Francis S. Collins, MD, PhD
Director, National Institutes of Health
9000 Rockville Pike
Bethesda, Maryland 20892

Dear Dr. Collins:

As you mentioned in the Washington Post yesterday, “The science of Alzheimer’s disease has reached a very interesting juncture.” In that light, I would like to underscore the importance of the relationship between Down syndrome and Alzheimer’s disease.

As you know, the pathological findings of Alzheimer’s disease have been found in the brains of people with Down syndrome since the late 1800s. You also know that there are 400 genes on the extra chromosome 21 of people with Down syndrome. Of these 400 genes, at least 4 candidate genes may play a role in the development of Alzheimer’s disease (APP, BACE 2, SOD 1, and RCAN 1). Moreover, Alzheimer’s disease attacks adults with Down syndrome at very young age with increased frequency and venom, resulting in tremendous care taker issues for families.

This evidence points to Down syndrome as an important model for Alzheimer’s disease. NIH and NICHD, in particular, are building on this significant correlation through cognitive and imaging research. I believe this research will undoubtedly inform treatment strategies for both the cognitive deficits in Down syndrome as well as the cognitive loss associated with Alzheimer’s disease.

As the Institute moves forward with crucial Alzheimer’s disease research, I encourage you to look closely at the models that have been developed with respect to Down syndrome and the important research being conducted by NICHD.

Sincerely,

Cathy McMorris Rodgers

cc: Dr. Yvonne Maddox, NICHD