Humanitas Research & University Hospital

Who we are  Humanitas at a glance  Our history  Our philosophy  Scientific research  Humanitas University  International collaborations and recognitions  Humanitas Group in Italy

Translational research

IMMUNITY AND INFLAMMATION  Interview with Alberto Mantovani
The interface between immunology and oncology anticipates new advances in research

ONCOLOGY  Interview with Armando Santoro
Humanitas at the forefront of innovation in specialist therapies

CARDIOVASCULAR  Interview with Gianluigi Condorelli
A comprehensive approach to research in cardiology: from nanomedicine to standards of care

NEUROSCIENCE  Interview with Alberto Albanese
High-tech and early diagnosis against degenerative and chronic neurological conditions

HEPATOLOGY  Interview with Savino Bruno
Hepatitis C: a revolution which will ultimately defeat the virus in the future

Humanitas Clinical & Research Departments

Departments and teams - Clinical area  Scientific Research and Laboratories

Paper published  2015
The yearly Scientific Report 2015 appears at a particularly significant phase of transition, both from the point of view of Humanitas as an institution, and from a broader perspective concerning evolution in medicine. As far as Humanitas is concerned from an institutional point of view, suffice it to mention three moments in the past, the present and the future: 2016 marks the twentieth anniversary of Humanitas Hospital, it is characterized by the full maturity of the academic experience of Humanitas University, and witnesses the laying of the foundation stone of the new campus, as apparent from the excavations and the cranes on site.

These crucial institutional hallmarks coincide with a revolution in medicine. I am referring to the development of Precision Medicine, an increasingly personalized approach geared towards genetic features where lab bench and bedside are getting closer and are likely to become increasingly inseparable. Precision Medicine implies the creation of a patient-centered ecological niche that integrates several different areas of knowledge, skills and competences ranging from genomics and bioinformatics to traditional clinical disciplines.

This perspective calls for a strong commitment in the education of a generation of future physicians and researchers able to face the fascinating, yet demanding challenges of precision medicine. Our Country boasts a great tradition in nurturing these new talents, which – unfortunately – is seriously undermined at present. Physicians actively engaged in independent research (physician scientists) are an endangered species and this represents a global problem, as can be easily seen considering how this topic is widely covered by mainstream scientific literature. Nevertheless, Italy – somehow denying its tradition – does not address the problem at a systemic level with a comprehensive and long-term strategy.

Humanitas is firmly committed to nurturing future generations of physicians and scientists.

In this context, translation from bench to bedside is an example of how research can be transferred to society, and can be considered the third mission of a University, alongside its two more traditional ones: education and scientific research in its strictest sense.

Translation to society includes a variety of facets: from communication to education, to transferring results to industry and technology. We are aware of our Country’s current constraints: we have committed ourselves to deal with those issues and are going to continue to do so, maintaining our focus on patients as human individuals.

Alberto Mantovani
Scientific Director of Humanitas; Professor of General Pathology, Humanitas University
Humanitas
Research & University Hospital
WHO WE ARE  Humanitas is a highly specialised hospital, research and teaching center and hosts Humanitas University. Built around centers for the prevention and treatment of cancer, cardiovascular, neurological and orthopedic disease – together with an Ophthalmic Center and a Fertility Center – Humanitas also operates a highly specialised Emergency Department.
As the first Italian hospital to have been quality-certified by Joint Commission International, Humanitas is accredited by the National Health System.

Humanitas Research & University Hospital promotes health, prevention and early diagnosis by means of innovative and advanced outpatient healthcare facilities.
Appointed as IRCCS by the Ministry of Health (an accreditation in the Italian system that acknowledges institutions focused on excellence in clinical care and research), Humanitas is a world-famous center of excellence for immune system-related diseases, from cancer to rheumatoid arthritis.
Humanitas Research Hospital is the flagship of a hospital group also present in Milan, Bergamo, Turin, Catania, and Castellanza (Varese).
HUMANITAS AT A GLANCE

OUR PEOPLE

2,500 in total, of whom:
more than 700 physicians
more than 200 researchers
more than 1,000 nurses, technicians, biologists and others
more than 450 client service and staff

CLINICAL ACTIVITY (yearly)

40,000 inpatients from Italy and abroad
more than 2.3 million outpatients
50,000 Emergency Room (ER) patients
more than 3.1 million lab tests
40,000 NMR examinations and CT scans
more than 28,000 surgical procedures

OUR FACILITIES

90,000 sqm, of which:
75,000 are devoted to clinical activity
6,000 to scientific activity
4,000 to training and teaching
3,000 to facilities for patients and relatives

783 operative beds:
580 ordinary acute
73 day hospital
28 intensive care unit
102 rehabilitation
41 operating rooms
200 examination rooms
OUR facilities

90,000 sqm, of which:

- 75,000 are devoted to clinical activity
- 6,000 to scientific activity
- 4,000 to training and teaching
- 3,000 to facilities for patients and relatives

783 operative beds:

- 580 ordinary acute
- 73 day hospital
- 28 intensive care unit
- 102 rehabilitation
- 41 operating rooms
- 200 examination rooms

OUR CUTTING-EDGE TECHNOLOGIES

Radiotherapy & Radiosurgery:
- 5 accelerators including 1 EDGE, 2 TRUEBEAM + GAMMA KNIFE
- 2 CT-PET with cyclotron (radio pharmaceutical production)
- da VINC! Robot and TELELAP ALF-X
- 2 O-arm for spine
- 6 MRI including 3T
- 6 CT, including one 128 slices
- Excimer and femtosecond laser
OUR HISTORY

1989  Design and construction of Humanitas are assigned to Techint based on James Gowan’s project.


1997  Humanitas is subsidized by the National Health System for inpatient services.

1999  Humanitas Foundation is established for psychological and practical support to patients and caregivers.

2000  Humanitas becomes a teaching center of the Università degli Studi di Milano for the Nursing Degree, followed by Medicine and Biotechnology.

2002  Humanitas becomes a case-study for the Master in Business Administration at Harvard University and also receives excellence accreditation by the Joint Commission international, becoming the first Italian hospital to be acknowledged by one of the most important bodies for hospital quality certification worldwide.

2003  Humanitas opens the ER and the Radiotherapy Unit.

2005  The Ministry of Health accredits Humanitas as IRCCS. Fondazione Humanitas per la Ricerca is launched.

2007  Inauguration of the Research and Teaching Center.

2010  Humanitas launches the International Medical School in collaboration with the Università degli Studi di Milano.

2013  Scientific output from Humanitas reaches a total Impact Factor of 2.627, an outstanding result that positions the IRCCS among the first Italian Institutions for quality of research. Diagnostic services enlargement with new available facilities.

2014  Humanitas University, a new international institution dedicated to the medical sciences, is established.

2015  Groundbreaking for the new Humanitas University Campus.

2016  20 YEARS
OUR PHILOSOPHY

Our mission is to:

- improve our patients’ lives by offering increasingly effective treatments based on an innovative and sustainable organization
- invest in research that ultimately improves clinical management and outcomes
- train a new generation of professionals for clinical skills, research and academia.

