



università di ferrara
DA SEICENTO ANNI GUARDIAMO AVANTI.

Title of the programme

"Normal and abnormal growth of tissues and organs",

Discipline

Hematology - Oncology

Period

6 June – 1 July 2016

Teaching language

English

Maximum number of students

10 +10

Programme co-ordinators

Overall teaching planning and Istitutional tasks
Antonio Cuneo (Hematology), Giovanni Lanza (Pathology)

Practical teaching
Paolo Carcoforo (Surgery),
Gian Matteo Rigolin (Hematology)
Francesco Cavazzini (Laboratory)
Massimo Negrini (Molecular Oncology)

Ferrara University, ITALY

Contactperson

Prof Reinhold Stockbrugger (rstockbrugger635@gmail.com)

Prof Antonio Cuneo (cut@unife.it)

Prof Giovanni Lanza (giovanni.lanza@unife.it)

Participating departments/institutes

Hematology – Pathology - Oncology – Molecular genetics – Surgery

Background information: Main Topics

- Basic principles of normal and abnormal cell growth,
- Invasion, metastasis and immune response
- The revolution in cancer treatment: understanding genetic lesions and target therapy
- Practical approach to the patient with tumor
- The tumor in the surgical room: the paradigm of breast cancer

Learning goals

Pathophysiology of Cancer

- normal and abnormal cell cycle
- angiogenesis and metastasis
- the cell and its defence
- sequential development of genetic lesions

Approach to the patient

- visiting a patient with tumor
- communication skills
- recognize tumor cells
- principles of modern medical treatment
- principles of surgical treatment

Outline of the programme

Two case/problem-based tutorials per week

Three lectures by basic and clinical specialists per week

Practicals in the field

- Laboratory hematology and oncology: identifying leukemia cells and tumor cells
- Laboratory genetics: basic molecular genetic techniques
- Patient with tumor in the ward and in the DH setting
- Patient with breast cancer and surgery

International health themes (ITM major / minor)

English is THE language!

Required knowledge

Basic knowledge of cell biology, anatomy, biochemistry and physiology;

Interest in laboratory activities

Motivation to meet patients and understand their needs

Feedback

The Ferrara Dept.s involved have a long tradition in PBL and PB Teaching

Way of assessment and Final assessment

Activity in the practical training; final multiple choice test

All teaching activities will be hold at the University Hospital in Cona unless otherwise specified

Week 1 Basic principles of normal and cancer cell biology	Subject	Teacher and venue
Mon 6 9.00	Registration of the external students	University, Office International Affairs Dott. C. Santoro; Ferrara, Via Savonarola 9
15.00 -15.30 15.30 – 16.00	General Introduction to the course Introduction to the course "cell growth"	Stockbrugger Cuneo Aula 5 Cona
Tue 07 11.00 – 12.00	Lecture 1 "Molecular cell biology"	M. Negrini Aula 5 Cona M. Tognon Aula 5 Cona
12.00 – 13.00	Lecture 2: Cell & Cyclus	A. Cuneo Aula 5 Cona
15.00 – 16.00	Lecture 3: Classification of hemopoietic neoplasms	Tutors: (S. Martinelli L. Formigaro; M Cavallari; M. Ciccone) Aula 5 Cona Hospital (Cona)
16.00 – 17.30	Case 1 (discussion)	
Wdn 8 14.00 – 15.00	Lecture 4 Invasion and metastasis a) biologic mechanisms excluding angiogenesis	F. Di Virgilio Aula 5 Cona
15.00 – 16.00	Lecture 5: Invasion and metastasis b) Angiogenesis	G. Rigolin Aula 5 Cona
Thu 9 12.00 – 13.00	Practical: Molecular genetic techniques	M. Negrini (Cubo – FE)
15.30	Reporting Case 1. Discussion Case 2.	Tutors: (S. Martinelli L. Formigaro; M Cavallari; M. Ciccone) Aula 5 Cona Hospital (Cona)
Fri 10 11.00 – 13.00	Self studies	

Week 2 Cancer cell growth and interaction with the host	Subject	Teacher and venue
Mon 13	Self studies	
<p>Tue 14 12.00 – 13.00</p> <p>15.00-16.00</p> <p>16.30</p>	<p>Lecture 6: Invasion and metastasis c) how and where metastatic spread occurs</p> <p>Lecture 7: "The cell and its defence"</p> <p>Reporting case 2 Discussion case 3</p>	<p>G. Lanza Aula 5 Cona</p> <p>F. Di Virgilio Aula 5 Cona</p> <p>Tutors: (S. Martinelli L. Formigaro; M Cavallari; M. Ciccone) – Aula 5 Cona Hospital (Cona)</p>
Wdn 15 9.00 – 11.00	<p>Practical: Visiting patients with hemopoietic neoplasms</p>	<p>5 students <u>Hematology ward 1B3</u></p>
<p>Thu 16 9.00-11.00</p> <p>11.00 – 12.30</p> <p>14.00-15.00</p>	<p>Practical: Visiting patients with hemopoietic neoplasms</p> <p>Practical: identifying tumor cells in tissue sections (1)</p> <p>Lecture 8 Sequential development of genetic lesions: the example of colorectal and breast cancer</p> <p>Reporting case 2 Discussion case 3</p>	<p>5 students <u>Hematology ward 1B3</u></p> <p>G. Lanza, Dr. R Gafà and co-workers Pathology Institute</p> <p>G. Lanza Aula 4 Cona</p> <p>Tutors: (S. Martinelli L. Formigaro; M Cavallari; M. Ciccone) Aula 4 Cona Hospital (Cona)</p>
Fri 17	Self studies	

Week 3 Cancer in the clinic	Subject	Teacher and venue
Mon 20		
Tue 21 12.30 -13.30 13.30 - 14.30 15.30	Lecture 9 The breast cancer model: from bed to bench and back Lecture 10 Surgical approach to cancer treatment Reporting case 4 Discussion case 5	<u>A. Frassoldati</u> Aula 5 Cona <u>P. Carcoforo</u> Aula 5 Cona Tutors: (S. Martinelli L. Formigaro; M Cavallari; M. Ciccone) Aula 5 Cona Hospital (Cona)
Wdn 22 9.00 - 13.00 15.00-16.00	Practical: surgery Lecture 11 Medical approach to cancer treatment: from the genetic lesion to target therapy	<u>P. Carcoforo</u> Surgery department <u>F. Cavazzini</u> Aula 5 Cona
Thu 23 12.00-13.00 14.00 - 15.30 15.30	Lecture 12/training: "Communication skills" Practical: identifying tumor cells in tissue sections (2) Reporting Case 5 Discussion Case 6	<u>R. Stockbrugger</u> Aula 5 Cona <u>G. Lanza</u> , Dr. R Gafà and co-workers Pathology Institute 1E3 Tutors: (S. Martinelli L. Formigaro; M Cavallari; M. Ciccone) Aula 5 Cona Hospital (Cona)
Fri 24	Self studies	

Week 4 Cancer in the clinic	Subject	Teacher(s)
Mon 27 June	Self studies	
Tue 28 14.00 – 15.30	Reporting case 6	Tutors: (S. Martinelli L. Formigaro; M Cavallari; M. Ciccone) Aula 5 Cona
Wdn 29 9.00 – 13.00 (to be defined)	Practical: surgery	<u>P. Carcoforo</u> Surgery department
Thu 30	Self study	
Fri 1 July 09.00 – 12.00	Exam (multiple choice and task) and course evaluation.	Prof. R. Stockbrugger Aula 5 Cona

The rooms (Aule) are located at the Hospital in Cona.