

# NEWS RELEASE

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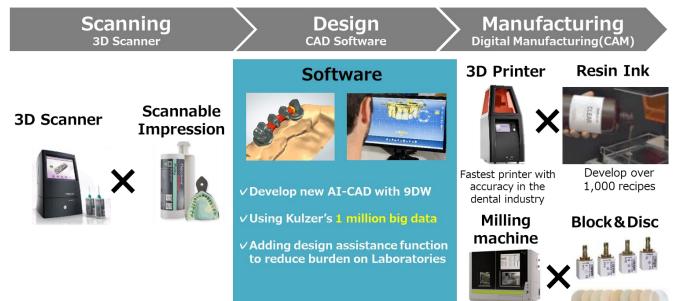
# Kulzer Sets out to Develop New Dental CAD Software with Artificial Intelligence (AI)

#### Using Big Data to support dental bridge design by applying deep learning to 1 million data points

Mitsui Chemicals, Inc. (Tokyo: 4183; President & CEO: Tsutomu Tannowa) announced today that its subsidiary Kulzer GmbH (Hanau, Germany; President & CEO: Akira Misawa), a global leader in dental materials, sets out to develop new computer-aided design (CAD) software that incorporates AI to further improve the precision and optimization of design of dental bridges\*, a common treatment for missing teeth, together with AI development firm 9DW Corp. (Tokyo; CEO: Tsuyoshi Imoto).

\*Dental bridges are used to help patients who have lost teeth to extraction or accident. The treatment uses remaining teeth on either side of the gap as foundations to suspend and support artificial teeth like a bridge.

# Strengthening Digital Workflow for Dental Materials



### Using Kulzer's 1 Million Data Points

Kulzer has a strong presence in the European dental market and provides dental treatment materials, digital products (including 3D scanners, CAD software, 3D printers, and milling machines) and treatments for periodontal disease. Its subsidiary EGS Srl. (Bologna, Italy) develops design software and 3D scanners for dental, automotive and other applications. Unlike other manufacturers of dental materials, Kulzer has its own milling center to meet dental laboratory requests and possesses big data relating to dental treatments.

In this latest initiative, Kulzer will collaborate with 9DW, which specializes in AI for numerical analysis and image recognition, applying deep learning to Kulzer's more than 1 million data points to develop new

CAD software able to accurately and more quickly conduct digital data processing for particularly complex dental bridge designs requested by laboratory designers.

## Cutting Design Times to One-Thirtieth to Reduce Burden on Laboratories

In recent years, the digitization of dental treatments has been proceeding rapidly. Responding to the digitization needs of dentists and dental laboratories, Kulzer offers more than just digital-compatible materials, also deploying digital tools and software such as 3D scanners, CAD software, 3D printers and milling machines to contribute to further growth in the dental industry.

The development of CAD software with incorporated AI makes it possible to output nearly perfectly designed bridge data after scanning an oral cavity. A laboratory would only need to put the finishing touches on the design. The goal is to drastically cut the time needed for bridge design work from 15 minutes to just 30 seconds. This innovation will help optimize operations at laboratories struggling with labor shortages and make it possible to provide patients with speedier treatment.

Kulzer will leverage its strengths as a member of Mitsui Chemicals Group to expand its global business in dental materials. At the same time, the company will work with dentists and laboratories around the world to contribute to improve the quality of life of patients.

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#### About Kulzer GmbH

As one of the world's leading dental companies, Kulzer has been a reliable partner for all dental professionals for over more than 80 years. Whether aesthetic or digital dentistry, tooth preservation, prosthetics or periodontology – Kulzer stands for trusted and innovative dental products. With optimal solutions and services, Kulzer aims to support its customers in restoring their patients' oral health in a safe, simple and efficient way. For this purpose, 1,500 employees work in 29 locations in the field of research, manufacture and marketing.

Kulzer is part of the Mitsui Chemicals Group. The Japanese Mitsui Chemicals, Inc. (MCI) based in Tokyo owns 154 affiliates with more than 17,000 employees in 27 countries. Its innovative and functional chemical products are as much in demand in the automotive, electronics and packaging industries as in environmental protection and healthcare.

#### About 9DW

Established in 2016, 9DW works on orders for AI systems. The company aims to develop a wide-use AI through a bottom up approach to gather common functions in several AI systems.

"IYO", a self-developed core engine for general use AI systems, makes it possible to analyze various and different data simultaneously.

9DW has many excellent achievements in learning and origination of 3-D shapes, speedily identification and recognition of persons and things in movies and videos, multiple analysis and learning of voice waveform, and learning and prediction of time series data.