



Sri Devaraj Urs Academy of Higher Education and Research
Comprising Sri Devaraj Urs Medical College
(A Deemed to be University)
Research and Development Cell

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Event Report: Cervical Cancer Screening Awareness and Challenges

The event was organized by Sri Devaraj Urs Academy of Higher Education and Research (SDUAHER) under the aegis of the Research and Development Cell, in association with the Departments of Obstetrics and Gynaecology, Pathology, Community Medicine, Oncology, Cell Biology & Molecular Genetics (CBMG), and Microbiology.



The program brought together experts, faculty, and students to deliberate on the pressing issues of cervical cancer prevention, screening, and future strategies.

A distinguished highlight of the event was the keynote address by Dr. Devanshi Somaiya, an eminent Obstetrician-Gynaecologist, Robotic Surgeon, Program Director, and Senior Research Physician at PHRI, Mysore who addressed the first session on cervical cancer screening in low resource settings chaired by Dr Munikrishna M , HOD , department of Obstetrics and Gynaecology and Dr Sunil B N , Incharge HOD of department of community medicine.

Dr. Somaiya delivered a powerful keynote highlighting the stark realities of cervical cancer screening in Karnataka, where the screening rate remains as low as 0.5%, underscoring the urgent need for systemic interventions. She shared that the PHRI Mysore initiative has successfully screened over 10,000 women, setting a precedent for large-scale, community-driven preventive healthcare.

In her address, Dr. Somaiya emphasized the critical role of HPV vaccination in primary prevention, while also elaborating on the natural history of HPV disease:

- Nearly 90% of HPV infections regress spontaneously,
- 50% of persistent HPV infections progress to dysplasia, and
- Remarkably, 40–50% of CIN 3 lesions may regress, reinforcing the value of both early detection and vigilant follow-up.

The session also revisited the impactful observance of International HPV Awareness Day, celebrated on March 4th, 2024, which brought together premier institutions of Mysore — Mysore Medical College, JSS Medical College, and Adichunchanagiri Institute of Medical Sciences — in a collective mission to amplify awareness and advocacy.

Looking ahead, the Mysore Consortium Against Cervical Cancer (MCACC) is poised to scale its initiatives through:

- A Hub-and-Spoke Model for cervical cancer screening and detection, enabling equitable access and standardized care delivery across regions.
- Leveraging the ECHO platform for knowledge dissemination, mentoring, and skill-building among healthcare providers.
- The formal inauguration of MCACC scheduled for September 26, 2025, which will serve as a pivotal moment in consolidating collaborative action against cervical cancer.

Dr. Somaiya's visionary talk highlighted not only the epidemiological challenges but also the path forward — rooted in innovation, collaboration, and public health leadership. The event concluded with a strong call to action for stakeholders across academia, research, and clinical practice to join hands in driving cervical cancer elimination in Karnataka and beyond.

This was followed by inauguration and welcome address and NCD online inauguration by Dr Indira , consultant gynaecologist, Shamu health care , Dr Kalyani R , director , research and development cell , SDUAHER , professor of pathology, SDUMC , Dr Sunil BN , incharge HOD , department of community medicine

Session II: Advances in Cervical Cancer Screening and Extended Genotyping

The second session was addressed by Dr. Vijayalakshmi Ramshankar, Professor and Head, Cancer Biology and Molecular Diagnostics, Cancer Institute (WIA), Adyar, Chennai chaired by Dr Kalyani R and Dr Sheela S R , professor , depar of OBG, director of infertility centre .. With her extensive expertise and global exposure, Dr. Ramshankar delivered a compelling lecture on extended HPV genotyping, its clinical utility, and challenges, enriched with her experience in cervical cancer screening protocols during her tenure in the USA.

She elaborated on the establishment of a molecular testing laboratory for HPV DNA testing, describing in detail the COBAS 4800 system — a fully automated, real-time PCR platform for amplification and detection. Drawing from large-scale data, she reported that the laboratory had processed 25,395 samples, of which 159 were invalid and 1,601 tested positive for HPV.

Dr. Ramshankar highlighted the comparative accuracy of the COBAS 4800 assay vis-à-vis cytology, emphasizing its reliability in detecting high-risk HPV types. Importantly, the results revealed a broader spectrum of prevalent high-risk HPV subtypes beyond HPV-16 and 18, including 31, 58, 33, and 45, underscoring the importance of region-specific genotyping data. She further explained that HPV-59 emerged as the most prevalent genotype, followed by 35, 31, 33, 51, 16, 56, 66, and 39, while HPV-18 showed the lowest prevalence. Interestingly, HPV-68, now being reconsidered for removal from the carcinogenic HPV group, also demonstrated negligible prevalence.

The session also illuminated cutting-edge diagnostic technologies:

- Next-Generation Sequencing (NGS) approaches and comprehensive HPV–STI assays employing single-tube, single-PCR methods with type- or species-specific primers for uniform amplification.
- qPCR platforms and the ALLPLEX SEEGENE assay, offering advanced multiplex diagnostic capabilities.

She noted that while COBAS HPV DNA testing shows high concordance with NAS-derived HPV subtypes, particularly in HSIL cases, the need for cost-effective alternatives remains pressing to enable large-scale population screening in resource-limited settings.

Finally, Dr. Ramshankar emphasized the clinical implications of extended genotyping: if HPV-31, 33, or 35 are detected, colposcopic evaluation should be pursued promptly to ensure early detection and intervention.

Her talk seamlessly integrated bench-to-bedside perspectives, demonstrating how advances in molecular diagnostics and genotyping technologies are reshaping the landscape of cervical cancer screening and paving the way for precision prevention strategies in India.

