

AGENDA: SUN Computational Biology SIG

Santa Clara, 10/23/02, Morning Session

Sun Computational Biology SIG 10/23/02 Santa Clara, CA			
Start Time		Speaker	Topic
8:00am-8:30am	Continental Breakfast/Registration		Vendor Set-up
8:30am-12:05pm	Morning Session		
08:30		Welcome – Stefan Unger (Sun)	Visualization
08:45		Christoph Sensen (Calgary)	U Calgary Java3D CAVE
09:15		Mike Schulman (Sun)	Java3D
09:45		Subra Mohan (Sun)	Sun Graphics Hardware
10:15	Coffee Break	Vendor Showcase	Vendor Showcase
10:30			Applications- Algorithms
10:35		Peter Karp (SRI)	BioCyc
11:05		Michael Hogarth (Davis)	Building a Semantic Web for Neuroscience
11:35		John Feo (Sun)	Applications Tuning
12:05pm-1:30pm	Lunch	Vendor Showcase	Vendor Showcase

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Santa Clara, 10/23/02, Afternoon Session

1:30pm-5:20pm	Afternoon Session		
01:30			Applications – Databases
01:35		Gavin Sherlock (Stanford)	Storage, Analysis and Visualization of Microarray Data; MGED Standards for Data Exchange
02:05		Erich Gombocz (Biosentients)	Real-time knowledge through 'Intelligent Molecular Objects': Smart data with any-to-any connectivity for secure functional Integration of global and local data resources, instruments and applications
02:35		John Pickering (Georgia)	Web-based Identification, Database, and Mapping Tools at www.discoverlife.org to Allow 4th-graders on up to Study and Monitor Nature
03:05	Coffee Break	Vendor Showcase	Vendor Showcase
			Applications – Databases
03:20		Daniel Rubin (Stanford)	PharmGKB: Pharmacogenetics Knowledge Base
03:50		Eric Neumann (Beyond Genomics)	Deriving Causal Models from Complex Data using Systems Biology
			Sun Products and Activities
04:20		Peter Ffoulkes (Sun)	High Density Computing (LINUX /Solaris Product Directions)
04:50		Sia Zadeh (Sun)	I3c Update
05:00		Stefan Unger (Sun)	Sun in CB, Business Meeting and Wrap-up
5:30pm-7:30pm	Evening Reception		
	Evening Reception	Vendor Showcase	Vendor Showcase and LIGHTENING ROUND



COMPUTATIONAL BIOLOGY

CB-SIG Meeting, Santa Clara, 10/23/02

Stefan Unger, PhD

Business Development Manager
Science & Engineering
Global Education and Research

Sun's Solutions for Computational Biology

- Sun Platform
- Support Open Standards
- Build Community



Sun's Vision in Computational Biology 1

- Sun Platform: #1 in UNIX (64% units)
 - Hardware
 - "Desktop to Teraflops"; "Gigabytes to Petabytes"
 - Software
 - Sun ONE; N1 (includes Sun Grid Engine)
 - Partners
 - Sun Does **Not** Compete in Applications!



SunRay



SunBlade



V100, LX50



SF V480, SF4800



SF15K

Sun HPC Clusters in Science

- UCL: 25xV880, computational finance
- Cambridge HPCF: 10xSF15000, physics
- Aachen: 2xSF15000 and 16xSF6800 => 2.3Tf, engineering
- DTU (Denmark), SF15000 and 6xSF6800, general
- William & Mary, “SciClone”, general
 - 160 cpus, 52.5 Gb memory, 1.6Tb disk, Myrinet
- Adelaide, “Orion”, physics
 - 160 cpus, 160 Gb memory, 0.8Tb disk, Myrinet
- SLAC, nuclear physics
 - 1100 cpus, 25 Tb storage

Sun Grid Engine Installations in CB

- Ohio Supercomputer Center/Children's Hosp. Cincinnati
 - Statewide bioinformatics portal using TCP with SGE
- U. Leeds
 - Virtual tissue exploration on SF6800 and 52xSunBLADE 1000
- NRC/CBR and Polish Pionier Grid
 - National Biogrids with SGE and Globus
- HPCVL Canada
 - 12 x SF 6800 (24 CPU each=288 CPUs) and 2xSF15000 => 1Tf+
- Bielefeld Center for Genome Research
 - 90 Netra T1, X1; 6.2 Tb RAID SAN
- Sengent (P2P with Sun+SGE)
- Cognigen (Clin. Trials)
- Plexxicon (Str. Based Drug Design)
- Caprion (Proteomics)
- RiboTargets (Drug Discovery)



Sun's Vision in Computational Biology 2

- Support Open Standards

- Sun Life Sciences

- OMG-LSR
 - Open-Bio.org (**server**)
 - BioXML, BioJAVA, BioPerl, BioDAS, BioOntologies, BioSOAP, ...
 - BioCyc Biological Pathways Web Site (**server**)
 - BioPathways Consortium (**server**)
 - CellML, HUPO
 - I3C: Interoperable Informatics Infrastructure Consortium
 - BIO, NCI, Oracle, LION, Accelrys, ... 80+ member organizations
 - Micromass (eMS)
 - CDISC: Clinical Data Integration Standards Consortium

Sun's Vision in Computational Biology 3

- **Build Community**

- Sun HPC Consortium
- Special Interest Groups
 - Computational Biology
 - Medical Imaging
 - Grids
 - Interval Arithmetic
- Sun Centers of Excellence
- Sun Collaboratories
- Sun Lecturers
 - Imperial College London, Dr Steve Newhouse, e-Science
- Informatics Advisory Council (IAC)

