

# Certificate Course in Cancer Immunology & Immunotherapy

**October 2023**

**Embrace Learning  
on Your Own Schedule  
with Self-Paced Learning**

## Course Director



**Dr. Radheshyam Naik**  
Group Medical Advisor  
Medical Oncology

## Course Faculty



**Dr. Srinivasa B J**  
Consultant  
Medical Oncology



**Dr. Vinod K Ramani**  
Consultant  
Preventive Oncology



## Learning Objectives:

- To understand the basics of tumor immunology.
- To analyze the contrasting concepts of immune response to tumors and tumor evasion of the immune response.
- To discuss the benefits of novel immunotherapies including checkpoint blockade and CAR T cell therapy.
- To gain insights on the translation of immune system research to patient care, including the benefits of tumor vaccines.

## Learning Methodology:

- Online sessions: 1-2/week
- 4 practical sessions (out of which 2 will be interactive sessions)
- Journal articles and other problem based learning approaches.

## Learning Outcome:

- Gain insights to the basics of tumor immunology.
- Translate knowledge of immune system, for its clinical impact on patient care.
- Analyze the benefit of novel immunotherapies including checkpoint blockade and CAR T cell therapy

## Course Topic:

01. Understanding basics of cancer biology and immunology
02. Immune surveillance in cancer and Immune editing/escape
03. Tumor microenvironment
04. Innate and acquired immunity
05. Cancer Infections
06. Immune suppression and immunological disorders
07. Mechanism of checkpoint blockade, PDL-1, TIL, BCG
08. Graft versus host disease
09. GBM- An example of immunosuppressed Cancer
10. Combination of immunotherapy with chemo/RT/Surgery/Biological treatment
11. Car-T cells and other novel therapies
12. Bifunctional antibodies
13. Immune effects of surgery, radiation and chemotherapy
14. Future of immune oncology
15. Predictive factors for immunotherapy and cancer vaccine
16. BMT- Bone Marrow Transplants

**Course Duration:  
2 Months**

## Inter-active Sessions:

- Patterns of response to immune checkpoint blockade and their assessment
- Management of adverse events
- Prognostic biomarkers for immunotherapy, and resistance to immunotherapy
- Clinical trials: challenges and opportunities

## One Day Inter-active Sessions after Completion of 16 Lecture Sessions

Morning 2 Sessions by **Dr. Radheshyam Naik**

Afternoon 2 Sessions by **Dr. Srinivasa B J**

Location: **HCG Hospital, Bangalore**

Duration: **90 min per Session, Could be done in a Hybrid Mode (both in-person and virtual).**

This includes bedside/clinical vignette-based sessions. This method enables the students to follow the clinical outcome in a systematic sequence, which is applicable to a real-life clinical practice setting. Such sessions will enhance the problem-solving capacity of the students.

