

Labor Health and Human Services, Education, and Related Agencies Witness Disclosure Form

Clause 2(g) of rule XI of the Rules of the House of Representatives requires non-governmental witnesses to disclose to the Committee the following information. A non-governmental witness is any witness appearing on behalf of himself/herself or on behalf of an organization other than a federal agency, or a state, local or tribal government.

Your Name, Business Address, and Telephone Number:

Dr. Rena D'Souza, AADR President

[REDACTED]

1. Are you appearing on behalf of yourself or a non-governmental organization? Please list organization(s) you are representing.

Non-Governmental Organization/Non-Profit
American Association for Dental Research

2. Have you or any organization you are representing received any Federal grants or contracts (including any subgrants or subcontracts) since October 1, 2008?

Yes No

3. If your response to question #2 is "Yes", please list the amount and source (by agency and program) of each grant or contract, and indicate whether the recipient of such grant or contract was you or the organization(s) you are representing.

National Institutes of Health
NIDCR Bloc Travel Grant \$50,000 per year (2009-2013)
2T14DE017284-04

National Institutes of Health
NIDCR U-13 Conference Grant for \$30,000
1U13DE019616-01

Signature:

[REDACTED]

Date: March 26, 2012

Statement of the American Association for Dental Research
before the
House Subcommittee on Labor, Health and Human Services and Education

Presented by
Rena D'Souza, DDS, PhD, MS

President
American Association for Dental Research

Professor and Chair
Department of Biomedical Sciences at the
Texas A&M Health Science Center at Baylor College of Dentistry

Thursday, March 29th, 2012

Summary

The American Association for Dental Research (AADR) provides thousands of scientists a forum to develop and exchange knowledge for the prevention, diagnosis, and treatment of diseases and disorders that affect the teeth, mouth, and jaws, as well as other systemic conditions. Dental research plays an important role in keeping people healthy throughout their lives.

Investments made in dental research have provided a considerable return for Americans as well as for governments at the local, state, and federal levels. However, dental research – like much of the broader biomedical community – is challenged by an investment in the National Institutes of Health that is failing to keep pace with inflation. The alarming trend is best evidenced by the fact that the NIH grant success rate is now at its lowest level in its history.

My testimony will illustrate the advances made as well as the challenges that remain to be addressed in a few critical areas. As examples, I will touch on tooth decay, oral and pharyngeal cancer, and salivary diagnostics.

Oral Testimony
Rena D'Souza
on behalf of the
American Association for Dental Research
703-548-0066, email: cfox@iadr.org
to the
Subcommittee on Labor, Health and Human Services, Education, & Related Agencies
In support of the
National Institute of Dental and Craniofacial Research
March 29th, 2012

Introduction

Mr. Chairman and members of the Committee, I am Rena D'Souza, Chair of the Department of Biomedical Sciences at the Texas A&M Health Science Center at Baylor College of Dentistry and President of the American Associations for Dental Research (AADR). Today, my testimony is on behalf of AADR.

I thank the committee for this opportunity to testify about the exciting advances in oral health science and for your past support of research at the National Institutes of Health (NIH). This support has made it possible for research funded by the National Institute of Dental and Craniofacial Research (NIDCR) to improve oral health for millions of Americans. In this testimony, I will highlight how the advances described above have benefited taxpayers and some of the challenges that lie ahead that need to be addressed to prevent lapsing further behind other nations throughout the world both scientifically and economically.

What is the American Association for Dental Research?

The American Association for Dental Research is a non-profit organization with more than 4,000 members in the United States. Its mission is to: 1) advance research and gain a better understanding of the importance of oral health; 2) support and represent the oral health research community; and 3) educate the public about research findings.

Why is Oral Health Important?

