



The PharmaGRID Retreat

Organized by The PRISM Forum

June 30th-July 2nd 2003

The Node Conference Centre, Welwyn, UK

Speaker Biographies

John Barr, Sun Microsystems

John Barr has been involved in the HPC market segment for over 20 years, and now champions the exploitation of GRID for Sun in the UK. John's presentation will describe Sun's GRID Strategy and Solutions, with a particular focus on Life Sciences.

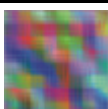
Professor Michael Brady FRS Oxford University

Professor Michael Brady FRS, FEng BP Professor of Information Engineering at the University of Oxford. Professor Brady's degrees are in mathematics (BSc and MSc from Manchester University, and PhD from the Australian National University). At Manchester University, he was awarded the Renold Prize as the outstanding undergraduate of his year. Professor Brady combines his work at Oxford University, where he founded the Robotics Laboratory and the Medical Vision Laboratory (MVL), with a range of entrepreneurial activities. He is Director of the EPSRC/MRC Inter-disciplinary research consortium on "From Medical Images and Signals to Clinical Information". He was appointed Senior Research Scientist of the MIT Artificial Intelligence Laboratory in 1980, and helped found its world famous robotics laboratory. In 1985, he left MIT to take up a newly created Professorship in Information Engineering. Professor Brady serves as a non-executive director and Deputy Chairman of Oxford Instruments plc, as a non-executive director of AEA Technology, and, until recently, Isis Innovation (Oxford University's intellectual property company). Professor Brady is a founding Director of the start-up companies Guidance and Control Systems and Mirada Solutions Limited (<http://www.mirada-solutions.com>), which sells medical image analysis software, in particular MiraView for multimodal image fusion.

Professor Brady is the author of over 275 articles in computer vision, robotics, medical image analysis, and artificial intelligence, and the author or editor of nine books, including: Robot Motion (MIT Press 1984), Robotics Science (MIT Press 1989), Robotics Research (MIT Press 1984), and Mammographic Image Analysis (Kluwer, January 1999). He was Editor of the Artificial Intelligence Journal (1987-2002), and founding Editor of the International Journal of Robotics Research (1981-2000). He is a member of the Editorial Board of fourteen journals, most recently Medical Image Analysis. Professor Brady was elected a Fellow of the Royal Academy of Engineering (UK) in 1991 and a Fellow of the Royal Society (UK) in 1997. He is a Fellow of the Institution of Electrical Engineers and a founding Fellow of the Association of Artificial Intelligence, and a Fellow of the Institute of Physics. He is a member of the Conseil Scientifique de l'INRIA France. He has been awarded honorary doctorates by the universities of Essex, Manchester, Liverpool, Southampton, and Paul Sabatier (Toulouse). He was awarded the IEE Faraday Medal for 2000 and the IEEE Third Millennium Medal for the UK.

Vincent Breton CNRS

I received my Engineer degree from Ecole Centrale de Paris in 1985 and my PhD in Nuclear Physics from the University of Paris XI- Orsay in 1990. From 1990, I became a research associate at the French National Centre for Scientific Research (CNRS). After participating for 10 years to high energy and nuclear physics



experiments at University of Stanford, Thomas Jefferson Laboratory (USA) and CENR (Switzerland), my focus has shifted towards the application of GRID technology to biomedical sciences.

In 2001, I founded a research group (<http://clrpcsv.in2p3.fr>) on the application to biomedical sciences of the IT technologies and tools used in high energy physics. The team started the development of a Monte-Carlo simulation platform for nuclear medicine and radio/brachytherapy in collaboration with the University of Lausanne. This platform, based on the GEANT4 toolkit developed by the high energy physics community to describe the transport of particles through matter, has turned today into the GATE collaboration (<http://opengate.in2p3.fr>) gathering more than 15 research laboratories around the world.

