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ALLEN INSTITUTE FOR BRAIN SCIENCE UNVEILS WORLD'S FIRST GENOME-WIDE SPINAL CORD ATLAS

Landmark Atlas Holds Vast Potential to Accelerate Life-Changing Spinal Cord Research

*Project Made Possible through Generous Support from Funding Consortium
Committed to Advancing Breakthrough Spinal Cord Discoveries*

WASHINGTON, D.C.—July 17, 2008—The [Allen Institute for Brain Science](http://www.alleninstitute.org) today unveiled the groundbreaking Allen Spinal Cord Atlas, the world's first genome-wide map of the mouse spinal cord. Researchers can immediately access the free online data to advance their research surrounding spinal cord diseases and disorders.

"The Allen Spinal Cord Atlas offers profound potential for researchers to unlock the mysteries of the spinal cord and how it is altered during disease or injury," said Allan Jones, chief scientific officer at the Allen Institute. "Our hope is that it will become a valuable resource for scientists—fueling breakthrough discoveries and benefiting the tens of millions of people suffering from spinal cord diseases and disorders worldwide."

From disabled veterans to those afflicted with Lou Gehrig's disease (ALS) or Spinal Muscular Atrophy, spinal cord related diseases and disorders affect people of all ages. Nearly one-quarter of a million Americans—including several thousand troops in Iraq—have suffered or suffer from a spinal cord injury; as many as 30,000 Americans suffer from ALS at any given time; and multiple sclerosis affects 2.5 million people worldwide, to name a few.

Until now, the scientific community's efforts to research spinal cord injury and disease have been hindered by the absence of a genome-wide map of gene expression. The Allen Spinal Cord Atlas is designed to address a gap in the scientific community's knowledge of gene expression in the spinal cord, giving researchers the gift of time in gathering data that might otherwise take months or years to discover.

"As a longtime member of the spinal cord research community, I'm incredibly excited about this project," said Jane Roskams, Ph.D., associate professor, Brain Research Center & iCord at the University of British Columbia. "Although the spinal cord is small, injury or disease can be catastrophic. The problem is that we know very little about the genes that control different functions in the spinal cord—and this atlas will help researchers advance their work in quantum leaps, perhaps helping discover how to make spinal cord patients become mobile enough to take leaps of their own."

Innovative Funding Consortium Joins Forces

The Allen Spinal Cord Atlas was first proposed by scientists in the research community following the completion of the Allen Institute's groundbreaking inaugural project, the Allen Brain Atlas. The Institute's established technology platform and multi-disciplinary approach creates a unique opportunity for donors to support specific projects advancing scientific knowledge in target areas.

"We were incredibly impressed with the Allen Institute's demonstrated commitment to tackling far-reaching projects with such great potential impact as the Allen Brain Atlas," said Thomas Stripling, director of research and education for the Paralyzed Veterans of America (PVA). "It was exciting to know they could apply those same principals to a spinal cord atlas."

The Institute's unique funding model, designed to transform public, private and foundation funds into breakthrough scientific discoveries, supported the Spinal Cord Atlas' dedicated consortium of public and private entities—including [The ALS Association](#), [PVA Research Foundation](#), [Wyeth Research](#), [PEMCO Insurance](#), [National Multiple Sclerosis Society](#), [International Spinal Research Trust](#) and philanthropist and Institute founder [Paul G. Allen](#), as well as numerous anonymous donors.

"We were so thrilled to work with such a diverse array of funders with a shared goal of supporting this important project—which the Institute would never have completed without their support," said Elaine Jones, chief operating officer at the Allen Institute. "The Allen Spinal Cord Atlas serves as a successful example of how major scientific projects can be funded and we are eternally grateful to our partners."

Initial Allen Spinal Cord Atlas Gene Information Released on Internet

Since mice and humans share 90 percent of genes, and the mouse is a well-established model for the study of human diseases, the Allen Spinal Cord Atlas will provide scientists and physicians with an expanded foundation of knowledge to discover new treatments for numerous diseases and disorders. The Allen Spinal Cord Atlas will utilize the same concept and technology as the Institute's inaugural [Allen Brain Atlas](#).

From start to finish, the Allen Spinal Cord Atlas will be completed within a swift, twelve-month timeframe. While inaugural data—approximately 2,000 genes—from the Allen Spinal Cord Atlas is now available, the Institute will continue to follow its founding mission and upload additional information until the projected completion in early 2009. It is estimated that hundreds of users from universities, research institutes, pharmaceutical companies and government organizations will use the atlas.

When completed, the Allen Spinal Cord Atlas will detail approximately 20,000 genes including data from youth and adult developmental stages. It will also feature data across the full length of the spinal cord as well as anatomical reference sections.

Three Breakthrough Projects That Will Fuel New Discoveries for Countless Researchers

The release of the inaugural data comes on the heels of the Allen Institute's recent announcement that it is undertaking three major projects designed to accelerate brain research and help scientists worldwide gain new insights into numerous diseases and disorders.

In addition to the Allen Spinal Cord Atlas, the Allen Institute is also creating the Allen Human Brain Atlas, designed to provide insight into gene expression in the human brain, and the Allen Developing Mouse Brain Atlas, designed to illustrate and enhance understanding of gene activity across multiple stages of development from birth to adulthood.

The human brain atlas project will be completed in four years, and the developing mouse brain atlas project will be completed in two years. The Institute is currently seeking additional public, private and foundation support for these projects. When completed, the free and publicly available data will have vast potential to advance knowledge and produce therapies for human neurological diseases and disorders.

About the Allen Institute for Brain Science

Launched in 2003, the Seattle-based Allen Institute for Brain Science is an independent, 501(c)(3) non-profit medical research organization dedicated to advancing brain research. Started with \$100 million in seed money from philanthropist Paul G. Allen, the Institute takes on projects at the leading edge of science—far-reaching projects at the intersection of biology and technology. The resulting data create publicly available resources that fuel discovery for countless other researchers worldwide. The Institute's data and tools are available on the Web free of charge at www.alleninstitute.org.

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