

## Agenda

### Day 1: December 9, 2010

#### Technical Session - 1: Health Informatics

##### **Collaborative Approach for Better Care**

Dr. S. B. Bhattacharya, Head-Health Informatics, Tata Consultancy Services TCS, New Delhi

##### **caTissue / BioBanking**

Ian Fore, Associate Director, Tissue Banking and Pathology Tools Center for CBIIT, NCI, USA

##### **Experience & Challenges in Cancer Grid**

Dr. T Rajkumar, Head, Department of Molecular Oncology, Cancer Institute (WIA)

#### Technical Session - 2: CAM & Multilingual

##### **Language and Health: Need for Local Language Support in Healthcare**

Dr. Hemant Darbari, Executive Director, C-DAC, Pune / Ajai Kumar, Group Coordinator-AAIG, C-DAC, Pune

##### **Integrative Health Care**

Dr. Medha Dhurandhar, Programme Coordinator-HBCG, C-DAC, Pune

##### **Ayurveda in Cancer Research & Practice**

Dr. Vilas Nanal, Senior Consultant, Deenanath Mangeshkar Hospital, Pune

#### Technical Session - 3: Grid & Applications

##### **ECCF / caGRID/ Globus**

Ravi Madduri, University of Chicago

##### **Garuda Grid: A Delivery Infrastructure**

B. Asvija, C-DAC, Bengaluru

##### **CANGrid: Affordable Technology for Cancer-care**

Dr. P. K. Sinha, Sr. Director-HPC, C-DAC, Pune / Gaur Sunder, MIG, Pune

### Day 2: December 10, 2010

#### Technical Session - 4: Bioinformatics

##### **Considerations for Successful caBIG Deployment**

Ganesh Shankar, Advanced IT Core (AITC) Manager, Indiana University School of Medicine

##### **BioGene**

Dr. Rajendra Joshi, Group Coordinator, SECG, C-DAC, Pune

##### **BioMantra Activities related with CaBIG/Cancer Research**

Ms. Madhulika Tripathi, CEO, BioMantra, New Delhi

#### Concluding Session - 5

##### **caBIG & C-DAC: Coming Together**

John Speakman, Associate Director, Clinical Trial Systems, CBIIT, NCI, USA

##### **Summary of Conference & Road Ahead**

Shri. Anil Srivastava, International Outreach Coordinator, CBIIT, NCI

##### **Valedictory**

Dr. P. K. Sinha, Sr. Director-HPC, C-DAC, Pune

#### Programme Committee

- Dr. Ken Buetow  
Director, Center for Biomedical Informatics and Information Technology, (CBIIT), NCI, USA
- Shri. Rajan T Joseph  
Director General, C-DAC
- Dr. George Komatsoulis  
Director, Center for Biomedical Informatics and Information Technology (CBIIT), NCI, USA
- Dr. Hemant Darbari  
Executive Director, C-DAC, Pune
- Dr. Pradeep K Sinha  
Sr. Director-HPC, C-DAC, Pune
- Shri. Anil Srivastava  
International Outreach Coordinator, Center for Biomedical Informatics and Information Technology (CBIIT), NCI, USA

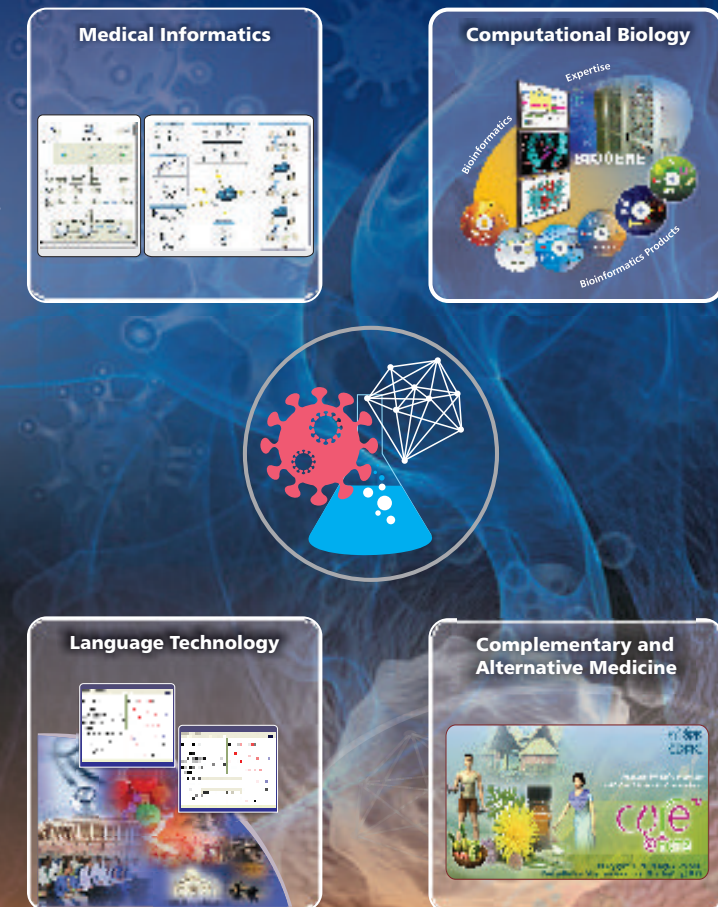
#### Organizing Committee

- Dr. Medha Dhurandhar  
Programme Coordinator-HBCG, C-DAC, Pune
- Captain (IN)  
Pravin Raghuvanshi, NM, (Retd)  
Specialist-Strategic Projects, C-DAC, Pune
- Dr. Rajendra Joshi  
Group Coordinator-SECG, C-DAC, Pune
- Shri. Ajai Kumar  
Group Coordinator-AAIG, C-DAC, Pune
- Shri. Sundar Gaur  
Group Coordinator-MIG, C-DAC, Pune

