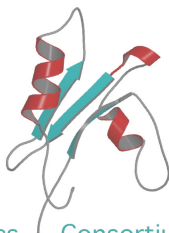


SGC

Structural Genomics Consortium



NEWS RELEASE

INTERNATIONAL PUBLIC-PRIVATE PARTNERSHIP UNLOCKS STRUCTURE OF PROTEINS

Structural Genomics Consortium launches Phase II with investments from international organizations and two new partners

3 July 2007, Toronto—The Structural Genomics Consortium (SGC), an international public-private partnership established to determine and make freely available the structures of proteins relevant to human disease, today announced new funding of over \$105 million CAD from public funding agencies in Canada, Sweden and Ontario, charitable foundations in the UK and Sweden, GlaxoSmithKline plc. and two new partners from the pharmaceutical industry—Novartis and Merck. The investments will support a second phase of the SGC, beginning July 2007.

Since July 2004, the SGC team, operating from laboratories at the University of Oxford, University of Toronto and Karolinska Institutet, Stockholm, has placed more than 450 structures of proteins relevant to human health into the publicly accessible World Wide Protein Data Bank (wwPDB). These proteins represent approximately one-fifth of the new human protein structures in the entire world determined over the life of the SGC, and 40% percent of all new structures deposited for Apicomplexan parasites, which includes those responsible for malaria.

Much like the Human Genome Project, the SGC provides information fundamental to both the understanding of human biology and human health, and to the discovery of new drugs and therapeutics. Protein structures can provide molecular insight into biological function, and can also guide the development of new medicines.

"GlaxoSmithKline is focused on helping people to do more, feel better and live longer by providing innovative medicines and vaccines," says Dr. Robert Cooke, Director of Computational and Structural Chemistry at GlaxoSmithKline plc. "The SGC's platform for exploring the 3D structures of proteins will expedite drug discovery and help us bring new and increasingly innovative medicines to patients."

The consortium's open access policy is part of fundamental shift in the global biomedical research effort, explains Dr. Aled Edwards, who heads up the SGC from the University of Toronto.

"Unlike some other research efforts, the SGC was not formed to publish papers or patent results," says Edwards. "Because of the fundamental nature and importance of the information, we place our results immediately and without restriction into the public domain, allowing commercial efforts and other academics elsewhere to access and utilize the data freely and without any delay."

The success enjoyed by the SGC during its first phase of operation has helped the consortium add two new industrial partners, Novartis and Merck, speaking directly to the relevance of the SGC's research to the development of new medicines.



wellcome trust

Frut och Alice
Wallenbergs
Stiftelse



VINNOVA



"Merck is committed to collaborations with organizations such as the SGC because these collaborations complement our internal research and development efforts and support our mission to develop medicines that address unmet medical needs," notes Joe Becker, Distinguished Senior Investigator, Merck Research Laboratories.

With new funding secure, the SGC is on pace to determine the structures for over 1,000 proteins by 2011.

The consortium has been supported throughout by the Wellcome Trust, the UK's largest medical research charity, which has also funded other groundbreaking research projects such as the Human Genome Project and the UK's new Diamond synchrotron. It is expected that the SGC will utilize the synchrotron to help solve further structures, including a number of human membrane proteins. In addition, four of the SGC's structures form the basis of a stunning neon art installation in the windows of the Wellcome Trust's headquarters in London.

"The SGC is pioneering new approaches to the structural analysis of proteins on a large scale. These include many possible targets for new drugs," says Dr. Mark Walport, Director of the Wellcome Trust. "The SGC is leading the way in this field, and we expect that scientists in both academia and industry will be able to take advantage of its freely-available data."

Dr. Ian A. Wilson, Principal Investigator of the Joint Center for Structural Genomics and Professor at the Skaggs Institute for Chemical Biology at the Scripps Research Institute in San Diego clearly agrees. "The SGC has been a world leader and innovator in structural genomics. The consortium has demonstrated how working together as a united team can make a major impact on the study of human proteins that will benefit us all—by increasing our overall understanding of human health and disease and by helping us design newer and better therapeutics. Like many others in the structural biology community, I look forward to the SGC's efforts in Phase II."

