

## FY 2012 Funding Levels of NIH & NIDCR (National Institute of Dental & Craniofacial Research)

We understand with the enactment of the **Budget Control Act of 2011** caps on discretionary spending will be required and additional reductions or automatic “triggers” via the Congressional Joint Committee on Deficit Reduction will occur that will impact the budget over the next 10 years. However, the oral health research community would like to convey the importance to the American public of biomedical research—specifically research conducted at the **National Institute of Dental & Craniofacial Research (NIDCR)**—as Congress considers specific budgetary reductions to federal programs to meet the discretionary spending caps.

### Americans Value Research<sup>1</sup>

- A majority of Americans (69%) believe it is very important for the U.S. to be a global leader in research to improve health.
- The same percentage of Americans, 69%, also think research is very important to the U.S. economy.
- 55% of Americans are willing to pay more for research to improve health.
- 87% of Americans agree that military health research investment is a good use of tax dollars.

### NIH Research Drives Economy & Innovates

Research powers our innovation economy and provides life-saving treatments and cures. Cuts will only set the U.S. back at a time when other countries are rapidly increasing investment in research.

- NIH directly and indirectly supported nearly 488,000 jobs and produced \$68 billion in new economic activity in 2010 alone.<sup>2</sup>
- A report issued by *Families USA* calculated that in 2007, every \$1 in NIH funding resulted in an additional \$2.11 in economic output in the U.S. in full or in part.

### Although NIH’s budget has doubled since 1998, NIDCR’s budget has not.

- In fact, NIDCR’s percentage of total NIH funding has decreased 13% since 1998, from 1.53% to 1.33%, its lowest percentage in a decade.
- FY10 NIDCR-funded research (non-ARRA) is present in 132 Congressional Districts (often multiple awards for a congressional district) and 43 states & territories. 823 grants were awarded for FY10.
- For FY2011, 23 projects (approx. \$8 million) for tissue engineering/regenerative medicine for the craniofacial region. Many of these projects are relevant to major trauma to the head and face, and thus have potential applicability to the complex maxillofacial injuries suffered by troops in combat.

A typical NIH grant supports the salaries of about **7** high-tech jobs.

### RESEARCH:

**141 to 1**  
Return On Investment

*“The genome project from 1990 to 2003 spent \$4 billion to achieve a goal. What were the economic goods and services that came out of that? The Battelle study came up with \$796 billion. So, \$796 billion to \$4 billion, that’s a 141 to 1 return on investment from a government project.”*

NIH Director  
Francis Collins  
[USA Today](#), August 2011

### REQUEST for FY2012

- **Maximize health research funding at NIH:**  
*Keeping America competitive saves jobs.*
- **Make oral health research a priority:**  
*Fund NIDCR at 1.37% of NIH’s total funding.*

In 2007, every **\$1** in NIH funding resulted in an additional **\$2.11** in economic output.

<sup>1</sup> “America Speaks: Poll Data Summary Vol. 11,” Research!America, November 2010.

<sup>2</sup> “Investment in NIH Supported Nearly Half a Million Jobs in 2010,” United for Medical Research, May 10, 2011.

# From Children to Cancer Patients to Combat Soldiers: *NIDCR Research Benefits All Americans*

**PROJECT** Salivary Diagnostics  
**WHERE** University of Texas Health Science Center, San Antonio  
**APPLICATIONS** Heart Attacks, Oral Cancer, Asthma



With saliva currently being studied as a substitute for blood for disease diagnosis, NIDCR is funding four research groups to develop point-of-care saliva tests for some of the most common systemic diseases including heart attack, infectious diseases, asthma, and oral cancer.

Point-of-care means the test can be performed where the patient is examined with results in a matter of minutes. A consortium of institutions including **Rice University, The University of Texas Health Science Center at San Antonio,** and the **University of Kentucky** are developing the test for heart attacks.

The goal of this program is to produce a saliva test that will be used by paramedics to help diagnose heart attacks before the patient reaches the hospital. This will speed treatment decisions during the critical early minutes of a heart attack and potentially reduce mortality.

### Cell Analysis for Oral Cancer

Oral cancer is a significant problem in the United States with 35,000 new cases per year and 8,000 deaths. The five-year survival rate (60%) is among the lowest for all major cancers because patients are not usually diagnosed with the disease until it is in an advanced stage. Early diagnosis improves the five-year survival rate to over 90%.

**PROJECT** Engineering Multi-Tissue Interfaces  
**WHERE** University of Michigan, Ann Arbor  
**APPLICATIONS** Major Head/Face Trauma Suffered in Combat; Degenerative Diseases

When congenital anomalies, traumatic injuries or inflammatory and degenerative diseases involve an articulating joint such as the temporomandibular joint (TMJ), the effects are often physically, financially and emotionally debilitating. Unfortunately, despite decades of targeted clinical and basic science research, well established methods to repair or regenerate such joints remain elusive, resulting in a significant unmet clinical need. The research is aimed at gaining a greater understanding of the development of bone/cartilage interfaces for the reconstruction of articular joints such as TMJ. The long-term objective is to develop strategies to regenerate the bone-cartilage interface to regenerate joints like the TMJ. This potentially has applications to the complex maxillofacial injuries suffered by troops in combat.

**PROJECT** Healing of Craniofacial Defects using Adipose-derived Stem Cells  
**WHERE** University of California, Los Angeles  
**APPLICATIONS** Cleft Palate Birth Defects; Major Head/Face Trauma Suffered in Combat

Bone engineering using stem cells has enormous clinical potential for the treatment of congenital bone defects such as cleft palates. One of the most common craniofacial birth defects seen is the cleft palate with one in every 600 newborns being affected in each year in the U.S. Such defects may be able to be healed in the newborn using a combination of the newborn's own stem cells - derived from their fat - combined with specially designed scaffolds. Such a strategy, if successful, may also have applicability to other common craniofacial abnormalities in children thus decreasing the substantial financial burden imposed each year on the US medical system.



**FNIDCR: Friends of the National Institute of Dental & Craniofacial Research**  
1901 Pennsylvania Avenue, NW, Suite 607, Washington, DC 20006  
Phone: 202-223-0667; Web: [www.FNIDCR.org](http://www.FNIDCR.org)