Hands on Training on Tissue Microarray
8th – 9th June, 2010

Institute of Pathology (ICMR), Safdarjung Hospital Campus, New Delhi

A Hands on Training on Tissue Microarray convened by Dr. Sunita Saxena, Director, Institute of Pathology (ICMR), New Delhi was held on 8th-9th June, 2010 at Institute of Pathology (ICMR), Safdarjung Hospital Campus, New Delhi-110029, in collaboration with Alphelys SAS, France and Lucent Biomedical, New Delhi. The organizing committee members included Dr. Sunita Saxena (Convener); Dr. S. Kapur (Organizing Secretary); Dr. L.C. Singh, Mr. Sunil Bhavsar (Joint Organizing Secretary); Mr. Pierre Chaumat, Dr. Ravi Sirdeshmukh, Dr. Sanjay Navani, Dr. Avninder P. Singh (Faculty); Dr. Usha Agrawal, Dr. Ashwani Kr. Mishra, Mr. Davinder Khera, Mr. Jagdish Kain, Ms. Seema Sharma (Scientific Committee); Dr. Purnima Paliwal, Dr. Avninder P. Singh, Mrs. R. Saratha, Dr. Zeeba S Jairajpuri, Mr. Mahesh Kumar, Mr. Pushp Raj (Reception Committee); Mr. Shiv Parkash, Ms. Seema Sharma, Mr. Pushp Raj, Mrs. Krishna, Mrs. Valsamma Mathew, Mr. Vivek Srivastava (Technical and Audio Visual Committee); Mr. V.K. Khanduja Mr. Ravi C. Kapoor (Treasurer); Dr. A.K. Bagga, Mr. Ravi C. Kapoor (Catering Committee)

Tissue microarray (TMA) technology is a high-throughput research tool, which has greatly facilitated and accelerated tissue analyses by in-situ technologies. TMA are amenable to every research method that can be applied on the standard whole sections yet making possible the analysis of hundreds of tissue specimens in a single experiment using a single gene, antibody or probe. It plays a central role in target verification of results from cDNA arrays, expression profiling of tumors and tissues, and is proving to be a powerful platform for proteomic
research. In comparison to the standard histology sections TMA is advantageous as they give experimental uniformity with judicious use of precious tissue and antibodies available for research. Its capability to analyze a large number of samples simultaneously also results in improved precision of statistical analysis at enhanced speed.

The main objective of this workshop was to provide the pathologist and scientific fraternity a platform to get hands on training on tissue microarray, its application and to get up-to-date with the latest in the field. The training was conducted by Mr. Pierre Chaumat, President & CEO, Alphelys SAS, France. The Scientific Programme comprised a series of lectures delivered by distinguished international and national scientists followed by the hands on training on the TMA equipment provided by Alphelys SAS, France. The guest scientists included Mr. Pierre Chaumat, President & CEO, Alphelys SAS, France, Dr. Ravi Sirdeshmukh Centre for Cellular and Molecular Biology, Hyderabad, India, Dr. Sanjay Navani, M.D., Surgical Pathologist and Immunohistochemist, Lab Surgpath, Site Director, Human Protein Atlas (HPA), Project, Mumbai and Dr. Avninder Singh, Scientist C, Institute of Pathology (ICMR), New Delhi.

The list of Participants included Dr. Dhara B. Dhaulakhandi, Assistant Professor and Head, PGIMS, Rohtak, Dr. Nitin Kumari, Assistant Professor, SGPGIMS, Lucknow, Dr. Manu Noatay, Lab Head, Fortis, Faridabad, Dr. S. Sudha Murthy, Chief Pathologist, Indo US CRC, Hyderabad, Mr. Ansarullah, Research Scholar, MS University, Baroda, Dr. Vikas D. Dighe, Scientist B, NIVRH Mumbai, Dr. Vijay N. Shelke, Scientist B, NIV, Pune, Mr. K. Viswakalyan, Project Assistant, CDFD, Hyderabad, Dr. T. N. Vivek, Scientist (QHS), IGIB, New Delhi, Dr. Ram Das, Research Assistant, JALMA, Agra, Dr. Ranjana Gondal, Dir. Professor, G.B.Pant, New Delhi, Dr. Sunita Singh, Asstt. Professor, Sivaji Collge, Delhi Univ., Delhi, Dr. Vaishali Suri, Associate Professor, AIIMS, New Delhi, Dr. Uma Nahar, Associate Professor, PGIMER, Chandigarh, Dr. Amanjit Bal, Associate Professor, PGIMER, Chandigarh, Dr. Rajiv Tangri, Lab. Head, Fortis, Noida.

