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Request for Information: Development of a 2025 National Artificial Intelligence Research and Development Strategic Plan

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Submitter Information

Organization: American College of Gastroenterology

General Comment

The American College of Gastroenterology (ACG) appreciates the opportunity to respond to this Request for Information (RFI) regarding the development of an Artificial Intelligence (AI) Research and Development Strategic Plan. AI has already been integrated into many aspects of our daily lives, and its role will continue to expand, influencing all areas of our lives, including healthcare. A framework to guide future actions related to AI is essential.

ACG leaders have been actively engaged in the development of AI in GI, working with subject-matter experts in our specialty to harness the benefits for patient care, as well as overcoming the challenges that medical providers and practices experience in achieving this goal. As such, we also want to convey the importance of including clinicians and medical organizations in future discussions and initiatives related to AI. In response to the RFI on the development of an AI R&D Strategic Plan, ACG makes the attached recommendations.

Attachments

NSF RFI Response - ACG Final

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May 29, 2025

Dr. Karen A. Marrongelle
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2415 Eisenhower Avenue
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RE: Request for Information on the Development of a 2025 National Artificial Intelligence (AI) Research and Development (R&D) Strategic Plan

Submitted via regulations.gov

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Dear Dr. Marrongelle:

The American College of Gastroenterology (ACG) appreciates the opportunity to respond to this Request for Information (RFI) regarding the development of an Artificial Intelligence (AI) Research and Development (R&D) Strategic Plan. AI has already been integrated into many aspects of our daily lives, and its role will continue to expand, influencing all areas of our lives, including healthcare. A framework to guide future actions related to AI is essential.

ACG is a physician organization representing gastroenterologists and other gastrointestinal (GI) specialists. Founded in 1932, and representing over 20,000 GI clinicians, ACG's mission is to enhance the ability of our members to provide world-class care to patients with digestive disorders and advance the profession through excellence and innovation based upon the pillars of patient care, education, scientific investigation, advocacy, and practice management.

ACG leaders have been actively engaged in the development of AI in GI, working with subject-matter experts in our specialty to harness the benefits for patient care, as well as overcoming the challenges that medical providers and practices experience in achieving this goal. As such, we also want to convey the importance of including clinicians and medical organizations in future discussions and initiatives related to AI. In response to the RFI on the development of an AI R&D Strategic Plan, ACG makes the following recommendations:

- As the federal government deploys its AI R&D Strategic Plan, physicians and other healthcare stakeholders must be meaningfully engaged in the process.

- To meet the potential benefits of AI, a light touch regulatory approach is needed. ACG recommends that the AI R&D Strategic Plan includes a clear reimbursement pathway to sustain the current pace of innovation.

- The AI R&D Strategic Plan should strike a balance between the needs of commercial and public interests, while ensuring the development of AI technology that has a meaningful impact and can be trusted by both clinicians and patients. A critical component is addressing the cybersecurity risks associated with AI-enabled technology.

Engaging Physicians and Other Healthcare Stakeholders

Healthcare is a substantial portion of the American economy. In 2023, healthcare spending was an estimated 17.6% of the United States' Gross Domestic Product. The AI footprint in healthcare is already substantial and is expected to continue growing rapidly. In 2023, the global AI healthcare market size was estimated at $19.27 billion, with an annual growth rate of 38.5% from 2024 to 2030.[1]

The breakthroughs of AI in healthcare hold enormous promise for improving patient care, reducing costs, and advancing research. These factors, combined with healthcare's unique role impacting each American's well-being, make it imperative that the sector be included as a prominent component of the AI R&D Strategic Plan.

Crucially, physicians must be intimately engaged in any AI strategic plan. Derived from thousands of patient interactions and the management of complex practices across the country, ACG members possess unmatched clinical expertise and a deep understanding of our nation's healthcare system. Physician input is invaluable for all stages of AI R&D, as they can provide leadership and knowledge on the development, access, implementation, and impact on patient care.

ACG urges the Trump Administration to ensure that, as the federal government deploys its AI R&D Strategic Plan, ACG members, physicians and other healthcare stakeholders are meaningfully involved in this process.

