FELLOWSHIP IN THERANOSTICS (MOLECULAR IMAGING & THERAPY)

ABOUT THE UNIVERSITY

Malla Reddy Vishwavidyapeeth is a reputed educational institution located in Hyderabad, Telangana, India. Recognized as a "Deemed to be University under Distinct (Existing) Category," the university offers multidisciplinary programs across medical, dental, nursing, pharmaceutical sciences, and allied health sciences. The institution emphasizes academic excellence, clinical expertise, innovation, and global collaboration in advancing healthcare education.

PROGRAM OVERVIEW

The Fellowship in Theranostics (Molecular Imaging & Therapy) is a specialized program designed to develop expertise in targeted molecular imaging and radionuclide therapy for precision medicine.

The program focuses on:

- PET-CT and SPECT imaging techniques
- Radiopharmaceuticals and tracer kinetics
- Targeted radionuclide therapy (Lutetium, Iodine, etc.)
- Oncology and non-oncology applications of theranostics
- Image-guided therapy and treatment monitoring
- Radiation safety and regulatory practices

The program integrates diagnostic imaging, therapeutic applications, and clinical exposure to ensure comprehensive expertise in theranostics.

PROGRAM EDUCATIONAL OBJECTIVES (PEOS)

Graduates will be able to:

1. Apply molecular imaging techniques for diagnosis.
2. Perform targeted radionuclide therapies.
3. Integrate imaging and therapy for precision medicine.
4. Ensure patient safety and evidence-based clinical practice.

PROGRAM OUTCOMES (POS)

1. **Imaging Expertise:** Perform and interpret PET-CT and SPECT scans.

2. **Therapeutic Skills:** Apply radionuclide therapies effectively.
3. **Precision Medicine:** Integrate diagnostics and targeted therapy.
4. **Safety Management:** Ensure radiation protection and compliance.
5. **Clinical Decision-Making:** Optimize individualized treatment plans.
6. **Research Orientation:** Contribute to advancements in molecular medicine.

COURSE OUTCOMES (COS)

- **CO1:** Understand principles of molecular imaging and radionuclide therapy.
- **CO2:** Perform PET-CT and SPECT imaging.
- **CO3:** Apply targeted radionuclide treatments.
- **CO4:** Interpret imaging findings for clinical decisions.
- **CO5:** Ensure radiation safety and patient care.

PROGRAM-SPECIFIC OUTCOMES (PSOS)

1. Demonstrate expertise in theranostics and molecular imaging.
2. Apply targeted therapy techniques effectively.
3. Integrate diagnostic imaging with therapeutic interventions.

PROGRAM DETAILS

- **Certificate Awarded by:** Malla Reddy Vishwavidyapeeth
- **Program Duration:** One-Year Fellowship
- **Mode of Delivery:** Clinical + Hands-on + Theoretical

ELIGIBILITY CRITERIA

- **Academic Qualification:** MD/DNB in Nuclear Medicine / Radiology / Radiation Oncology or equivalent
- **Professional Requirement:** As per institutional norms

KEY FEATURES

- Advanced training in molecular imaging and therapy
- Hands-on exposure to PET-CT and radionuclide therapy
- Training in precision oncology techniques
- Focus on targeted and personalized treatment
- Evidence-based clinical practice

LEARNING OUTCOMES

KNOWLEDGE & UNDERSTANDING

- Comprehensive understanding of molecular imaging and theranostics

COGNITIVE SKILLS

- Clinical decision-making in precision medicine

PRACTICAL & PROFESSIONAL SKILLS

- Proficiency in imaging and radionuclide therapy techniques

TRANSFERABLE SKILLS

- Patient communication and multidisciplinary coordination

SUBJECT-SPECIFIC SKILLS

- Advanced molecular imaging and targeted therapy techniques

CURRICULUM MODULES – THEORY

- Molecular Imaging Principles
- PET-CT & SPECT Imaging
- Radiopharmaceuticals
- Radionuclide Therapy
- Oncology Applications of Theranostics
- Image-Guided Therapy
- Radiation Safety & Regulations
- Treatment Monitoring
- Advances in Molecular Medicine

PRACTICAL COURSEWORK

- PET-CT and SPECT imaging procedures
- Radionuclide therapy administration
- Treatment planning and monitoring
- Case discussions and clinical evaluations
- Radiation safety practices
- Research and documentation

CAREER OUTCOMES

Graduates can pursue careers as:

- Theranostics Specialist
- Nuclear Medicine Specialist
- Molecular Imaging Expert
- Consultant in Oncology & Imaging Centers
- Academic and Research Professional