Stanford

Ruwan Gunaratne

Instructor, Medicine - Hematology

CLINICAL OFFICE (PRIMARY)

- **Medicine**

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Bio

BIO

Ruwan Gunaratne, MD, PhD is an Instructor in Hematology at Stanford University School of Medicine and a board-certified hematologist-oncologist with a clinical focus on acute myeloid leukemia (AML), myelodysplastic syndromes (MDS), and myeloproliferative neoplasms (MPNs). His clinical and translational research centers on improving disease monitoring in myeloid cancers using personalized circulating tumor DNA (ctDNA) profiling, a blood-based approach designed to more sensitively track measurable residual disease (MRD), assess treatment response, refine risk stratification, and detect relapse earlier across the myeloid disease spectrum. Dr. Gunaratne's work has been recognized with awards from the American Society of Hematology and the Stanford Cancer Institute, and he is actively committed to advancing precision medicine approaches for patients with myeloid malignancies.

CLINICAL FOCUS

- Hematology
- Medical Oncology
- Hematology/Oncology

ACADEMIC APPOINTMENTS

- Instructor, Medicine - Hematology

PROFESSIONAL EDUCATION

- Board Certification: Hematology, American Board of Internal Medicine (2024)
- Board Certification: Medical Oncology, American Board of Internal Medicine (2024)
- Fellowship: Stanford University Hematology and Oncology Fellowship (2024) CA
- Board Certification: Internal Medicine, American Board of Internal Medicine (2021)
- Residency: Stanford University Internal Medicine Residency (2021) CA
- Medical Education: Duke University Medical Center (2018) NC
- Board Certification, American Board of Internal Medicine , Hematology and Medical Oncology (2024)
- Fellowship, Stanford University School of Medicine , Hematology and Medical Oncology (2024)

- Board Certification, American Board of Internal Medicine , Internal Medicine (2021)
- Residency, Stanford University School of Medicine , Internal Medicine (2021)
- MD, Duke University School of Medicine (2018)
- PhD, Duke University School of Medicine , Pharmacology (2018)
- MA, Harvard University , Chemistry (2009)
- BA, Harvard University , Chemistry and Physics (2009)

Publications

PUBLICATIONS

- **Circulating Tumor DNA (ctDNA) Enables Superior and Universal Measurable Residual Disease (MRD) Monitoring in Acute Myeloid Leukemia (AML) Highly Predictive of Relapse Free and Overall Survival**
  Gunaratne, R., Zhou, C., Tai, J. W., Kim, S., Tanaka, K., Rajaram, S., Carleton, M., Yin, R., Alkaitis, M., Schwede, M., Sworder, B. J., Khodadoust, M. S., Majeti, et al
  ELSEVIER.2024: 2955-2956

- **Molecular Residual Disease Detection Via Cancer Personalized Profiling By Deep Sequencing in Patients with PTCL Undergoing Autologous Stem Cell Transplantation**
  Sanghera, C., Ford, J., Gunaratne, R., Chopra, K., Rider, A. B., Sohani, A. R., Mccabe, S. M., Nemec, R. A., Chen, Y., Mcafee, S., Hochberg, E., Barnes, J. A., Macvicar, et al
  ELSEVIER.2024: 6202-6203

- **Development of Circulating Tumor DNA (ctDNA) for Molecular Measurable Residual Disease (MRD) in Acute Myeloid Leukemia (AML)**
  Gunaratne, R., Zhou, C., Tai, J. W., Schwede, M., Tanaka, K., Alkaitis, M., Yin, R., Sworder, B. J., Mannis, G., Majeti, R., Khodadoust, M. S., Kurtz, D. M., Zhang, et al
  AMER SOC HEMATOLOGY.2023

- **Combining Heparin and a FX/Xa Aptamer to Reduce Thrombin Generation in Cardiopulmonary Bypass and COVID-19.** *Nucleic acid therapeutics*
  Chabata, C. V., Frederiksen, J. W., Olson, L. B., Naqvi, I. A., Hall, S. E., Gunaratne, R., Kraft, B. D., Que, L. G., Chen, L., Sullenger, B. A.
  1800

- **Utilizing nucleic-acid scavengers (NASs) to inhibit proinflammatory and proinvasive signaling in triple-negative breast cancer**
  Eteshola, E. O., Naqvi, I. A., Gunaratne, R., Moreno, A., Nair, S. K., Sullenger, B. A.
  AMER ASSOC CANCER RESEARCH.2019

- **Emerging applications of aptamers for anticoagulation and hemostasis.** *Current opinion in hematology*
  Chabata, C. V., Frederiksen, J. W., Sullenger, B. A., Gunaratne, R.
  2018; 25 (5): 382-388

- **Combination of aptamer and drug for reversible anticoagulation in cardiopulmonary bypass.** *Nature biotechnology*
  Gunaratne, R., Kumar, S., Frederiksen, J. W., Stayrook, S., Lohrmann, J. L., Perry, K., Bompiani, K. M., Chabata, C. V., Thalji, N. K., Ho, M. D., Arepally, G., Camire, R. M., Krishnaswamy, et al
  2018; 36 (7): 606-613

- **Polymer-Mediated Inhibition of Pro-invasive Nucleic Acid DAMPs and Microvesicles Limits Pancreatic Cancer Metastasis.** *Molecular therapy : the journal of the American Society of Gene Therapy*
  Naqvi, I., Gunaratne, R., McDade, J. E., Moreno, A., Rempel, R. E., Rouse, D. C., Herrera, S. G., Pisetsky, D. S., Lee, J., White, R. R., Sullenger, B. A.
  2018; 26 (4): 1020-1031

- **Identifying protein kinase target preferences using mass spectrometry.** *American journal of physiology. Cell physiology*
  Douglass, J., Gunaratne, R., Bradford, D., Saeed, F., Hoffert, J. D., Steinbach, P. J., Knepper, M. A., Pisitkun, T.
  2012; 303 (7): C715-27

- **Changes in the tension in dsDNA alter the conformation of RecA bound to dsDNA-RecA filaments.** *Nucleic acids research*
  Conover, A. J., Danilowicz, C., Gunaratne, R., Coljee, V. W., Kleckner, N., Prentiss, M.

2011; 39 (20): 8833-43

- **Single-molecule studies of the stringency factors and rates governing the polymerization of RecA on double-stranded DNA.** *Nucleic acids research*
  Feinstein, E., Danilowicz, C., Conover, A., Gunaratne, R., Kleckner, N., Prentiss, M.
  2011; 39 (9): 3781-91
- **c-Abl mediates high NaCl-induced phosphorylation and activation of the transcription factor TonEBP/OREBP.** *FASEB journal : official publication of the Federation of American Societies for Experimental Biology*
  Gallazzini, M., Yu, M. J., Gunaratne, R., Burg, M. B., Ferraris, J. D.
  2010; 24 (11): 4325-35
- **Study of force induced melting of dsDNA as a function of length and conformation.** *Journal of physics. Condensed matter : an Institute of Physics journal*
  Danilowicz, C., Hatch, K., Conover, A., Ducas, T., Gunaratne, R., Coljee, V., Prentiss, M.
  2010; 22 (41): 414106
- **Quantitative phosphoproteomic analysis reveals cAMP/vasopressin-dependent signaling pathways in native renal thick ascending limb cells.** *Proceedings of the National Academy of Sciences of the United States of America*
  Gunaratne, R., Braucht, D. W., Rinschen, M. M., Chou, C. L., Hoffert, J. D., Pisitkun, T., Knepper, M. A.
  2010; 107 (35): 15653-8