Stanford



Dong-han Yao, MD

Clinical Assistant Professor, Emergency Medicine

CLINICAL OFFICE (PRIMARY)

- **Stanford Adult Emergency Department**

  1199 Welch Rd

  Palo Alto, CA 94304

  Tel (650) 723-5111 **Fax** (650) 721-3448

Bio

BIO

Dong-han Yao, M.D., is the Associate Director of Artificial Intelligence in Medical Education at Stanford University, and Clinical Assistant Professor of Emergency Medicine. Dr. Yao holds a B.A. in Molecular & Cell Biology and Immunology from University of California, Berkeley, and an M.D. from Mount Sinai School of Medicine. He completed his Emergency Medicine Residency training at University of California, Los Angeles, and his fellowship training in Clinical Informatics at Stanford University.

Dr. Yao is an invited speaker at grand rounds, national conferences, and workshops on applied generative AI, prompt engineering, and human-AI interaction for both clinical and non-clinical audiences around the country. He collaborates with the Stanford School of Medicine and Stanford Healthcare Data Science Team on both enterprise-level AI education and research, as well as co-development and evaluation of novel generative AI platforms and technologies for healthcare. His research has been published in the New England Journal of Medicine, Nature Medicine, and JAMA.

His scholarly and operational work include expanding patient access to acute care via virtual care, responsible integration of AI into medical education and the clinical continuum, and leveraging design thinking and technology to streamline physician workflow and improve patient outcomes in the emergency department. His past informatics work includes award-winning usage of mobile devices to improve the efficiency and accessibility of medical documentation during the height of the COVID-19 pandemic, creation of novel patient discharge mechanisms for academic hospital centers, and development and implementation of new interdisciplinary clinical pathways for the emergency department. Dr. Yao's clinical interests include critical care, cardiac emergencies, telemedicine, and novel care delivery models in emergency medicine.

CLINICAL FOCUS

- Emergency Medicine
- Clinical Informatics
- Artificial Intelligence
- Large Language Models
- Machine Learning

- Human-Computer Interaction

ACADEMIC APPOINTMENTS

- Clinical Assistant Professor, Emergency Medicine

HONORS AND AWARDS

- Overall Winner, Stanford Quality Improvement and Patient Safety Symposium, Stanford University (2024)
- Pediatrics Fellow Scholarship Award, Stanford Department of Pediatrics (2024)
- Grand Prize Winner, UCLA Resident Informaticist Project Symposium, University of California, Los Angeles (2021)
- Distinction in Research, Mount Sinai School of Medicine, Icahn School of Medicine at Mount Sinai (2019)
- Grand Prize Winner, SINAInnovation MedMaker Challenge, Icahn School of Medicine at Mount Sinai (2016)
- Patricia S. Levinson Research Award, Icahn School of Medicine at Mount Sinai (2016)
- IBM Grand Prize Winner, DeveloperWeek SF (2015)
- People's Choice Winner, NASA SpaceApps Challenge (2015)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Executive Board, AMIA Clinical Informatics Fellows (ACIF) (2024 - present)
- Co-Chair, Stanford Resident Safety Council (2024 - present)

PROFESSIONAL EDUCATION

- Fellowship: Stanford University Clinical Informatics Fellowship (2025) CA
- Board Certification: Emergency Medicine, American Board of Emergency Medicine (2024)
- Residency: UCLA Emergency Medicine Residency (2023)
- Medical Education: Icahn School of Medicine at Mount Sinai (2019) NY
- Fellowship, Stanford University , Clinical Informatics (2025)
- Residency, University of California, Los Angeles , Emergency Medicine (2023)
- MD, Icahn School of Medicine at Mount Sinai (2019)
- BA, University of California, Berkeley , Molecular & Cell Biology, Immunology (2014)

LINKS

- LinkedIn Profile: https://www.linkedin.com/in/donghanyaomd/

Publications

PUBLICATIONS

- **Holistic evaluation of large language models for medical tasks with MedHELM.** *Nature medicine*
  Bedi, S., Cui, H., Fuentes, M., Unell, A., Wornow, M., Banda, J. M., Kotecha, N., Keyes, T., Mai, Y., Oez, M., Qiu, H., Jain, S., Schettini, et al
  2026
- **Artificial intelligence-generated draft replies to patient messages in pediatrics.** *JAMIA open*
  Liang, A. S., Vedak, S., Dussaq, A., Yao, D., Villarreal, J. A., Thomas, S., Chen, N., Townsend, T., Pageler, N. M., Morse, K.
  2025; 8 (6): ooaf159
- **Enhanced Trauma Video Review With Computer Vision: Trauma Resuscitation Phase Segmentation and Procedure Detection.** *Annals of surgery open : perspectives of surgical history, education, and clinical approaches*
  Villarreal, J. A., Heo, J., Wang, X., Bain, A., Succar, B., Yao, D., Jopling, J. K., Yeung-Levy, S., Dumas, R. P.
  2025; 6 (4): e631

