Using big science to answer big questions.
What makes us human?

The power of the human brain is unmatched even by today’s most advanced computing technologies. Decoding the brain’s mysteries is essential to understanding the human condition and to improving human health.

Founders

Paul G. Allen
Jody Allen

Leadership

Allen Jones, Ph.D.
Chief Executive Officer
Chee Yap
Chief Technology Officer
Christof Koch, Ph.D.
Chief Scientific Officer
David Poston
Chief Operating Officer

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President and Board Chair
Allen Institute for Brain Science
President and CEO, Vulcan Inc.
Nathaniel T. Brown
Senior Vice President, Finance and Financial Strategy, The Seattle Times
Susan M. Cotton
Vice President, Foundation and Collections, Vulcan Inc.
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Stephen Hall
Managing Director, Venture Capital, Vulcan Inc.
Allen D. Israel
Member, Foster Pepper PLLC

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Harvard University
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University of California, Los Angeles
Michael Stryker, Ph.D.
University of California, San Francisco

Additional Scientific Advisors

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Yang Dan, Ph.D.
University of California, Berkeley
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California Institute of Technology
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Mount Sinai School of Medicine
Lorenz Studer, M.D.
Stem Cell Institute
Kael Swoboda, Ph.D.
Howard Hughes Medical Institute

Our Team

2012 Highlights

- Approved 10-year plan for expansion and new scientific initiatives, and received a new $300M commitment from Paul G. Allen to support Phase I of the plan
- Expanded scientific leadership and team with 14 Ph.D.-level scientists from Harvard, Stanford and other world-class institutions
- Published landmark study on the human brain in Nature
- Generated ~1 petabyte of new data on the human brain, neural circuitry, and brain development for our online public resources
- Increased usage of the Allen Brain Atlas resources to more than 1.1 million visits from more than 125 countries
- More than 140 Ph.D. students and postdocs at the Allen Institute
- More than 55 researchers with Ph.D. degrees
- More than 200 dedicated employees
- More than half are women

Past Scientific Advisors

Gregor Elsässer, Ph.D.
Max Planck Institute for Biophysical Chemistry
Eberhard Fetz, Ph.D.
University of Washington
Joshua Huang, Ph.D.
Cold Spring Harbor Laboratory
Edward Jones, M.D., Ph.D.
University of California, Davis
Alexandra Joyner, Ph.D.
New York University

Staff

- More than 200 dedicated employees
- More than 55 researchers with Ph.D. degrees

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How do we enable others?

Our groundbreaking discoveries and research tools provide brain researchers around the world with truly innovative ways to ask and answer big questions in brain science. In 2004 we launched the first of our Allen Brain Atlas resources, forever changing the way in which brain research could be conceptualized and conducted. Since then, we have built a highly valuable suite of publicly available, web-based research tools encompassing multiple species, developmental stages, anatomical structures, and brain-related diseases. Any researcher with an internet connection can access these resources freely through a single data portal. Our tools enable scientists to work more quickly and make more effective decisions, allowing them to focus on their most promising discoveries.

With more than 4 million visits to date, our online resources have supported many thousands of experiments and are cited routinely in peer-reviewed publications. Our sought-after transgenic mouse lines are also publicly available, and we are generating additional resources to support a variety of laboratory and computational studies that have not previously been feasible.

We are dedicated to accelerating brain research, using big science to drive the field forward. Our success enables scientists around the world to answer critical questions about the development, structure, and function of the brain, and to use those answers to improve human health.

“Open public approach that thousands of scientists use to advance their research every day. I am excited to help the Institute build on these achievements and expand the scale and scope of its impact.”

Paul G. Allen
Founder

Allan Jones, Ph.D.
Chief Executive Officer

“In 2012, we turned our focus from our achievements to date to the opportunities that lie ahead. The launch of our ambitious 10-year plan sets us on a course to further transform brain research, both within our own walls and in collaboration with the global brain science community.”
Where do we begin?

>25,000 visits to Allen Brain Atlas resources (all 2005)

>250,000 visits to Allen Brain Atlas resources (all 2008)

Received $100M seed commitment from Paul G. Allen

Launched operations

ALLEN Mouse Brain Atlas (Completed 2006)

Sleep Study (Completed 2006)

Human Cortex Study, the Allen Institute’s first human project and a critical foundation for generating the Allen Human Brain Atlas. (Completed 2009)

ALLEN Developing Mouse Brain Atlas (Completed 2009)

Transgenic Mouse Study

ALLEN Spinal Cord Atlas created in response to requests from the research community and funded by a consortium of contributors including foundations, individuals, disease organizations, and corporate entities. (Completed 2009)

Reached 100 Employees

Expense Distribution

<table>
<thead>
<tr>
<th>Category</th>
<th>2011</th>
<th>2012</th>
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</thead>
<tbody>
<tr>
<td>Employees</td>
<td>49%</td>
<td>51%</td>
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<tr>
<td>Outside Services</td>
<td>16%</td>
<td>12%</td>
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<tr>
<td>Lab Supplies</td>
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<tr>
<td>Depreciation</td>
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<td>7%</td>
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<tr>
<td>Tools &amp; Equipment</td>
<td>7%</td>
<td>8%</td>
</tr>
<tr>
<td>Other</td>
<td>16%</td>
<td>9%</td>
</tr>
</tbody>
</table>

ALLEN Spinal Cord Atlas

ALLEN Developing Mouse Brain Atlas

Expense Distribution:

2011

2012
Financial Information

Allen Institute for Brain Science
Summary Statements of Financial Position

(in thousands) As of December 31, 2012 2011

Current Assets
Cash and cash equivalents $18,267 $55,115
Restricted cash 573 272
Federal grants receivable 1,217 406
Pledges receivable 47,000 100
Other current assets 2,219 2,131
Total current assets 69,276 57,964
Restricted cash 1,082 1,073
Other non-current assets 400 400
Property and equipment, net 11,110 10,562
Total assets $81,468 $69,999

