



# CHDI Foundation, Inc. Case Study

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ChemBioOffice Cloud – An Integrated Decision Support System

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## Introduction

Running a virtual pharmaceutical company comprised of a network of hundreds of researchers in academic and industrial laboratories around the world is a considerable challenge, but that is precisely what the CHDI Foundation, Inc. (CHDI) does as it pursues novel therapies for the treatment of Huntington's disease (HD). CHDI has developed and adopted a set of clinical criteria for the rigorous evaluation of molecular targets, pathogenic mechanisms and therapeutic approaches that could slow the progression of Huntington's disease. CHDI selected CambridgeSoft and ChemBioOffice Cloud to provide a researcher-tested informatics solution with the flexibility to meet the diverse needs of CHDI and its many collaborators while maintaining data security, system reliability and confidence, allowing the scientists to focus on the science.

## Company profile

CHDI is a non-profit organization whose mission is to rapidly discover and develop treatments that slow the progression of Huntington's disease. CHDI supports an international network of research laboratories from academia and industry pursuing novel therapies for the treatment of Huntington's disease. CHDI's "virtual biotech/pharma" approach is designed to bring together the right collaborators in order to identify and address critical scientific issues and move drug candidates to clinical evaluation as quickly as possible.

## Business situation

CHDI's "virtual" nature requires coordinating with hundreds of collaborators distributed worldwide. CHDI is committed to sustaining open communications within the HD research community, sharing both knowledge and data to accelerate the pace of discovery.

## Technical situation

CHDI's collaborative, multi-site research endeavor required an efficient and robust informatics backbone that could generate and capture data reliably and securely and provide appropriate access to the shared data with tools that enable analysis, reporting and decision-making.

CHDI required a web-based, easy-to-use, customizable systems solution that would support collaboration and data exchange among H-D researchers worldwide.

System requirements:

- Simple to manage, customizable and integrated application suite, preferably from a single trusted vendor.
- Web-based, always-on IT system that supports robust and secure communication between remote collaborators and the data repository.
- User support capable of handling requests and providing solutions to CHDI collaborators worldwide.

## Solution

The ChemBioOffice Cloud provides an integrated decision support system with applications for chemical registration, inventory, bioassay data management and electronic laboratory notebooks. To be flexible and responsive, CHDI uses cloud computing that can increase capacity or add capability on the fly

without investing in new infrastructure and training new personnel. The applications are hosted, managed and supported by CambridgeSoft under a SaaS (Software-as-a-Service) model. In addition, CambridgeSoft provides extensive informatics, system and user support through dedicated service management.

CambridgeSoft provides not only basic system and database administration, but also prepackaged informatics support that significantly cuts costs and shortens deployment, implementation and learning time. The CambridgeSoft Cloud team deploys a wide range of skills including system IT administration, Oracle DBA, informatics support specialists and project managers who are strategically positioned worldwide to provide 24/7 support.

All Cloud services include state of the art facilities, redundant fiber connections guaranteeing 100% Internet connection time, redundant power supply, controlled physical security and access, as well as controlled and audited informatics system access.

## Benefits

By selecting an integrated set of industrial-strength informatics applications from a single trusted vendor and operating them in a maintained hosted environment, CHDI and its network of research collaborators can focus on the science of finding treatments that slow Huntington's disease progression and leave the IT concerns of hardware, software and infrastructure installation, upgrades, and maintenance to CambridgeSoft.

With this solution, CHDI's scientific collaborators have robust, easy-to-use tools that streamline data capture and validation and present structures and data in a readily accessible way. This facilitates the exploration of structure-activity relationships and fosters communication and better decision-making. Studies have indicated that the total cost of ownership of using a hosted suite of applications as described here is typically 20-40% less than running and maintaining the same applications in-house. This is a very cost-effective solution for CHDI that eliminates redundancy and controls spending.

Using customized data upload scripts which validate and manipulate data, collaborators are able to directly upload data into BioAssay. This makes data available to users as quickly as possible, increases efficiency and reduces email traffic. Select collaborators are given access to BioSAR, which allows them to login and view the data they've uploaded.

ChemBioOffice Cloud's flexibility supports the CHDI virtual pharmaceutical company model. As contracts with CRO's expire and new contracts are initiated, CHDI is able to reassign application seats, allowing CRO's to have immediate access and begin uploading data into the system.

## Products and services used

- ChemBioOffice Cloud Suite
  - BioAssay
  - Registration
  - BioSAR
  - Oracle Cartridge

## Services provided by other groups or companies

- SaaS Type II secure data center - ColoSpace ([www.colospace.com](http://www.colospace.com))