Humanitas and prevention

Being proactive is the winning strategy to maintain good health. Even the most serious diseases can be prevented (primary prevention) or improved (secondary prevention) with physical activity and correct lifestyle. Humanitas is actively involved in campaigns to promote healthy lifestyles and focuses on prevention and early diagnosis thanks to daily investments in expertise and technologies.

ON THE PATIENTS’ SIDE

Humanitas cooperates with Fondazione Humanitas to provide support to patients and their families. In particular, Fondazione Humanitas supports patients with chronic diseases and their families by means of dedicated programs and properly trained nursing volunteers.
Research at Humanitas

In recent years, Humanitas’ scientific productivity has been constantly increasing in quality, achieving very high levels, as indicated by bibliometric indexes: over 3,000 Impact Factor points in 2015 (ranking among the first IRCCS Institutions in scientific output), with particular focus on the immune system. The latter is crucial for contemporary research in medicine because of its strong impact on different clinical areas, from cancer to cardiovascular diseases, inflammatory and autoimmune diseases.

From labs to patients, rapidly

More than 200 researchers work at the University Research and Teaching Center – which is fully integrated with the hospital – utilizing cutting edge technologies, such as the recently acquired two-photon microscope. The group operates in close collaboration with the 700 physicians from the hospital, in order to facilitate translation, i.e. the direct application of the most recent advances in healthcare through a systematic and ongoing process of innovation. Scientists and researchers from 16 countries spanning over four continents carry out innovative research in immunology, and are involved in studies on high impact non-communicable diseases, e.g. cancer, myocardial infarction, stroke, and autoimmune diseases.

Evaluation of Humanitas’ scientific output

Every year Scimago Research Group analyzes yearly publications of approximately 5,000 research centers. According to the “Excellence Rank” (the percentage of articles published in the first decile), Humanitas ranks among the top 10% worldwide (315th out of 4,849 institutions) and in Western Europe (141st out of 1,535 institutions), and among the top 5% in Italy (8th out of 163).
SCIENTIFIC RESEARCH

Number of Humanitas’ publications
Years 2005-2015

Impact factor
Total Impact Factor of Humanitas’ publications
Years 2005-2015

SCIENTIFIC ACTIVITIES

3,076 = Impact Factor in 2015

more than 300 professionals involved into research, of whom:

200 researchers (Pis, Junior Pis/Staff scientists, Postdocs and PhD students, technologists/technicians)

more than 100 clinicians involved into research

20 labs

20,000 sqm dedicated to research and education
Italian researchers who returned after an experience abroad

Geographical distribution of foreign researchers at Humanitas

From EU Countries (Total 13)
- Poland: 3
- France: 2
- Spain: 2
- Belgium: 1
- Croatia: 1
- Denmark: 1
- Greece: 1
- Serbia and Montenegro: 1
- UK: 1

Rest of the World (Total 9)
- Canada: 1
- Colombia: 1
- Ecuador: 1
- India: 2
- Israel: 1
- Japan: 1
- Macau: 1
- Western Sahara: 1
**HUMANITAS RESEARCH DAY**

The relevance of the 2016 Humanitas Research Day is mirrored by the large number of posters presented – in total 150 – and the great participation of physicians, researchers, and lab personnel. The Research Day is an yearly opportunity for everybody involved in the preclinical and clinical research at Humanitas to be presented.

The program included thematic workshops, selected lectures by young physicians and promising researchers, a poster session – where the best posters on preclinical, translational, and clinical topics were awarded – and the presentation of the young researchers awarded national or international prizes during the previous year.

---

**International Advisory Boards**

Humanitas firmly believes in the evaluation process. For this reason, an Advisory Board for pre-clinic research headed by the Nobel Prize awardee **Rolf Zinkernagel** has been appointed.

Another International Advisory Board assesses and evaluates Humanitas Cancer Center research and clinical activities on a continuous base.

---

**Fondazione Humanitas per la Ricerca** is involved in supporting clinical and basic studies on pathophysiology of immunological defense mechanisms and of risk factors for several diseases, among which chronic inflammatory, cancer, cardiovascular, and neurological diseases. The research activity of Fondazione Humanitas is monitored by an Advisory Board whose chairman is the Nobel Prize awardee **Rolf Zinkernagel**.

**The Advisory Board of Fondazione Humanitas per la Ricerca:**

**Rolf Zinkernagel**, MD/PhD (President)
University of Zurich and University Hospital of Zurich
Institute of Experimental Immunology
Zurich, Switzerland

**Fabio Cominelli**, MD/PhD
University Hospital
Dept. of Medicine-Gastroenterology
Cleveland, Ohio, USA

**Charles Dinarello**, MD
Professor of Medicine
Division of Infectious Diseases
University of Colorado Health Sciences Center
Denver, Colorado, USA

**Pietro De Camilli**, MD
Eugene Higgins Professor of Cell Biology and of Neurobiology
Director, Yale Program in Cellular Neuroscience and Neurodegeneration and Repair
New Haven, Connecticut, USA

**Napoleone Ferrara**, MD/PhD
Genentech Inc.
South San Francisco, USA

**Lorenzo Moretta**, MD
Research Director Giannina Gaslini Pediatric Institute
Professor of General Pathology
University of Genova
Genova, Italy

**Göran K. Hansson**, MD/PhD
Karolinska University Hospital
Stockholm, Sweden
The network of the EU-sponsored research projects

Grants to Humanitas’ researchers

<table>
<thead>
<tr>
<th>Grant Program</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AICR 2014</td>
<td>Sequential combination of chemo-immunotherapy with trabectedin and functionalized immunomodulatory nanostructures to optimally target Tumor-Associated Macrophages in vivo</td>
</tr>
<tr>
<td>ERACOSYSMED 2015</td>
<td>Systems medicine approach to minimize macrophage-associated interstitial fibrosis and tubular atrophy in renal allograft rejection</td>
</tr>
<tr>
<td>ERANET NEURON 2014</td>
<td>Role of microglial metabolism in perinatal neuroinflammation</td>
</tr>
<tr>
<td>ERC advanced grant</td>
<td>Epigenetics and microRNAs in myocardial function and disease</td>
</tr>
<tr>
<td>ERC starting grant</td>
<td>Generation and maintenance of long-lived memory T cells in humans</td>
</tr>
<tr>
<td>FP7 ICT UK, France, Germany, Italy, Norway, Spain, Switzerland</td>
<td>ICT-enabled, cellular artificial liver system incorporating personalized patient management and support</td>
</tr>
<tr>
<td>H2020-PHC-RIA</td>
<td>Efficacy and safety of low-dose IL-2 (ld-IL-2) as a Treg enhancer for anti-neuroinflammatory therapy in newly diagnosed Amyotrophic Lateral Sclerosis (ALS) patients (MIROCALS)</td>
</tr>
<tr>
<td>Marie Curie CIG</td>
<td>Characterization of NK cell distributions and functions in human tissues in HIV-1 pathogenesis</td>
</tr>
<tr>
<td></td>
<td>Global microRNA profiling of normal and Pbx1-null hematopoietic stem cells and progenitors for the identification of new regulators of the balance between self-renewal and differentiation</td>
</tr>
<tr>
<td></td>
<td>Improving adoptive T cell transfer immunotherapy for cancer with T memory stem cells</td>
</tr>
<tr>
<td>Marie Curie IIF</td>
<td>mRNA translational regulation in heart failure</td>
</tr>
<tr>
<td>Marie Curie Individual Fellowship EF ST</td>
<td>Development and evaluation of nanomedicines for cancer treatment through immunomodulation: targeting Tumor-Associated Macrophages (NANOTAM)</td>
</tr>
<tr>
<td></td>
<td>In vivo engineering of monocytes loaded with nano-chemotherapeutic formulations: a novel live-cell mediated drug delivery system for the treatment of cancer (MONONANOCHEM)</td>
</tr>
<tr>
<td>Marie Curie IRG</td>
<td>Role of microRNAs 143 and 145 in cardiovascular physiology and disease: from bench to bedside</td>
</tr>
<tr>
<td>Marie Curie ITN ETN</td>
<td>European Sepsis Academy: towards new biomarkers to improve sepsis management</td>
</tr>
</tbody>
</table>
The Ethical Committee