Current Liabilities
Accounts payable $2,758 1,580
Accrued expenses 1,479 1,211
Total liabilities 4,237 2,791

Net Assets
Unrestricted $75,521 14,023
Temporarily restricted 1,710 53,185
Total net assets 77,231 67,208

Total liabilities and net assets $81,468 $69,999

Allen Institute for Brain Science
Summary Statements of Activities

Year Ended December 31, 2012 2011

Support and Revenue
Contributions $47,000 $70,400
Federal and other grants 4,888 9,732
Other revenue 195 248
Total support and revenue 52,083 80,380

Expenses
Program services 35,303 28,942
Management and general 6,757 6,671
Total expenses 42,060 35,613
Change in net assets $10,023 $45,767

Launched in 2003, the Allen Institute has forever changed the trajectory of brain research in less than 10 years. We intend to build on this successful foundation to catalyze breakthrough discoveries and accelerate knowledge acquisition in brain science in the years ahead.
Why do we need big science?

Deciphering the complexity of the human brain is a tremendous challenge, one that cannot be solved by any single experiment or individual laboratory.

Our approach to brain research is as big as the challenge itself, combining our internal expertise and capabilities with global collaboration to enable problem solving among researchers around the world. We are innovating tools and techniques that can be used to generate, capture, analyze, and share data on an unprecedented scale. Our commitment to making our innovations publicly available is a catalyst for advancing diverse areas of brain research. The whole of the knowledge base that is being built on the foundation of our work is greater than the individual experiments that we enable. The ongoing financial support of our founder, Paul G. Allen, and leading grant organizations, including the National Institutes of Health, validates our big science approach and provides critical funding for making our impact even greater.

Our top-notch scientific team works collaboratively to answer the most complex questions in brain research.

“The Allen Institute offers an absolutely unique opportunity to do something on a scale and with a ruthless focus unheard of in a traditional research setting. The opportunity to participate in such a transformative effort drives world-class scientists to join our organization.”

Christof Koch, Ph.D., Chief Scientific Officer

In 2012 we welcomed 14 world-class scientists to our team.
Where do we go from here?

Our initial achievements have allowed us to attract an exceptional roster of scientific leaders in a variety of disciplines.

Combined with the new $300 million commitment from our founder, Paul G. Allen, and financial support from federal funding agencies and other granting institutions, we have the critical intellectual and capital resources we need for success in our second decade.

In 2012 we implemented a 10-year plan that will expand the scale of our efforts, the scope of our impact, and our physical infrastructure. In 2013 we expect to break ground on a new building that will consolidate all of our personnel into a single space that will enhance our multidisciplinary approach to brain research.

Our ongoing commitment to innovating cutting-edge technologies and sharing our unique resources with the global scientific community should enable wholly new endeavors in brain science. We look forward to answering important questions, and to asking even bigger ones.

The key initiatives of the 10-year plan encompass three critical questions:

- How does the brain drive physiology and behavior?
- What roles do different neural components play in health and disease?
- What drives neural development and disease processes?

“Our structured approach to brain science differentiates us from conventional research organizations.”

“We are using an industrial model of cross-disciplinary problem solving to answer critical questions in brain research, and to develop cutting-edge technologies that overcome new research challenges.”

We believe that providing researchers around the world with ready access to our data and online tools is the most effective way to spur progress in brain science. Our commitment to making our resources available to the research community establishes a benchmark for open and collaborative science.

The resources that we have created to date are tangible evidence of our ability to innovate new technologies. Today we are developing new cell lines, transgenic tools, models, methods, and computer algorithms that will allow scientists around the world to ask and answer wholly new questions in brain science.

Amy Bernard, Ph.D.
Director, Structured Science

John Phillips, Ph.D.
Executive Director, Structured Science

Where do we go from here?

Our initial achievements have allowed us to attract an exceptional roster of scientific leaders in a variety of disciplines.
Training programs span the globe

Our publicly available resources have a truly global impact on brain research. Around the world and across multiple disease areas, our data and tools make a difference. And we are leading the charge to gather, analyze, and share brain research data on a massive scale.

Who benefits from our work?

Who benefits from our work?

In 2012 alone, we generated nearly one petabyte (PB) of data—that is, 1,000 terabytes, the equivalent of 60,000 HD movies. Since 2009, we have generated 230 million human microarray data points, and generated and processed another 31 million data points. An end-to-end stack of the slides containing the nearly 2PB of data we have collected to date would span 42 miles. The combined thickness of the tissue sections collected in 2012 alone is 30.9 feet—just slightly less than the average length of a Tyrannosaurus rex.

Our resources can enable advances in all aspects of brain research, including behavior, anatomy, physiology, and brain disorders.

Addiction
ADHD
Alzheimer’s Disease
Autism
Amyotrophic Lateral Sclerosis
Bipolar Disorder
Brain Development
Brain Evolution
Cancer
Depression
Diabetes
Epilepsy
Huntington’s Disease
Hypersomnia/Rapid Eye Movement Sleep
Hypothyroidism
Intellectual Disability
Metabolic Disorders
Multiple Sclerosis
Neurodevelopmental Disorders
Obesity
Parkinson’s Disease
Psychiatric & Neurological Diseases
Schizophrenia
Spinal Cord Injury
Spinocerebellar Ataxia Type 3
Stroke
Traumatic Brain Injury
Williams Syndrome
And More...

Who benefits from our work?

>4 million visits to Allen Brain Atlas resources to date, with nearly 50,000 individuals at academic, corporate, government and nonprofit organizations from more than 100 countries across six continents visiting our online resources each month.