Dear C-SHALS participant,

Welcome to the first Conference on Semantics in Healthcare & Life Sciences, brought to you by ISCB, the International Society for Computational Biology. C-SHALS is uniquely focused on the pharmaceutical applications of semantic technologies. It aims at providing an intimate forum for discussion among thought leaders and those seeking information on how best to apply intelligent information technologies in pharmaceutical R&D.

We would like to thank conference co-chairs Eric Neumann, Sanjoy Ray and Ted Slater who have seen this conference through from concept to closing comments. Their commitment to the project has been commendable, and most especially Eric's dedication to every aspect of the planning and implementation was invaluable. We would also like to acknowledge David States and Hagit Shatkay of the ISCB Conference Committee for volunteering to serve on the C-SHALS Organizing Committee. With an eye on preserving the high standards of any conference that bears the ISCB name, they have served the conference well. And we would be remiss not to thank Steven Leard, ISCB Director of Conferences, whose usual poise and professionalism eased the job of creating this first time event for all involved.

We are most grateful for the support of our sponsors: Merck, Pfizer and IO Informatics. This meeting would simply not have been possible without their financial contributions, and we crucially depended on their assistance in marketing the event.

We hope that you will find the conference to be personally productive, providing you with practical information that is immediately applicable to your research setting.

Sincerely,

Burkhard Rost
ISCB President

BJ Morrison McKay
ISCB Executive Officer

Welcome!

We would like to thank all the speakers for agreeing to present and to you, the delegate, for participating in the first Conference on Semantics in Healthcare and Life Sciences. This conference will be a unique forum for the presentation and discussion of key topics in the emerging area of semantic information technologies and their applications. We have structured this conference to be an open and exciting experience for all attendees, and thought-provoking presentations will make this possible. Our intended outcome is to engage all attendees to actively participate, and to identify where technologies are proving successful and where they still need to be developed to meet changing scientific and business objectives.

In preparation for the conference and the sessions, we asked everyone to look over the list of discussion questions (www.iscb.org/cshals2008/discussion.php) as they pertain to each participant's topical theme. These will be used to emphasize some major points as well as guide the discussions. You did not have to have written answers for all of these, but we hope you will participate by addressing those that are relevant in your area of work.

We welcome you and look forward to meeting and speaking with each of you over the next couple of days!

Sincerely,

C-SHALS Conference Chairs
Eric Neumann, Clinical Semantics Group
Sanjoy Ray, Merck and Company
Ted Slater, Pfizer

SCHEDULE

WEDNESDAY, MARCH 5

10:00 A.M.	**Registration** Salon IV Foyer		
11:00 A.M.			
12:00 NOON			
1:00 P.M.		**W3C Tutorial** Salon V/VI	
2:00 P.M.			
	Break		Salon V/VI Foyer
3:00 P.M.			
4:00 P.M.	**Registration** Salon IV Foyer		
5:00 P.M.			
6:00 P.M.			
7:00 P.M.			**Opening Reception** Salon VII
8:00 P.M.			
9:00 P.M.			

C-SHALS 2008

SCHEDULE

THURSDAY, MARCH 6

7:00 A.M.

Registration
Salon IV Foyer

Continental Breakfast
Welcome Salon IV
BJ MORRISON MCKAY,
ISCB Executive Officer
ERIC NEUMANN,
C-SHALS Co-Chair

8:00 A.M.

Keynote Presentation
Salon IV
DR. JOHN P. GLASER

9:00 A.M.

Discussion Forum

10:00 A.M.

Break Salon IV Foyer

Moderated Forum 1
Salon IV
INTEGRATED HEALTHCARE

11:00 A.M.

12:00 NOON

Lunch Salon V/VII

1:00 P.M.

Keynote Presentation
Salon IV
DR. ENOCH HUANG

2:00 P.M.

Break Salon IV Foyer

Moderated Forum 2
Salon IV
DISCOVERY INFORMATION INTEGRATION

3:00 P.M.

