

November 19, 2010

Francis Collins, M.D., Ph.D.
Director
National Institutes of Health
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Dear Dr. Collins,

This letter is on behalf of the Board of Directors for the Society for Research on Nicotine and Tobacco (SRNT). Our organization is the largest international scientific organization dedicated to interdisciplinary nicotine and tobacco research from the molecular to societal levels. For decades, the NIH has funded seminal tobacco-related research, across the translational continuum—from basic science to policy research. This research has generated the evidence base for changes in clinical and public health practices and policies, resulting in significant decreases in morbidity and mortality from cancer, cardiovascular disease, and other tobacco related diseases. Yet, with over 40 million tobacco users in the US alone, we are far from solving this tobacco problem in our nation or globally.

Our scientific community recognizes and appreciates the significant thought and deliberation of the SMRB and SUAA Working Group. That said, the SUAA Report has raised very serious concerns in our scientific community about the future of tobacco control research at the NIH. Some members of the SRNT are strongly opposed to moving funding for tobacco control research out of the NCI. Others do not oppose such a move provided that the structures within the new Institute will protect tobacco control research and ensure that it continues to be funded at least at the current level.

In this context, we wish to share with you our views about the role of translational tobacco science and to offer what we hope will be viewed as constructive suggestions to minimize any untoward consequences of the reorganization process and to maximize the far-reaching benefits of tobacco control research to our Nation's health.

The Tobacco Problem

As you well know, tobacco use remains the leading preventable cause of morbidity and mortality in our nation, accounting for over 430,000 premature deaths annually with costs to our nation of about \$200 billion per year.¹ What is less widely known is that, along with breakthroughs in the detection and treatment of childhood and adult cancers over the last 50 years, the single greatest contribution to reducing the nation's overall cancer rate is a reduction in male lung cancer due to reduced smoking rates in this group over the last 40 years.²

Despite this progress, there are dramatic disparities in tobacco use and related mortality which track with social class, education, and ethnicity.^{3, 4} For example, tobacco use prevalence rates range from under 5% among physicians to over 40% in some groups with less than a high school education and in vulnerable populations such as those with psychiatric comorbidities.¹

At a time when the tobacco control work of agencies such as the CDC and FDA is receiving increased attention and support, we urge NIH to maintain, and even elevate, its commitment to translational tobacco control research from bench to bedside and from science to policy.

Key Advances in the Science Base

Research on the molecular biology of nicotine has generated key insights that are leading to novel therapies and contributing new evidence relevant to psychiatric and medical disorders. This work has elucidated the fundamental importance of nicotinic acetylcholine receptors in development⁵ and in neuronal circuits important in multiple neuropsychiatric conditions.⁶ Translational research on nicotinic receptors has also resulted in the development of potential novel therapeutics for serious mental disorders,⁷ and to the discovery of the role of these molecules in fundamental processes regulating immune function.⁸

Molecular and biochemical studies of nicotinic receptors^{9, 10} have led to the development of novel medications that are saving lives by improving the outcomes of smoking cessation treatment.¹¹ Research supported by NCI and NIDA has also advanced the science of tobacco dependence treatment by documenting the benefits of combination pharmacotherapy,¹² extended duration therapy,¹³ pharmacologic treatment of adolescent smokers,¹⁴ and behavioral approaches such as financial incentives.¹⁵ Comparative effectiveness studies are generating the evidence base required for clinical practice guidelines in this area.¹⁶

Collaborative genetics research programs funded by NCI, NIDA, NHGRI and other NIH institutes have elucidated the role of genetic variation in neuronal nicotinic acetylcholine receptors in nicotine dependence and smoking cessation success, as well as in lung cancer and COPD.^{17, 18, 19} These discoveries are paving the way for personalized medicine approaches to smoking cessation treatment that have the potential for translation to practice within the next 5-10 years.

