

**MEMORANDUM OF UNDERSTANDING**  
**FOR**  
**ACADEMIC AND SCIENTIFIC**  
**COOPERATION**  
**BETWEEN**



**TOLANI COLLEGE OF ARTS AND SCIENCE, ADIPUR**

&



**GOVERNMENT SCIENCE COLLEGE, VANKAL**  
**TA. MANGROL, DIST. SURAT - 394430**

## Memorandum of Understanding

TOLANI COLLEGE OF ARTS AND SCIENCE, ADIPUR - 370205 (TCAS)  
and GOVERNMENT SCIENCE COLLEGE, VANKAL – 394430 (GSCV) hereby agree to sign a memorandum of Understanding (MoU) for the following objectives and described academic, research related and community welfare activities with terms/conditions attached to them.

### OBJECTIVE OF THE AGREEMENT

- 1 To establish a mutually beneficial relationship built on academic, scientific and cultural cooperation. Areas of cooperation between the institutes include the exchange of faculties, researchers and students.
- 2 The signing institutes agree to provide opportunities, as appropriate for the following activities towards completion of objective of this MoU.
  - a) Exchange of faculty members and/ or researchers with the objective of offering courses and realizing research project in areas with mutual agreement by both colleges through prior invitation.
  - b) Exchange of undergraduate students with the objectives of utilizing existing infrastructural facilities, interacting with professors and students of their relevant subject, understanding teaching – learning environment of each other.
  - c) Support reciprocity in college extension activities of common interest.
  - d) Exchange of books, scientific publications, academic projects, course information.
  - e) Conducting jointly and/or supporting seminars, conferences, and any other similar events of common interest.
  - f) Develop joint research projects and joint publications.



## **STUDENT EXCHANGE**

- a) Under the students exchange a group of students (5 to 6 students) of different discipline will visit the institute for an assigned period of time.
- b) The host institution will assist the students in securing personal and academic support prior to and during the period of exchange.
- c) All other expenses shall be the direct responsibility of the student concerned.

These expenses include: -

- I. Travel expenses
- II. Personal expenses
- III. Books and academic materials supplies
- IV. Administrative fees, if any

## **FACULTY AND RESEARCHERS EXCHANGE**

With the objective of strengthening ties through joint projects and activities of both Colleges, the MoU allows for the creation of faculty and researcher exchange. The following conditions will apply: -

- a) The professors and researchers will maintain their status as faculty members at their home institution for the duration of the exchange.
- b) All other expenses shall be the direct responsibility of the faculty or researcher concerned. These expenses include: -

- I. Travel expenses
- II. Personal expenses
- III. Books and academic supplies
- IV. Administrative fees, if any



**The terms and conditions of this Indenture between TCAS and GSCV shall be as under:**

1. Jointly organize seminars/workshops/conference/competition for academic, research, employability, awareness etc.
2. Both colleges shall be organizing programs related to Science and Technology.
3. Both the Institutional partners will have to arrange and provide all the necessary support in the form of infrastructure and other logistic support to conduct the joint or/and self-designed academic and social awareness based various programs like science fair, scientific gatherings i.e. seminars, conferences, workshops and symposia.
4. The Institutional partners **TCAS** and **GSCV** shall have to arrange materials for hardware/software/instruments/ required for imparting programs at its center.
5. Prepare and published jointly the educational materials, CDs, books, papers, research articles and journals.
6. Mutually exchange students and teaching faculty for educational/research purposes.
7. Institute shall use their own resources for effective publicity/promotion for the successful organization of joint events of common interest.
8. This agreement shall come into effect from 01/07/20 and valid up to three years.
9. Changes to this agreement shall be made by mutual consent between both institutions.
10. In cases of disagreement, the College wishing to depart from the agreement shall, wherever possible, give three months notice of its intention to do so.
11. This agreement shall also be terminated in case: is agreement period over, is criminally convicted or indulges in any criminal activity, in case the institutional partners incapable of fulfilling its role and responsibilities.
12. The agreement shall be reviewed after a period of six month and May also extended the period of this agreement on mutually agreeable terms and conditions to institutional partners on expiry of the one-year period.
13. In order to promote further scholarly exchange both institutions shall actively consider the exchange of teaching faculty and scholars. Such exchange shall be the



subject of adhoc (temporary), need base, faculty consultation and as per government rules-regulation.