I am also investigating the relevance of GRID technology for biomedical applications. Within the framework of the DataGRID European project, I am leading an international research group focused on deploying biomedical applications in a GRID environment. The PCSV team hosts now the web site of the HealthGRID cluster of projects (www.healthgrid.org). I am also coordinating the GLOP project of a local pluridisciplinary GRID in Clermont-Ferrand. I have chaired the first European conference on GRIDs for health in Lyon in January 2003.

Howard Bilofsky, PhD **GlaxoSmithKline**

Howard joined SmithKline Beecham (SB) in 1993, establishing SB's early Bioinformatics strategy. Prior to SB, he spent 3 years at the European Molecular Biology Laboratory (EMBL) Heidelberg, Germany, as Executive Planning Officer leading up to the successful creation of the European Bioinformatics Institute (EBI - Cambridge, UK). Prior to EMBL, Howard spent 17 years at the Cambridge (MA) consulting firm BBN (Bolt Beranek and Newman) working on NIH-funded software system projects for scientific and clinical research. He was the first project manager for GenBank, the international standard genomic sequence database.

At the merger of SB and GlaxoWellcome, Dr. Bilofsky became Director of Knowledge and Information Technologies & Alliances (KITA) - GlaxoSmithKline (GSK) R&D IT. He created KITA and its SB predecessor AIT (Advanced Information Technologies) to deliver novel competitive solutions to business-critical problems while extending R&D's cutting edge technology portfolio. His group has delivered solutions and business impact for Discovery Research, Project and Portfolio Management, Patient Recruiting and Clinical Investigator Relationships and Image Management. The group's Technology Portfolio includes expertise in Knowledge Engineering, Intelligent Integration and Distributed Systems leavened with numerous external collaborations.

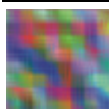
Prof. Mark Ellisman **University of California, San Diego**

Mark Ellisman is professor in the Department of Neurosciences at the School of Medicine and the Department of Bioengineering, director of the National Center for Microscopy and Imaging Research at UCSD, and chair of the SDSC Executive Committee.

Ellisman's research focuses on cellular neurobiology and the dynamic interplay between structure and function in the nervous system, with a focus on excitable membrane properties, and enabling remote access to large-scale scientific instrumentation.

In his research, Ellisman is:

- Obtaining new insight into how the nervous system functions at the cellular level and how the nervous system works by linking the function of neurons to their macromolecular structure, particularly at synapses.
- Developing advanced confocal and high-voltage electron-microscopic imaging methods and associated computer-aided image processing and computer graphic display methodologies.
- Developing new, computer-intensive observational technologies that require a partnership between biologists, computer scientists, and engineers.



- Integrating the research and training activities of scientists in many departments at UCSD involving biological structures from molecules to brains that range from angstroms to centimeters.

At UCSD, Ellisman is director of the Center for Research in Biological Structure (CRBS) and director of the Neurosciences Laboratory for Neurocytology. Since 1997, he has been the Neuroscience thrust leader and cross-disciplinary coordinator for the National Partnership for Advanced Computational Infrastructure. Ellisman is a member of the American Association for the Advancement of Science, Society for Neurosciences, and American Institute for Medical and Biological Engineering. He has served on numerous editorial boards and has been associate editor for the Journal of Neurocytology since 1980. Ellisman is also a grant reviewer for organizations such as the National Institutes of Health and the National Science Foundation, and a consultant for associations such as the Association for Advanced Technology in the Biomedical Sciences and Pfizer.

Ellisman has published numerous journal and conference articles and technical reports. He holds a Ph.D. degree in biology and an M.A. degree in neurophysiology both from the University of Colorado, Boulder, and an A.B. degree with honors from the University of California, Berkeley.

Carole Goble **University of Manchester**

I am a Professor in the Department of Computer Science in the University of Manchester. Along with Professor Norman Paton, she is the co-leader of the Information Management Group, founded in 1997. Previously I was a member of the Medical Informatics Group (MIG).