Research on youth and adolescent smoking includes studies of neurosensitivity to nicotine,^{20, 21, 22} the effects of nicotine on continuing brain development,²³ cognitive-emotional responses to smoking cues and tobacco advertisements,²⁴ affective and physiological stress reactivity, and increases in emotionality, risk taking, and impulsivity.²⁵ In addition to research on the neurological, cognitive, interpersonal, and environmental determinants of youth smoking, NCI has supported multiple studies of tobacco use prevention and youth cessation interventions. Recent Cochrane Collaborative reviews in these areas point both to the promise of some youth prevention and cessation interventions as well as the need for continued robust research to increase treatment options and effectiveness in this critical population.^{26, 27}

NCI, in particular, has supported rigorous health disparities research. This work has identified disturbing disparities in the quality and accessibility of prevention and treatment programs,^{28, 4} and has advanced our understanding of biological and social factors that contribute to tobacco dependence in minorities.^{29, 30, 31, 32} The identification of efficacious treatments for these underserved groups is increasing available options and improving treatment outcomes.^{33, 34, 35}

Given consistent evidence that reducing tobacco use requires a broad approach including changes in community practice and policy,³⁶ considerable funding has been targeted to identify approaches that can reduce tobacco use most effectively. For example, among the grants funded under the well-regarded NCI/NIDA/NIAAA Transdisciplinary Tobacco Use Research Center (TTURC) initiative was a program to evaluate international tobacco policies (e.g., secondhand smoke reduction, communication of tobacco risks) that could slow the rise in tobacco use globally.³⁷

NCI funds vital research evaluating changes in pricing for tobacco products, taxation, and other public health interventions that have had a tremendous impact on tobacco use and cessation. Therefore, it is crucial that community and policy research be one cornerstone of NIH tobacco control research priorities, regardless of where it is housed. This goal requires establishing appropriate structures and engaging with key personnel who are experts in those areas. This will be a significant challenge for the new Institute, but we at SRNT would like to offer our help with achieving this. As a beginning, we have set out some important principles below:

Proposals to Avoid the Pitfalls of a Reorganization

- Ensure that tobacco control research remains a top NIH-wide priority and protect against budgetary short-falls that could result from a structural reorganization. Given the serious public health threat of tobacco relative to other addictions, including alcohol, it requires even greater emphasis;
- If tobacco use research is to be moved from other NIH institutes to a new Institute, retain tobacco policy and products research within NCI, consistent with the relevance of this subset of the portfolio to medical consequences of drug use;
- Elevate tobacco use research within a new Institute to the level of a Division, based on the excellent NCI Tobacco Control Research Branch (TCRB) model. The TCRB's highly experienced staff could help to facilitate this science agenda in a new Institute;
- Assure that relevant Institutes continue to support research on tobacco use as it pertains to that Institute. For example, research on smoking by cancer patients should continue to be supported by NCI, but with solid linkages to the primary tobacco organization via the existing trans-NIH Tobacco and Nicotine Research Interest Group (TANRIG);
- Review and amend current guidelines for determining the funding level of NCI-designated Cancer Centers (i.e., the "NCI ratio"), so that tobacco-related research funded by a new (non-NCI) Institute will not be devalued by NCI-designated Cancer Centers;
- Encourage and support evidence-based tobacco control policy through funding, contracting, and monograph activities, as well as involvement with other federal agencies (CDC, FDA, DHHS) and non-profit organizations;
- Minimize the potential for a protracted reorganization process that would have a detrimental effect on research advances in tobacco control and substance abuse more broadly;
- Use organizations like SRNT and the Office of Behavioral and Social Science Research (OBSSR) as resources in the reorganization and transition process; and
- Identify an Institute Director who understands the science of tobacco control and the science to policy issues, and who can advocate strongly for tobacco control at a national and international level.

It is our hope that repositioning tobacco control research within the new Institute will allow NIH to increase the prominence, visibility, and funding this research priority requires. This is essential to support the complexity of the science needed and to address the public health threat that tobacco use continues to pose to society.

We thank you for your consideration of these issues and would be honored to assist you in any way possible during this vital transition period.

Sincerely,



Caryn Lerman, Ph.D.
President, SRNT

On behalf of the Board of Directors of the Society for Research on Nicotine and Tobacco

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