14. The agreement is non-transferable.

15. All notices required to be served by either or parties upon the other shall be deemed to have been duly sent and served if delivered personally.


16. Correspondence about this agreement shall be conducted between the principals of the colleges.

#### IPR


Rights regarding publications, patents, royalty, ownership of software / design / product developed etc. under the scope of this MoU, shall be decided by the two parties by mutual consent.

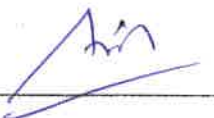
#### AMENDMENTS


Any amendment to the AGREEMENT shall be in writing and signed by the PARTIES here to and shall only after such execution is deemed to form part of the AGREEMENT and have the effect of modifying the AGREEMENT to the extent require by such amendment.


  
Principal  
Tolani College of Arts and Science  
**(S. G. DHARMANI)**  
Principal  
Tolani College of Arts & Science  
Adipur

  
Principal  
Govt. Science College, Vankal  
Ta. Mangrol, Dist. Surat

Witness: 1) 

Witness: 1) 

Witness: 2) 

Witness: 2) 

Date: 01/07/2020

Place: ADIPUR



## **Expert lecture on "Biology of Cancer"**

**Date: 07/02/2023**

**Speaker:** Dr. Aparna Singh (Tolani College of Arts and Science)

Dr. Aparna Singh delivered a detailed and insightful lecture on "Biology of Cancer," providing an in-depth exploration of the complex mechanisms underlying cancer development. The lecture commenced with an overview of the fundamental concepts of cancer biology, including the differences between benign and malignant tumors, and the significance of genetic mutations in cancer progression. Dr. Singh explained how alterations in oncogenes and tumor suppressor genes contribute to uncontrolled cell growth and tumor formation.

The discussion extended to the molecular and cellular basis of cancer, focusing on processes such as angiogenesis, metastasis, and the role of the tumor microenvironment. Dr. Singh elaborated on how cancer cells hijack normal cellular pathways to sustain their growth and evade the immune system. Key topics included the impact of DNA repair mechanisms and the role of epigenetic changes in cancer development.

Dr. Singh also highlighted recent advancements in cancer research, including targeted therapies and immunotherapy. She illustrated how these innovations are revolutionizing treatment by specifically targeting cancer cells while minimizing damage to healthy tissues. The lecture was further enriched with case studies and visual aids, which illustrated the application of these new therapies in clinical settings.

Concluding with a discussion on future directions in cancer research, Dr. Singh emphasized the importance of personalized medicine and ongoing research efforts to develop more effective and less invasive treatments. The session was well-received by attendees, providing a comprehensive understanding of cancer biology and the latest advancements in the field.



Principal  
Government Science College  
At. Po. Vankal,  
Tal. Mangrol. Dist. Surat



## Expert lecture on " Immunodiagnostic Techniques "

**Date: 10/02/2023**

**Speaker:** Dr. Ritesh Tandel (Tolani College of Arts and Science)

Dr. Ritesh Tandel presented an informative lecture on "Immunodiagnostic Techniques," delving into the critical role these methods play in modern diagnostics. The lecture began with a fundamental overview of immunodiagnostic techniques, highlighting their reliance on antigen-antibody interactions to detect and quantify specific biomolecules. Dr. Tandel explained the principles behind key techniques such as enzyme-linked immunosorbent assay (ELISA), western blotting, and immunofluorescence, providing insights into their methodologies and applications.

Dr. Tandel emphasized the versatility and precision of these techniques in various fields, including clinical diagnostics, research, and forensic science. He detailed how ELISA is widely used for detecting infections, measuring hormone levels, and assessing immune responses. Western blotting, he noted, is essential for identifying specific proteins and studying protein expression, while immunofluorescence allows for the visualization of cellular and tissue structures at the molecular level.

The lecture also covered advancements in immunodiagnostic techniques, such as the development of multiplex assays and the integration of automation for high-throughput screening. Dr. Tandel illustrated these innovations with examples of how they enhance diagnostic accuracy and efficiency, particularly in complex cases.

Dr. Tandel concluded with a discussion on the challenges and future prospects of immunodiagnostic techniques, including issues related to specificity, sensitivity, and the need for standardized protocols. The session was well-structured, with practical demonstrations and real-world examples that provided attendees with a comprehensive understanding of immunodiagnostic techniques and their critical role in advancing medical diagnostics.



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