GE HealthCare and Mayo Clinic unveil GEMINI-RT: A bold research collaboration in radiation therapy and advanced cancer care

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- GE HealthCare and Mayo Clinic launch GEMINI-RT, a strategic initiative to personalize radiation therapy by integrating imaging, AI, and patient monitoring across the cancer care continuum.
- The collaboration focuses on four pillars, automation, predictive oncology, multi-modal therapies, and outpatient monitoring, with the aim to enhance clinical outcomes, reduce clinician burnout, and accelerate innovation in radiation oncology.

CHICAGO--(BUSINESS WIRE)--Dec. 3, 2025-- GE HealthCare (Nasdaq: GEHC) and Mayo Clinic today announced the GE HealthCare-Mayo Clinic Initiative in Radiation Therapy, known as GEMINI-RT, an ambitious new collaboration that aims to transform personalized radiation therapy and cancer care. Building on decades of collaboration and the original Strategic Radiology Research Collaboration signed in 2023, GEMINI-RT plans to drive innovation in prediction, planning, automation, workflow and monitoring for radiation oncology.

GEMINI-RT combines Mayo Clinic's world-class clinical and research expertise with GE HealthCare's leading technical and engineering innovation in oncology care and radiation therapy. The initiative aims to deliver comprehensive, personalized care by exploring integrating imaging, advanced therapies, dosimetry, and patient monitoring at every step of the patient journey—from detection and diagnosis to treatment and follow-up.

Radiation therapy is a cornerstone of cancer care, used in more than 50% of cases worldwide and for over 2 million U.S. patients annually[1,2]. Rising global cancer incidence, 19.3 million new cases in 2022, continues to drive demand for this treatment[3]. Through GEMINI-RT, Mayo Clinic and GE HealthCare aim to make personalized radiation therapy accessible with new initiatives such as integrating streamlined, data-driven solutions, leveraging Mayo Clinic's clinical expertise and patient outcomes data.

"GEMINI-RT is grounded in the concept of 'twinning the patient, personalizing the beam'—a transformative approach made possible by Mayo Clinic's extensive clinical expertise and outcomes data," said Bryan Traughber, M.D., vice chair, innovation for radiation oncology, Mayo Clinic. "The combination of research and technological acumen could allow us to model individual patient journeys with precision, enabling radiation therapy treatments that are truly tailored to each patient."

The collaboration will deepen efforts across four strategic areas:

- **Automation:** Collaborating on AI-powered solutions that can eliminate repetitive tasks and accelerate treatment planning
- **Predictive Oncology:** Harnessing clinical insights to personalize cancer treatment decisions and improve outcomes.
- **Multi-modal Therapies:** Exploring approaches that combine radiation with emerging treatments like targeted drugs and precision heating for more effective care.
- **Connected Care**: Using AI, biomarkers, and sensors to monitor patients beyond the clinic—with the aim to predict side effects early and support treatment at home.

"This effort enables us to collaborate on solutions that are not only leading-edge but also clinically meaningful, helping shape the future of personalized radiation therapy. By integrating innovative technology and AI across the care continuum, we can improve clinician experience, support high-quality patient care, and help reduce burnout among care teams," said Dr. Ben Newton, Global Head of Oncology, GE Healthcare.

GEMINI-RT Research and activities will be based at Mayo Clinic's campus in Rochester, Minnesota, leveraging both organizations' strengths in clinical practice, research, and product development. This research initiative builds on the 2023 strategic radiology research alliance in which GE HealthCare and Mayo Clinic are collaborating on projects in advanced Magnetic Resonance (MR) technologies and techniques, theranostics treatment for cancer, and diagnostic and interventional ultrasound.

About Mayo Clinic

Mayo Clinic is a nonprofit organization committed to innovation in clinical practice, education and research, and providing compassion, expertise and answers to everyone who needs healing. Visit the Mayo Clinic News Network for additional Mayo Clinic news.

About GE HealthCare Technologies Inc.

GE HealthCare is a trusted partner and leading global healthcare solutions provider, innovating medical technology, pharmaceutical diagnostics, and integrated, cloud-first AI-enabled solutions, services and data analytics. We aim to make hospitals and health systems more efficient, clinicians more effective, therapies more precise, and patients healthier and happier. Serving patients and providers for more than 125 years, GE HealthCare is advancing personalized, connected and compassionate care, while simplifying the patient's journey across care pathways. Together, our Imaging, Advanced Visualization Solutions, Patient Care Solutions and Pharmaceutical Diagnostics businesses help improve patient care from screening and diagnosis to therapy and monitoring. We are a $19.7 billion business with approximately 53,000 colleagues working to create a world where healthcare has no limits.

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information.

[1] International Agency for Research on Cancer (IARC). 2023. “Expanding Global Access to Radiotherapy.” IARC. https://www.iarc.who.int/reference/expanding-global-access-to-radiotherapy/.
[2] American Society for Radiation Oncology (ASTRO). 2020. “Geographic Access to Radiation Therapy in the United States.” ASTRO Press Kit. https://www.astro.org/ASTRO/media/ASTRO/News%20and%20Publications/Press%20Kits/PDFs/2020/AM20_PressSlidesMaroongroge203.pdf.
[3] World Health Organization (WHO). 2024. “Global Cancer Burden Growing Amidst Mounting Need for Services.” WHO News Release. https://www.who.int/news/item/01-02-2024-global-cancer-burden-growing--amidst-mounting-need-for-services.

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