Tempus Announces 18 Abstracts Accepted For Presentation at the American Association for Cancer Research Annual Meeting 2024

April 5, 2024

Tempus, a leader in artificial intelligence and precision medicine, today announced 18 abstracts were accepted for presentation at the 2024 American Association for Cancer Research (AACR) Annual Meeting, which convenes from April 5-10, in San Diego, California. Tempus researchers will demonstrate how the company's AI-enabled precision medicine platform collects and analyzes high-quality, multimodal datasets to advance cancer research.

"We look forward to presenting 18 abstracts at AACR this year, demonstrating the breadth and depth of our research both at Tempus and with our biopharma collaborators," said Ezra Cohen, MD, Chief Medical Officer, Oncology at Tempus. "Our research showcases the power of combining our molecular profiling offerings with our multimodal database to better understand cancer biology, treatment response, and patient outcomes."

Research highlights include:

- **Poster Presentation:** **A circulating tumor fraction DNA biomarker response stratified by ESR1 mutation status correlates with overall survival in patients with HR+ HER2- metastatic breast cancer**
  - **Session Date & Time**: Monday, April 8, 2024; 1:30 p.m. – 5:00 p.m. PT
  - **Location**: Poster Section 41
  - **Overview**: Tempus xM used for treatment response monitoring (TRM) is an algorithm that quantifies changes in circulating DNA tumor fraction (TF) and can be simultaneously used to detect the emergence of ESR1 mutation (ESR1m) variants. In a heterogeneous real-world cohort of ER+ HER2- metastatic breast cancer patients, we showed that the combined effect of molecular response and ESR1 mutation status, a mutation associated with resistance to aromatase inhibitors (AIs), was associated with real-world overall survival outcomes. These preliminary findings suggest that xM used for TRM can identify patients with ESR1m and poor response on AI who may benefit from switching therapy.

- **Abstract:** **Leveraging a comprehensive genomic data library for detecting clonal hematopoiesis in liquid biopsy**
  - **Session Date & Time**: Monday, April 8, 2024; 9:00 a.m. – 12:30 p.m. PT
  - **Location**: Poster Section 37
  - **Overview**: To more efficiently filter out clonal hematopoiesis (CH) variants from tumor-derived variants, the team trained a random forest classifier on advanced, pan-solid tumor cancer samples sequenced using liquid biopsy and solid-tumor NGS with matched buffy coat assays (n=660). On a held-out validation set of samples (n=661), the classifier could reliably distinguish between CH and other tumor-derived variants with high accuracy, sensitivity, and specificity using only liquid biopsy data for predictions, providing an operationally simpler alternative to combined liquid and solid-based methodologies.

- **Poster Presentation**: **Association of a ctDNA biomarker of treatment response with clinical outcomes in a real-world pan-cancer cohort treated with tyrosine kinase inhibitors**
  - **Session Date & Time**: Tuesday, April 9, 2024; 9:00 a.m. – 12:30 p.m. PT
  - **Location**: Poster Section 44
  - **Overview**: By analyzing changes in circulating DNA tumor fraction (ctDNA TF) in a real-world pan-cancer cohort of patients treated with Tyrosine kinase inhibitors (TKIs),

the research team found that patients classified as molecular responders (defined as ≥ 50% in ctDNA tumor fraction) had significantly improved real-world overall survival and progression-free survival compared to molecular non-responders. Based on these findings, xM used for TRM may be used to optimize treatment decision making for patients treated with TKIs, sparing patients who do not respond to TKIs from ineffective therapy.

To learn more, visit www.tempus.com/events/aacr-annual-meeting-2024.

About Tempus

Tempus is a technology company advancing precision medicine through the practical application of artificial intelligence in healthcare. With one of the world's largest libraries of multimodal data, and an operating system to make that data accessible and useful, Tempus provides AI-enabled precision medicine solutions to physicians to deliver personalized patient care and in parallel facilitates discovery, development and delivery of optimal therapeutics. The goal is for each patient to benefit from the treatment of others who came before by providing physicians with tools that learn as the company gathers more data. For more information, visit tempus.com.