"Once you start working on something, don't be afraid of failure and don't abandon it. People who work sincerely are the happiest."

Chanakya quotes (Indian politician, strategist and writer, 350 BC-275BC)
The Human Protein Atlas (HPA) Program

The Swedish Human Protein Atlas (HPA) program (www.proteinatlas.org) is an international program that has been set up to allow for a systematic exploration of the human proteome using Antibody-Based Proteomics. This is accomplished by combining high-throughput generation of affinity-purified (mono-specific) antibodies with protein profiling in a multitude of tissues/cell types assembled in tissue microarrays.

Introduction to Antibody-Based Proteomics

The annotated human genome sequence creates a range of new possibilities for biomedical research and permits a more systematic approach to proteomics. An attractive strategy involves large scale recombinant expression of proteins and the subsequent generation of specific affinity reagents (antibodies). Such antibodies allow for (i) documentation of expression patterns of a large number of proteins, (ii) specific probes to evaluate the functional role of individual proteins in cellular models, and (iii) purification of significant quantities of proteins and their associated complexes for structural and biochemical analyses. These reagents are therefore valuable tools for many steps in the exploitation of genomic knowledge and these antibodies can subsequently be used in the application of genomics to human diseases and conditions.

Vision

The vision is to systematically generate quality assured antibodies to all nonredundant human proteins, and to use these reagents to functionally explore human proteins, protein variants and protein interactions. The non-redundant set of human proteins is here defined as one product per gene locus. Antibodies are therefore targeted (if possible) to epitopes of the protein, which are shared among protein isoforms. This allows the antibodies to be used for further biochemical studies to explore post-translational modifications (PTM) and protein isoforms.
The Human Proteome Atlas (HPA) Center

The main sites are located at the AlbaNova University center at the Royal Institute of Technology, Stockholm, Sweden, the Rudbeck Laboratory, Uppsala University, Uppsala, Sweden and Lab Surgpath, Mumbai, India. The main objective of the resource centre is to produce specific antibodies to human target proteins using a high-throughput production method involving the cloning and protein expression of Protein Epitope Signature Tags (PrESTs). After purification, the antibodies are used to study expression profiles in cells and tissues and for functional analysis of the corresponding proteins in a wide range of platforms. The Stockholm site is responsible for generating high-quality monospecific antibodies and to perform the immunofluorescence analysis, the Uppsala site is responsible for large-scale protein profiling in tissues and cells using immunohistochemistry and the Mumbai site for the annotation of the immunohistochemistry images.

The Mumbai-HPA Site

The Mumbai Site for the HPR is located at Lab Surgpath. Ten pathologists use a web-based annotation software to allow for a basic and rapid evaluation of immunoreactivity in tissues. Manual annotation of scanned images of tissue microarrays are performed on a virtual microscope over the internet by Indian pathologist annotators in Mumbai headed by Dr Sanjay Navani. Intensity, fraction of immunoreactive cells and subcellular localization is recorded for each given cell population. A text comment summarizing the characteristics for each antibody is added.

The results are visualized in a summary view as color codes corresponding to the protein expression level in each given cell type. In total 67 normal cell types from 144 individuals and 25 different cancer cell types from 216 different tumors are annotated for each antibody. All finished annotations are curated by an independent pathologist or specially trained personnel at Lab Surgpath, to control for eventual mistakes and to ensure uniform annotations of high quality.

The Mumbai site has annotated approximately 6 million images since May 2007. The images are published on the Human Protein Atlas (www.proteinatlas.org) that is freely accessible to the scientific community worldwide.

The Mumbai Site is also responsible for all collaborative research projects carried out in India.