Session III: HPV Vaccines – Evolution and the Promise of Single-Dose Protection

The third session was delivered by Dr. Rohini Kulkarni, Associate Professor, Department of Gynaecologic Oncology, Tata Memorial Centre, Mumbai, chaired by Dr Loknath D, HOD, department of medical oncology and Dr Parimala S, HOD, Department of microbiology. Dr. Kulkarni provided an illuminating overview of the evolution of HPV vaccines, underscoring their pivotal role in the global strategy to eliminate cervical cancer.



She highlighted the importance of single-dose vaccination schedules, a transformative step toward expanding access and coverage, especially in low- and middle-income countries where logistical and financial barriers often limit completion of multi-dose regimens.

Drawing on the latest evidence and global policy recommendations, Dr. Kulkarni emphasized the endorsement by the World Health Organization's Strategic Advisory Group of Experts on Immunization (WHO SAGE), which has validated the efficacy of single-dose HPV vaccines as comparable to the traditional two-dose regimen.

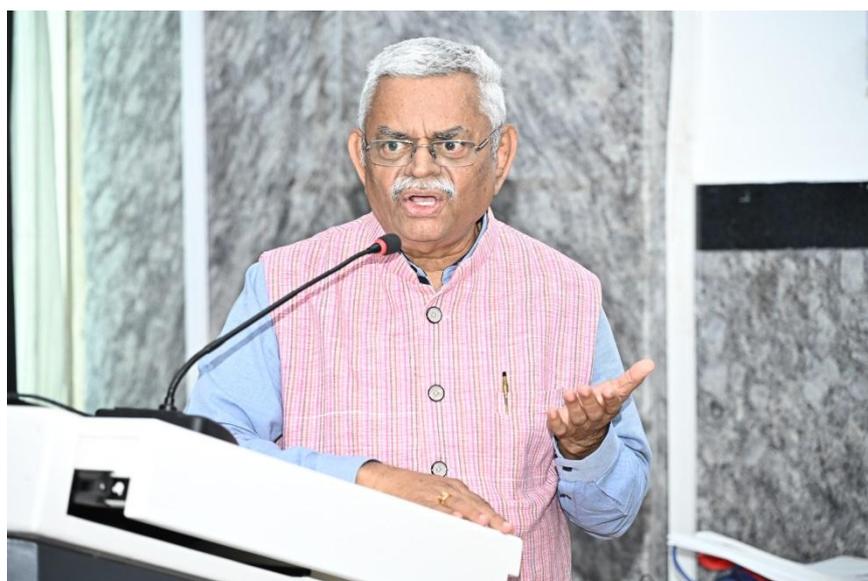
She stressed that this paradigm shift has the potential to:

- Dramatically improve vaccine uptake,
- Simplify implementation in public health programs, and
- Reduce overall costs, making vaccination campaigns more sustainable and impactful.

Dr. Kulkarni's session not only traced the scientific journey of HPV vaccines but also contextualized their public health importance in India, where cervical cancer remains a major cause of morbidity and mortality. Her talk resonated with a strong message — that scaling up vaccination, particularly through single-dose strategies, represents a cornerstone of cervical cancer elimination efforts.

Session IV: Multiplex HPV High-Risk Genotype Screening – Innovations and Frontline Solutions

The fourth session was addressed by Dr. Satyaprakash Pandey, Senior Scientist at the Tata Institute for Genetics and Society (TIGS), Bengaluru chaired by Dr Manjunath G N , HOD , department of radiation oncology and Dr Venkateshwarlu Raavi , assistant professor , CBMG . Dr. Pandey delivered a forward-looking lecture on multiplex screening for high-risk HPV genotypes, drawing from both global advances and groundbreaking research being conducted at TIGS.



He began by outlining the burden and diversity of high-risk HPV types, stressing the need for comprehensive genotyping platforms to guide clinical decision-making and public health

strategies. Dr. Pandey then turned attention to the practical barriers in HPV screening, particularly in resource-limited and geographically challenging settings, where lack of laboratory infrastructure continues to impede widespread implementation.

In response to these challenges, he showcased innovative outreach models, including the concept of mobile laboratories designed to deliver HPV screening and molecular diagnostics to difficult-to-reach terrains, thereby bridging accessibility gaps.

A highlight of his presentation was the discussion of novel diagnostic technologies for self-sampling, which have the potential to revolutionize women's participation in screening programs:

- Do-It-Yourself (DIY) sample collection kits based on RT-PCR qualitative assays.
- The M-Strip kit, developed by an Ahmedabad-based company and even commercially available on Amazon, which enables HPV testing through menstrual blood samples — offering a discreet and user-friendly alternative for women.
- The ALLPLEX kit, a multiplex molecular assay for detecting high-risk HPV genotypes.
- The LFA (Lateral Flow Assay) device specifically designed for rapid detection of HPV-16 and HPV-18, representing a point-of-care innovation.

Dr. Pandey's session brilliantly captured the intersection of molecular research, public health innovation, and user-centric diagnostic solutions, underscoring the potential of next-generation technologies to democratize cervical cancer screening in India. His emphasis on community-driven, accessible, and affordable diagnostics provided a clear roadmap for integrating science, technology, and equity into cervical cancer prevention strategies.

The event culminated in a dynamic panel discussion and interactive Q&A session, which provided participants with the opportunity to engage directly with experts and clarify key challenges in cervical cancer prevention, screening, and management.

The distinguished panel comprised:

- Dr. Devanshi Somaiya – PHRI, Mysore
- Dr. Indira
- Dr Kalyani

- Dr. Abhay K Kattapur
- Dr. T. N. Suresh
- Dr. Vimarshitha
- Dr Chaturvedi
- Dr. Satyaprakash Pandey – TIGS, Bengaluru