Since 2005, an Ethical Committee has been active at Humanitas. This is an independent body which protects the rights, security and well being of the parties involved, within the realm of clinical research. Any experimentation process, be it carried out industrially or within the Institute, depends on the Committee’s decision, which takes into account the correctness and the compliance to ethical standards of new therapeutic methods, or diagnoses, that involve human beings directly.

Key priorities for the Ethical Committee are independence (granted by the fact that its personnel does not work for the same hospital as the one where the Committee operates), and a multifaceted approach, where different professional competencies and skills are indispensable for ensuring critical evaluation of different aspects of experimentation.

According to current regulations, the Ethical Committee must be composed by: two clinicians, a biostatistician, a pharmacologist, a chemist, the Medical Director, the Scientific Director and an expert in law.

In addition, the hospital where the Committee is based may appoint other members among general practitioners and local doctors, nurses and people committed to voluntary work, provided that the independence – and multifaceted-approach criteria above are met.

HUMANITAS’ BIOBANK

Advanced research increasingly needs to be supplied with biological samples (small amounts of blood and other biological fluids, or small sections of tissue removed during surgery) to be analyzed. These samples come from donors who suffer from different diseases, and are helpful to understand how patients differ from one another and – in perspective – to develop personalized treatment. In order to cater for this need, Humanitas has established a biobank.

A biobank can be compared to a “current account” where donors “deposit” their own biological material, and obtain “interest” in return, in the form of knowledge of their disease.

By signing an Informed Consent form, and under absolute confidentiality, donors authorize Humanitas to take samples to be used for biomedical research programs which would otherwise be impossible to carry out.
Humanitas University is a private non profit institution dedicated to medical sciences, founded in 2014. It is strictly interconnected with Humanitas hospital, where clerkship activities take place. Courses are based on over 10-years’ experience in academic teaching, as well as on an active learning approach.

A wide range of degrees and postgraduate courses such as PhDs programs, Master courses, Residency programs are available, but training activities will keep growing, since they are going to be addressed not only at students but also at professionals.

In 2015 the works for the new campus began with the goal – once fully operating – to host over 800 students (initially starting from 120 a year for a MD course in English and 50 a year for a Nursing BD).
Collaboration at international level is fundamental for clinical practice. In the last years, collaborations with national and international top-ranking hospitals and the constant effort in implementing the most advanced technologies have led to outstanding results in the treatment of neoplastic, gastrointestinal, cardiovascular, neurological and immunological diseases.

Harvard University
Considered by Harvard University one of the four most innovative hospitals worldwide, Humanitas is a case study for its organization model, which combines quality of care with economic sustainability, development and social responsibility.

Joint Commission
Humanitas was the first polyclinic in Italy, and among the very few in Europe, to have been certified by the Joint Commission International. This acknowledgement of excellence has been confirmed and renewed since 2002 and has required compliance with over 1,300 standards.

Workers’ safety
Humanitas is OHSAS 18001 (Occupational Health and Safety Assessment Specification) certified, an international recognition that highlights the hospital attention to its own workers’ safety and health.

Responsible Payments
Humanitas has joined the Codice Italiano Pagamenti Responsabili (The Italian Code of Responsible Payments), an initiative which has been launched by Assolombarda to promote prompt and timely payments to suppliers and aimed at improving national and international reputation of Italian companies, thus strengthening their competitiveness.
HUMANITAS GROUP IN ITALY

1,861 beds
200,000 square meters
1,670 physicians
107,000 annual inpatient admissions
6,000,000 annual outpatients

1 Milan-Rozzano
Istituto Clinico Humanitas
www.humanitas.it

2 Milan
Humanitas San Pio X
www.sanpiox.net

3 Turin
Clinica Cellini
www.clinicacellini.it

4 Turin
Humanitas Gradenigo
www.gradenigo.it

5 Castellanza
Humanitas Mater Domini
www.materdomini.it

6 Arese
Humanitas Medical Care
www.humanitas-care.it

7 Bergamo
Humanitas Gavazzeni
www.humanitasgavazzeni.it

8 Catania
Humanitas Centro Catanese di Oncologia
www.humanitascatania.it
Translational research

Specific instruments of Humanitas Laboratories

**IMMUNOLOGY, ONCOLOGY, NEUROSCIENCE, CARDIOVASCULAR**

Confocal microscopes equipped for FRET analysis, TIRF and fast FRAP

Confocal microscopes Leica SP8 HyVoluation STED SMD

CellIR for high-quality time-lapse imaging

Two-photon microscope

Olympus VS120 Virtual Microscopy Slide Scanning System

LSR Fortessa cell Analyzer

Bio-Plex multiplex system for the detection and quantification of multiple analytes

BD FacsAria

Automacs Cell Isolation

ION TORRENT sequencer

Next Seq 500 Sequencing System

AB 3500 genetic analyzer

IScan System

NGS Express

**NEUROSCIENCE**

2 operating theatres equipped with O-Arm (three-dimensional imaging device) coupled to a neuronavigation system

Cavitron Ultrasonic Surgical Aspirator (CUSA) for parenchymal tumor tissues or bone tissues

BoneScalpel Ultrasonic Osteotome

Neuromonitoring and neuronavigation combined with intra-operative 3D ultrasound for stereotactic excision of deep brain lesions

3D endoscopy tools for skull-base surgery

5 NMR (among which 3-Tesla, 1 open with ambient light)

NMR equipment for functional imaging studies

Acquisition and processing workstation for diffusion MRI tractography

4 TC (among which 1 64-slice)

Inverted microscopes iX71

Perfusion system

Electron-multiplying CCD (EMCCD) camera Quantum 512

Patch-clamp amplificatory Multiclamp

Analog/ digital converter Digidata 1440A

Light-Emission-Diod as source light

PatchStar Micromanipulator

Metamorph software
**CARDIOVASCULAR**

- High-frequency, high-resolution VeVo 2100 digital imaging platform with linear array technology and Color Doppler Mode
- Mikro-Tip Pressure Volume System (MPVS)-Ultra Foundation System
- Telemetry for blood pressure and ECG assessment
- Scanning Ion Conductance Microscopy
- Optical Mapping for electrical impulse Propagation
- IonOptix for Ca2+ transient and contractile assessment
- Patch-Clamp instruments for studies on action potential
The interface between immunology and oncology anticipates new advances in research

Interview with Alberto Mantovani
Scientific Director of Humanitas;
Professor of General Pathology, Humanitas University
Which have been the most significant developments the past year?