Research Opportunity

The Mumbai-HPA Site provides funding to collaborate with researchers and students. Interested researchers are welcome to provide innovative ideas using HPA antibodies on human tissues. Funding includes provision of primary antibodies, detection systems, immunohistochemistry staining services and setup of tissue microarrays, all of which will be provided by the Mumbai-HPR site.
Mass Spectrometry and Antibody-Based Approaches in Clinical Proteomics Efforts

Proteomics approaches are being increasingly used for the analysis of cell lines, clinical tissue specimens, body fluids and tissue sections in the quest for disease biomarkers. Mass spectrometry (MS) and antibodies are important tools in these approaches. While an MS-based approach is key in the first-stage identification of disease specific proteins including unknown proteins in an unbiased experimental design, antibodies are important for the purpose of validation of the candidate biomarkers in a targeted manner in tissue extracts, the body fluids as well as the tissue sections. Immuno histochemistry with tissue sections, using protein-specific antibodies, yields complementary information on the expression, distribution and localization of the proteins in the cells and tissues – tissue microarray being a high throughput format of such analysis. The potential of the integrated use of these various approaches to evolve valuable molecular insights about the disease process will be reviewed.

Tissue Microarray: a rapidly evolving research & diagnostic tool

Tissue microarray (TMA) is a recent innovation that has greatly revolutionized research in pathology. A TMA contains hundreds of representative tissue cylinders or cores taken from the archival formalin fixed paraffin embedded clinically annotated tissue samples. Here areas of interest are marked in the donor tissue blocks and multiple cores are implanted into a blank recipient block in a precise array so that hundreds of tissues can be analysed at enhanced
speed, under uniform conditions, in a judicious and cost effective manner. TMA is a high-throughput technology that is amenable to all the research methodologies that can be applied on standard whole sections like immunohistochemistry, in-situ hybridization, FISH etc. It is being increasingly used for validation of DNA microarray findings and gene expression profiles at protein level. It is proving its worth as a useful tool for molecular analyses for target validation, biomarker identification and drug discovery. It is a useful tool for translational research and is bridging the gap between basic science and clinical medicine. Its full potential is not yet fully explored and holds promise for the future.
Scientific Activities

1. Dr. Sunita Saxena, Director invited to present a talk on "understanding molecular biology of cancer using Genomic Approach" in National Symposium on current Trends in Genomics & Proteomics organized by Deptt. of Biotechnology, Deshbandhu Gupta college, University of Delhi, New Delhi on 4-5 February, 2010.

2. Dr. Sunita Saxena, Director attended ICMR-European Union (EU) workshop in areas of Cancer and neurosciences held at ICMR on 18th – 19th February, 2010.

3. Dr. Sunita Saxena, Director invited to give talk on "Esophageal Cancer in North East India – Contribution of genetic vis-à-vis environmental factors" held during 20th – 23rd February, at Amrita Institute of Medical Sciences and Research Centre, Cochin.

4. Dr. Sunita Saxena , Director attended 5th AOHUPO Congress held at Centre for Cellular and Molecular Biology (CCMB) Hyderabad as joint event with 14th DNAT convention and 1st Conference of the proteomic society of India (PSI) held on 24th February, 2010.

5. Dr. Sunita Saxena, Director attended Technical Committee meeting held at I.C.M.R. on 26th February, 2010.

6. Dr. Sunita Saxena, Director attended Screening Committee meeting for the Selection of Scientist 'E' held in ICMR on 26th February, 2010.

7. Dr. Sunita Saxena, Director attended Technical Committee meeting held at I.C.M.R. on 16th March, 2010.

8. Dr. Sunita Saxena, Director invited to attend selection committee meeting for award of PDF of ICMR held at ICMR, New Delhi during 25th to 27th March, 2010.

9. Dr. Sunita Saxena, Director invited to attend meeting of experts to discuss the potential utility of technique for cancer Control held at ICMR on 1st April, 2010.

10. Dr. Sunita Saxena, Director invited to attend 'Discussion Session' organized by National Academy of Engineering (INAE) on 3rd April, 2010 at India International Centre, New Delhi.

11. Dr. Sunita Saxena, Director invited to deliver talk on "Empowering Women in Developing Countries through Better Healthcare and Nutrition" organized by Birla Institute of Technology & Science, Pilani during 22nd to 24th April, 2010.

12. Dr. Sunita Saxena, Director invited to attend Scientific Advisory Group of the Division of P & I and IPR unit at ICMR on 13th May, 2010.

13. Dr. Sunita Saxena, Director attended and chaired the Ethical Committee meeting of the Safdarjang Hospital on 4th June, 2010.

14. Dr. Sunita Saxena, Director attended Project Review Committee meeting of the NCD unit held at ICMR, New Delhi on 24th & 25th June, 2010.

