

# CLINICAL SCIENTIFIC STRUCTURE

**SCIENTIFIC DIRECTORATE**

**PREVENTIVE  
AND PREDICTIVE MEDICINE**

**EXPERIMENTAL ONCOLOGY & MOLECULAR MEDICINE**

**PATHOLOGY AND LABORATORY MEDICINE**

**SURGERY**

**MEDICAL ONCOLOGY**

**ANESTHESIA, INTENSIVE CARE, PAIN THERAPY  
AND PALLIATIVE CARE**

**DIAGNOSTIC IMAGING AND RADIOTHERAPY**



## SCIENTIFIC DIRECTORATE

### SCIENTIFIC DIRECTOR

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The responsibilities of the Scientific Directorate traditionally include: the co-ordination of research and education activities, planning of scientific policy and evaluation of scientific projects (Committee of the Scientific Directorate); management of the institutional relationships with key Health authorities at a regional and national level; supporting researchers seeking public and private funding (Grant Office); giving access to information resources in support of ongoing research programs (Biomedical Library); the enhancement of communication and collaboration among all cancer-related institutions in Lombardy (Lombardy Oncologic Network); the supervision of the Institute scientific communication, the promotion of effective health communication with the larger public and the development of patients education materials (Office of Communication). Thanks to the tight cooperation with the TTO, the Scientific Directorate also facilitates the transfer of inventions and knowledge from INT labs to the public.

Every year the Scientific Directorate organizes a Research Day: the 2010 edition was held on November 16th at INT. The meeting offered an opportunity to look back to the scientific accomplishments achieved during the year, and to look forward to the future of research by recognizing three young scientists.

In 2010 we had to say goodbye to a dear colleague and friend, Angela Codonesu, aged 56, who died on 29 September at our Institute, where she had spent her entire working life. Her expertise as a bibliographic assistant at the Library as well as her profound kindness will be greatly missed.



### Committee of the Scientific Directorate

Marco A. Pierotti, *Scientific Director*  
Alessandro M. Gianni, *Deputy Scientific Director*  
Vincenzo Mazzaferro, *Deputy Scientific Director*  
Mario Santinami, *Deputy Scientific Director*  
Franco Berrino  
Emilio Bombardieri

Paolo Corradini  
Maria Grazia Daidone  
Martin Langer  
Ugo Pastorino  
Giuseppe Pelosi  
Francesco Reitano, *Chief Medical Officer*  
Gustavo Galmozzi, *Medical Director*

This Committee is the Institutional Reviewer Board (IRB) and assists the Scientific Director in defining the Strategic Scientific Program and the contents of the correlated educational activities. Its main objectives are:

- definition of research areas at INT
- approval of multidisciplinary research projects
- approval of the development of the research projects at a scientific and administrative level

- evaluation of scientific quality and feasibility of newly proposed clinical studies prior to their submission to the Independent Ethics Committee
- evaluation of the educational programs for residential and non-resident courses, approval of applications by physicians and researchers of the INT to spend training periods in other countries, and applications by foreign researchers to spend training periods in INT.

The IRB says farewell to Patricia Crollari, and welcomes Francesco Reitano in the board.

### Grant Office

The Grant Office (G.O.) has the mission to support research activities within the Institute, facilitating access to external financing, national and international, by looking for relevant information in the appropriate media, making direct contact with public and private funding agencies, and swiftly providing information to potentially interested researchers. Announcements regarding funding possibilities are constantly updated in the "Calls for Application" section of the Institute Intranet website, on the Scientific Directorate web page. It is the G.O.'s duty to help investigators in preparing and submitting grants applications, promoting collaborations among the researchers working at INT and in other public services, helping them to collaborate on research projects.

Other goals of the G.O. are:

- To stimulate and constantly support researchers, giving methodological guidelines and meeting organizational needs, particularly in the conduction of multidisciplinary research activities.
- To assist researchers, from the funding request to the completion of the task, monitoring their results, and adherence and achievement of the defined objectives. The monitoring activity also includes administrative supervision.

At the Scientific Directorate office, a database has been created and is continuously updated according to emerging new needs. The database stores information regarding research projects from submission to conclusion. To monitor scientific productivity, a database of all publications from the Institute has been created: it is thus possible to know in real time the number of publications and their Impact Factor. These tools allow a more efficient collaboration with the Administration in the evaluation of scientific productivity of each individual Department and of the Institute as a whole.