4:00 P.M.

Keynote Presentation
Salon IV
DR. ISAAC KOHANE

5:00 P.M.

Discussion Forum and Closing Remarks

SCHEDULE

FRIDAY, MARCH 7

7:00 A.M.		
	Registration Salon IV Foyer	**Continental Breakfast** Salon IV
8:00 A.M.		**Review — Day 1**
		Keynote Presentation Salon IV DAVID R. KARGER
9:00 A.M.		
		Discussion Forum
10:00 A.M.	**Break**	Salon IV Foyer
		Moderated Forum 3 Salon IV TRANSLATIONAL SCIENCE AND SAFETY
11:00 A.M.		
12:00 NOON	**Lunch**	Salon V/VII
1:00 P.M.		**Moderated Forum IV** Salon IV INFORMATION EXTRACTION & BUSINESS INTELLIGENCE
2:00 P.M.		
		Closing Summary Discussion
3:00 P.M.	**Conference Closing Remarks & Future Actions**	

C-SHALS 2008

KEYNOTE SPEAKER

JOHN GLASER
PhD
Vice President and CIO,
Partners HealthCare

John Glaser is Vice-President and Chief Information Officer, Partners HealthCare System, Inc. Previously, he was Vice-President, Information Systems at Brigham and Women's Hospital. Prior to Brigham and Women's Hospital, Dr. Glaser managed the Healthcare Information Systems consulting practice at Arthur D. Little.

Dr. Glaser was the founding Chairman of College of Healthcare Information Management Executives (CHIME) and is past President of the Healthcare Information and Management Systems Society (HIMSS). He has been a member of the Board of the American Medical Informatics Association. He is currently the President of the Foundation for eHealth Initiative Board.

He is a fellow of HIMSS, CHIME and the American College of Medical Informatics. He has been awarded the John Gall award for healthcare CIO of the year. CHIME has established a scholarship in Dr. Glaser's name. He was a recipient of CIO Magazine's 20/20 Vision Award. Partners HealthCare has received several industry awards for its effective and innovative use of information technology.

Dr. Glaser is on the editorial boards of CIO Magazine, Healthcare Informatics, Biotechnology Healthcare, Journal of Biomedical Informatics, and Journal of Healthcare Information Management. He has published over ninety articles and two books on the strategic application of information technology in healthcare.

He holds a PhD in Healthcare Information Systems from the University of Minnesota.

KEYNOTE SPEAKER

David R. Karger
Department of Electrical Engineering and Computer Science
Massachusetts Institute of Technology
Cambridge, MA

DAVID R. KARGER

Department of Electrical Engineering and Computer Science

Massachusetts Institute of Technology

Cambridge, MA

C-SHALS 2008

KEYNOTE SPEAKER

ENOCH S. HUANG
PhD

Executive Director

Head of Computational Sciences Center of Emphasis, Pfizer Global Research and Developmen

Cambridge, MA

Enoch S. Huang received an AB in Molecular Biology from Princeton University and a PhD in Structural Biology from Stanford University, where he was a National Science Foundation Pre-doctoral Fellow. He was appointed a Jane Coffin Childs Fellow at Washington University School of Medicine (St. Louis), where he developed methods for protein structure prediction. In 1999, Enoch joined Cereon Genomics as a Computational Biologist. The following year, he accepted a position at Pfizer Global Research and Development (PGRD) in Cambridge as a Senior Research Scientist. In 2001, he assumed leadership of the newly formed Molecular Informatics group and joined the site management team. Also that year, Enoch was appointed Adjunct Assistant Professor of Bioinformatics at Boston University. In 2007 he accepted a global role as Head of the Computational Sciences Center of Emphasis within Pfizer Research.

