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Mount Sinai Medical Center Partners with Tiger Tech Solutions on Study Exploring Heart Rate Variability Patterns by Cancer Location and Progression

Groundbreaking non-invasive techniques may revolutionize cancer detection.

MIAMI BEACH, FL— March 11, 2024 — In a recently published study, Dr. Kfir Ben-David, Mount Sinai Medical Center Chair of Surgery, and Dr. S. Howard Wittels, Mount Sinai Medical Center Chief of Anesthesiology and Perioperative Care, discovered a correlation between non-invasive markers and cancer progression. The doctors utilized a non-invasive device called the Warfighter MonitorTM for Heart Rate Variability (HRV) collection, which was developed by Tiger Tech Solutions.

The peer-reviewed article, "<u>Tracking Cancer: Exploring Heart Rate Variability Patterns by Cancer Location and Progression</u>," published in Cancers, presents compelling evidence that suggests a promising new frontier in cancer detection and monitoring.

Many cancer patients in the United States are diagnosed at advanced stages, elevating mortality risks. Early detection through screening is crucial for effective diagnosis and treatment. However, current screening procedures can often hinder compliance and sometimes deter individuals from adhering to public health screening recommendations. This further highlights the urgent need for non-invasive methodologies to enhance early detection and improve survival rates.

The study aimed to explore HRV patterns among patients with various types of cancer at different stages. A major finding was that cancer patients exhibited significantly different HRV patterns compared to non-cancer patients, irrespective of the cancer type, cancer location, or the subject's pre-existing condition (e.g. heart disease, diabetes, obesity, etc.). Reduced HRV and increased heart rate were consistent across prevalent cancer types.

"These findings offer a glimpse into the potential for non-invasive, cost-effective methods of cancer detection and monitoring," explains Dr. Ben-David, lead author of the study. "Our research sheds light on the intricate relationship between the autonomic nervous system and cancer progression. By leveraging HRV patterns, we may be able to develop innovative tools for early detection and personalized cancer care."

"This research could represent a paradigm shift in how we approach cancer diagnosis and management. By harnessing the power of HRV analysis, we have the opportunity to revolutionize patient care and outcomes," says Dr. Wittels, co-author of the study and co-founder of Tiger Tech Solutions. "The implications of this research are far-reaching, with potential applications spanning from early cancer detection to real-time monitoring of treatment efficacy. Furthermore, the non-invasive nature of HRV analysis could alleviate patient discomfort and reduce healthcare costs associated with traditional diagnostic procedures."



"We believe that our study marks a significant step forward in the fight against cancer," added Dr. Ben-David. "With further research and collaboration, we are optimistic about the prospect of translating these findings into tangible clinical benefits for patients worldwide."

For more information, or to schedule an interview, please contact Erica Corsano.

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About Mount Sinai Medical Center

Founded in 1949, Mount Sinai Medical Center is the largest independent, private, not-for-profit teaching hospital in South Florida. Mount Sinai's mission is to provide quality health care to a diverse community enhanced through teaching, research, charity care, and financial responsibility. Mount Sinai's Centers of Excellence combine technology, research, and academics to provide innovative and comprehensive care in cardiology, neuroscience, oncology, urology, and orthopedics. One of the original statutory teaching hospitals in the state of Florida, Mount Sinai is the hospital of choice for those who seek the level of expertise and care that only a teaching hospital can offer. Mount Sinai currently offers nine convenient locations in Miami-Dade County, including three emergency centers, and two specialty care offices and a primary care office in Monroe County. For more information on Mount Sinai Medical Center, visit msmc.com or call 305.674.CARE (2273).

About Tiger Tech Solutions

<u>Tiger Tech Solutions</u> is dedicated to driving innovation to address some of the most significant challenges in the medical world. The company's overarching goal is to develop products that revolutionize everyday living. Tiger Tech Solutions conducts research across various fields, including artificial intelligence/machine learning, elite human performance and disease state identification. What distinguishes the team is its unparalleled medical credentials, wherein their collective experience and knowledge serve as the driving force behind their innovative initiatives.