The G.O. office keeps in contact with the officers in charge of research at the Ministry of Health and at the Health Management offices of the Lombardy Region. The G.O.'s activities include the management of ongoing Institutional Projects and the design of calls aimed at distributing the funding coming from the 5‰ tax donation. In 2009, the G.O. supported INT researchers in: 36 applications for public funding (Ministry of Health and the Lombardy Region); 52 applications to private funding agencies (AIRC and CARIPLO) and 28 international funding bodies. With regards to ongoing research, in 2009 the G.O. presented a new scientific and financial document illustrating the 3-year activity within the 6 research areas funded by the Ministry of Health.

### Lombardy Oncologic Network (ROL)

The regional Lombardy government is establishing an innovative model for delivering healthcare to cancer patients, based on clinical cooperation and exchange of information, as well as sharing and integration of existing cancer facilities throughout the regional network of organizations and professionals. The Lombardy Cancer Network (ROL) was started in 2006 and is a major effort of the Lombardy government, aimed at creating "an integrated network of health and social services devoted to cancer patients" to provide a framework for facilitating the exchange of information, capacity, and expertise and, as consequence, to offer a more accurate diagnosis, treatment, and control of cancer.

INT, with the coordination of Scientific Directorate, has been the implementing body of ROL since its start-up. ROL is consistent and integrated with the Lombardy CRS-SISS Project, as one of its advanced evolutions. ROL is testing innovative solutions for distance sharing of health data pertaining to a regional population of nearly 10 million by introducing a structured hospital discharge program focused on a unified "in/out-patient clinical discharge report". Its semantics were defined so as to design a cancer-oriented "minimum clinical data set" that can

spare physicians any data input in excess of what they are ordinarily required for clinical purposes. Reports can be shared over the network among centers treating the same patient. In addition, teleconsultation facilities, asking for second opinions as well as to refer patients from one center to another, will be implemented by using the same master document. The main goal of ROL is to improve the quality of care focusing on the cost/efficacy ratio to reduce healthcare costs. ROL is also developing a more rational approach to the cancer patients referral system in Lombardy by creating specific applications that have gradually established a network that achieves concrete results even at an early stage. The implementation of ROL was aimed to design evidence-based clinical practice guidelines for all solid tumors developed through a consensus process among the oncology community to make a comprehensive impact on clinical oncologic practice. This is primarily cultural, but it is also finalized to evaluate appropriateness of treatment by extensive use of integrated ICT tools. A link between patient report and guidelines will allow rapid assessment of the consistency between guidelines and clinical treatment in each patient. This process will allow a population-based assessment of medical appropriateness. At the end of 2010, guidelines are available for practically all solid tumors and each guideline is updated yearly by a dedicated regional working group. INT also provides the Coordination Office of ROL, active since 2006 to coordinate the regional activities of ROL and enable the functionality of the Coordination ROL (C-ROL), a board with an operational role constituted by representatives from several ROL communities and representatives of Lombardy Government; it works in relation to the decisions of the Regional Government and the Regional Oncologic Committee. Starting in 2009, in 2010 ROL has expanded its field of activity to clinical and translational research and has contributed to the creation of a virtual tissue bank, and in particular in the definition of homogenous criteria for the storage of biological samples to be adopted by all participating centers, with the network information system as an added value. The collaboration with Nerviano Medical Sciences started in 2010 was crucial; this joint effort is organizing studies for clinical drug development by research groups in the ROL/REL (Lombardy hematologic network) area. In 2010, a call for support of independent clinical research has been issued by the Scientific Director of INT, and 15 study proposals have been selected to be supported for their scientific organization in collaboration with the Department of Clinical Development of NMS. Furthermore, in 2010 meetings with representatives of the Ethics Committees of the institutions related to ROL were organized to facilitate harmonization of criteria for future work. One focus was informed consent and protection of sensitive data in the creation of tissue banks.

