Nobel Laureate John Clauser: Science Should Not Fear Questioning, and AI Should Not Be Followed Blindly

UNITED KINGDOM, September 23, 2026 /EINPresswire.com/ -- Not every important scientific discovery is immediately understood by its time. Some truths require decades before they can be fully validated. And what truly drives science forward is often not consensus, but the willingness to question it.

In early 2026, in Dubai, United Arab Emirates, John Clauser, the 2022 Nobel Prize laureate in Physics, spoke exclusively with reporters from Southern Finance and 21st Century Business Herald about his research career and his views on science. In a city known for rapid development and its vision of future technologies, the octogenarian physicist took us back to his laboratory half a century ago—a place without sophisticated equipment, stable funding or broad support from the scientific community. Yet it was under precisely these conditions that two young researchers continued to pursue an experiment that would later prove to be foundational.

Clauser recalled that the work for which he would eventually receive the Nobel Prize had been completed nearly 50 years earlier. At the time, whether at Caltech or Columbia University, almost all of his professors believed the experiment had little scientific value and that no one should spend time on it. Funding was scarce, equipment was basic, and support was hard to find. Yet under such difficult circumstances, the research later known as the Freedman–Clauser experiment successfully provided experimental evidence for a key prediction of quantum mechanics concerning quantum entanglement. It became an important starting point for the development of quantum information science and laid the groundwork for later advances in quantum communication, quantum cryptography and quantum computing.

In 2022, Clauser shared the Nobel Prize in Physics with Alain Aspect and Anton Zeilinger for their experiments with entangled photons, establishing violations of Bell inequalities and pioneering the field of quantum information science.

In a sense, the significance of this experiment did not become immediately apparent. It was only after decades of theoretical development and technological progress that its importance gradually came into focus. Throughout the history of science, such a time lag is not unusual. From Galileo to Einstein, from quantum mechanics to modern information science, and from fundamental research to industrial applications, many technologies that have transformed the world originated in basic research that initially appeared to have little practical value.

Major scientific breakthroughs also often emerge from questioning established authority and challenging existing assumptions. Perhaps that is the essence of science—not simply confirming what is already accepted, but continually exploring the boundaries of the unknown.

Against the backdrop of the global AI boom, it is notable that this scientist, whose work was far

ahead of its time, does not share the widespread optimism surrounding the technology. Instead, he is more concerned about the cognitive risks that may accompany AI's rapid development, taking a notably cautious approach.

In his view, AI can process information at extraordinary speed, but it still cannot reliably distinguish fact from fiction. It is therefore more like an assistant whose work must be continually checked than an "expert" that can be trusted completely. His guiding principle for using AI is simple: "Trust, but verify." What matters is not simply obtaining an answer, but maintaining the ability to make independent judgments.

The history of science is a history of humanity continually revising the boundaries of what we know. No matter how advanced our tools become, science remains grounded in evidence, experimentation and verification.

As artificial intelligence becomes increasingly involved in scientific research, can we still preserve the spirit of questioning? In an age when answers are easier than ever to obtain, are we still willing to slow down and verify them carefully?

Watch Southern Finance's "High-Level Interviews: Conversations with Global Scientific Giants" — an exclusive conversation with John Clauser.

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