External to Pfizer, Enoch is the project manager for the Open Source software package PFAAT and currently serves on the Editorial Advisory Board for Drug Discovery Today and the Steering Group for the Life Sciences Informatics Committee of the Massachusetts Biotechnology Council. He has also served on the external advisory board of the Bioinformatics Program at the Rochester Institute of Technology, the program committee of the Systems Biology discussion group at the New York Academy of Sciences, and on Special Emphasis Panels of study sections for the National Institutes of Health.

KEYNOTE SPEAKER

ISAAC KOHANE
MD, PhD

Harvard Medical School
Cambridge, MA

Isaac Kohane received his MD from Boston University School of Medicine. He completed an internship, residency, and fellowship at Children's Hospital Boston.

Dr. Kohane is a founder of the Center for Outcomes and Policy Research at the Dana-Farber Cancer Institute, founder and Associate Director for the Center for Genetic Epidemiology at Harvard Medical School. He is a Fellow of the American College of Medical Informatics and of the Society for Pediatric Research.

WEDNESDAY, MARCH 5

10:00 a.m. – 1:00 p.m.
Registration
Salon IV Foyer

1:00 p.m. – 5:00 p.m.
W3C Tutorial
Salon V/VI

2:45 p.m. – 3:00 p.m.
Break
Salon V/VI Foyer

4:00 p.m. – 8:00 p.m.
C-SHALS Registration
Salon IV Foyer

7:00 p.m. – 9:00 p.m.
C-SHALS Opening Reception
Salon VII

W3C Tutorial

The W3C Semantic Web standard RDF promises to provide a common data model for nearly any form of data. Recent query and ontology expression standards, as well as alternate ways to express RDF data, have brought together both user and implementor energy to solve some of the largest data unification problems. This tutorial will focus on the current RDF tools and show participants how this technology can meet their needs. HCLS work *www.w3.org/2007/Talks/1004-sb-IntroAndHCLS/egp-hcls.ppt*

W3C's Semantic Web in Heath Care and Life Sciences Interest Group is bringing together many leading bioinformaticists and life scientists to solve a very wide array of data expression/integration problems in terms of modeling, unifying and querying biological data. This tutorial will show how the current HCLS Knowledge Base can be used, as well as how to add more information to this database or private replications of it.

Speakers:

LEE FEIGENBAUM
VP Technology & Standards
Cambridge Semantics Inc
Cambridge, MA

ERIC PRUD'HOMMEAUX
World Wide Web Consortium (W3C
Cambridge, MA

KEYNOTE PRESENTATION

C-SHALS 2008

JOHN GLASER, PhD
Vice President and CIO
Partners HealthCare

Leveraging Electronic Health Record Data: Opportunities and Challenges

While still in the minority, the number of healthcare providers that have completed the implementation of the electronic health record is increasing. As these organizations contemplate leveraging their information technology investment, their strategies will center on several areas including increasing the level of intelligence in the EHR and leveraging the clinical data in the EHR.

This presentation will discuss efforts at Partners HealthCare to advance the use of EHR-based clinical decision support and knowledge management. The presentation will review initiatives that are exploring the use of clinical data for clinical research and post-market drug surveillance.

THURSDAY, MARCH 6

7:30 a.m. – 10:00 a.m.
Registration
Salon IV Foyer

7:30 a.m. – 8:30 a.m.
Continental Breakfast
Salon IV

8:30 a.m. – 8:45 a.m.
Welcome & Opening
BJ MORRISON MCKAY, ISCB Executive Officer
ERIC NEUMANN, C-SHALS Co-Chair
Salon IV

