GPCR Consortium

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Research Areas

- Basic Research
- Data-Sharing Enabler

At a Glance

- Status: Active Consortium
- Year Launched: 2007
- Initiating Organization: Top Industry Pharma
- Initiator Type: Nonprofit foundation
- Location: Europe

Abstract

The GPCR Consortium brings together major pharmaceutical companies and leading research institutes from three continents to advance G-protein coupled receptor (GPCR) research for drug development. The partners agree to coordinate the study and disseminate protein structural coordinates, reagents, and supporting data to better understand the structure and functions of at least 200 GPCRs. GPCRs make up 30 to 50 percent of all known targets for drug discovery, and the consortium will focus on those related to diabetes, cancer, and mental disorders.

Mission

The consortium’s goal is to generate and disseminate high-resolution GPCR, which are poorly understood but critical to human physiology. It aims to define the structures of at least 200 GPCRs, a class of receptors that are targeted by about 30 to 50 percent of all pharmaceuticals to treat disease in the human body. The consortium is data-centric, with the primary objective being dissemination of protein structural coordinates, reagents, and supporting data to consortium members and the broader scientific community.
The research is currently planned to be conducted in, but not limited to, three leading academic sites: iHuman Institute at ShanghaiTech University, Shanghai Institute of Materia Medica, a member of the Chinese Academy of Sciences, and the University of Southern California in Los Angeles. The consortium hopes to attract up to five additional industry members to achieve its goal of determining structures of 200 of the 826 known human GPCRs, prioritized in disease areas that initially include diabetes, cancer, and mental disorders.

**Consortium History**

The consortium was started by Raymond Stevens, a professor at University of Southern California and founding director of the iHuman Institute at ShanghaiTech University, whose research is focused on the structure and function of GPCRs and human cell signaling. The consortium is coordinated by Michael Hanson, a leader in GPCR structural biology.

**Intellectual Property**

All research outputs, including three-dimensional structures of GPCRs and constructs, will be compiled and placed in the public domain.

**Data Sharing**

The consortium will share all protein structural coordinates, reagents, and supporting data to its members, as well as the broader scientific community.

Homepage: [http://gpcrconsortium.org/](http://gpcrconsortium.org/)

**Points of Contact**

Raymond Stevens  
Provost Professor of Biological Sciences, Chemistry, Neurology, and Physiology and Biophysics  
Director of The Bridge@USC
phone: 213-740-1992
email: stevens@usc.edu

Sponsors & Partners

Amgen, Inc.
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