### **Patient Information**

The Scientific Directorate actively participates in the organization of an innovative model of providing information to cancer patients in Italy by establishment of a National Service of Information in Oncology through ongoing multicentric projects in collaboration with the Istituto Superiore di Sanità, the oncology IRCCS, and the main Italian Associations of Volunteers, sponsored by Alliance Against Cancer and the Ministry of Health. These projects aim to reduce barriers to treatment and to achieve better therapeutic results and better acceptance of treatment by the patient. The main goal is to create a comprehensive cancer care model offering the most advanced diagnosis and treatment techniques and information support with the best quality available, improving doctor-patient communication and patient empowerment. This will assure better treatment compliance, thereby allowing patients to fully participate in the decision making process in cancer care. The INT Information Point (since 2005) supports patients and their families, by meeting their informational needs, was implemented in 2010. Our IP is part of the Italian IP network, a community based on shared strategies, guidelines, tools and aims to establish a qualified and formally recognized service for information in oncology.

### **Biomedical Library**

The INT Library is affiliated to European Association for Health Information and Libraries. It offers a large collection of basic science journals and reference books, and electronic access to full text journals, database and books. The INT Library, specializing in oncology, has the mission to meet the ongoing needs of physicians, investigators and students, resident and non-resident, allowing the quick retrieval of information necessary for professional activity and formation.

The Library's electronic resources give access to over 9,000 titles (including current subscriptions and journals obtained through the consortia SBBL and Bibliosan) can be consulted through "A to Z", an online virtual catalogue that collects and updates the links to publisher's web sites. The Library's collection is supplemented by interlibrary loan services with access to the following catalogs:

- GIDIF-RBM: a consortium of key biomedical libraries in Italy (over 5,000 titles from 51 biomedical libraries);
  - SBBL: the Network of Lombardy Biomedical Libraries (6,200 titles from 16 libraries); online scientific journals and data banks: Embase, CODIFA. The library offers access to specialized reference data banks, such as Medline and Toxnet.
  - BIBLIOSAN: a system which groups 50 Italian Research Institutions with over 4,100 active titles. The project is supported by the Ministry of Health. From 2009, we also have the access to ISI Web of Knowledge and Journal Citation Reports, which offer an objective means to evaluate the world's leading journals, with statistical information based on citation data.
- The library is also a member of ANCP, the National Archival Collection of Periodicals, and is thus linked to over 2,300 Libraries in Italy and over 110,000 journals. The Italian framework Nilde (Network for Inter-Library Document Exchange) allows libraries to request and supply documents via the web. Library customers can also access RefWorks, personal bibliographic management software designed to help researchers gather, manage and store information, as well as generate citations and bibliographies.

The library staff aims at informing the public about about all services offered. In addition to disseminating information via the constantly updated Intranet Library web page, various courses were held in order to help researchers gather information more easily.

Lastly, two important courses were held:

- Impact Factor, analysis of citations and H-index: online evaluation of research activities with bibliometric indicators. Speaker: Alain Frey
- Best practice by BMJ. An innovative evidence-based instrument and available online. Speaker: Jenny Lewis

The Library manages an house database and updates the collection of publications of INT investigators, and calculates their Impact Factor to respond to periodic queries from the Management Control and Ministry of Health.

### Editorial Office

The Editorial Office coordinates and manages all activities relative to the production of materials that describe the clinical and scientific activities of the Institute. This comprises organization of content and collection of material for publication, in addition to graphic layout. The end result is a ready-to-publish, high-quality document (either printed or in electronic form) to which many individuals have contributed, including individual authors, editors, and specialized persons whom are all dedicated producing a high-quality document. In addition, the editorial office oversees the publication of the annual Scientific Report and Brochure, and provides support to individual departments in the preparation of more specific materials such as brochures and meeting reports. The editorial office has a dedicated workstation for graphic design and all stages of editing using the most up-to-date software.

### Editorial Board of *Tumori*

In 2010, the Editorial Board of *Tumori* received 610 manuscripts for publication. In the same year, 6 issues containing 178 reviews, original articles, and case reports were published. Five thousand copies per issue were printed.

### Awards & Recognitions

- In 2010, our Institute has been recognized as a **Center of Excellence** for the diagnosis and treatment of Neuroendocrine Tumors by ENETS (European Neuroendocrine Tumor Society).
- The Comitato Ospedaledonna of the Osservatorio Nazionale sulla salute della Donna (O.N.Da) awarded the Fondazione IRCCS Istituto Nazionale dei Tumori with **3 Bollino Rosa** prizes for its care in the research and treatment of female diseases and its attention to the specific needs of women patients.

