

WORKING 2 WALK 08: LEGISLATIVE BRIEFING

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About 3.5 new cases of spinal cord injury occur per million people annually in the United States. The United States has over 10,000 new cases of spinal cord injury each year, mostly in people under 26 years of age. About half result from motor vehicle accidents, a quarter from sports and falls, and a quarter from violence. The most common age of injury is 19. Over 90% of people survive injury to live a lifetime of paralysis, sensory loss, spasticity, and pain. Over 300,000 people live with spinal cord injury. The cost of caring for them exceeds \$10 billion per year. We have no effective therapies to restore function to people.

The past decade of research has decisively overturned the long-held dogma that the spinal cord cannot regenerate. Many therapies can regenerate the spinal cord and restore function to animals after spinal cord injury. Few of these therapies have gone to clinical trial for three reasons. First, the cost of moving a therapy from discovery to market now exceeds \$1 billion. Companies are reluctant to invest in therapies for such a small market. Second, recent work indicates that combination therapies are needed and trials to develop such therapies are difficult and expensive. Third, there is a long tradition of clinical pessimism and therapeutic nihilism concerning curing spinal cord injury.

At the present, the United States is funding less than \$100 million of spinal cord injury research per year. About \$68 million comes from NIH, too little to include clinical trials. Few clinical trials of spinal cord injury therapies have occurred in the past decade. The Christopher & Dana Reeve Paralysis Act will authorize NIH to establish research centers aimed at reversing paralysis and would appropriate \$300 million over 3 years for this purpose. Last fall (2007), the House passed the bill by a substantial margin but the bill has not been voted on in the Senate.

The government must fund spinal cord injury research because nobody else can and will. Government has the most to benefit from effective therapies of spinal cord injury. A therapy that restores even 10% of function to people with spinal cord injury will save the country over a billion per year, more than 10 times the amount that is being invested in the research. But above all, a cure for spinal cord injury is priceless, not only because it would be a crowning achievement for this country to cure this condition that afflicts millions of people around the world but because a cure for spinal cord injury would translate into therapies for brain disorders.