My research interests are on the accessibility of information, particularly the use of terminological and ontological services for the representation and classification of metadata in a range of application domains. In particular, the ontologies are represented using Description Logics enabling the ontology-based applications to exploit reasoning in ontology creation, maintenance and deployment. The IMG has taken a central role in the development of the OIL, DAML+OIL and OWL ontology languages for the Web.

My research is situated within the setting of an application and a real user base, leading to a number of interdisciplinary projects chiefly in bioinformatics, digital libraries (encompassing multimedia, hypermedia and issues concerning semantic metadata) and medical informatics. My recent work has been focused on two major areas: the Semantic Web and e-Science/GRIDs. I am highly active in both communities and has projects in both. She has been instrumental in an effort to link the two area by the application of Semantic Web technologies to the GRID and e-Science, a fusion dubbed the Semantic GRID. I am co-chair of the Global GRID Forum Semantic GRID Research Group

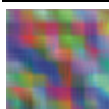
I am an Editor-in-Chief, and manager of the editorial office, of a new journal: The Journal of Web Semantics: Science, Services and Agents on the World Wide Web.

Daron Green **IBM**

Dr Green joined IBM in February 2001 brought into IBM to lead the regional GRID strategy. Daron undertook a detailed technical assessment of the GRID domain and a market segmentation and worked as part of the Corporate Technology Committee in evaluating the impact of GRID on IBM's hardware, software and service business and built the region's EMEA GRID team. Dr Green is now part of the WW GRID Strategy Team.

Before to joining IBM Dr Green managed the UK Professional Services of Selectica Inc and, prior to that, Silicon Graphics. In both cases Dr Green was instrumental in establishing the Professional Service operation in Europe. His work has split between strategic development of Professional Services methodology and day-to-day management of consulting groups. His work has lead him to undertake deployments in the US, UK, France and Germany in sectors including: Telecommunications, Manufacturing and Computing.

Dr Green was Manager of High Performance Computing at Smith System Engineering (now Detica). In this role he manage several multi-million dollar procurements and defined the HPC strategy for some of the UK's major HPC users. He also managed key projects for the High-Performance Computing and Network Unit within the European Commission.



Before moving into industry and the commercial use of IT, Dr Green studied for a degree and PhD in Chemistry at Sheffield University. He undertook post-doctoral studies at University College Dublin and then moved to the Parallel Applications Centre in Southampton.

Professor Yike Guo **Department of Computing, Imperial College**

Professor Yike Guo is the Professor of Computing Science in the Dept. of Computing at Imperial College. He is also the principal investigator of Discovery Net, a major UK e-science pilot project. Professor Guo has been working in large-scale scientific data mining for many years and is the head of the Data Mining Group of Imperial College. His main contributions include the design and development of the Kensington Distributed Data Mining technology, which is now being commercialized by InforSense, an Imperial College spin out company, and the Open Discovery workflow technology, which is being adopted by industrial leaders in the life science industry as the infrastructure foundation for building enterprise wide discovery informatics environment.

Prof. Dr. Bob Hertzberger

Louis O. Hertzberger received the Master's degree in experimental physics in 1969 and the Ph.D. in 1975, both from the University of Amsterdam. From 1969 till 1983 he was a staff member in the High Energy Physics group, later the NIKHEF-H (Dutch Institute for Nuclear and High Energy Physics). In 1983 he was appointed as professor in Computer Science. His current research interests are in the field of parallel computing, intelligent autonomous robotics and their application in industrial automation.

Professor Tony Hey **EPSRC and University of Southampton**

Tony Hey is Professor of Computation at the University of Southampton and has been Head of the Department of Electronics and Computer Science and Dean of Engineering and Applied Science at Southampton. From March 31st 2001, he has been seconded to the EPSRC and DTI as Director of the UK's Core e-Science Programme. He is a Fellow of the Royal Academy of Engineering, the British Computer Society, the Institution of Electrical Engineers and the Institution of Electrical and Electronic Engineers. Professor Hey is European editor of the journal 'Concurrency and Computation: Practice and Experience' and is on the organising committee of many international conferences.

