



New Hampshire & National Institute of Dental and Craniofacial Research

FY20 Total Funding: **\$861,678**

Number of Institutions Funded: **1 (Rytek Medical, Inc.)**

Number of Grants Awarded: **1**

Number of Congressional Districts with NIDCR Grants: **1**

Improving New Hampshire's Oral Health through NIDCR Funding:

Almost 10 million dental implants were placed worldwide in 2016. The worldwide market for these implants is expected to increase to \$4.0-\$5.0 billion in revenue by 2018 as more patients opt for this procedure to regain chewing function and improve cosmetic appearance. Dental implantation currently relies on pre-operative imaging technologies to help guide dental surgeons in safely drilling into the jaw to accurately position an implant; unfortunately, these pre-operative images do not provide real-time feedback during the drilling process resulting in the potential for serious post-surgical complications associated with drill penetration into critical structures (including nerve bundles and sinus cavities). Researchers at Rytek Medical, Inc. are optimizing and commercializing their OsteoSmartSense Drill System, a smart sensing dental drill add-on will provide real-time feedback regarding the position of the drill during the procedure and help dental surgeons to potentially avoid surgically related patient injuries.

