

5230 Center Ave. Pittsburgh, Pennsylvania 15261

Members of the Senate Majority Policy Committee Hearing on Rural Healthcare Access and Technological Innovation April 16th, 2025 Testimony of Dr. Hooman Rashidi, Executive Director of CPACE and Associate Dean of AI in Medicine, University of Pittsburgh School of Medicine

Honorable Chair and Members of the Committee,

Thank you for the opportunity to speak before you today and for your continued dedication to strengthening healthcare access and innovation throughout the Commonwealth of Pennsylvania.

My name is Dr. Hooman Rashidi, Professor & Lombardi-Shinozuka Endowed Chair of Experimental Pathology and the Associate Dean of AI in Medicine at the University of Pittsburgh School of Medicine. I also serve as the Executive Director of the Computational Pathology and AI Center of Excellence (CPACE). It is a privilege to share the important work being done at our institution to harness artificial intelligence in healthcare and democratize its use for clinicians, researchers, students, and support staff alike.

This transformative work has a direct and growing impact on the lives of Pennsylvanians, as it improves patient care, expands healthcare access, enhances workforce readiness, and fosters a future-forward health innovation economy that benefits citizens across the Commonwealth—and beyond.

About CPACE and Our Rapid Rise in AI Healthcare Leadership

Established in January 2024, CPACE has already become a recognized national and global leader in healthcare AI (especially within the pathology and laboratory medicine arena). Our Center is rooted in the belief that AI must be accessible, ethical, and impactful. Since our founding, CPACE has:

- Launched multiple clinically integrated AI tools, including Report Genie, Auto-Pix-AI, WSI Genie, Pitt-GPT+, and Nebulon-GPT, which are used to enhance diagnosis, reporting, and decision-making.
- Led cutting-edge research and strategic AI projects that can tackle most data types (image, text, and tabular data) across various medical disciplines.
- Forged key partnerships, including major industry stakeholders such as Leidos, to accelerate translational AI initiatives.
- Advised other academic institutions, such as—but not limited to—the University of California San Francisco (UCSF), in building their own AI centers modeled after CPACE.
- Received national and international recognition for its educational mission to democratize AI literacy, particularly through the release of the first-ever open-access AI review article series published as part of the United States and Canadian Academy of Pathology (USCAP) AI education initiative.

Moreover, CPACE has catalyzed AI momentum throughout our broader institutional ecosystem. It has served as a springboard for launching governance structures, policies, cross-campus collaborations, and new industry partnerships—all focused on responsible AI development and deployment in health sciences. These ripple effects have helped accelerate our institution's strategic transformation and position Pennsylvania as a hub for innovation.

CPACE's and Pitt's Global AI Education Contributions and Broader Workforce Impact

At the heart of our mission is the democratization of AI literacy. We are executing this through a robust three-phase educational curriculum grounded in no-code accessibility, interactivity, and evidence-based content. Our approach eliminates traditional technical barriers by offering:

- No-code AI learning platforms requiring no prior programming or engineering background.
- Interactive applications powered by validated automated machine learning (AutoML) platforms such as MILO for tabular data studies and CPACE-Auto-PIX-AI for image studies.
- Real-time training and visualization tools for clinicians and students to learn and experiment hands-on with synthetic real-world datasets (ensuring patient privacy).

This no-code, hands-on model—unique in its scope and depth at Pitt—is opening doors for a broader and more diverse healthcare and research workforce to engage meaningfully with AI. By making AI accessible without requiring technical expertise, our programs are creating new educational pathways and job opportunities throughout Pennsylvania. These programs are particularly valuable in helping reskill and upskill individuals for careers in digital health, biomedical data science, and AI-integrated clinical practice.

