



## MEMORANDUM OF AGREEMENT (MoA) BETWEEN RESEARCH CENTER FOR BIOMEDICAL DEVICES AND PROTOTYPING PRODUCTION, TAIPEI MEDICAL UNIVERSITY, TAIWAN AND FACULTY OF DENTISTRY, HASANUDDIN UNIVERSITY, INDONESIA

Some collaborative works between Research Center for Biomedical Devices and Prototyping Production (BIMD), Taipei Medical University (TMU), Taiwan and Faculty of Dentistry, Hasanuddin University (FDHU), Indonesia will be implemented with the following description:

## 1. Dental Implant Project

- A. BIMD of TMU will help Hasanuddin University to establish the top-notch Dental Implant Center on the condition that Hasanuddin University uses only Ti-one 101 dental implants in the Dental Implant Center. BIMD of TMU will provide the training of dentists on how to perform the implantation of Ti-one 101 dental implants.
- B. BIMD of TMU will provide training of dental technicians on how to prepare patients for dental implantation.
- C. BIMD of TMU and Hasanuddin University will publish papers together.

## 2. Oral Maxillofacial Reconstruction Project - 3D printing

BIMD of TMU will provide expertise in 3D printing and collaborate with Hasanuddin University to conduct the Oral Maxillofacial Reconstruction Projects on patients with Oral cancer or Oromaxillofacial deformity. Hasanuddin University will provide the CT image of the patient head at the resolution of 0.5 mm or better before surgery. Based on the CT image, BIMD of TMU will reconstruct a normal CT image of the patient head and print 3D materials for the excised part.

## 3. Stem Cell Research

- A. BIMD of TMU and Hasanuddin University will collaborate on the reconstruction of palate in patients with Cleft Lip and/or Cleft Palate, and the reconstruction of jaws in patients with Ameloblastoma patients using Adipose Stem Cells (or Gingival Mesenchymal Stem Cells) and 3 D printing technology.
- B. BIMD of TMU will provide devices and technical support (training) for conducting Stem Cell Research and Faculty of Dentistry of Hasanuddin University (FDHU) will provide the space for an extension branch of BIMD of TMU (BIMD of TMU – FDHU).
- C. BIMD of TMU will send some related published papers (dental implants) and the animal results of Adipose Stem Cells on skin repair to Dr. Ruslin at the Faculty of Dentistry, Hasanuddin University. Dr. Ruslin will write up the IRB protocol for the clinical trial. BIMD of TMU will prepare the required stem cells and Dr. Ruslin will perform the surgery. If it is necessary, BIMD of TMU doctors will provide expertise on how to perform the surgery.

This MoA shall be effective upon signature by BIMD of TMU and Hasanuddin University. It may be revised with consultation and agreement by the two parties.

Date: 3 July 2015

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Signature Mull

**Dr. drg. Bahruddin Thalib, M.Kes., Sp.Pros.** Dean, Faculty of Dentistry Hasanuddin University

Signature :

**Distinguished Prof. Keng-Lang Ou** Director of Research Centre for Biomedical Devices and Prototyping Production Taipei Medical University