



### PRESS RELEASE

October 17, 2023 BlueMeme Inc. Kyushu University

# BlueMeme and Kyushu University Establish Joint Research Division for Network Al Statistical Analysis

## Aiming for social implementation of the new technology "Network AI Statistics"

BlueMeme and Kyushu University have started a partnership called the "Division of Network AI Statistics." This unit is located at Kyushu University's Institute of Biomedical Research and Innovation and began its work on October 1, 2023. On that same day, Masanori Matsuoka, the CEO of BlueMeme, became a visiting professor as part of this joint effort.

BlueMeme and Professor Masao Nagasaki from the Division of Biomedical Information Analysis, Medical Research Center for High Depth Omics, Medical Institute of Bioregulation, Kyushu University have worked together before on making big language models with quantum Al. Creating this new division will help us make more advancements in this research.

Machine learning, often seen as a part of AI, is good at predicting things like airports and social networks. However, it is not great at explaining why those predictions are made. In this division, we concentrate on Network Statistics. It helps us understand network structures statistically, determine their essential features, and make informed decisions.

Network structures are present in many areas, like cell communication and brain MRI, which can be seen as a kind of network in bioinformatics. By using statistical methods to understand and analyze these network structures objectively, we can potentially find what causes issues in cell communication, such as those seen in diseases like cancer. Furthermore, by studying how brain networks work through statistics, we can develop methods for early detection of brain aging.

This Joint Research Division has a goal: to create a solid analytical system that combines the power of AI and network statistics. AI helps predict data, while network statistics is great at explaining the patterns in network data. Using both technologies on high-performance computing systems, we will work on practical biomedical science research involving network AI statistical analysis. We aim to develop new, innovative ways to analyze data and make these methods part of everyday solutions that help society grow.

In the future, BlueMeme will use network AI statistical analysis technology as part of "AGILE-DX," a unique system developed by BlueMeme. AGILE-DX combines low-code and agile methodologies. It will be used for the next generation of system development.

BlueMeme aims to create new and valuable solutions for society by working closely with Kyushu University. They are dedicated to promoting innovative and forward-looking technologies.

i: Network Statistics: A study that combines the mathematical elements of graph theory, statistics, and data analysis to understand and analyze the structure and dynamics of networks consisting of nodes and edges. Various areas of application include social networks, logistics, neural circuits of the brain, and protein interaction networks.

ii: Bioinformatics: A field that uses information technology and statistics to analyze biological data, such as DNA, RNA, and proteins, in order to deepen biological understanding.

iii: Biomedical sciences: A diverse field that links biological and medical knowledge and focuses on improving healthcare and understanding disease. It utilizes information from molecular biology and imaging techniques such as MRI to contribute to the development of new treatments, medical devices, and clinical research.

#### Related Press Release:

### BlueMeme and Kyushu University Begin Joint Research on Developing Large Language Models Using Quantum AI:

https://www.bluememe.jp/press-release-2023-06-14-en/

#### **About BlueMeme**

BlueMeme is a leading player in the Japanese low-code development market. In 2012, BlueMeme introduced OutSystems, a low-code development platform, for the first time in Japan. BlueMeme's unique development methodology, known as "AGILE-DX," enables effective implementation of Agile and low-code. BlueMeme is dedicated to enhancing the international competitiveness of Japanese businesses by leveraging the latest technologies for next-generation information system development and achieving digital transformation (DX) to adapt to disruptive changes. As of 2021, BlueMeme is listed on the Tokyo Stock Exchange under the corporate code "4069".

URL: https://www.bluememe.jp/

### **Kyushu University**

Masao Nagasaki, Division of Biomedical Information Analysis, Medical Research Center for High Depth Omics, Medical Institute of Bioregulation

The impact of this matter on business results will be minor.

### **Press Contact**