15. Dr. Sunita Saxena, Director attended 2nd DSMB meeting of Curcumin Ca Cervix held at ICMR 30th June, 2010.

16. Dr. Sunita Saxena, Director attended meeting of the Task force on leprosy held at ICMR on 2nd July, 2010.

17. Dr. Sunita Saxena, Director, IOP and Dr. D.G. Deo, Vice President, Moving Academy of Medicine and Biomedicine has organized “foundation Workshop on Clinical and Laboratory Medicine Research” for UG medical students at Institute of Pathology, New Delhi during 12th & 13th July, 2010.
19. Dr. Sunita Saxena, Director attend and present the poster in Conference on “Beyond the Genome” The true gene count, human evolution and disease genomics held in Boston, USA during 11th to 13th October, 2010.

20. Dr. Sunita Saxena, Director attended the NAMSCON-2010, organized by National Academy of Medical Science, New Delhi held at Government Medical College, Patiala, Punjab on 30th October, 2010.

21. Dr. Poonam Salotra, Scientist 'E' participated and gave a talk in the 97th session of the Indian Science Congress held at university of Kerala, Thirvananthapuram from 3rd to 7th Jan 2010.

22. Dr. Poonam Salotra, Scientist 'E' participated in International workshop on Molecualr Biology and gis based epidemiology of leprosy 4th-9th March 2010 in IOP.


24. Dr. Poonam Salotra, Scientist 'E' participated in Conference on "Recent advances in the diagnosis of PKDL" at AIIMS on April 10th – 11th, 2010.

25. Dr. Poonam Salotra, Scientist 'E' invited by Dr. N.K.Ganguly: NII (WHO) to attend on “An Indian Innovation networking meeting to review the mapping results and discuss strategic plans for part of the proposed Asian Network for Drugs and Diagnostics Innovation” on April 15th-16th 2010 at National Institute of Immunology, New Delhi.

26. Dr. Poonam Salotra, Scientist 'E' invited by Dr. Lalit Kant, to "Joint ICMR-DNDi meeting on Treatment Options for Visceral Leishmaniasis (VL)" on April 19, 2010 at ICMR, Ansari Nagar New Delhi.

27. Dr. Poonam Salotra, Scientist 'E' invited by PRC-ECD (pear review Committee) meeting held at ICMR, Ansari Nagar, New Delhi on 18th May and 27th June 2010.

28. Dr. Poonam Salotra, Scientist 'E' participated in the Steering Committee Meeting of Leishmania Vaccine project at Madrid, Spain in June, 2009.

29. Dr. Poonam Salotra, Scientist 'E' participated in the Steering Committee Meeting of Leishmania Drug project at Antwerp, Belgium in Oct 2009.

30. Dr. Poonam Salotra, Scientist 'E' participated in the Steering Committee Meeting of Leishmania Vaccine Project at Tunis, Tunisia in Jan 28th to 30th Jan 2010.

31. Dr. Poonam Salotra, Scientist 'E' participated in the Steering WHO expert committee meeting at Geneva, Switzerland in 22nd to 26th March 2010.

32. Dr. Poonam Salotra, Scientist 'E' participated in the Steering Committee Meeting of Leishmania Vaccine project at Lyon, France in 28th to 30th June 2010.

33. Dr. Poonam Salotra, Scientist 'E' participated in the Steering Committee Meeting of Leishmania Vaccine project at Lyon, France in 28th to 30th June 2010.

34. Dr. A.K.Bagga, Scientist 'D' attended Two fulltime workshops conducted by the Indian Institute of Public Health-Delhi held at Gurgaon.
   - Designing Randomized Controlled Trials, Nov.30-Dec.24, 2010.
38. Dr. A.K. Jain, Scientist 'E' Participate in an International Conference held at BARC, Mumbai from 8th to 10th March 2010.

39. Dr. Ashwani Kumar Mishra, Scientist 'B' attended 27th Annual Conference of Indian Society for Medical Statistics (ISMS) which is to be jointly held by National Institute of Medical Statistics (ICMR) and National Institute of Health and Family Welfare (NIHFW), New Delhi from 11th to 13th November 2010.

40. Dr. Ashwani Kumar Mishra, Scientist 'B' served as Faculty at 2nd foundation Workshop held at UCMS, 17-19th Aug, 2010.

41. Dr. Avninder Pal Singh, Scientist 'C’ Attended 1st PSI Conference and Hands on Training Course in Quantitative Proteomics held at CCMB, Hyderabad from 21st February to 12th March 2010.

