

DEVELOP A METHOD THAT PRODUCES A CUSTOMIZED 3D PRINTED SCAFFOLD TO BE USED IN ALVEOLAR CLEFT SURGERY.

The proposed research will focus on fabrication and testing of novel 3D-printed bioactive constructs for prototype development of patient specific apparatus for alveolar cleft surgery. This in vitro demonstration can be used as a proof of concept to show the feasibility of the process for future in vivo examinations. We hypothesize that bioactive 3D printing can offer the promising potential of patient specific treatment for cleft alveolar palate.

ABOUT OUR TEAM

Dr. Lobat Tayebi, Associate Professor and Director of Research at MUSoD: She will have the primary leadership and responsibility for the scientific and financial integrity of this project. She will facilitate effective collaboration and communication among the PIs to achieve the final goal of the project.

Dr. T. Gerard Bradley, Professor, orthodontist and Associate Dean of Research at Marquette School of Dentistry: He will provide models of previously treated cleft cases and these will be used as templates for the design and fabrication of a new generation of 3D printed construct that will be tested and evaluated for their customized fit.

Dr. David Mills, Professor of Biological Sciences and Biomedical Research at Marquette University: He will provide the 692 load the treated cleft palate for the 692 load the treated cleft palate.

MILESTONES

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