



BONE TISSUE RECONSTRUCTION PLANNING SYSTEM

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Experience:

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Market Needs:

Bone reconstruction planning, particularly for implant-ridge augmentation, is overly reliant on clinical experience, leading to challenges in accuracy and efficiency for less experienced doctors. The market urgently requires a standardized, high-efficiency auxiliary tool with robust outcome predictability.

Our Technology:

The system's core is a planning model trained using Deep Learning (DL). This model uses bone tissue images, implant coordinates, and ideal bone contours for training. The system processes user images to instantly provide reconstruction planning recommendations and the expected post-reconstruction contour.

Strength:

The system significantly accelerates the planning workflow due to the model's automated output. By providing the expected contour, it establishes pre-operative predictability, compensating for judgment gaps among less experienced clinicians and substantially enhancing overall surgical accuracy.

Competing Products:

Primary competitors are existing implant path planning software. The key advantage of this system is its unique DL capability: it not only plans the implant path but also predicts the ideal bone reconstruction contour based on that path, establishing a clear technical differentiation from tools that lack this predictive function.

Intellectual Properties:

(1) This system has been jointly developed by our institution and the Department of Dentistry at National Taiwan University Hospital (NTUH). Specialists in Periodontics have been involved throughout data labeling and model performance evaluation.

Contact (do not need to fill out):

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