Well, they are developments which occurred as a follow-up on previous work done by our different research groups. Specifically, these advances are focused on regulatory mechanisms of immune and inflammatory response in various models of cancer and inflammatory conditions. It should first be pointed out that the new forefront in the fight against cancer is represented by immunotherapy in all its different aspects, and multifaceted applications.

In view of this, an outstanding result was obtained here at Humanitas, when an oncosoppressor gene associated to tumor-promoting inflammation was identified. I am particularly keen on emphasising the whole series of studies we conducted on the pentraxin PTX3, an essential component of the humoral arm of innate immunity. We found that PTX3 acts as an oncosuppressor in various experimental models, as well as in humans. Differently from the other suppressor oncogenes which have been identified and described so far, and which act directly on tumor cells, PTX3 gene encodes for an effector molecule of the humoral innate immune system.

In other terms, before the results of our studies, there was no known precedent for a humoral innate immunity effector molecule acting as a cancer gene. This observation represents a missing link in the connection between inflammation and cancer by providing evidence that tumor-promoting inflammation is an essential component of the microenvironment in which cancer cells grow and replicate.

More specifically, PTX3 regulates complement-dependent tumor-promoting inflammation. In addition, PTX3 gene activation inhibits tumor-promoting inflammation and cancer genetic instability and progression. On the other hand, PTX3 inactivation or deficiency unleashes an unrestrained complement cascade favoring an exacerbated inflammatory response and enhanced carcinogenesis. We have described PTX3 early deactivation at the initial – still benign – stages of some tumoral types, e.g. in colonic polyps, then favoring the progressing to malignancy.

This research, conducted thanks to the fundings by AIRC (Associazione Italiana per la Ricerca sul Cancro), has involved clinicians and reaserechers at Humanitas and a network of national and international top-ranking centers, and has been published in 2015 on Cell, a prime authoritative scientific journal. Due to the high quality of reasearch, the PhD student who is the first author of the paper was awarded several prizes.

We may say PTX3 is an old pal of yours, but its study keeps revealing enlightening data.

Actually PTX3 was discovered, characterized, and developed in the early 90s. This acute phase protein, a member of the long pentraxin subfamily, has been highly conserved during the evolution, which suggests an ancestral survival advantage. We have already shown that PTX3 is able to protect from infections, for instance *Aspergillus fumigatus* – a critical challenge for immunodeficient neutropenic patients such as transplant recipients – or *Pseudomonas aeruginosa* – the major cause of symptomatic lung disease and progressive lung dysfunction in patients affected by cystic fibrosis – and we are testing it as a candidate therapeutic agent against these infectious diseases. As outlined above, we are currently exploring its potential application as an antitumoral agent as well.

It has been demonstrated that the defective variants of PTX3 gene can be associated with susceptibility to urinary tract infections or invasive aspergillosis. Besides, the results of a collaborative Italian study in which Humanitas took part suggested that PTX3 may help identify patients with acute respiratory distress syndrome who developed bacterial infections and thus need antibiotic treatment, and emphasized its potentiality as a novel diagnostic and prognostic biomarker of inflammatory conditions, ranging from severe sepsis to cardiovascular disorders and cancer-associated inflammation. In this way, our studies have layed the first stone for the transfer of PTX3 to the clinic, both as a potential therapeutic tool in infections, and as a diagnostic marker.

Speaking of biomarkers, PTX3 represents a positive achievement in terms of translation from the lab’s bench to the patient’s bed. But we work with a pipeline of candidate prognostic or severity markers both in oncolologic conditions (e.g. pancreatic cancer or colorectal cancer) and non-oncolologic diseases (e.g. sepsis or urinary tract infections). In particular, thanks to original tools developed here, we obtained data indicating that macrophage infiltration is related to prognosis and response to chemotherapy in pancreatic cancer. As a matter of fact, in 2015 the trend towards genetic and genomic approaches was considerably reinforced.
The whole picture must be framed within the context of precision medicine, whose actual definition is “treating the right patient with the right treatment at the right time”. Namely, any intervention – be it diagnostic or therapeutic – must (necessarily) consider the whole picture, the entire biology of the patient and of the disease.

Could you provide some examples of precision medicine with therapeutic outcomes at Humanitas?

What is particularly worth mentioning is the research carried out into the mechanisms that underlie the development and the maintenance of chronic inflammation in patients with inflammatory bowel disease, which encompasses Crohn’s disease and ulcerative colitis. Our institution took part in international multicenter clinical trials conducted on subjects with active moderate-to-severe inflammatory bowel disease, which led to the development of vedolizumab, an innovative drug acting via different mechanisms in comparison with the biological agents of current therapeutic use. Vedolizumab is a humanized monoclonal antibody against α4β7 integrin, a cell-surface glycoprotein expressed on circulating B and T lymphocytes whose interaction with the mucosal addressin-cell adhesion molecules (MAdCAM) on intestinal vasculature plays a key role in maintaining active chronic inflammation into the bowel. Vedolizumab specific binding to α4β7 integrin selectively blocks gut lymphocyte trafficking and represents a novel alternative in patients who fail conventional treatment. Based on the evidence for efficacy both as induction and maintenance therapy and safety profile, vedolizumab has been approved by the European Medicines Agency (EMA) and Food and Drug Administration (FDA).

In addition, considerable efforts have been made to investigate the role of microvascular and lymphatic endothelium, until it was possible to outline what we now refer to as “IN” and “ON” mechanisms of chronic inflammation. The first refers to cell entry into the mucosa, migration of leucocytes into the interstitial space, bacterial and foreign antigen invasion, angiogenesis, and is controlled by intestinal microvasculature; the second is related to lymphatics’ activity in tissue edema control, leucocyte exit, bacterial clearance and oedema absorption. The functions of the microvascular and lymphatic endothelium in the gut are therefore complementary, although opposite. In patients with inflammatory bowel disease, a dysfunction in each would work together to amplify disease, with the microvascular endothelium overloading, and the lymphatic endothelium failing to relieve the intestinal mucosa. Just as one needs the other for proper physiological function, the proverbial “brothers in arms”. Our original investigation on these mechanisms has resulted in promising data in the treatment of experimental inflammation both on immune and non-immune cells, some of which are hopefully to be translated into effective treatments for patients. These results may pave the way to innovative strategies to curb inflammation based on the promotion of the formation of new lymphatic vessels.

