RESEARCH OF IMPORTANCE TO THE PRACTICING DENTIST, 2017-2018

INTRODUCTION

Under the ADA Bylaws, the ADA Council on Scientific Affairs is charged with developing a biennial research agenda that presents a targeted list of key research priorities for the practice of dentistry and the advancement of oral health care. The ADA Research Agenda is shared with external organizations, dental schools and funding agencies to promote further study and financial support for these priorities. Biennial updates help ensure that the Research Agenda addresses existing and emerging research needs and priorities in dentistry, with input from ADA members and other stakeholders.

As America’s leading advocate for oral health, the ADA strongly supports the dental research enterprise, and takes a leading role in promoting, conducting and critically reviewing research on topics related to dentistry and its relationship to the overall health of the individual. The ADA will continue to serve as a facilitator of the national dental research effort, identify priority topics for research, and help ensure the timely dissemination of information to the profession.

RESEARCH AGENDA TOPICS

Goal 1: Strengthen the nation’s investment in the oral health research infrastructure and increase the number and scope of oral health research collaborations across the health sciences at all research institutions, including federal agencies, academic institutions, industry and private non-profit organizations.

Objective 1-1: Expand the oral health research infrastructure across the research continuum to facilitate research conduct and scholarly activity by dental school faculty members to support their successful career development and scientific contributions, thus enabling them to further contribute as role models and mentors for dental students, residents, graduate students and post-doctoral fellows.

Objective 1-2: Enable oral health researchers to better promote the relevance of oral health to the overall well-being and health of individuals and populations, and ensure that oral diseases, oral health quality-of-life outcomes, and social determinants of health are integrated into health studies and initiatives. Whenever possible and relevant, oral health components should be established as important priorities during all stages of broad-scale research studies and initiatives to ensure the inclusion of the relevance and impact from oral health research.

Objective 1-3: Promote the integration of principles and practices of evidence-based dentistry within the rapidly changing scientific foundation of precision health care, and seek inclusion of dentistry in this scientific foundation, such as within the auspices of the Precision Medicine Initiative.

Goal 2: Secure long-term support for basic, clinical and translational research addressing caries, periodontal disease and oral cancer.

Objective 2-1: Explore the role and complexity of human oral microbial ecology in the etiology and pathogenesis of dental caries, periodontal diseases and oral cancer.

Objective 2-2: Advance understanding of the underpinnings of inflammatory responses associated with periodontal diseases to include the innate immune response, neuroinflammatory pathways and epithelial barrier functions, with the goal of developing applications for individual and population health.

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Objective 2-3: Promote studies on the pathogenesis of dental caries, periodontal diseases and oral cancer to advance precision dentistry and establish foundational knowledge for improved prevention and therapies.

Objective 2-4: Promote studies on safe, novel restorative materials and biomimetic materials for oral and craniofacial health care, including the restoration and regeneration of hard and soft tissues affected by trauma, disease and developmental defects.

Goal 3: Secure support for long-term longitudinal studies aimed at improving the diagnosis, prevention and treatment of oral diseases and conditions. Such studies include the analysis of electronic health record data and dental claims data to assess and improve treatment outcomes in dental patients across the lifespan.

Objective 3-1: Expand funding to support integration of dental electronic health record systems with medical systems, with the goal of promoting the integration of oral health care within the overall health care system.

Objective 3-2: Promote “big data” and health services research, including the use of dental practice-based research network and/or large clinical databases, to improve oral health surveillance and oral disease monitoring.

Objective 3-3: Encourage oral health research funding opportunities to enable more multidisciplinary and interprofessional longitudinal studies. This objective also supports the inclusion of dental measures in longitudinal studies, interprofessionalism in the development of longitudinal studies, and proper inclusion and utilization of the National Institute of Dental and Craniofacial Research in these studies.

Goal 4: Support and advance translational research designed to identify and overcome barriers to the adoption and delivery of known effective preventive and therapeutic interventions.

Objective 4-1: Fund research that seeks to identify barriers to: (a) the diffusion of new knowledge, (b) the implementation of effective treatments, and (c) the identification and deimplementation of ineffective treatments.

Objective 4-2: Support the development and application of evidence-based guidelines, and promote research on the adoption and use of the most appropriate and cost-effective treatments in clinical practice.

The Council on Scientific Affairs develops a biennial Research Agenda to identify the critical research needs of dentists and other health care professionals, and to advance scientific research on high-priority topics and emerging issues of importance in the management of oral diseases. The Council believes that these issues have short- and long-term impact on the quality of patient care and the continuing development of dental practice. The Council wishes to emphasize that the Research Agenda is not exhaustive, but rather highlights priority topics that are directly related to patient care, answerable, and likely to significantly impact the practice of dentistry.