

# DiaGen AI Publishes Study: Biomarker Integration & Biosensor Tech Enabling AI Driven Insights in Biological Aging

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*New Research Demonstrates How Artificial Intelligence and Wearable Biosensors Can Provide Real-Time Insights Into Individual Health Trajectories and Aging*

VANCOUVER, BC, CANADA, November 25, 2025 /EINPresswire.com/ -- A groundbreaking review published in *Frontiers in Aging* reveals how the convergence of artificial intelligence, biosensor technology, and key biochemical markers is paving the way for a new era of personalized aging diagnostics and preventative medicine.

The comprehensive study, led by researchers from [DiaGen AI](#), the University of Victoria, and McMaster University, demonstrates how four critical biomarkers – C-Reactive Protein (CRP), Insulin-like Growth Factor-1 (IGF-1), Interleukin-6 (IL-6), and Growth Differentiation Factor-15 (GDF-15) when combined with AI-driven analytics and continuous monitoring technology, can provide unprecedented insights into biological aging.

While average life expectancy has steadily increased in recent decades, healthspan which is the number of years spent in good health has remained relatively stagnant. This growing disparity has shifted focus toward not just living longer, but living better.

"Biological age, unlike chronological age, reflects the underlying state of the body's systems and has shown greater utility in predicting disease risk, functional ability, and overall health outcomes," explains co-author Mohit Pandey of DiaGen AI.

The research focuses on four key biochemical markers that collectively provide comprehensive coverage across all twelve established hallmarks of aging.

These include

- CRP: A highly sensitive inflammation marker linked to cardiovascular disease, frailty, and cognitive decline
- IGF-1: A growth factor involved in metabolic regulation and cellular growth pathways
- IL-6: A pro-inflammatory cytokine associated with "inflammaging" – the chronic, low-grade inflammation that characterizes biological aging
- GDF-15: A stress-responsive marker of mitochondrial dysfunction and cellular stress

The integration of machine learning and deep learning technologies enables the efficient analysis of complex, high-dimensional biological data. These AI-driven methods are now being

used to construct sophisticated "biological age clocks" that outperform chronological age in predicting health outcomes.

"AI plays a critical role in refining these models, especially through deep learning techniques that can learn nonlinear relationships between inputs and outcomes," notes lead author Jared A. Kushner. "Advanced models can continuously update biological age estimates as new data are collected, enabling adaptive biological clocks that reflect both acute changes and chronic trends."

Perhaps most revolutionary is the emergence of wearable biosensors capable of continuous, non-invasive monitoring of these age-related biomarkers. Recent innovations include wireless patches that can monitor CRP levels in sweat and microneedle patches that sample interstitial fluid, all without the need for traditional blood draws.

"When integrated with AI, this continuous data stream enables consistent and accurate prediction of disease risk and overall biological age, offering valuable insights into an individual's current and future health trajectory," explains co-author Dr. Sandeep "Sonny" S. Kohli.

The convergence of biomarkers, biosensors, and AI holds significant promise for transforming healthcare delivery across multiple dimensions. Real-time tracking enables personalized interventions through adaptive, precision-based health management tailored to individual patient needs. Continuous monitoring offers the potential for early disease detection by identifying concerning trends before symptoms appear, allowing for timely medical intervention. Healthcare providers can optimize treatment approaches by monitoring patient responses to lifestyle changes or medications remotely, eliminating the need for frequent in-person visits. Perhaps most importantly, the integration of this technology into consumer health devices could democratize access to sophisticated health monitoring, making advanced diagnostic capabilities widely accessible to populations that have traditionally faced barriers to comprehensive healthcare services.

"Stay tuned, as DiaGen AI continues its internal IP & asset development focus on [longevity](#) and AI-driven prediction, diagnostics and peptide development to improve human healthspan," commented, DiaGen AI CEO, Brian D. Keane

To access more information including our non confidential presentation, visit:

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#### About the Research

To access the full review article "Biomarker integration and biosensor technologies enabling AI-driven insights into biological aging" was published November 7, 2025, in Frontiers in Aging (DOI:10.3389/fragi.2025.1703698).

Visit: <https://www.frontiersin.org/journals/aging/articles/10.3389/fragi.2025.1703698/full>

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#### About DiaGen AI

Headquartered in Vancouver, DiaGen AI Inc. is developing a diverse pipeline of AI-powered tools for small molecule and peptide discovery, diagnostics, and delivery. Using its proprietary AI engine, DiaGen aims to de-risk, accelerate, and create value across the global traditional [drug discovery](#) sector — advancing precision medicine and impacting global human longevity. Learn more at [www.diagen.ai](http://www.diagen.ai).

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The Company cautions that forward-looking statements are based on the beliefs, estimates and opinions of the Company's management on the date the statements are made, and they involve

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Forward-looking information in this news release are based on certain assumptions and expected future events, namely: the Company's ability to make advancements in industry using its proprietary DIA technology; the Company's expectation of growth of the AI sector as it applies to healthcare; the Company's ability to provide a return on investment for its shareholders; the continued growth of the Company; the viability of the Company's DIA technology; the continued applicability of AI technology within the healthcare sector, particularly drug discovery, diagnostics, and vaccines; the ability of the Company to find strategic acquisitions and consummate transactions to acquire such entities; the ability of the Company to successfully complete a go-public transaction in the near future; and the ability of the Company to use its technology to make a meaningful impact on the healthcare industry.

Readers are cautioned that the foregoing list is not exhaustive. Readers are further cautioned not to place undue reliance on forward-looking statements, as there can be no assurance that the plans, intentions or expectations upon which they are placed will occur. Such information, although considered reasonable by management at the time of preparation, may prove to be incorrect and actual results may differ materially from those anticipated.

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