PTX3 is an essential component of the humoral arm of innate immunity, playing a nonredundant role in resistance against selected microbes and in the regulation of inflammation. PTX3 activates and regulates the Complement Cascade by interacting with C1q and with Factor H. PTX3 deficiency was associated with increased susceptibility to mesenchymal and epithelial carcinogenesis. Increased susceptibility of PtX3(-/-) mice was associated with enhanced macrophage infiltration, cytokine production, angiogenesis, and Trp53 mutations. Correlative evidence, gene-targeted mice, and pharmacological blocking experiments indicated that PTX3 deficiency resulted in amplification of Complement activation, CCL2 production, and tumor-promoting macrophage recruitment. PTX3 expression was epigenetically regulated in selected human tumors (e.g., leiomyosarcomas and colorectal cancer) by methylation of the promoter region and of a putative enhancer. Thus, PTX3, an effector molecule belonging to the humoral arm of innate immunity, acts as an extrinsic oncosuppressor gene in mouse and man by regulating Complement-dependent, macrophage-sustained, tumor-promoting inflammation.
Main research fields

**Autoimmunity**
- Carlo Selmi

**Autoinflammation**
- Silvio Danese

**Infections**
- Cecilia Garlanda
- Barbara Bottazzi

**Memory and Bone Marrow Transplant**
- Domenico Mavilio
- Enrico Lugli
- Luca Castagna

**Mechanisms of Inflammation and Cancer**
- Antonio Sica
- Paola Allavena

**Mechanisms of Inflammation and Colon Cancer**
- Alberto Malesci
- Luigi Laghi
ONCOLOGY

Humanitas at the forefront of innovation in specialist therapies

Interview with Armando Santoro
Director of Humanitas Cancer Center; full professor of Oncology at Humanitas University
What is the scenario of clinical research in haematology and oncology at the end of 2015?

Well, in both areas a relevant progress occurred in targeted drugs – also named molecular drugs or biological drugs – leading to more variety in therapeutic options with promising perspectives for a range of conditions. Worth mentioning are targeted therapies for the treatment of breast cancer, with variable indications for specific subgroups of patients. They have been proved able to maximize the response to both hormone therapy and to HER2-targeted agents.

Another important example of how biological drugs have dramatically changed survival rates is represented by metastatic melanoma. Currently, the greatest hopes are pinned upon combinations of several targeted drugs with different mechanisms of action – e.g. BRAF inhibitors and MEK (MAPK/ERK kinase) inhibitors – whose use in clinical practice has been finally recognized and officially authorized. In fact, in 2015 immunotherapy was definitely established as a major method of treatment. Because of its mechanism of action – triggering an immune cascade to inhibit cancer progression – transversality is surely its most intriguing aspect, as immunotherapy is confirmed by evidence as effective for a large variety of oncologic conditions at different stages. This is obviously referred to the registration of new agents – ipilimumab, nivolumab, pembrolizumab – for the treatment of advanced melanoma, lung cancer – either squamous cells carcinoma or adenocarcinoma – kidney cancer, bladder cancer, and more recently, Hodgkin's lymphoma. Humanitas is acting as an influential key player in the area of immunotherapy, through its intense wide-scale participation in a large number of multicentric international clinical trials. Nonetheless, the ever-important role of traditional chemotherapy should not be forgotten. Humanitas’ researchers have given their contribution also in this field, participating in the fine-tuning of new drug schemes with promising perspectives in haemato-oncology. Still talking about haemato-oncology, we witnessed similarly lively activity in the development and registration of innovative drugs for both immunotherapy and molecular therapy, which mark the consolidation of a number of research programs that were carried out over the years. One may ask how Humanitas was able to give a prominent contribution in the development and registration of various drugs or their combinations, that are meant to become the international standard of care. Such achievement is attributable to the involvement of research groups which have a high expertise and full dedication to phase I studies. This approach provided an active and intense participation in international clinical trials, which has been acknowledged by the scientific community and has gained excellent ranking in biomedical literature.

Let me refer to three recent papers, that were accepted by major journals in a surprisingly short time after submission. The first one, which was published on Journal of Clinical Oncology, deals with the management of recurring Hodgkin lymphomas; the second, which appeared on Lancet Oncology, describes the potentiality of nivolumab, the new monoclonal antibody for the treatment of lymphomas; the last one – again published on Lancet Oncology – is the result of our efforts in the development of ceritinib, an anticancer drug that acts as an ALK (Anaplastic Lymphoma Kinase) inhibitor.

Let us outline a few relevant projects in oncology in more detail.

I feel I must point out a couple. As far as solid tumors are concerned, the sequence of cutting-edge worldwide trials on hepatocarcinoma is worth mentioning. This research line takes advantage from two strengths: on one hand, the continuing innovation in hepatobiliary surgery thanks to the enthusiasm and vision of the team led by Guido Torzilli, which has performed cutting-edge surgical techniques that are able to provide unexpected advantages and can be performed also on patients that otherwise were non-treatable (due to the characteristics and size of the tumor). On the other, the active participation of Humanitas Cancer Center’s researchers (worth referencing Lorenza Rimassa, Tiziana Pressiani and Nicola Personeni for their fundamental contribution) in clinical and translational research on novel biologic or immunologic treatment for advanced liver cancer. Still in the field of solid tumors, we played a primary role in international clinical trials on biologic therapies for lung cancer, which include virtually all novel anti EGFR (Epidermal growth factor) and anti ALK agents. Moreover, we are also involved in international clinical trials with state-of-the-art target therapies, alone or combined with immunotherapy.

As already mentioned, the other driving sector of cancer
research is a transversal area that concerns Humanitas’ contribution in the development of immunological drugs. A single figure is enough to show the extent of our activity: at the moment, Humanitas is actively engaged in 50 different trials concerning immunotherapy based on a single molecule, the combination of different molecules or on a combination of chemotherapy and immunotherapy, obviously for several different types of tumor. Many of these trials were started in 2015, which is enough to prove their indisputable innovative potential. Preliminary results are really interesting: while monitoring day by day the progression of this researches, we clearly felt we were driving a process intended to define new standards of care for the coming years.

Let us deal with hematology then, where there seem to be equally promising perspectives

We have participated – often as coordinators – in many clinical trials which assessed the efficacy of emerging drugs which should be able to change our approach towards a variety of haematologic diseases, namely low-grade malignant lymphoma or chronic lymphocytic leukemia, such as BTK (Bruton’s Tyrosine Kinase) inhibitors and PI3K (Phospho Insitotide 3-Kinase) delta inhibitors. We have been working systematically on a series of innovative agents which are increasingly enriching the range of available drugs for the treatment of multiple myeloma, including monoclonal antibodies (e.g. daratumumab and elotuzumab) and second-generation proteasome inhibitors (e.g. carfilzomib).

Coming back to chemotherapy, over the years we have consolidated new schedules for the treatment of haematologic neoplasms and in particular non-Hodgkin lymphomas, continuing a tradition that sees our institution as an international authority on protocols for cases relapsed after a first line chemotherapy which are candidate to second line chemotherapy, before autologous bone marrow transplants. I wouldn’t be wrong in reiterating that the chemotherapy schemes which have been created and published by Humanitas’ research groups will be adopted as international standards of care.

In terms of forecasting where oncology and haematology are oriented towards precise profiling of cancer patients, in order to target the therapy against a given molecular alteration. Secondly, a common platform for immunology and immunotherapy is, at the moment, the biggest challenge that is absorbing most of the researchers in both these fields worldwide.

Continuous advances in clinical research have to be seen in the context of a high quality integrated assistance, tailored to the patients’ needs and features. Also in this respect, Humanitas is urgently dealing with two projects. The first (of which Laura Velutti is in charge) is aimed at ensuring and improving continuity of care through home-based health care, as well as late-stage and end-of-life caregiving. The other project consists in the management of long-term cancer survivors, a segment of population which is increasing year by year and requires personalized assistance, especially in the critical phase of transition between hospitalization and reintegration into daily life, which has a strong psychological impact.