Oral health is an essential component of overall systemic health throughout life. Poor oral health and untreated oral diseases and conditions can affect the most fundamental human needs including the ability to eat and drink, swallow, maintain proper nutrition, smile and communicate. Tooth decay and gum disease represent much of the problem, but oral cancer and facial anomalies are also impacting many lives. Moreover, as the nation ages, oral health conditions and their associated systemic impacts will increase.

Oral Health Research and Development

Tooth Decay – Research leading to the understanding, prevention, and treatment of tooth decay has yielded one of the greatest public health successes of the past half-century. Tooth decay is no longer the inevitable process that left one-third of Americans over the age of 45 with no teeth –a condition known as edentulism. Yet, not all Americans are benefiting. One need only look to a recent *New York Times* article from March 6th, where the story is given of preschoolers being treated for cavities under general anesthesia in the operating room. Or, to the 2007 story of 12-year old Diamonte Driver who died after an infection from an abscessed tooth spread to his brain. Indeed, the prevalence of dental cavities in children is on the rise. We now look to researchers for answers. For example, scientists may soon be able to interfere with key genes and proteins that would take away the ability of bacteria to cause decay. Further, work is being done at NIDCR-funded oral health disparity centers to understand why disparities in dental caries occur in the first place.

Oral and Pharyngeal Cancer – Most oral diseases and disorders arise from the interplay of complex biological, behavioral, environmental and genetic factors. Scientists now have the tools to understand health and disease from a powerful systems perspective. However, understanding and addressing complex oral diseases will require melding these advances with state-of-the-science clinical, epidemiological and bioinformatics approaches to more precisely identify diseases at their earliest

inception. One area that offers considerable opportunity is oral and pharyngeal cancer, which kills about 7,600 Americans each year. These deaths are particularly tragic because detection and treatment of early stage oral cancer usually results in much higher survival rates than if the disease is diagnosed and treated at late stages. It should be noted that survival rates have not improved during the past 16 years and remain among the lowest of all major cancers. Approaches under development include devices to aid in earlier detection such as rapid gene-expression measurement tools that assess suspicious lesions removed for biopsy and integration of screening, diagnosis, and treatment.

Salivary Diagnostics – Saliva-based diagnostic tests offer significant potential for improving both oral and general health. Thus, further development and validation of these approaches will enable improved preemptive care by detecting molecular markers predictive of disease before symptoms arise, or by providing diagnosis of the earliest signs of disease. As relayed in the NIDCR FY13 Congressional Justification, “Identification and clinical validation of salivary diagnostic biomarkers, and the development of related assays and platform technologies will lead to rapid, point-of-care, non-invasive diagnosis of many conditions, including oral cancer, Sjögren’s Syndrome, and heart attack.”

Challenges to Research

For decades, the United States has been a world leader in research and development. In order for the United States to thrive in today’s innovation-oriented economy, we need to maintain a world class commitment to science and research. Future advances in health care depend on today’s investments in basic research on the fundamental causes and mechanisms of disease, new technologies to accelerate discoveries, innovations in clinical research, and a robust pipeline of creative and skillful biomedical researchers. To continue reaping the benefits of a bold research funding platform, Congress must make science a national priority. With continued support, NIH investigators will help to revolutionize patient care, reduce the growth of health care costs, and generate significant national economic growth.

Fiscal Year 2013 Budget Request

As you can see, Mr. Chairman, there are many research opportunities with an immediate impact on patient care that need to be pursued. A steady and substantial funding stream for NIH overall, and NIDCR in particular, is absolutely necessary in order to continue improving the oral health of Americans. We support the recommendation of the Ad Hoc Group for Medical Research that the Subcommittee recognize NIH as a critical national priority by providing at least \$32 billion in funding in the Fiscal Year 2013 Labor, Health and Human Services, Education Appropriations bill. Of this amount, NIDCR should receive a Fiscal Year 2013 appropriation of \$450 million.

Thank you for this opportunity to testify. We at AADR look forward to having the opportunity to work with the Congress and NIH to help build a strong and successful research enterprise.