42. Dr. Avninder Pal Singh, Scientist 'C’ Attended an International Congress of Neuropathology (ICN) held at Salzburg, Austria from 11th to 15th September 2010.

43. Dr. Avninder Pal Singh, Scientist 'C’ Participated in the 'Symposium on Fluorescence laboratory' held at All India Institute of Medical Sciences, New Delhi from 22nd to 24th May 2010.

44. Dr. Purnima Paliwal, Scientist 'C’ Attended a training programme at NIRRH, Mumbai from 18th to 23rd January 2010.

45. Dr. Purnima Paliwal, Scientist 'C’ Attended a faculty training workshop from 22nd to 24th May 2010 to be held at AIIMS, New Delhi.

46. Dr. Sangeeta Rastogi, Scientist 'E’ participated and presented a research paper in an International Conference on Reproductive Health & 20th Annual Meeting of the Indian Society for the Study of Reproduction & Fertility to be held at Jaipur from 8th to 10th February 2010.

47. Dr. Sujala Kapur, Scientist 'E’ Participated in the 6th Annual Conference of the Organization for Oncology and Translational Research (OOTR) held at Kyoto, Japan from 26th to 27th February 2010.

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Institutional Activities

- New Year’s day was celebrated at IOP terrace on 1st Jan 2010.
- Dr. Sunita Saxena, Director conducted interview for the selection of DNB Trainee for DNB Training Programme 2010 at the Institute of Pathology on 4th January, 2010
- 9th Smt. Pushpa Sriramachari Foundation Day Oration was awarded to Dr. V.M. Katoch, Secretary, Dept. of Health Research & Director-General (ICMR) on “Understanding of Granulomas with special reference to Mycobacterial Diseases by Dr. N.K. Ganguly Ex Director General (ICMR) on 18th Jan. 2010 at IOP Auditorium.
- On the eve of Republic Day Flag Hoisting was done at IOP terrace on 25th Jan 2010.
- We bid farewell to Mr. Ishwar Singh, Lab Technician on his superannuation on 29th Jan. 2010 and Mr. Rameshwar , Technician on 28th Feb. 2010.
- Two days workshop was organized at IOP on “Confocal Microscopy” June 2010.
- Dr. R.K. Saran, Professor of Pathology, G.B. Pant Hospital, New Delhi conducted Half Yearly Assessment of the DNB Trainees as an outside expert at the Institute of Pathology on 28-06-2010 & 29-06-2010.
• 1st Foundation workshop on “Clinical and Laboratory Medicine Research” for UG medical students held at IOP Institute of Pathology, New Delhi, on 11-12th July 2010.
• Dr. A.K. Mishra, Scientist 'B' served as faculty for 1st Foundation workshop on “Clinical and Laboratory Medicine Research” for UG medical students held at IOP Institute of Pathology, New Delhi, on 11th July 2010.
• Flag Hoisting on the eve of 15th Aug. 2010 at IOP terrace.
• Inspection Committee from the Jiwaji University, Gwalior for Memorandum of Understanding between Institute of Pathology & Jiwaji University visited on 15th September, 2010.
• The Scientific Advisory Committee meeting of the Institute of Pathology held on 22nd October, 2010.
• Vigilance Day was organized by Dr. A.K. Bagga, Scientist 'D' and an oath was taken by IOP staff on 23.11.2010.

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10th Smt. Pushpa Sriramachari oration award by Prof. S.K. Shankar, Professor & Head, Department of Neuropathology, NIMHANS, Bangalore on 6th May, 2010.
Journal Club

- Dr. Disha Arora: 08.01.2010: Approach to Laboratory Diagnosis of Leukemias.
- Dr. Pooja Gupta: 02.02.2010: Minimal Residual Disease.
- Dr. Harsh Hora: 02.03.2010: Effusion Cytology Moderator.
- Mr. Dhiraj Kumar: 10.03.2010: Pathogenic Roles of CD14, Galectin-3, and OX40 during Experimental Cerebral Malaria in Mice.
- Dr. Sherry Khanna: 05.4.2010: An Approach to Diagnosisi of Vasculitis.
- Dr. Ila Jain: 04.5.2010: Role of Cytology and Serology in Evalution of Hormonal Status in Females.
- Dr. Disha Arora: 06.7.2010: Invasion and Metastasis: Concept of Epithelial Mesenchymal Transition.
- Dr. Ila Jain: 07/09/2010: Prion Protein and Associated Diseases.
- Dr. Manav Sawhney: 05/10/2010: Role of FNAC in Thyroid Disorders: A Practical Approach.
- Dr. Disha Arora: 02/11/2010: Small Round Cell Tumors of Childhood.