- The **Intensive Care Unit** has been chosen as Italian party leader in the Clean Care Project of the World Health Organization (WHO) finalized to optimize patient safety in the hospital.
- **Vincenzo Mazzaferro**, Head of the Gastrointestinal and Hepatopancreatobiliary Surgery and Liver Transplantation Unit, received CIRSE (Cardiovascular and Interventional Radiological Society of Europe) Award. Honorary Lecture at the 2nd European Conference on Interventional Oncology (ECIO) 2010.
- **Franco Berrino**, Head of the Preventive and Predictive Medicine Department, was conferred the International Award for Cancer Prevention, VI Edition, by Lega Italiana per la Lotta contro i Tumori.
- **Emilio Bombardieri**, Head of the Diagnostic Imaging and Radiotherapy Department, was awarded the "Una vita per la ricerca" prize by ABO Foundation and has been appointed President Elect of the European Association of Nuclear Medicine (EANM) Congress 2012.
- **Lisa Licitra**, Head of the Head and Neck Cancer Medical Oncology Unit, was conferred the FIRC Guido Venosta prize.
- **Augusto T. Caraceni**, Head of the Palliative Care, Pain Therapy and Rehabilitation Unit, was conferred Professorate in Palliative Medicine at the University of Science and Technology in Trondheim, Norway.
- **Lucio Bertario** Head of the Hereditary Digestive Tract Tumors Unit is the President elect of AIFEG (Associazione Italiana per lo Studio della Familiarità ed Ereditarietà dei Tumori Gastrointestinali).
- **Andrea Necchi** of the Urology Unit was conferred the "Giovani Ricercatori" award of the Fondazione IRCCS Istituto Nazionale dei Tumori.
- **Antonella Galvan** of the Molecular Basis of Genetic risk, Polygenic Models was conferred the "Giovani Ricercatori" award of the Fondazione IRCCS Istituto Nazionale dei Tumori.
- **Sabina Sangaletti** of the Molecular Immunology Unit was conferred the "Giovani Ricercatori" award of the Fondazione IRCCS Istituto Nazionale dei Tumori.
- **Silvia Piconese** of the Molecular Immunology Unit was conferred the "Giovani Ricercatori Cecilia Cioffrese" prize of the Fondazione Carlo Erba and the Fondazione Guido Berlucci's prize.
- **Mauro Carrara** of the Medical Physics Unit was conferred the Young Scientist Award-Travel Grant for his participation at the 16th Solid State Dosimetry Conference in Sydney.
- **Marzia Pennati** of the Molecular Pharmacology Unit was conferred research fellowship by Fondazione Pezcoller-Ferruccio ed Elena Bernardi.
- **Giovanna De Vecchi** of the Molecular Basis of Genetic Risk and Genetic Testing Unit was conferred 'Doniselli' fellowship by the Soroptimist International d'Italia.
- **Giulia Bertolini** of the Tumor Genomics Unit won a FIRC-AIRC three year fellowship.
- **Maria Grazia Vizioli** of the Molecular Mechanisms Unit was conferred the Graziella Persico award for best poster presented at the 52th Meeting of the Società Italiana di Cancerologia (SIC).
- The American Journal of Roentgenology (AJR) society recognized the article "Percutaneous radiofrequency interstitial thermal ablation in the treatment of hepatic cancer" published by the staff of the **Intralesional Treatment Unit** as one of the most influential articles published in the AJR's first 100 years.
- The project "New antibody-based reagents for imaging and treatment of prostate cancer" of the **Molecular Therapies Unit** was selected by the Regione Lombardia sponsored program Technoscouting as one of the 3 best projects to be presented to the investors.
- The European Community within the framework of the 7th international program, has granted financial support to a member of the **Hematology and Allogeneic Bone Marrow Transplantation Unit** for a project aimed at the better understanding of the role of Jak and STAT signaling in immunologic processes occurring after allogeneic hematopoietic stem cell transplant (allo-HSCT) and to develop new strategies to overcome graft versus host disease (GVHD).