8:45 a.m. – 9:30 a.m.
KEYNOTE PRESENTATION
DR. JOHN P. GLASER
Salon IV

THURSDAY, MARCH 6

9:30 a.m. – 10:00 a.m.
Discussion Forum
Salon IV

10:00 a.m. – 10:30 a.m.
Break
Salon IV Foyer

10:30 a.m. – Noon
MODERATED FORUM 1
Integrated Healthcare
Salon IV

MODERATED FORUM 1

Integrated Healthcare

DAVID HANSEN
E-Health Research Centre
CSIRO, Brisbane, Australia

Using SNOMED CT as a Global Vocabulary for Integrating Health Data Sets

Identifying cohorts of patients with similar clinical, diagnostic, treatment or outcome traits is essential for understanding the similarities and differences of how disease progress in patients. However much data is collected for non-clinical purposes and is spread across many databases. The CSIRO E-Health Research Centre has been developing a tool, HDI, which is used to identify the same patient in different databases and produce a virtual linked data set of the patient's information. We are now building tools which will enable this disparate data to be queried semantically, by using SNOMED as a global ontology to map the data to. This talk will address some of the issues being tackled, including the extension and classification of SNOMED CT and the development of a time-line based web-interface for viewing summary data.

C-SHALS 2008

MODERATED FORUM 1

Integrated Healthcare

THURSDAY, MARCH 6

10:30 a.m. – Noon

MODERATED FORUM 1

Integrated Healthcare

Salon IV

TONYA HONGSERMEIER, MD, MBA

Corporate Manager, Clinical Knowledge Management and Decision Support
Partners Healthcare System
Boston, MA

Semantic Web Technologies in Clinical Decision Support and Translational Medicine

The volume and velocity of knowledge-processing will grow exponentially with molecular medicine. Today's electronic health record systems are ill-equipped to deliver on the knowledge management requirements of Personalized medicine. This presentation will outline the role of semantic web technologies in supporting discovery, clinical knowledge management, clinical research and point-of-care decision support.

KEITH G. LARSEN, RPh

Director of Clinical Information Infrastructure
Intermountain Healthcare
Salt Lake City, Utah

Information Support for Transformational Medicine

The presentation will review the continuing work by Intermountain Healthcare to develop information systems that support its mission to improve and transform medical practice. The goal is to create a system that has common, consistent meaning across sites of care and time to support direct patient care and measurement of that care as well as discovery of new knowledge and application of the new knowledge into direct patient care. The goal implies a dynamic, changing

THURSDAY, MARCH 6

10:30 a.m. – Noon
MODERATED FORUM 1
Integrated Healthcare
Salon IV

MODERATED FORUM 1

Integrated Healthcare

information system in response to a dynamic, changing medical system.

At the base of the information tools to support these goals are a controlled medical vocabulary to insure common meaning and semantic inferencing and data models to insure common collection and representation of patient data. Built upon these tools are visual models to aid data collection and domain services to consistently apply business rules. The presentation will review these tools in relation to the goals that they are designed to support.

KEYNOTE PRESENTATION

DR. ENOCH HUANG
Executive Director
Head of Computational Sciences Center of Emphasis
Pfizer Global Research and Developmen
Cambridge, MA

Why Drug Discovery Is Difficult (and How You Can Help)

Dr. Huang will provide an overview of the drug discovery process and the scientific challenges associated with bringing novel therapies to the patient. The steep odds and punishing attrition rates characteristic of traditional drug discovery have increased the demand for computational approaches for improved target selection and compound design. Dr. Huang will suggest areas where the efforts of computer scientists working with biological knowledge can play a key role in generating mechanistic insights for toxicity, physiology, and disease.

THURSDAY, MARCH 6

Noon – 1:15 p.m.
Lunch
Salon V-VII

1:15 p.m. – 2:15 p.m.
KEYNOTE PRESENTATION
DR. ENOCH HUANG
Salon IV

2:15 p.m. – 2:45 p.m.
Break
Salon IV Foyer

C-SHALS 2008

MODERATED FORUM 2
Discovery Information Integration

THURSDAY, MARCH 6

2:45 p.m. – 4:15 p.m.
MODERATED FORUM 2
Discovery Information Integration
Salon IV

STEPHEN DOBSON
Corporate Taxonomy Librarian
Pfizer
New London, Connecticut

Vocabulary management in a large pharmaceutical

For large data rich organizations, information and knowledge is a critical component of business. However, this information is often stored as unstructured or structured content in diverse repositories around the organization. It is not uncommon for different business units to use different definitions and descriptors for entities which are really similar across these silos. To ensure data aggregation, navigability and search across business units it is important that vocabularies, taxonomies and entity relationships are managed and shared in a consistent way. This presentation will highlight the importance of vocabulary management and the approach used within Pfizer.

