



**Vimla L. Patel, Ph.D., DSc, FRSC, New York Academy of Medicine**

***Understanding Clinical Cognition's Critical Role in the Future of Sustainable AI in Medicine***

**Abstract:**

**While historical AI systems were developed to emulate human cognition, contemporary systems aspire toward human (or even superhuman) performance on clinical tasks. Technological advancement has surpassed our understanding of human behavior in complex socio-technical environments. It is time to reshape the current innovative technologies so that they serve human beings by augmenting our ability to get benefit from their use. In the clinical world, such augmented intelligence, with enhanced recognition of human cognitive abilities and limitations, would provide clinicians with the additional assistance they need to deliver a better quality of care for their patients. Our focus on automation and efficiency has tended to neglect some of the critical clinical safety and acceptance issues related to the intersection of technology with how users think and behave. My presentation will describe the evolution of the shared roots and mutual influences between artificial intelligence and cognitive science in medicine, including the role of the science of cognition in the successful deployment of AI technologies. The goal is to move from AI's emphasis on human emulation to an effective symbiosis of the two fields.**