Forthcoming Events

  Contact name: Prof. D.N.Rao, Org. Sec & Vice President, Society of Biological Chemists, (India) Indian Institute of Science. Bangalore – 560012, Phone: 080-22932538.
  E-mail: dnrao@biochem.iisc.ernet.in
  Contact name: Dr. N.Udupa, Professor & Principal, MCOPS, Manipal University, Manipal, Phone: 0820-2922482.
  E-mail: n.udupa@manipal.edu
  Contact name: Prof. N.R. Jagannathan, Head, Department of N.M.R., AllMS, New Delhi -110029, Phone: 011-26588533, 26593253 E:- jagan1954@hotmail.com
- International Conference on Stem Cells and Cancer (ICSCC-2010): Proliferation, Differentiation, and Apoptosis, 11 to 14 December 2010. Pune, Maharashtra, India.
- Hands-on Workshop on Molecular Biotechnology and Bioinformatics 16 to 20 May 2011. Pune, India Website: http://www.isquareit.ac.in/biotechworkshop
  Contact name: Prof. Dr. Sheo Mohan Singh.
- International Cancer Prevention Update Symposium 17 to 19 March 2011. New York, United States Website: www.eventsbot.com/events/eb662234016
  Contact name: Dr A Yaro
हिंदी : बढ़ता वर्चस्व
बृजेन्द्र सिंह

हिंदी के पटार पर दूर दूर तक हरियाली बिखरी है। रोजगार, मनोरंजन मीडिया, फिल्म, टी.वी. लगभग हर क्षेत्र में हिंदी फैल रही है। तट, रिलायन्स जैसी कंपनियों ने हिंदी के महत्व को समझना शुरू कर दिया है और इसकी झलक हिंदी अखबारों में दिखाई पड़ रही है। देवनागरी ने रोमन का सहारा लेकर नेट पर जगह बना ली है। गुरुजी और वेब दुनिया जैसी हिंदी सर्च इंजन सफलता से चल रहे हैं। पिछले सो सालों में हिंदी एक आधुनिक और सम्पन्न भाषा के रूप में उभर कर आई है। संस्कृत की तुलना से हिंदी बोलने वाले आज चीये स्थान पर है। यह संसार भर में भाषाई विकास का अनुपम उदाहरण है। अगर हिंदी पत्रकारिता की वात करें तो इसमे युगान्तकारी परिवर्तन आ चुका है। अब हिंदी क्षेत्रीय दैनिकों के जिलास्तरिय संस्करणो का विस्फोट हुआ है। देश के 10 चौथे के दैनिकों मे उपर के 4 स्थानों पर हिंदी दैनिको का कब्जा है। कुछ हिंदी अखबारों के संस्करण बेगुलुरू, कोटकाता, चेन्नई जैसे गैर हिंदी महानगरों से भी निकाल रहे हैं। आज देश में सबसे अधिक हिंदी के मनोरंजन चैनल व अखबार चैनल चल रहे हैं। इन चैनलों की पहुँच गैर हिंदी भाषी क्षेत्रों में भी है। व्यापक पहुँच की वजह से ही हिंदी में स्टार न्यूज की शुरुआत गई उनके अनुसार अधिक उपयोगी होने के बावजूद अंग्रेजी चैनलों की पहुँच बहुत कम है। हिंदी न्यूज चैनलों और मनोरंजन चैनलों की तुलना में अंग्रेजी चैनलों की टी.वी. और पी.वी. बहुत कम रही है। खाड़ी में रहने वाले लगभग 40 लाख भारतीय आपस में हिंदी बोलते हैं। दुनिया में लगभग 50 देशों में रहने वाले 2 करोड़ भारतीयों को जोड़ने वाली भाषा हिंदी है। अमेरिका के लगभग 50 विश्वविद्यालयों में हिंदी की मौजूदगी है। श्रीलंका के विश्वविद्यालयों में हिंदी विभाग पहले से ही है। कोलम्बो के भारतीय दूतावास में हिंदी के पाठ्यक्रम की व्यवस्था है। आज हिंदी विश्व में तीसरी सर्वाधिक समझी व बोली जाने वाली भाषा है।

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Happy New Year 2011