MODERATED FORUM 2
Discovery Information Integration

ERNST R. DOW, PhD
Senior Information Consultant
Discovery Informatics
Eli Lilly and Company
Greenfield, IN

THURSDAY, MARCH 6

2:45 p.m. – 4:15 p.m.
MODERATED FORUM 2
Discovery Information Integration
Salon IV

Semantic Data Integration

Pharmaceutical researchers are facing tremendous challenges in being able to answer interesting scientific questions in drug discovery. This is because the knowledge that they seek is typically held across many disparate data stores that are managed by a range of different laboratories and organizations. Integrating the data stores is difficult because they use different file formats, identifiers, terminologies, and data types. They also contain data of differing quality based on the study design and the experimental methodology used to generate the data. These challenges are compounded by the fast rate of growth of data due to automation, new databases due to novel techniques, duplication of data, and overlapping data and concepts. It is imperative that scientists can easily identify data sources of interest, pull them together in interesting ways, and interact with the results intuitively. In order to be meaningful for a domain expert it is necessary to have capabilities that would allow a scientist to view new data or data that has been changed. This presentation will describe how Semantic Web technologies are playing a role in addressing some of these scientific requirements at Lilly.

C-SHALS 2008

MODERATED FORUM 2
Discovery Information Integration

THURSDAY, MARCH 6

2:45 p.m. – 4:15 p.m.
MODERATED FORUM 2
Discovery Information Integration
Salon IV

JACK POLLARD, PhD
Senior Manager, Bioanalysis
sanofi-aventis
Cambridge Research Center
Cambridge, MA

Computable Content Comparisons: Metrics, Assessment, and Optimization

Computable Content can facilitate the conversion of the biological data into actionable, testable hypotheses about disease or compound mechanisms; however, the quality and relevance of the hypotheses are predicated on both the validity and breadth of information contained within the Content Sources. We have developed metrics to assess: (M1) validity of explanation of the data, (M2) explanation of the data, and (M3) diversity of explanation of the data. We have applied these metrics to compare several Content Sources extracted by either people (Ingenuity, GeneGo) or text-mining (Temis, Ariadne).

The key findings are: (M1) People extracted information is more frequently valid than text-mined information (93 to 71 percent at best), (M2) combined the 4 Content Sources assessed here explain only 46 percent of our compound test data and (M3) Less than 15 percent of the explanations overlap between the Sources. The practical implications of these metrics to the application of Computable Content to disease and compound mechanism inference are discussed.