SECOND MEET ON

**CANCER BIOMEDICAL INFORMATICS GRID:  
INDO-US COOPERATION FOR CANCER RESEARCH**

December 09 – 10, 2010, Pune, India



## About the Meet

Cancer may affect people at all ages, even fetuses, but the risk for most varieties increases with age. WHO (February 2006) estimates that Cancer causes about 13% of all deaths. According to the American Cancer Society, 7.6 million people died from cancer in the world during 2007. The World Health Organization (WHO) estimates that in 2004 nearly 730,000 citizens of India and 575,000 citizens of the United States died of cancer. Medical Researchers theorize that nearly all Cancers are caused by abnormalities in the genetic material of the transformed cells. These abnormalities may be due to the effects of carcinogens or infectious agents. Recently it has been established that Cancer-promoting genetic abnormalities may be randomly acquired through errors in DNA replication, or are inherited, and thus present in all cells from birth.

Cancer continues to present credible challenges in detection, therapy, and long-term care due to several reasons ranging from lack of information at grass-root level, life-style, to poverty in certain sections of the world. Hence, it is necessary to coordinate efforts and pool expertise to create a platform where the challenges can be addressed and a formidable effort can be launched towards effective Cancer-care as near-term goal and complete eradication as long-term one.

cancer Biomedical Informatics Grid™ (caBIG™), an information network enabling all constituencies in the cancer community, is sponsored by the National Cancer Institute (NCI), USA, and its activities are supervised by the National Cancer Institute Center for Bioinformatics (NCICB). The initiative operates through an open development community made up of a wide spectrum of the cancer research community. The caBIG™ community includes over 50 Cancer Centers in USA, numerous other NCI-supported research endeavors, 30 federal, academic, not-for-profit and industry organizations and over 900 individuals altogether.

The proposed Second Meet is to promote the exchange of information, knowledge, and know-how towards forging a concerted effort by bringing together academic, service, and industry sectors of healthcare domain. It will be a meeting ground for Medical Researcher, Practitioners, and Technologists for evolving ideas, tools, trainings, and to create large consortia of determined individuals, groups, and organizations for finding an answer for Cancer using available and future technologies.

The Second Meet will also endeavor to identify areas and gaps where action is needed and if possible, prepare grounds for presenting proposals to appropriate funding agencies in USA and India for Cancer care and its eradication as a larger goal.

## C-DAC and caBIG

Working from the First Meet on Cancer Biomedical Informatics Grid: Cooperation for Cancer Research held in February 2009 at Pune, and later caBIG™ conferences in July 2009 and September 2010, caBIG™ and C-DAC have closely worked together to create a momentum of co-operated steps. The interactions over time have identified following areas where synergy can be achieved in short term:

*Endeavor to augment and facilitate cancer care and research program in India by modify caBIG™ tools according to India specific technologies and port them onto a High Performance cluster to reduce adoption and deployment time of users.*

*Integration of C-DAC's proven Electronic Health Record (EHR), telemedicine, and health informatics standards tools into caBIG™ offering of tools and technologies for cancer care and research.*

*Integration of bio-informatics tools tuned for cancer research for added strength for the entire system to ensure end-to-end information capture, assimilation and research. Bio-informatics will prove effective in better understanding of cancer using molecular modeling and building drug targets for cancer therapeutics.*

*Natural Language Processing (NLP) based search of data and content with automatic translation between different languages. This is needed as India is a multilingual country with as many as 22 scheduled languages and only 5 per cent of the population is able to understand English. caBIG™ tools are used in several countries that can also benefit from such technology and support.*

*Integration of Complementary and Alternative Medicine disciplines into the whole mix available to ensure multi-facet approach to the problem of cancer alleviation and healthy lifestyle.*

*C-DAC has designed CAM based tools that could be valuable for drug discovery in the area of cancer research.*

## About C-DAC

With over two decades of experience in cutting edge innovation, the Centre for Development of Advanced Computing (C-DAC) has emerged as a multi-disciplinary, core research and development (R&D) destination for the design, development and deployment of advanced IT products and technologies.

As the principal scientific society under the Department of Information Technology, Ministry of Communications and Information Technology, Government of India, C-DAC is also the torchbearer of several key national initiatives for the benefit of the masses.

C-DAC has defined the common methodology towards building the concept of a premier R&D organization and identified opportunities for establishing linkages across disciplines, to create a broad portfolio of technologies under one umbrella. This portfolio envisages a range of technologies such as High Performance Computing and Communications (HPCC) including Scientific Modelling and Visualization, Multilingual Computing, Applied Artificial Intelligence and Speech Processing, Software including Open Source Software (Linux), Multimedia, Graphics and Database Technologies, Strategic and Power Electronics and Agri-electronics, Real Time Systems, Embedded Systems and VLSI Design, Health Informatics, Geomatics, Cyber Security, Digital / Broadband and Wireless Networks, e-Governance and ICT for Digital Divide, and Education and Training including e-Learning.

In addition, C-DAC has swiftly readjusted its road map to the new reality of supercomputing namely Grid Computing with GARUDA, the national grid initiative and is the nodal agency for the ambitious countrywide grid linking all its PARAM platforms as well as other resources from the academia.

While building its capabilities in promising enabling technologies, C-DAC has also demonstrated its capabilities to implement end-to-end solutions in various verticals of economic and social sectors. The key sectors addressed by C-DAC are Science and Engineering, Finance, Healthcare, Power, Steel, Agriculture, Cultural Heritage, Industrial Controls, Broadcasting, Education and e-Governance.