To support these demanding needs we devised the Cancer-free Platform (managed by Elena Lorenzi, Isabella Garassino and Raffaele Cavina), a digital tool that has the purpose to facilitate the referral of disease-free patients to their primary care physician, while at the same time maintaining a direct communication with a dedicated oncologist who is fully able to address doubts and questions. These projects require involvement and interaction of both doctors and patients, and are based on the close cooperation and shared objectives of several professionals that bring different competences. They demand organization, locations and resources, and offer an indisputable advantage in terms of standards of care and best practice.


Everolimus for the treatment of advanced, non-functional neuroendocrine tumours of the lung or gastrointestinal tract (RADIANT-4): a randomised, placebo-controlled, phase 3 study

Main research fields

**Clinical Pharmacology**

**Lymphomas**
- Brentuximab vedotin in patients with Hodgkin lymphoma and a failed allogeneic stem cell transplantation: results from a named patient program at four Italian centers.

**Prostate Cancer**
- Giorgio Guazzoni
- Marta Scorsetti

**Pancreatic Cancer**
- Alessandro Zerbi
- Maria Chiara Tronconi

**Breast Cancer**

**Role of naive-derived T memory stem cells in T-cell reconstitution following allogeneic transplantation.**

**Lung and Chest Cancer**
- Marco Alloisio
- Luca Toschi

**Breast Cancer**
- Corrado Tinterri
- Rosalba Torrisi
A comprehensive approach to research in cardiology: from nanomedicine to standards of care

Interview with Gianluigi Condorelli
Director of the Cardiovascular Department and of Cardiovascular Research at Humanitas; full professor of Cardiology at Humanitas University
Could you outline the most recent developments of translational research in cardiology?

Interactive, fruitful collaboration between basic scientists and clinical specialists is having an impact on many aspects of cardiology. An excellent example of the potential of applying basic-science technologies to cardiovascular diseases is the identification of circulating microRNAs and their use as disease-specific biomarkers or new therapeutic tools. Indeed, a rather prolific research path we have been pursuing now for about three years has led to the discovery of microRNA biomarkers for the diagnosis and prognosis of several cardiovascular pathologies, including heart failure, acute myocardial infarction, cardiomyopathies and atherosclerosis. Moreover, we have discovered rather exciting microRNA-mediated mechanisms. For example, focusing on the complex interplay between endothelial cells, vascular smooth muscle cells and pericytes, Leonardo Elia has determined that direct transfer of specific microRNAs from smooth muscle cells to endothelial cells is involved in modulating the angiogenic potential of the latter. I am referring to microRNA-143 and microRNA-145, also indicated as the microRNA-143/145 cluster since the two are transcribed as a single unit, albeit each having a distinct sequence. Interestingly, the passage of microRNA-143/145 from one cell type to the other occurs through 50-200nm-diameter structures called membrane (or tunneling) nanotubes. Transfer of the microRNAs via these nanotubes is controlled by the transforming growth factor β pathway, and once within endothelial cells the cluster blunts angiogenesis. Corroborating this is the finding that experimental overexpression of microRNA-143 or microRNA-145 reduces the ability of endothelial cells grown in culture to form capillary-like structures called membrane (or tunneling) nanotubes. How might this basic research finding be developed for the clinic? Well, leaving the cardiology field to the side for one moment, angiogenesis is regarded as a critical feature for the growth of tumors. Indeed, inhibitors of angiogenesis have strong antitumor activity and may be used for therapeutic ends. We hypothesize that tumors are associated with downregulation of these microRNAs: a reduction in the expression of this cluster within the endothelial cells of a tumor would cause an increase in angiogenesis and thus enhance tumor survival by augmenting its blood supply. In support of this notion, some tumors have been found to have lower levels of microRNA-143/145 in comparison to normal specimens of the same tissue. Delivery of synthetic microRNA-143/145 to these tumors may thus be a promising therapeutic strategy to follow. Modulation of angiogenesis in the development of cardiovascular disease, on the other hand, is currently less well defined, but our line of research is aiming precisely at finding responses to yet unanswered questions. Do you think we can foresee other applications in these new and unchartered territories?

Indeed. We are making a significant effort to exploit the enormous therapeutic potential that microRNAs have in cardiology. In the heart, misexpression of these nucleotides is known to cause cardiac dysfunction, and intervening to normalize microRNA levels may have tremendous clinical implications. In this context, a crucial step is being able to deliver synthetic microRNAs or their inhibitors specifically to heart cells. Among the delivery systems available, nanoparticles seem particularly promising. However, while they have been largely investigated in the oncological field, their development and use for the treatment of cardiovascular disease is still in its infancy. On this point, Daniele Catalucci has conducted at Humanitas a proof-of-concept study on biocompatible, bioresorbable, negatively charged calcium-phosphate nanoparticles. On account of their structural and chemical similarity with the mineral component of bones and teeth, these innovative nanoparticles have the ideal biocompatibility, bioresorbability and biodegradability needed for the development of a safe and efficient system for the delivery of bioactive molecules to the heart. Our results on in vitro and in vivo experimental models indicate that these “bioinspired” nanoparticles successfully encapsulate miRNAs and carry them into cardiomyocytes without promoting toxicity or interfering with the functional properties of the cells (most importantly, their excitability and contractility). This research is being funded by the Italian National Research Council and the Ministry of Health. To our knowledge, it is the first cross-domain study that, ranging from functional chemistry to molecular and cellular cardiac physiology, provides important advances in the field of cardiovascular nanomedicine. However, before this basic research can be transferred to the
Clinic, studies are needed in support of the transferability of the findings to humans. Personalized medicine applications would first require experimentation on human cardiomyocytes derived from Induced Pluripotent Stem Cells, or iPSCs. iPSCs can be obtained easily from any patient and made to differentiate into the desired kind of cell, in our case allowing us to sidestep the difficult process of obtaining suitable numbers of viable human heart cells. Studies of this type will undoubtedly increase the possibility of developing bioinspired, surface-charged nanoparticles to carry drugs – be they peptides or nucleotides – to diseased organs and even to selected cell populations.

**Great attention is paid to research quality. The same is true when it comes to quality of healthcare in cardiology.**

Well, both aspects are equally essential and somewhat depend on each other, in particular when we consider our commitment to translational research. The huge number of patients assisted at Humanitas’ Cardio Center provides us with strong motivation to pursue high-quality healthcare supported by the best specialist expertise. Each year at Humanitas, for instance, more than a thousand stents are implanted following Percutaneous Coronary Interventions (PCIs). Now, it seems fair to ask what the best therapeutic option for these patients might be.

