Request for Information on Enhancing Utilization of the NIH Clinical Center
Submitted via Web portal on November 21, 2017

Please provide your perspective on the following topics:

Areas of biomedical research that are best poised to utilize the unique in-patient resources of the NIH Clinical Center (for details, see https://clinicalcenter.nih.gov/translational-research-resources/resources.html).

While the Dental Clinic at the NIH Clinical Center is focusing on a number of important areas in dental, oral and craniofacial research, there remain opportunities not only for the Dental Clinic to further collaborate with the Intramural Research Program (IRP) at the National Institute of Dental and Craniofacial Research (NIDCR) and extramural researchers, but also for the Clinical Center to be used more strategically for oral health research in the context of overall health.

As a first recommendation, the American Association for Dental Research (AADR) would encourage the NIH Clinical Center to continue investing in basic foundational research to help inform clinical studies. As part of this suggestion, we would ask that the Clinical Center emphasize bidirectional dialogue between basic and clinical researchers to promote information-sharing, continual learning and effective use of resources.

Building upon this, AADR would suggest honing in on specific areas of biomedical research that would allow the Clinical Center to build upon the important research already being conducted as well as support central NIH initiatives. NIDCR has a wide portfolio and is focused on a number of areas that would make sense for the Clinical Center to further explore – whether in collaboration with the IRP or extramural researchers. Specific areas that AADR would urge the Clinical Center to consider include oral immunology, regenerative medicine, bone stem cells, salivary gland development and regeneration, and the study of the oral microbiome, including microbiome influences on systemic health. Additionally, for any studies involving oral or dietary nutritional intake, AADR would encourage the Clinical Center to include oral health functionality, given the connection between the mouth and diet and nutrition.

Another area to which the NIH Clinical Center’s resources could positively contribute – beyond the partnership with NIDCR to conduct basic oropharyngeal cancer research – is research that will augment NIDCR’s Oral Cancer Genome Project, which is intended to move toward precise diagnosis and individualized disease management. One current area of particular emphasis for NIDCR is that of human papillomavirus- (HPV-) associated oropharyngeal cancer, the incidence rate of which, according to the National Cancer Institute’s Annual Report to the Nation on the Status of Cancer, 1975-2009, is on the rise. Using the resources of the Clinical Center, NIDCR can build upon the evidence base of this project, providing more data that may lead to better detection and treatment of oral cancers.

The Clinical Center also has opportunity to expand its portfolio on the study into rare diseases, particularly if it expands public-private partnerships, which are already demonstrating their value in this space. While the Clinical Center already funds a number of studies focusing on the natural history of
these diseases, AADR would note that it is important to incorporate, to the extent possible, rare
diseases with an oral- and craniofacial-related disease origin given their significance as part of overall
health. Between the Clinical Center’s patients, healthy volunteers and biomedical specimen resources,
the Clinical Center is well-outfitted not only to help conduct research to understand the mechanisms of
rare disease, but also to serve as an important partner in the development of therapies and treatments
for these diseases and conditions.

Finally, and importantly, given the recent focus on pain research via the Federal Pain Research Strategy,
the biology of pain – from orofacial pain and conditions to other types of pain – represents a timely and
far-reaching area of opportunity for the Clinical Center and the researchers with whom it partners. As
cited in Classification and Epidemiology of Orofacial Pain, orofacial pain has a prevalence of up to 26
percent in the general population.