

ESMO Translational Research Unit Visit
Department of Precision Medicine
University of Campania “Luigi Vanvitelli”, Naples Italy

23 -26 March 2020

Title: `How to develop a translational research project with clinical applicability`

Precision medicine is an approach to therapeutic strategies precisely tailored to each patient's disease and considered as a method for future medicine. The purpose of this course is to provide an extensive explanation of how translational research should be developed focusing on targeted agents. Starting from the *in vitro* and *in vivo* animal models, as a comprehensive and comparative approach to preclinical drug development, describing all new tools we can adopt to better define tumour biologic characteristics of each patient and finally focusing on clinical trials methodology.

The course consists of 4 days.

Organisation of a research plan:

- 1) Role of *in vitro* models
- 2) Role of animal models
- 3) Molecular characterization of tumours in the era of translational medicine
- 4) Design of a clinical trials

23 March 2020	Day 1: Role of <i>in vitro</i> models:
8:15-8:30	Introduction of the course and meeting's objectives (F. Ciardiello and E. Martinelli)
8:30-09:30	The strength and the limitation for using an <i>in vitro</i> model to test drug resistance (T. Troiani)
09:30-10:30	Tumour organoids to test drug responses (C. Della Corte)
10:30-10:45	Break
10:45-11:45	The use of <i>in vitro</i> models for drug screening: cytotoxic agents and targeted agents (G. Martini)
11:45- 12:45	Breast cancer three-dimensional models (M. Orditura -A. Diana)
12:45 – 14:00	Lunch
14:00-16:30	Visiting our lab activities, time for questions and answers

24 March 2020	Day 2: Role of in animal's models:
8:30-09:30	The importance of tumour specimen in "precision medicine": from next generation sequencing (NGC) to liquid biopsy (F. Ciardiello)
09:30-10:30	Subcutaneous xenograft models (S. Napolitano)
10:30-10:45	Break
10:45-11:45	Patient-Derived xenografts and Genetically Engineered Mouse Model (S. Napolitano)
11:45- 12:45	Orthotopic xenograft models (T. Troiani)
12:45 – 14:00	Lunch
14:00-16:30	"Vanvitelli" ongoing research projects: I-CURE programme (L. Altucci), presentations from G. Martini, C. Della Corte and S. Napolitano

25 March 2020	Day 3: Molecular characterisation of tumours in the era of translational medicine
09:00-09:30	Molecular characterisation of colorectal cancer and clinical implications (E. Martinelli)
09:30-10:00	Molecular characterisation of gastric and upper -gastrointestinal cancers and clinical implications (F. De Vita)
10:00-10:30	Break
10:30-11:00	Molecular characterisation of NSCLC cancers and clinical implications (F. Morgillo)
11:00- 11:30	Predictive biomarkers for response to immunotherapy (F. Morgillo)
11:30 – 12:00	Round table and Discussion
12:00 –13:45	Lunch
14:00-15:30	Visiting our clinical activities, time for questions and answers

26 March 2020	Day 4: Design of a clinical trial
09:00-11:30	How to design a clinical trial answers and questions (F. Ciardiello)
11:30-12:00	Break
12:00 – 13:00	Final tips to write a translational research project, time for questions and answers (F. Morgillo)
13:00-15:30	Lunch and conclusions

Course Coordinators: Prof Fortunato Ciardiello

Course Organisation: Prof.ssa Erika Martinelli

Speakers: Prof Fortunato Ciardiello, Prof Fernando De Vita, Prof.ssa Erika Martinelli, Prof.ssa Teresa Troiani, Prof.ssa Floriana Morgillo, Prof Michele Orditura, Dr Giulia Martini, Dr Stefania Napolitano, Dr Carminia Della Corte, Dr Anna Diana, Prof.ssa Lucia Altucci.