Professor Hey has worked in the field of parallel and distributed computing since the early 1980's. He was instrumental in the development of the MPI message-passing standard and in the Genesis Distributed Memory Parallel Benchmark suite. In 1991, he founded the Southampton Parallel Applications Centre in 1991 that has played a leading technology transfer role in Europe and the UK in collaborative industrial projects. His personal research interests are concerned with performance engineering for GRID applications but he also retains an interest in experimental explorations of quantum computing and quantum information theory. As the Director of the UK e-Science Programme, Tony Hey is currently excited by the vision of the increasingly global scientific collaborations being enabled by the development of the next generation 'GRID' middleware. The successful development of the GRID will have profound implications for industry and he is much involved with industry in the move towards OpenSource/OpenStandard GRID software.

Tony Hey is also the author of two popular science books: 'The Quantum Universe' and 'Einstein's Mirror'. Most recently he edited the 'Feynman Lectures on Computation' for publication, and a companion volume entitled 'Feynman and Computation'.

Prof. Hans F. Hoffmann **CERN**

Dr. Hans F. Hoffmann is 60 years old, of German nationality and works as physicist since 1972, mostly at CERN, the European Organisation for Nuclear Research. His main areas of activity were accelerators, large experimental apparatus in multinational collaborations, and positions in the DESY (Deutsches Elektronen Synchrotron/Hamburg; Director of central services including computing, 1985-1989) and CERN (Director of technical services, 1990-1993) directorates. His present position is Director for Technology Transfer and



Scientific Computing in the CERN directorate (1999-2003), responsible for establishing Technology Transfer and Outreach at CERN and also responsible for the Computing Infrastructure for the LHC experimental programme, the LHC Computing GRID. He has helped to launch several EU-FP5 projects, for example the EU DataGRID, CrossGRID and DataTAG and is involved in the preparation for the new round of FP6 proposals, in particular in EGEE. He has been member of ESTA, the "European Science and Technology Assembly" during its existence.

Dr Martin Hofmann
SCAI

Unfortunately this biography is unavailable at the time of printing.

Gerard Hutchings
Hewlett Packard

Unfortunately this biography is unavailable at the time of printing.

Dr Chris Jones
CERN

Dr Chris Jones did ten years of research in particle physics at Oxford and at CERN before turning to his real interests in the use of computers to facilitate or make possible new discoveries in science and other activities. This coincided with the data explosion that challenged particle physics during the transition from bubble chamber photographs to fully digital electronic detectors.

After many years of organizing the use of computers at CERN he escaped to the European Bioinformatics Institute on sabbatical and discovered new challenges in science and computing. He has also had many contacts with the Pharmaceutical industry as a consultant in the use of IT, including working one year at Roche. He continues to have close contacts with the industry and organizes the regular set of meetings of senior managers responsible for IT in the pharma industry known as the PRISM Forum, of which he is a founding member.

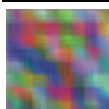
Chris started promoting GRID computing in 1999, when indeed the potential offered by DataGRIDS and Computational GRIDS matched exactly the daunting requirements of CERN and its partners for their next accelerator and experiments. These enormous data and computing challenges can indeed only be solved by a worldwide approach such as that made possible by the GRID.

More recently the thinking of how to profit from GRIDS has broadened to encompass a wider vision. One now sees the GRID as the technology that enables transparent provision of a broad range of services and resources, which may include extensive computing power and vast quantities of data, but also many other forms of services, information or knowledge. The vision foresees for example providing the decision maker, (scientist, doctor, surgeon), with the very best information available in a transparent fashion and thereby enhancing his work. As a result many opportunities for benefit are being opened up in a range of activities much wider than originally envisaged, including Health and Pharma and many other arenas.