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Notes for editors

1. **The Structural Genomics Consortium** (SGC) is a not-for-profit organization formed in July 2004 to determine the three dimensional structures of proteins of medical relevance, and place them in the public domain immediately and without restriction. The SGC's 165 scientists work out of the Universities of Oxford and Toronto and Karolinska Institutet, Stockholm. www.thesgc.com

The SGC receives funding from Canadian, Swedish and British sponsors representing both the public and private sectors: the Canada Foundation for Innovation (innovation.ca), Canadian Institutes of Health Research (CIHR) (cihr-irsc.gc.ca), Genome Canada (genomecanada.ca) through the Ontario Genomics Institute (OGI) (ontariogenomics.ca), GlaxoSmithKline plc. (GSK) (gsk.com), Karolinska Institutet (ki.se), the Knut and Alice Wallenberg Foundation (wallenberg.org), the Swedish Governmental Agency for Innovation Systems (VINNOVA) (vinnova.se), Swedish Foundation for Strategic Research (stratresearch.se) and the Wellcome Trust (wellcome.ac.uk) The SGC's newest funding partners are Merck (merck.com), Novartis (novartis.com) and the Ontario Ministry of Research and Innovation (mri.gov.on.ca).



2. **SGC Toronto** – The SGC Toronto laboratories seek to determine the three dimensional structures of human proteins of therapeutic relevance to diseases such as cancer and malaria. The SGC is housed within the Faculty of Medicine at the University of Toronto. The Chief Scientist at SGC Toronto is Dr. Cheryl Arrowsmith. www.sgc.utoronto.ca
3. **SGC Oxford** – The other original SGC site, part of the University of Oxford, specializes in identifying the structures of protein families involved in cancer and metabolic diseases. 65 scientists work from the Oxford site. The Chief Scientist at SGC Oxford is Dr. Michael Sundstrom. www.sgc.ox.ac.uk
4. **SGC Stockholm** – The Stockholm laboratory was established in 2005 by Professor Pär Nordlund and is hosted by the Department of Medical Biochemistry and Biophysics at Karolinska Institutet. Currently 25 researchers are employed by the project and seek to determine the three dimensional structures of proteins involved in metabolism and neurobiology. The Chief Scientist at SGC Stockholm is Dr. Johan Weigelt. sgc.ki.se
5. **World Wide Protein Data Bank:** www ww p d b . o r g
6. **The Wellcome Trust** is the largest charity in the UK and the second largest medical research charity in the world. It funds innovative biomedical research, in the UK and internationally, spending around £500 million each year to support the brightest scientists with the best ideas. The Wellcome Trust supports public debate about biomedical research and its impact on health and well-being. www.wellcome.ac.uk
7. **Wellcome Trust window display** – Four SGC-determined structures, including those associated with malaria, cancer and HIV are part of a neon art exhibit on display in the windows of the Wellcome Trust headquarters in London. The life-size glass sculptures, created by designers Graphic Thought Facility, were unveiled in December 2006. www.wellcome.ac.uk/
8. **GlaxoSmithKline plc. (GSK)** is one of the world's leading research-based pharmaceutical and health care companies and is committed to improving the quality of human life by enabling people to do more, feel better and live longer. The 15,000 people working in GSK's global R&D organization discover, develop, register and support the commercialization of prescription medicines and vaccines for the treatment and prevention of human disease. www.gsk.com
9. **Novartis** is a world leader in offering medicines to protect health, cure disease and improve well-being. Our goal is to discover, develop and successfully market innovative products to treat patients, ease suffering and enhance the quality of life. We are strengthening our medicine-based portfolio, which is focused on strategic growth platforms in innovation-driven pharmaceuticals, high-quality and low-cost generics, human vaccines and leading self-medication OTC brands. Novartis is the only company with leadership positions in these areas. Headquartered in Basel, Switzerland, Novartis Group companies employ approximately 101,000 associates and operate in over 140 countries around the world. www.novartis.com
10. **Merck & Co., Inc.** is a global research-driven pharmaceutical company dedicated to putting patients first. Established in 1891, Merck discovers, develops, manufactures and markets vaccines and medicines to address unmet medical needs. The company devotes extensive efforts to increase access to medicines through far-reaching programs that not only donate Merck medicines but help deliver them to the people who need them. Merck also publishes unbiased health information as a not-for-profit service. www.merck.com
16. **Karolinska Institutet** is one of Europe's largest medical universities. It is also Sweden's largest centre for medical training and research, accounting for 30 per cent of the medical training and 40 per cent of the medical academic research that is conducted nationwide. Karolinska Institutet's mission is to improve the health of mankind through research, education and information. www.ki.se