KEYNOTE PRESENTATION

C-SHALS 2008

DR. ISAAC KOHANE, MD, PhD
Harvard Medical School
Cambridge, MA

Patching Semantics in Healthcare for Discovery

THURSDAY, MARCH 6

4:15 p.m. – 5:15 p.m.
KEYNOTE PRESENTATION
Dr. Isaac Kohane
Salon IV

5:15 p.m. – 5:30 p.m.
Discussion Forum & Closing Remarks
Salon IV

SPONSOR HIGHLIGHTS

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

MERCK

C-SHALS 2008

FRIDAY, MARCH 7

7:30 a.m. – 10:00 a.m.
Registration
Salon IV Foyer

7:30 a.m. – 8:30 a.m.
Continental Breakfast
Salon IV

8:15 a.m. – 8:30 a.m.
Review – Day 1
Eric Neumann,
C-SHALS Co-Chair
Salon IV

8:30 a.m. – 9:30 a.m.
KEYNOTE PRESENTATION
DAVID R. KARGER
Salon IV

KEYNOTE PRESENTATION

DAVID R. KARGER

Department of Electrical Engineering
and Computer Science

Massachusetts Institute of Technology
Cambridge, MA

Semantic Information Retrieval and Visualization

SPONSOR HIGHLIGHTS

Pfizer

Founded in 1849, Pfizer is the world's largest research-based pharmaceutical company taking new approaches to better health. We discover, develop, manufacture and deliver quality, safe and effective prescription medicines to treat and help prevent disease for both people and animals. We also partner with health care providers, governments and local communities around the world to expand access to our medicines and to provide better quality health care and health system support. At Pfizer, nearly 90,000 colleagues in more than 150 countries work every day to help people stay happier and healthier longer and to reduce the human and economic burden of disease worldwide.

C-SHALS 2008

MODERATED FORUM 3
Translational Science & Safety

FRIDAY, MARCH 7

9:30 a.m. – 10:00 a.m.
Discussion Forum
Salon IV

10:00 a.m. – 10:30 a.m.
Break
Salon IV Foyer

10:30 a.m. – Noon
MODERATED FORUM 3
Translational Science & Safety
Salon IV

AMAR DAS
Stanford University
Stanford, CA

Semantic Technologies for Translational Trials Design and Management

Translational clinical trials often involve coordinated-use of myriad software applications that support encoding of protocols, enrollment of subjects, tracking of samples, and monitoring of data. During the course of a trial, these applications generate enormous amounts of information, often using distinct data and knowledge representations, which in turn lead to challenges in efficiently managing the trial or analyzing its results. Existing model-based frameworks have not addressed the need for real-time semantic integration of heterogeneous applications and their data. In this talk, I will present a set of novel semantic technologies that overcome this problem using a knowledge base structured by a suite of OWL ontologies, called Epoch. In our work with the Immune Tolerance Network, which sponsors and manages translational trials in immune-mediated disorders, we have demonstrated that the Epoch ontologies can enable a knowledge-driven architecture consisting of a suite of trial-management applications. I will also discuss how our methods can be used to support trial-management applications developed under the caBIG initiative.

C-SHALS 2008

MODERATED FORUM 3
Translational Science & Safety

FRIDAY, MARCH 7

10:30 a.m. – Noon
MODERATED FORUM 3
Translational Science & Safety
Salon IV

ANASTASIA M. KHOURY CHRISTIANSON, Ph.D.
Sr. Director and Global Discipline Lead
Biomedical Informatics
AstraZeneca Pharmaceuticals
Wilmington, DE

Translational Medicine: What are we translating and how?

Translational Medicine promises to enable better decisions, lower attrition rates, and deliver more targeted therapies, but above all, it will ensure safer medicines through better understanding of compound mechanism and interactions. Some of the challenges that translational medicine faces is exchanging project data and disease knowledge between scientists in the various stages of a drug project and bringing the learning of both successes and challenges of candidate drugs from the clinic back into pre-Clinical Discovery projects. There are technical and cultural reasons in exchanging knowledge between Discovery and Clinical including the fact that much of our legacy knowledge is stored in unstructured text. This presentation will show examples of how using legacy information to understand and guide future projects

MODERATED FORUM 3
Translational Science & Safety

FRIDAY, MARCH 7

10:30 a.m. – Noon
MODERATED FORUM 3
Translational Science & Safety
Salon IV

YVES A. LUSSIER, MD
The University of Chicago
Chicago, IL

From Ontology-Anchored and Language-Enabled Monitoring to User-Directed Risk Management

Accurately managing clinical data and new knowledge in high throughput increasingly relies on computational intelligence because of the complexity of the task. This presentation will focus on lessons learned in event monitoring of critical clinical data. For example, significant improvements in quality can be attained though real-time processing and coding of medical narratives to generate timely alerts. Additionally, cost-reduction in the maintenance of clinical knowledge can be achieved with the use of persistent rules anchored in ontologies. Also, massive knowledge synthesis was obtained in our studies by the dual use of natural language processing and referential ontologies over clinical and biomolecular journal articles. At present, pharmaceuticals have ample knowledge of the genome, the pathophysiology of disease, and of their clinical trials, but relatively little knowledge of the link between the three of them. This issue is referred to as the "pharmacogenomic gap." We hypothesize that, with new monitoring methods, it will be possible to directly relate important genomic or disease-related