Sun Computational Biology SIG: CB-SIG

- compbio-sig@sun.com
 - Oct '02 : 900+ members
- www.sun.com/edu/hpc/compbio-sig
 - News, proceedings
 - Up-to-date info
- Events
 - Heidelberg @ HPC Consortium, 8/01
 - Denver @ HPC Consortium, 11/01
 - Durham @ CCPGA2, 3/02
 - Glasgow @ HPC Consortium, 7/25/02
 - **Bay Area @ IAC, 10/23/02**
 - **Workshop on Modeling Biochem. Networks, 11/15/02**
 - **BioGrids, 12/4-5/02**

Center of Excellence Program

COE in Computational Biology

Virginia Bioinformatics Institute

Bioinformatics

Beijing Genomics Institute

Genomics

Delaware Biotechnology Institute

High Performance Comp Bio

U. Calgary

Visual Genomics

U. Chicago

*Bioinformatics, Computational
Biology, and Medical Informatics*

Columbia

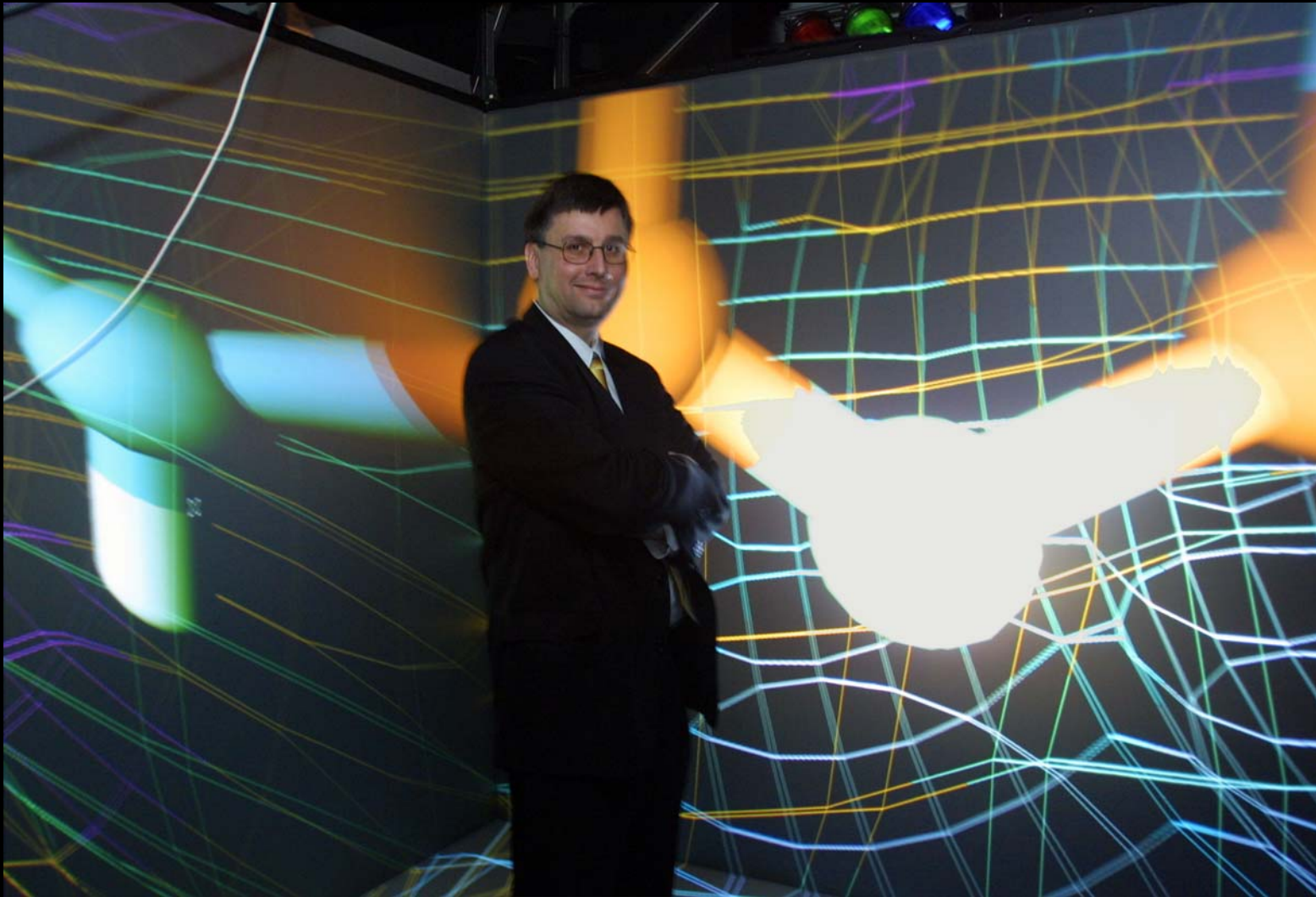
Neuroscience

NRC/CBR

Distributed Bioinformatics

...

Sun COE in Visual Genomics at U. Calgary



SUN Computational Biology SIG Business Meeting

◆ Goals

Information Exchange for Sun Customers

Support Data Standards (i3c, open-bio.org, Biopathways
Consortium, BioCyc, etc.)

Promote CB Research on Sun Technology

◆ Website

News/Articles/Opinions, etc

Updated Monthly

◆ Listserve (875+ names)

Information Exchange from Sun and Customers

Open Discussion !!

◆ Meetings

Agenda Ideas

Venues

Timing

Why Sun for Computational Biology? *Because We Don't Own Your Competitors...*

New! www.sun.com/edu/commofinterest/compbio

www.sun.com/edu/hpc/compbio-sig

compbio-sig-info@sun.com

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www.sun.com/edu/hpc

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