A more focalized and stringent issue, namely choosing the most appropriate percutaneous treatment strategy that mitigates the risk of in-stent restenosis – that is encountered within 2–3 years in 5–10% of cases with drug-eluting stents, and in 20–30% with bare metal stents – was tackled recently by a study, registered on the PROSPERO database, conducted by an international group in which Giulio Stefanini, from Humanitas’ Hemodynamics, Invasive Cardiology and Coronary Care Department, took part. Applying the statistical approach called network meta-analysis, the researchers combined the outcomes of 27 clinical trials, published between 2001 and 2014, comprising a total of approximately six thousand patients who had undergone percutaneous interventions for in-stent restenosis. The findings suggested that conducting PCI with everolimus-eluting stents was superior to others when taking into account angiographic and clinical outcomes and the risk of restenosis and repeat revascularizations; another option was a drug-coated balloon, because of its ability to provide favorable results without adding a new stent layer. This meta-analysis, published in *The Lancet* in 2015, is the most comprehensive synthesis of evidence on the effectiveness of a currently available treatments for in-stent coronary restenosis. Its potential contribution to clinical practice is far from negligible, since over 2 million people worldwide receive a stent each year and cardiovascular disease is a growing problem, currently affecting nearly 1% of the population. Poignantly, the prognosis of cardiovascular disease has been described as more malignant than cancer.

---

**TOP PAPER**

**Climent M, Quintavalle M, Miragoli M, Chen J, Condorelli G, Elia L.**

**TGFβ triggers miR-143/145 transfer from smooth muscle cells to endothelial cells, thereby modulating vessel stabilization**


**Rationale.** The miR-143/145 cluster is highly expressed in smooth muscle cells (SMCs), where it regulates phenotypic switch and vascular homeostasis. Whether it plays a role in neighboring endothelial cells (ECs) is still unknown.

**Objective.** To determine whether SMCs control EC functions through passage of miR-143 and miR-145.

**Methods and results.** We used cocultures of SMCs and ECs under different conditions, as well as intact vessels to assess the transfer of miR-143 and miR-145 from one cell type to another. Imaging of cocultured cells transduced with fluorescent miRNAs suggested that miRNA transfer involves membrane protrusions known as tunneling nanotubes. Furthermore, we show that miRNA passage is modulated by the transforming growth factor (TGF) β pathway because both a specific transforming growth factor-β (TGFβ) inhibitor (SB431542) and an shRNA against TGFβRII suppressed the passage of miR-143/145 from SMCs to ECs. Moreover, miR-143 and miR-145 modulated angiogenesis by reducing the proliferation index of ECs and their capacity to form vessel-like structures when cultured on matrigel. We also identified hexokinase II (HKII) and integrin β 8 (ITGβ8)-2 genes essential for the angiogenic potential of ECs as targets of miR-143 and miR-145, respectively. The inhibition of these genes modulated EC phenotype, similarly to miR-143 and miR-145 overexpression in ECs. These findings were confirmed by ex vivo and in vivo approaches, in which it was shown that TGFβ and vessel stress, respectively, triggered miR-143/145 transfer from SMCs to ECs.

**Conclusions.** Our results demonstrate that miR-143 and miR-145 act as communication molecules between SMCs and ECs to modulate the angiogenic and vessel stabilization properties of ECs.
Main research fields

- Molecular Mechanisms of Heart Failure
  - Gianluigi Condorelli

- Cardiac Signaling
  - Daniele Catalucci

- Epigenetics and Atherosclerosis
  - Leonardo Elia

- Epigenetics in Myocardial Diseases
  - Roberto Papait

- iPSCs and Primary Cardiomyopathies
  - Elisa Di Pasquale

- Predictive Factors and Coronary Artery Disease
  - Giulio Stefanini

- Sarcomeric Proteins in Myocardial Diseases
  - Marie Louise Bang

- Risk Factors in Cardiovascular Diseases
  - Giuseppe Ferrante

- Nanomedicine and Molecular Electrophysiology
  - Michele Miragoli

- Acquired Immunity and Cardiovascular Disease
  - Marinos Kallikourdis

- New Technologies in Cardiovascular Diseases
  - Bernhard Reimers
  - Lucia Torracca

- New Technologies in Arrhythmia Therapeutics
  - Riccardo Cappato
  - Maurizio Gasparini
NEUROSCIENCE

High-tech and early diagnosis against degenerative and chronic neurological conditions

Interview with Alberto Albanese
Director of the Neurology Department
Where is research in neurology heading?

In 2015 research projects focused on neurodegenerative disorders – Parkinson’s disease and parkinsonism – began at Humanitas, as a new field of clinical research to be explored. A foreword is needed: The word “Parkinson’s disease” as such does not mean much. Rather, there are a multiplicity of conditions gathered under this “umbrella term”. We should say instead Parkinson’s diseases.

Moreover, even though it has been considered a condition limited to the motor system for a long time, in the past two decades there have been increasing awareness and attention to the non-motor aspects of the disease, which include cognitive decline, behavioural changes, pain, and autonomic dysfunction. The therapeutic armamentarium is also expanding to help patients who have non-motor symptoms.

At the moment, clinical research at Humanitas is geared to identify predictive or prognostic markers for potential cognitive impairment leading to dementia with disease progression. It has been estimated that cognitive impairment occurs in approximately one out of three patients with Parkinson’s disease, the probability being higher with increasing age or condition duration. This large proportion of patients deserve careful identification, as they may be candidates for a neuroprotective treatment, putatively able to modify the course of their conditions. Of note, in absence of cognitive impairment, nowadays a patient – thanks to the available treatments – can experience acceptable living conditions without severe disability. In particular, the autonomic nervous system has been shown to be highly susceptible to change at early stages. We are assessing whether the presence and the severity of autonomic dysfunction at cardiovascular and gastrointestinal levels is a reliable marker for the occurrence of cognitive deterioration. Autonomic dysfunction is assessed by means of two approaches: imaging and cardiovascular reflex testing. Cardiac sympathetic denervation can be detected early by imaging studies, such as myocardial 123I-metaiodobenzylguanidine scintigraphy. Moreover, cardiovascular reflex testing can assess the functional status of autonomic nerves innervating the heart.

This investigation is conducted in collaboration with Raffaello Furlan, director of the Division of Internal Medicine thanks to a considerable investment by CARIPLO Foundation. We have started the enrollment of patients who have been diagnosed with Parkinson’s disease in the last 2-3 years. The selected cohort is assessed at baseline and at yearly intervals until cognitive decay occurs. We planned a prospective follow-up of a minimum of three years, lasting up to five years, during which two subgroups of patients – with or without cognitive impairment – are expected to emerge. The individual overall profile of autonomic function will be retrospectively related to the evolution of the disease, with cognitive impairment as the index event.

Integration here appears to be an interesting and innovative aspect. Could you mention other examples of this in other research areas you are working on?

At the moment cervical dystonia is being investigated, a condition – more commonly referred to as spasmodic torticollis – which is a movement disorder characterised by inappropriate contractions of the cervical musculature related to a dysfunction of sensorimotor neural circuits. It causes abnormal posture of the neck and head, involuntary movements which may be accompanied by tremor and result in painful abnormal postures. Cervical dystonia has marked effects on patients’ self-image, and adversely affects their quality of life, social relationships and employment. This condition is not as rare as one might think. Rather, it is often underdiagnosed or misdiagnosed (e.g. it is usually confused with tic disorders or tremors). Notably, it has been described with precision even in the distant past. In fact, one of the most renowned quotes can be found in the twentieth canto of the Divine Comedy where Dante Alighieri describes the sinners walking through eternity with their heads forcibly twisted backwards and tears in their eyes:

(….) Come ’l viso mi scese in lor più basso, mirabilmente apparve esser travolto ciascun tra ’l mento e ’l principio del casso, ché da le reni era tornato ’l volto, e in dietro venir li convenia, perché ’l veder dinanzi era lor tolto.