- **Answering real-world clinical questions using large language model, retrieval-augmented generation, and agentic systems.** *Digital health*
  Low, Y. S., Jackson, M. L., Hyde, R. J., Brown, R. E., Sanghavi, N. M., Baldwin, J. D., Pike, C. W., Muralidharan, J., Hui, G., Alexander, N., Hassan, H., Nene, R. V., Pike, et al
  2025; 11: 20552076251348850

- **LLMonFHIR: A Physician-Validated, Large Language Model-Based Mobile Application for Querying Patient Electronic Health Data.** *JACC. Advances*
  Schmiedmayer, P., Rao, A., Zagar, P., Aalami, L., Ravi, V., Zahedivash, A., Yao, D. H., Fereydooni, A., Aalami, O.
  2025; 4 (6 Pt 1): 101780

- **Using a Large Language Model to Identify Adolescent Patient Portal Account Access by Guardians.** *JAMA network open*
  Liang, A. S., Vedak, S., Dussaq, A., Yao, D. H., Morse, K., Ip, W., Pageler, N. M.
  2024; 7 (6): e2418454

- **GPT-4 VS. NLP: ENHANCING CONFIDENTIALITY IN ADOLESCENT HEALTH PORTALS BY AUTOMATED DETECTION OF INAPPROPRIATE GUARDIAN ACCESS**
  Liang, A. S., Vedak, S., Dussaq, A., Yao, D., Ip, W., Pageler, N.
  SPRINGER.2024: S607-S608

- **Therapeutic Anticoagulation with Heparin in Critically Ill Patients with Covid-19.** *The New England journal of medicine*
  REMAP-CAP Investigators, ACTIV-4a Investigators, ATTACC Investigators, Goligher, E. C., Bradbury, C. A., McVerry, B. J., Lawler, P. R., Berger, J. S., Gong, M. N., Carrier, M., Reynolds, H. R., Kumar, A., Turgeon, A. F., Kornblith, L. Z., et al
  2021

- **Therapeutic Anticoagulation with Heparin in Noncritically Ill Patients with Covid-19.** *The New England journal of medicine*
  ATTACC Investigators, ACTIV-4a Investigators, REMAP-CAP Investigators, Lawler, P. R., Goligher, E. C., Berger, J. S., Neal, M. D., McVerry, B. J., Nicolau, J. C., Gong, M. N., Carrier, M., Rosenson, R. S., Reynolds, H. R., Turgeon, A. F., et al
  2021

- **The Outcome of Patients With Localized Undifferentiated Pleomorphic Sarcoma of the Lower Extremity Treated at Stanford University** *AMERICAN JOURNAL OF CLINICAL ONCOLOGY-CANCER CLINICAL TRIALS*
  Kamat, N. V., Million, L., Yao, D., Donaldson, S. S., Mohler, D. G., van de Rijn, M., Avedian, R. S., Kapp, D. S., Ganjoo, K. N.
  2019; 42 (2): 166–71

- **The Outcome of Patients With Localized Undifferentiated Pleomorphic Sarcoma of the Lower Extremity Treated at Stanford University.** *American journal of clinical oncology*
  Kamat, N. V., Million, L., Yao, D., Donaldson, S. S., Mohler, D. G., van de Rijn, M., Avedian, R. S., Kapp, D. S., Ganjoo, K. N.
  2018

- **Predictors of Same-Day Discharge in Primary Total Joint Arthroplasty Patients and Risk Factors for Post-Discharge Complications.** *The Journal of arthroplasty*
  Sher, A., Keswani, A., Yao, D. H., Anderson, M., Koenig, K., Moucha, C. S.
  2017; 32 (9S): S150-S156.e1

- **Home Discharge After Primary Elective Total Joint Arthroplasty: Postdischarge Complication Timing and Risk Factor Analysis.** *The Journal of arthroplasty*
  Yao, D. H., Keswani, A., Shah, C. K., Sher, A., Koenig, K. M., Moucha, C. S.
  2017; 32 (2): 375-380

- **Myocardial Infarction Risk in Arthroplasty vs Arthroscopy: How Much Does Procedure Type Matter?** *The Journal of arthroplasty*
  Shah, C. K., Keswani, A., Boodaie, B. D., Yao, D. H., Koenig, K. M., Moucha, C. S.
  2017; 32 (1): 246-251

- **Novel Intracranial Xenografts Of CNS Lymphoma Implicate a Role For Cereblon As a Mediator Of Lenalidomide Efficacy** *Blood*
  Gao, H., Anderson, S., Kadoch, C., Maiti, M., Chen, L., Yao, D., Melkus, G., Wang, M., Ren, Y., Breider, M., Heise, C., Lowell, C., Collins, et al
  2013; 122 (21)