, W. n., Tamareis, J. S., Chan, F. P., Zucker, E. J., Kumar, S. n., Rabinovitch, M. n., Marsden, A. L., Feinstein, J. A.  
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- **Deep learning to automate Brasfield chest radiographic scoring for cystic fibrosis** *JOURNAL OF CYSTIC FIBROSIS*  
Zucker, E. J., Barnes, Z. A., Lungren, M. P., Shpanskaya, Y., Seekins, J. M., Halabi, S. S., Larson, D. B.  
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- **Cardiac MRI-guided interventional occlusion of ventricular septal rupture in a patient with cobalt alloy stent** *ANNALS OF TRANSLATIONAL MEDICINE*  
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- **Feasibility and utility of dual-energy chest CTA for preoperative planning in pediatric pulmonary artery reconstruction** *INTERNATIONAL JOURNAL OF RADIOLOGICAL PEDIATRICS*  
Zucker, E. J., Kino, A., Schmiedeskamp, H., Hinostroza, V., Fleischmann, D., Chan, F. P.  
2019; 35 (8): 1473–81
- **Deep learning to automate Brasfield chest radiographic scoring for cystic fibrosis.** *Journal of cystic fibrosis : official journal of the European Cystic Fibrosis Society*  
Zucker, E. J., Barnes, Z. A., Lungren, M. P., Shpanskaya, Y., Seekins, J. M., Halabi, S. S., Larson, D. B.  
2019
- **Ultrafast pediatric chest computed tomography: comparison of free-breathing vs. breath-hold imaging with and without anesthesia in young children** *PEDIATRIC RADIOLOGY*  
Kino, A., Zucker, E. J., Honkanen, A., Kneebone, J., Wang, J., Chan, F., Newman, B.  
2019; 49 (3): 301-307
- **Feasibility and utility of dual-energy chest CTA for preoperative planning in pediatric pulmonary artery reconstruction.** *The international journal of cardiovascular imaging*  
Zucker, E. J., Kino, A. n., Schmiedeskamp, H. n., Hinostroza, V. n., Fleischmann, D. n., Chan, F. P.  
2019
- **Cross-sectional imaging of thoracic traumatic aortic injury** *VASA-EUROPEAN JOURNAL OF VASCULAR MEDICINE*  
Hahn, L. D., Prabhakar, A. M., Zucker, E. J.  
2019; 48 (1): 6-16
- **Erratum: Author Correction: Human-machine partnership with artificial intelligence for chest radiograph diagnosis.** *NPJ digital medicine*  
Patel, B. N., Rosenberg, L. n., Willcox, G. n., Baltaxe, D. n., Lyons, M. n., Irvin, J. n., Rajpurkar, P. n., Amrhein, T. n., Gupta, R. n., Halabi, S. n., Langlotz, C. n., Lo, E. n., Mammarrappallil, et al  
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- **Author Correction: Human-machine partnership with artificial intelligence for chest radiograph diagnosis.** *NPJ digital medicine*  
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2019; 2 (1): 129
- **Lumbar Spine MRI: Missed Opportunities for Abdominal Aortic Aneurysm Detection.** *Current problems in diagnostic radiology*  
Zucker, E. J., Prabhakar, A. M.  
2019
- **Cross-sectional imaging of congenital pulmonary artery anomalies.** *The international journal of cardiovascular imaging*  
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- **Human-machine partnership with artificial intelligence for chest radiograph diagnosis.** *NPJ digital medicine*  
Patel, B. N., Rosenberg, L. n., Willcox, G. n., Baltaxe, D. n., Lyons, M. n., Irvin, J. n., Rajpurkar, P. n., Amrhein, T. n., Gupta, R. n., Halabi, S. n., Langlotz, C. n., Lo, E. n., Mammarrappallil, et al  
2019; 2: 111
- **Ultrafast pediatric chest computed tomography: comparison of free-breathing vs. breath-hold imaging with and without anesthesia in young children.** *Pediatric radiology*  
Kino, A., Zucker, E. J., Honkanen, A., Kneebone, J., Wang, J., Chan, F., Newman, B.  
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- **Deep-learning-assisted diagnosis for knee magnetic resonance imaging: Development and retrospective validation of MRNet.** *PLoS medicine*  
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2018; 15 (11): e1002699
- **Deep learning for chest radiograph diagnosis: A retrospective comparison of the CheXNeXt algorithm to practicing radiologists** *PLOS MEDICINE*  
Rajpurkar, P., Irvin, J., Ball, R. L., Zhu, K., Yang, B., Mehta, H., Duan, T., Ding, D., Bagul, A., Langlotz, C. P., Patel, B. N., Yeom, K. W., Shpanskaya, et al  
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Bien, N., Rajpurkar, P., Ball, R. L., Irvin, J., Park, A., Jones, E., Bereket, M., Patel, B. N., Yeom, K. W., Shpanskaya, K., Halabi, S., Zucker, E., Fanton, et al  
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- **Deep learning for chest radiograph diagnosis: A retrospective comparison of the CheXNeXt algorithm to practicing radiologists.** *PLoS medicine*  
Rajpurkar, P., Irvin, J., Ball, R. L., Zhu, K., Yang, B., Mehta, H., Duan, T., Ding, D., Bagul, A., Langlotz, C. P., Patel, B. N., Yeom, K. W., Shpanskaya, et al  
2018; 15 (11): e1002686
- **Cross-sectional imaging of thoracic traumatic aortic injury.** *VASA. Zeitschrift fur Gefasskrankheiten*  
Hahn, L. D., Prabhakar, A. M., Zucker, E. J.  
2018: 1–12
- **Perivascular Epicardial Fat Stranding at Coronary CT Angiography: A Marker of Acute Plaque Rupture and Spontaneous Coronary Artery Dissection** *RADIOLOGY*  
Hedgire, S., Baliyan, V., Zucker, E. J., Bittner, D. O., Staziaki, P. V., Takx, R. A. P., Scholtz, J., Meyersohn, N., Hoffmann, U., Ghoshhajra, B.  
2018; 287 (3): 808–15
- **Perivascular Epicardial Fat Stranding at Coronary CT Angiography: A Marker of Acute Plaque Rupture and Spontaneous Coronary Artery Dissection.** *Radiology*  
Hedgire, S., Baliyan, V., Zucker, E. J., Bittner, D. O., Staziaki, P. V., Takx, R. A., Scholtz, J., Meyersohn, N., Hoffmann, U., Ghoshhajra, B.  
2018; 287 (3): 808–15

