



## Cellworks Singula™ TRI Provides Personalized OS and PFS Predictions for 18 NCCN Guideline GBM Therapies

*myCare-024-04 Study Finds Cellworks Personalized Biosimulation Provides Superior OS and PFS Predictions for GBM Patients Beyond Standard Clinical Factors*

**CHICAGO, June 6, 2022** – Cellworks Group, Inc., a world leader in Personalized Medicine in the key therapeutic areas of Oncology and Immunology, today announced results from the myCare-024-04 study, which demonstrate that the Cellworks Singula™ Therapy Response Index (TRI) was strongly predictive of Overall Survival (OS) and Progression-Free Survival (PFS) for newly diagnosed Glioblastoma Multiforme (GBM) patients. In this study, Singula™ TRI provided patient-specific estimates of OS and PFS for 18 NCCN guideline GBM therapies and provided predictive value beyond physician-prescribed therapy, patient age, patient sex, and MGMT methylation status.

The results from the myCare-024-04 clinical study were featured in a poster presentation with comments from Dr. Manmeet Ahluwalia, M.D., M.B.A., Chief of Medical Oncology, Chief Scientific Officer and Deputy Director at Miami Cancer Institute, part of Baptist Health South Florida, at the 2022 ASCO Annual Meeting June 3-7th during the Central Nervous Systems Tumors Session and available online as Abstract 2053.

“The molecular heterogeneity of GBM is a key driver for the inconsistent therapy response rates that we see in brain cancer patients and makes the disease difficult to treat,” said Patrick Wen, MD, Director, Center for Neuro-oncology, Dana-Farber Cancer Institute; Professor, Neurology, Harvard Medical School; and Co-Principal Investigator for the myCare-024-04 clinical study. “But by using a patient’s NGS data and Cellworks Singula™ to biosimulate their individual therapy responses, we can potentially improve the ability to select the most effective therapy for each GBM patient and positively effect clinical outcomes for brain cancer patients.”

“The significant differences in treatment response among GBM patients necessitates moving beyond population-based treatments to personalized multi-gene therapy predictions,” said Dr. Manmeet Ahluwalia, M.D., M.B.A., Chief of Medical Oncology, Chief Scientific Officer and Deputy Director at Miami Cancer Institute, part of Baptist Health South Florida; and Co-Principal Investigator for the myCare-024-04 clinical study. “Using Cellworks Singula™ TRI, we can simulate the molecular effects of cell signaling, drugs and radiation on patient-specific *in silico* diseased cells prior to treatment and then identify the magnitude of disease control and survival for specific anti-tumor strategies. The findings from using this approach in the myCare-024-04 study suggest that biosimulating guideline GBM therapies for newly diagnosed GBM patients can positively effect clinical outcomes.”

The Cellworks Biosimulation Platform simulates how a patient's personalized genomic disease model will respond to therapies prior to treatment and identifies novel drug combinations for treatment-refractory patients. The platform is powered by the groundbreaking Cellworks Computational Omics Biology Model (CBM), a network of 7,000+ human genes, 30,000+ molecular species and 100+ signaling pathways. As part of the biosimulation process, personalized disease models are created for each patient using their cytogenetic and

molecular data as input to the Cellworks CBM. The Cellworks platform analyzes the impact of specific therapies on the patient's personalized disease model and generates a Singula™ biosimulation report with Therapy Response Index (TRI) scores from 0 to 100 that predict the efficacy of specific chemotherapies.

## myCare-024-04 Clinical Study

### Background

In this study, the Cellworks Singula™ Therapy Response Index (TRI) was used to prospectively predict the Overall Survival (OS) and Progression-Free Survival (PFS) in a retrospective cohort of 270 IDH wildtype GBM patients from the Cancer Genome Atlas (TCGA) with known clinical outcomes treated with physician prescribed therapies. The cohort included 162 males and 108 females with a median age of 57.5 years.

### Methods

A mechanistic multi-omics biology model created for each patient using comprehensive genomic inputs allows biosimulation of downstream molecular effects of cell signaling, drugs and radiation on a patient's personalized in silico disease model. Stratified random sampling was used to split the data into independent training (N=153) and validation (N=117) subjects. Multivariate Cox Proportional Hazard and Proportional Odds models were used to model OS and PFS as a function of the pre-defined Singula™ TRI and clinical thresholds. Cox Proportional Hazards (PH) regression and likelihood ratio (LR) tests were used on the independent validation subjects to assess the hypothesis that Singula™ is predictive of OS and PFS above and beyond standard clinical factors.

### Results

Using Cellworks Personalized Therapy Biosimulation, Singula™ TRI was significantly predictive of OS and PFS in univariate analyses and remained significantly predictive in multivariate analyses, which included patient age, patient sex, MGMT methylation status and drug class.

### Conclusions

Cellworks Singula™ TRI facilitates selection of optimal personalized therapies by providing patient-specific estimates of OS and PFS for 18 NCCN guideline GBM therapies. This information may be used to estimate increases in OS and PFS when comparing Singula TRI recommended therapies versus standard care. These positive results suggest the utility of biosimulation-informed therapy selection to improve survival of GEA patients.

## About Cellworks Group

Cellworks Group, Inc. is a world leader in Personalized Medicine in the key therapeutic areas of Oncology and Immunology. Using innovative multi-omics modeling, computational biosimulation and Artificial Intelligence heuristics, Cellworks predicts the most efficacious therapies for patients. The Cellworks unique biosimulation platform is a unified representation of biological knowledge curated from heterogeneous datasets and applied to finding cures. Backed by UnitedHealth Group, Sequoia Capital, Agilent and Artiman, Cellworks has the world's strongest trans-disciplinary team of molecular biologists, cellular pathway modelers and software technologists working toward a common goal – attacking serious diseases to improve the lives of patients. The company is based in South San Francisco, California and has a research and development facility in Bangalore, India. For more information, visit [www.cellworks.life](http://www.cellworks.life) and follow us on Twitter @cellworkslife.

All trademarks and registered trademarks in this document are the properties of their respective owners.

**Media Contacts:**

Barbara Reichert  
Reichert Communications, LLC  
[Barbara@reichertcom.com](mailto:Barbara@reichertcom.com)  
415-225-2991

Michele Macpherson, Chief Business Officer  
Cellworks Group, Inc.  
[michele.macpherson@cellworksgroup.com](mailto:michele.macpherson@cellworksgroup.com)  
[650-346-9980](tel:650-346-9980)