11. **The Swedish Foundation for Strategic Research** was founded in 1994 with a founding capital of SEK 6 000 million. The purpose of the Foundation is to support research in natural science, engineering and medicine that will strengthen Sweden's competitiveness. www.stratresearch.se

12. **VINNOVA (The Swedish Governmental Agency for Innovation Systems)** is a state authority that aims to promote growth and prosperity throughout Sweden. Its particular area of responsibility comprises innovations linked to research and development. Its tasks are to fund the needs-driven research required by a competitive business and industrial sector and a flourishing society, and to strengthen the networks that are such a necessary part of this work. www.vinnova.se

13. **The Knut and Alice Wallenberg Foundation** - The purpose of the Foundation is to: "promote scientific research, teaching and/or education beneficial to the Kingdom of Sweden". Universities, academies and similar research and educational institutions are eligible for grants within the following fields: expensive scientific equipment; fellowship programs initiated by the Foundation; selected research projects of significant potential; and larger educational research projects. The Foundation gives priority to grants for equipment for scientifically outstanding projects that already attract support for personnel and running costs from other sources, and for equipment for national research facilities. www.wallenberg.org

14. **The Canadian Institutes of Health Research (CIHR)** is the Government of Canada's agency for health research. CIHR's mission is to create new scientific knowledge and to catalyze its translation into improved health, more effective health services and products, and a strengthened Canadian health care system. Composed of 13 Institutes, CIHR provides leadership and support to more than 11,000 health researchers and trainees across Canada. www.cihr-irsc.gc.ca

15. **The Ontario Ministry of Research and Innovation (MRI)** was created to focus on the government's commitment to innovation as the driver of growth across all sectors of the economy. The Ministry's mandate is to develop an integrated innovation strategy and guide its delivery; invest in both policies and programs to deliver on the innovation strategy; and foster a culture of innovation and showcase Ontario's innovative culture, nationally and internationally. www.mri.gov.on.ca

16. **The Canada Foundation for Innovation (CFI)** is an independent corporation created by the Government of Canada to fund research infrastructure. The CFI's mandate is to strengthen the capacity of Canadian universities, colleges, research hospitals, and non-profit research institutions to carry out world-class research and technology development that benefits Canadians. Since its creation in 1997, the CFI has committed \$3.74 billion in support of more than 5,200 projects at 129 research institutions in 64 municipalities across Canada. www.innovation.ca

17. **Genome Canada** is the primary funding and information resource relating to genomics and proteomics in Canada. Dedicated to developing and implementing a national strategy in genomics and proteomics research for the benefit of all Canadians, it has so far received \$700 million from the Government of Canada. Together with its six Genome Centres and with other partners, Genome Canada invests and manages large-scale research projects in key selected areas such as agriculture, environment, fisheries, forestry, health and new technology development. www.genomecanada.ca

18. **The Ontario Genomics Institute (OGI)** is a private, not-for-profit corporation focused on providing leadership for Ontario in helping build a globally-competitive life sciences sector by creating leverageable genomics resources with top-notch research. Through its relationship with Genome Canada, the Ontario Ministry of Research and Innovation (MRI), and other private and public sector partners, OGI helps Ontario-based scientists secure funding for research in genomics and proteomics as well as for commercialization activities. OGI also focuses on the potential ethical and social issues that can arise with and from such research. www.ontariogenomics.ca