- **What Patients Want to Know about Imaging Examinations: A Multiinstitutional US Survey in Adult and Pediatric Teaching Hospitals on Patient Preferences for Receiving Information before Radiologic Examinations** *RADIOLOGY*  
Pahade, J. K., Trout, A. T., Zhang, B., Bhambhani, P., Muse, V. V., Delaney, L. R., Zucker, E. J., Pandharipande, P. V., Brink, J. A., Goske, M. J.  
2018; 287 (2): 554–62
- **Abdominal aortic aneurysm screening: concepts and controversies** *CARDIOVASCULAR DIAGNOSIS AND THERAPY*  
Zucker, E. J., Prabhakar, A. M.  
2018; 8: S108–S117
- **Syndromes with aortic involvement: pictorial review** *CARDIOVASCULAR DIAGNOSIS AND THERAPY*  
Zucker, E. J.  
2018; 8: S71–S81
- **Advanced aortic imaging and intervention Preface** *CARDIOVASCULAR DIAGNOSIS AND THERAPY*  
Zucker, E. J., Prabhakar, A. M., Ganguli, S.  
2018; 8: S1–S2
- **Cyanotic Congenital Heart Disease : Essential Primer for the Practicing Radiologist** *RADIOLOGIC CLINICS OF NORTH AMERICA*  
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2017; 55 (4): 693–+
- **Free-breathing pediatric chest MRI: Performance of self-navigated golden-angle ordered conical ultrashort echo time acquisition.** *Journal of magnetic resonance imaging : JMRI*  
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- **Free-breathing pediatric chest MRI: Performance of self-navigated golden-angle ordered conical ultrashort echo time acquisition.** *Journal of magnetic resonance imaging : JMRI*  
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2017
- **Impact of California Computed Tomography Dose Legislation: Survey of Radiologists.** *Journal of medical imaging and radiation sciences*  
Zucker, E. J., Barth, R. A.  
2017; 48 (2): 144-150
- **Impact of California Computed Tomography Dose Legislation: Survey of Radiologists** *JOURNAL OF MEDICAL IMAGING AND RADIATION SCIENCES*  
Zucker, E. J., Barth, R. A.  
2017; 48 (2): 144–50
- **Abdominal Aortic Aneurysm Screening Practices: Impact of the 2014 U.S. Preventive Services Task Force Recommendations.** *Journal of the American College of Radiology*  
Zucker, E. J., Misono, A. S., Prabhakar, A. M.  
2017
- **Imaging of venous compression syndromes.** *Cardiovascular diagnosis and therapy*  
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- **Hemodynamic safety and efficacy of ferumoxytol as an intravenous contrast agents in pediatric patients and young adults** *MAGNETIC RESONANCE IMAGING*  
Ning, P., Zucker, E. J., Wong, P., Vasanaawala, S. S.  
2016; 34 (2): 152-158
- **Hemodynamic safety and efficacy of ferumoxytol as an intravenous contrast agents in pediatric patients and young adults.** *Magnetic resonance imaging*  
Ning, P., Zucker, E. J., Wong, P., Vasanaawala, S. S.  
2016; 34 (2): 152-8
- **Perinatal Thoracic Mass Lesions: Pre- and Postnatal Imaging.** *Seminars in ultrasound, CT, and MR*  
Zucker, E. J., Epelman, M., Newman, B.

2015; 36 (6): 501-521

- **Added Value of Radiologist Consultation for Pediatric Ultrasound: Implementation and Survey Assessment.** *AJR. American journal of roentgenology*  
Zucker, E. J., Newman, B., Larson, D. B., Rubesova, E., Barth, R. A.  
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- **Radiologist Compliance With California CT Dose Reporting Requirements: A Single-Center Review of Pediatric Chest CT** *AMERICAN JOURNAL OF ROENTGENOLOGY*  
Zucker, E. J., Larson, D. B., Newman, B., Barth, R. A.  
2015; 204 (4): 810-816
- **Hip Disorders in Children** *AMERICAN JOURNAL OF ROENTGENOLOGY*  
Zucker, E. J., Lee, E. Y., Restrepo, R., Eisenberg, R. L.  
2013; 201 (6): W776–W796
- **Early Entrant Protection in Approval Regulation: Theory and Evidence from FDA Drug Review** *JOURNAL OF LAW ECONOMICS & ORGANIZATION*  
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2010; 26 (3): 515-545
- **Drug-review deadlines and safety problems.** *The New England journal of medicine*  
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2008; 358 (13): 1354-61