[1] Grand View Research. (2024). *AI In Healthcare Market Size, Share & Trends Analysis Report By Component (Hardware, Services), By Application, By End-use, By Technology, By Region, And Segment Forecasts, 2024 – 2030*. Accessed March 7, 2025; https://www.grandviewresearch.com/industry-analysis/artificial-intelligence-ai-healthcare-market

AI Adoption in Healthcare Requires Reimbursement Pathway

ACG supports the Trump Administration's "light touch" to regulating AI in order not to stifle growth and innovation in the sector. However, one specific area where regulation is needed is a reliable and standardized pathway for market access.

Without a clear reimbursement pathway, AI-enabled technology may struggle to reach their intended market and patients. First, before investing time and resources, private sector developers need a well-defined regulatory framework to ensure their products will be adopted. Similarly, some physician practices may be unable to afford cutting-edge technology that would otherwise substantially improve patient outcomes.

Unfortunately, this is already an issue. Although the Food and Drug Administration (FDA) currently regulates medical devices, the Centers for Medicare and Medicaid Services are still struggling with how to set payment rates for FDA-approved, AI-enabled medical devices. The Medicare program needs a more robust reimbursement strategy to avoid stifling innovation and reducing beneficiaries' access to these lifesaving treatments.

To meet the potential benefits of AI, a light touch regulatory approach is needed. ACG recommends that the AI R&D Strategic Plan includes a clear reimbursement pathway to sustain the current pace of innovation.

Ensuring Trust in AI R&D

The national AI R&D strategic plan should strike a balance between the needs of commercial and public interests, while ensuring the development of AI technology that has a meaningful impact and can be trusted by both clinicians and patients. This includes the use of standards and benchmarks, as well as the application of the scientific method. Establishing standards will ensure the safe and effective use of AI technology.

The output of any AI-enabled technology is only as good as the underlying input data. To ensure models are trained using sufficiently robust data, the AI R&D plan should provide standards, frameworks, and best practices for collection and utilization.

This approach resembles how the U.S. created standards in other scientific endeavors. For example, physicians typically rely on guidelines developed by experts in the field to help determine a course of treatment for a particular patient. Physicians are confident in using these guidelines because they were developed using a rigorous set of standards widely recognized and accepted by the medical community.

A recent AMA survey on AI provides further evidence of the need to develop standards and enhance oversight in the development of AI-enabled technology, ensuring its continued adoption. The survey found that while there is growing enthusiasm within the physician

community for AI, increased oversight ranked as the top regulatory action needed to increase physician confidence and adoption of AI.[2]

ACG also supports the use of AI assurance labs, which are dedicated to evaluating and validating the safety, reliability, and trustworthiness of AI systems. AI devices are being developed in various environments, from large academic institutions and health centers to private companies. AI assurance labs will ensure that all devices can be used safely and effectively in practice settings of all sizes.

Additionally, the AI R&D Strategic Plan must incorporate cybersecurity considerations to ensure the protection of sensitive data. This is especially important in the healthcare sector, where the technology will be built on very sensitive medical information. Add to this the interconnectivity of the various digital platforms in a healthcare system, and the vulnerability of the system to attacks become increasingly apparent. Recent cyberattacks on healthcare systems have disrupted operations, compromised patient safety, and endangered lives.

ACG believes that the AI R&D Strategic Plan should strike a balance between the needs of commercial and public interests, while ensuring the development of AI technology that has a meaningful impact and can be trusted by both clinicians and patients. A critical component is addressing the cybersecurity risks associated with AI-enabled technology.

Conclusion

AI is having a revolutionary impact not just on healthcare, but on all aspects of life. It has the potential to improve health outcomes drastically, reduce burdens on clinicians, and provide savings to the overall healthcare system. However, it also carries significant risks in these same areas; therefore, a thoughtful and responsible approach is needed to guide its growth and development.

Healthcare is an especially critical and complex area for AI. We urge the Administration to collaborate closely with the medical community as it develops policies and activities related to AI. ACG offers itself as a resource to the Administration, and we would welcome the opportunity to continue this meaningful conversation.

Thank you again for the opportunity to submit these comments. Please contact Brad Conway, Vice President of Public Policy, Coverage & Reimbursement, with any questions.

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[2] American Medical Association. (2025). *AMA Augmented Intelligence Research Physician sentiments around the use of AI in healthcare: motivations, opportunities, risks, and use cases*. Accessed March 9, 2025; https://www.ama-assn.org/system/files/physician-ai-sentiment-report.pdf.