We emphasize scientific credibility by building our curriculum around high-quality, peer-reviewed resources. Notably, the aforementioned 7-part AI review article series—recognized as a landmark in AI education—was led by the University of Pittsburgh / CPACE and co-authored by numerous experts across institutions such as Harvard, CMU, UCSF, UC Davis, Mayo Clinic, and Duke amongst others. This series includes:

- **Preface**: <u>Summary of the 7 articles</u>
- Review Article #1: AI Basics & Glossary of terms: AI basics
- Review Article #2: Generative AI Deep Dive (Chat-GP, etc.): Generative AI
- Review Article #3: Predictive Analytics (e.g. Cancer prediction tools): Predictive AI
- Review Article #4: Statistical Considerations in Generative and Non-Generative AI: <u>AI Statistics</u>
- Review Article #5: Regulatory Aspects of AI: <u>AI Regulation</u>
- Review Article #6: Ethics and Bias Considerations: Ethics & Bias
- Review Article #7: Future of AI with multi-agent tools & ML-Operations: Future of AI & ML-Ops

These resources are now being adopted in AI education initiatives both nationally and internationally and most importantly, are already contributing to local job creation and professional development efforts right here in Pennsylvania.



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Real-World Impact and Applications in Clinical and Rural Health

CPACE's work is not confined to research and education—it directly addresses healthcare delivery challenges, especially in underserved and rural communities across Pennsylvania. Our AI innovations are:

- Enabling faster diagnosis and reporting through intelligent automation and targeted AI tools.
- Empowering clinicians with AI-assisted tools at the point of care, even in settings without access to large clinical teams.
- Creating AI-literate "champions" who serve as liaisons between technical and clinical teams bridging gaps that hinder interdisciplinary decision-making in tumor boards and other collaborative care settings.

For example, one of our AI initiatives is enabling the standardization of care delivery across rural pathology sites in Pennsylvania. Through AI-assisted digital diagnostics and no-code education, rural hospitals are now able to collaborate with expert hubs in real time, ensuring consistency in diagnostic practices and improving patient outcomes. This level of coordination and equity in care delivery would be nearly impossible without the integration of these advanced technologies.

Our training and deployment models are designed specifically to empower healthcare providers and support staff across all geographies—unlocking potential and driving workforce sustainability in both urban and rural regions.

A Call for Strategic Support and Policy Partnership

To continue advancing this vision and scaling these impacts, we respectfully propose the following opportunities for legislative and policy support:

- **Invest in AI education programs for healthcare workers**, modeled on our no-code, evidencebased, and interactive platforms that can quickly upskill and expand Pennsylvania's healthcare and life sciences workforce.
- Support the development and clinical integration of AI tools that reduce documentation burdens, enhance diagnostic accuracy, and improve patient outcomes—especially for underserved populations.
- **Provide targeted investments in rural health AI infrastructure**, including training hubs and pilot deployment of AI tools in community hospitals and health centers across the Commonwealth.
- **Fund AI innovation infrastructure at academic medical centers** to help accelerate Pennsylvania's leadership in digital health, biomedical AI, and computational medicine. These investments will allow institutions like ours to continue catalyzing research, commercial partnerships, clinical integration, and education that fuel economic growth and healthcare excellence statewide.

Conclusion

We believe AI is not a future concept—it is a current and urgent necessity. At CPACE and the University of Pittsburgh, we are laying the foundation for a future where AI is usable, ethical, and impactful for all.

The Commonwealth of Pennsylvania has the opportunity to be at the forefront of this transformation. With your support, we can continue building a model that empowers clinicians, supports innovation, improves care quality, and ensures that no community—urban or rural—is left behind.

On behalf of CPACE, our School of Medicine and the University of Pittsburgh, and our growing ecosystem of AI champions, I extend my deepest thanks for your time, your partnership, and your leadership.

Sincerely,

Hooman H. Rashidi, MD, MS, FCAP Executive Director, CPACE (Computational Pathology and AI Center of Excellence) Associate Dean of AI in Medicine Professor & Lombardi-Shinozuka Endowed Chair of Experimental Pathology University of Pittsburgh School of Medicine