Dave Pearson
Oracle

Dave Pearson is the GRID Programme Director for Oracle Corporation UK and is responsible for coordinating its contribution to the e-Science Core Programme. He is actively involved in the Global GRID Forum and co-chairs the DAIS working group, which is defining standards recommendations for GRID database services. He also manages OGSA-DAI, a collaborative project within the e-Science core programme developing middleware for data access and integration in a GRID environment.

Dave has worked for Oracle UK for the last 14 years. As a consultant he carried out assignments in all industry sectors before heading technical and architectural consulting practices in the UK, and in Oracle's European, Middle East and Africa Division. Prior to joining Oracle he worked in the oil industry developing data integration and visualisation applications to support exploration and production processes.



Prof. Manuel Peitsch **Novartis**

Manuel is the Global Head of Informatics and Knowledge Management (IK@N) for Novartis Institutes. Prior to joining Novartis, Dr. Peitsch held positions at GlaxoSmithKline, the University of Lausanne and the National Cancer Institute in Frederick, MD, US. He is a co-founder of GeneBio, the Swiss Institute of Bioinformatics and GlaxoWellcome Experimental Research S.A. Since 2002 he has also served as Professor for Bioinformatics at the University of Basel.

Dr. Peitsch is a world-renowned leader in bioinformatics, with more than 90 publications and several patents and awards. His pioneering research impacted bioinformatics by introducing high-throughput automated protein modeling and Web-based computational structure biology. His findings and developments in this area have had important implications for the use of protein structures in biology.

Most of Dr. Peitsch's career has been focused on cell death research (complement, T-cells and apoptosis), bioinformatics (<http://www.expasy.org>, <http://swissmodel.expasy.org>) and scientific computing in life sciences.

Roman Tirlir **European Commission**

Roman Tirlir is Senior Scientific Officer with the European Commission, Information Society Directorate General, in charge of GRID and Peer-to-Peer Computing research in the 6th EU Framework Programme.

He previously held positions as Head of Computers and Networks at CEA and CRS4 (Italy). Roman Tirlir has a PhD in Physics from the University of Munich and has spent more than 15 years as a Research Associate at CERN.

Prof. Guang-Zhong Yang **Imperial College**

Professor Guang-Zhong Yang received B.Sc. in Electrical Engineering from Shanghai Jiao Tong University, and Ph.D. in Computer Science from Imperial College, London. He served as a senior and then the principal scientist of the Cardiovascular Magnetic Resonance (CMR) Unit, Royal Brompton Hospital before rejoining Imperial College in 1999. He is now head of the Visual Information Processing (VIP) research group at the Department of Computing and Chair in Medical Image Computing. His current research focuses on Medical Image Computing, Simulation and Augmented Reality, Computational Vision and Image Processing, and Perceptual Intelligence. Professor Yang received the I. I. Rabi Award from the International Society for Magnetic Resonance in Medicine (ISMRM) for his work on Cardiovascular Magnetic Resonance Flow Imaging, and is founding Chairman of IEEE UK/RI Engineering in Medicine and Biology. He is Director of the Royal Society/Wolfson Foundation Medical Image Computing Laboratory at Imperial College.

René Ziegler, Ph.D **Novartis AG**

René Ziegler, Ph.D. a chemist by training, joined the Research Department of Sandoz Pharmaceuticals in 1980. After several management appointments in Research (e.g. Head of Cardiovascular Research, Head of Core Technologies), he assumed responsibility for Research Information Management in Novartis in 1997. In 2001, René moved to the Novartis Corporate and Pharma IT organization where he holds the position of Head of Global IT Management. His responsibilities include IT strategy, architecture, standards, budgeting and reporting, portfolio and project management and vendor relations. He is a member of the Pharma and the Corporate IT Boards of Novartis.