C-SHALS 2008

MODERATED FORUM 3
Translational Science & Safety

FRIDAY, MARCH 7

10:30 a.m. – Noon
MODERATED FORUM 3
Translational Science & Safety
Salon IV

discoveries in a timely manner with ongoing clinical trials and thus bridge the gap. The applicability of ontology-anchored monitoring to process biological research narratives and clinical trial data leads us to conclude with a discussion on ontology-anchored and language processing enhanced risk management in pharmaceutical.

MODERATED FORUM 3
Translational Science & Safety

IMRAN SHAH, PhD
National Center for Computational Toxicology
Office of Research and Development
US Environmental Protection Agency
Durham, NC

Representing Chemical-Induced Liver Injury for Multiscale Tissue Modeling

Novel biologically-based computational paradigms are vital for improving the accuracy, reducing animal testing and the cost for assessing the risk of environmental chemicals. The US EPA Virtual Liver Project is aimed at simulating the risk of toxic effects from environmental chemicals in silico. A multiscale computational model of hepatic biology will enable the simulation of normal and pathologic tissue responses in humans through the interplay between dynamic molecular and cellular pathways perturbed by long-term exposure to environmental chemicals. To develop a quantitative multiscale tissue model a semantic approach is being used to organize complex mode of action (MoA) and mechanistic information from literature, databases, and high-throughput biological studies. The project is currently focusing on the MoA for non-genotoxic cancer: persistent nuclear receptor activation leading to hepatocyte hyperplasia, and long-term exposure leading to neoplastic injury in rodents. This presentation will provide an overview of the knowledgebased approach for representing MoA information in rodents and its extrapolation/translation to humans. *This work has been reviewed by EPA and approved for presentation but does not necessarily reflect Agency views.*

FRIDAY, MARCH 7

10:30 a.m. – Noon
MODERATED FORUM 3
Translational Science & Safety
Salon IV

Noon – 1:00 p.m.
Lunch
Salon V-VII

C-SHALS 2008

FRIDAY, MARCH 7

1:00 p.m. – 2:30 p.m.
MODERATED FORUM 4
Information Extraction & Business Intelligence
Salon IV

2:30 p.m. – 3:00 p.m.
Closing Summary Discussion
Salon IV

3:00 p.m. – 3:15 p.m.
Conference Closing Remarks & Future Actions
Salon IV

MODERATED FORUM 4

Information Extraction & Business Intelligence

MATT CRAWFORD
Pfizer

JIM GOLDEN, PhD
CTO SAIC Life Science Office

WILLIAM HAYES
PhD, Biogen Idec, Cambridge MA USA

Competitive Intelligence Mashups using Semantic Web Technology

There are many drug pipeline and clinical trial databases available none of which are complete or provide a comprehensive set of meta-data. In order to make effective decisions on product development and positioning, we need to be able to understand what competitors have in the pipeline and continually compare it with Biogen Idec's pipeline. The pilot project we initiated to provide a highly customized view of the Rheumatology drug pipeline was made possible and easy to replicate for other therapeutic areas only after bringing the Simile Exhibit and Timeline technology into the project.

Competitive intelligence projects are almost always highly targeted requiring a great deal of customization. These projects require significant data integration and excellent visualization capabilities. Utilizing semantic web technology makes the presentation and re-distribution of highly-targeted drug pipeline data tractable.

C-SHALS 2008

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The Hebrew University of Jerusalem, Jerusalem, Israel

Jill Mesirov, Conference Co-chair
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Thomas J. Hudson, Honorary Conference Chair
Ontario Institute for Cancer Research, Toronto, Canada

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