(…) As lower down my sight descended on them, Wondrously each one seemed to be distorted From chin to the beginning of the chest; For tow’rds the reins the countenance was turned, And backward it behoved them to advance, As to look forward had been taken from them.
Different drug classes have traditionally been used for the symptomatic treatment of cervical dystonia, then replaced by the introduction of botulinum neurotoxin which has been the treatment of choice for a long time. Nevertheless, using botulinum neurotoxin requires careful muscle selection and identification before injection. In fact, the disease has varied and complex phenomenology, involving different muscles and combinations of muscles, more superficial or deeper, which may be affected to varying degrees and show different patterns of contraction.

Most recently, deep brain stimulation has opened up new prospects. Thus, at the moment we are involved in a dedicated project funded by the Jacques and Gloria Gossweiler Foundation based in Switzerland whose mission is supporting research focused on haematology and neurology.

Let us clarify these technological details, which are – I imagine – not so simple to convey through words

Well, our efforts are primarily focussed on two interventions which combine brain stimulation and neurosurgery, and have noteworthy technological outcomes. The first implies a transcranial magnetic stimulation of the premotor cortex – a non-invasive method used to stimulate small regions of the brain – and is performed in collaboration with the Division of Neurosurgery.

The second option is epidural premotor cortical stimulation, consisting in an epidural brain stimulator controlled by an implantable pulse generator positioned in the subclavear region under local anesthesia. The cortical target is identified using coordinates according to a computerized neuronavigation system, based on the patient’s neuroimaging (brain computed tomography and magnetic resonance imaging).

The clinical outcomes so far have been positive, as an improvement in signs and symptoms has been observed with a certain delay – few weeks – related to the involvement of multiple cortical areas in the pathophysiology of primary dystonia, which is sustained up to a year. At the same time, results show that both the surgical procedures and the brain stimulation are well tolerated.

The most innovative aspect of both these interventions is their mechanism of action: the interference with the “brain software”, we may say, allows us to monitor and influence voluntary and involuntary movements. At the moment, research is mostly conducted on hyperkinetic conditions which can be studied more easily than hypokinetic or akinetic conditions. As opposed to cardiac pacemakers, a more complex design is required for this kind of stimulation due to the extraordinary complexity of brain circuits.

Another intriguing point is the use of an intelligent pacemaker device whose sensing circuit may be hosted by technological fabrics capable of detecting the peripheral movements and tracking body motility. In addition, these fabrics can be used to manufact garments. A promising line of applied research in this field is ongoing, thanks to a collaboration with Politecnico di Milano. The fascinating prospect is that, once fully developed, this technology is exportable to other diseases.

Impairment of synaptic function can lead to neuropsychiatric disorders collectively referred to as synaptopathies. The SNARE protein SNAP-25 is implicated in several brain pathologies and, indeed, brain areas of psychiatric patients often display reduced SNAP-25 expression. It has been recently found that acute downregulation of SNAP-25 in brain slices impairs long-term potentiation; however, the processes through which this occurs are still poorly defined. We show that in vivo acute downregulation of SNAP-25 in CA1 hippocampal region affects spine number. Consistently, hippocampal neurons from SNAP-25 heterozygous mice show reduced densities of dendritic spines and defective PSD-95 dynamics. Finally, we show that, in brain, SNAP-25 is part of a molecular complex including PSD-95 and p140Cap, with p140Cap being capable to bind to both SNAP-25 and PSD-95. These data demonstrate an unexpected role of SNAP-25 in controlling PSD-95 clustering and open the possibility that genetic reductions of the protein levels – as occurring in schizophrenia – may contribute to the pathology through an effect on postsynaptic function and plasticity.
Hepatitis C: a revolution which will ultimately defeat the virus in the future

Interview with Savino Bruno
Director of the Internal Medicine Department
Director of the General Medicine and Hepatology Division
Hepatitis C: what is the current scenario, and what is changing?

This infectious disease is a major cause of liver disorders worldwide and a potential cause of substantial morbidity and mortality. In fact, cirrhosis and events such as decompensation or hepatocellular carcinoma developing in the long-term after hepatitis C virus infection still represent the main cause of death and liver transplantation in Western countries. In particular, among European countries, Italy accounts for the highest prevalence of infected persons. To explain this high frequency we must go back to the early postwar period, when the combination of less stringent procedures in the manipulation and disinfection of non-disposable needles and the poorer knowledge of the infectious agent have favored its endemic diffusion. Continuing our historical reconstruction, another great wave of contagion dates back to the Seventies with the beginning of blood transfusions. The persistence of alarming rates of infection has been guaranteed in the following decades by the exchange of non-sterile needles and/or sexual transmission. Today, out of a million and a half sick people infected over 50 years, many are no longer with us, and this scenario is even more tragic if we consider that two hundred thousand patients are at risk of liver transplant. Nevertheless, the data that are emerging encourage optimism. For instance, it is now proved that eradicating the infection in patients with clinically significant cirrhosis leads to dramatic improvement in their survival. In other words, this result demonstrates that nowadays – among patients with compensated cirrhosis – those untreated or with a persistently detectable hepatitis C virus RNA are three to four times more likely to die than comparable persons from the general population, while those who achieve eradication thanks to treatment have a life expectancy similar to that of the general population age- and gender-matched.

This is excellent news. Shall we discuss this outcome and describe the process that allowed to achieve it?

Yes. What I have mentioned refers to preliminary data of an original investigation carried out cooperatively by our Hepatology Department at Humanitas, with the Biomedical Department of Internal and Specialist Medicine (DIBIMIS) of Università degli Studi di Palermo, as well as with the Division of Gastroenterology and Hepatology, and with Fondazione IRCCS Ca’ Granda Ospedale Maggiore Policlinico di Università degli Studi di Milano. We prospectively studied three cohorts of patients – approximately 1,800 patients in total – with compensated hepatitis C virus cirrhosis, 44% of which were eligible to receive an interferon (IFN)-based antiviral therapy. We compared the 10 and 20-year overall survival rates of patients who achieved a sustained virologic response – defined as undetectable serum hepatitis C virus RNA by polymerase chain reaction at week 24 after the treatment cessation – first to those of patients, untreated and decompensated, with a non-sustained virologic response and then to those of the general population. This latter estimate was allowed by the location of the referral centres both in Northern and Southern Italy, which made the population of patients adequately representative of the Italian general population. In addition, the long duration of follow-up and the average age of the patients at enrollment (50 to 60 years) provides a plausible estimate of life expectancy. Patients with compensated hepatitis C virus cirrhosis achieving a sustained virologic response obtained a main benefit, levelling their survival curve to that of the general population. We are quite confident that – thanks to a wider applicability of IFN-free regimens with direct antiviral agents which will increase the possibility to eradicate hepatitis C permanently – this gain in life expectancy will provide an even greater survival benefit. Humanitas is one of the few Italian centers where experimental studies on these innovative and disease modifying drugs have been and are currently being carried out.

Shall we discuss how these drugs act, and the outcomes you envisage for your patients in a – say – 5 years’ time span?

Well, it all started in 2000, when a virus was created in a laboratory through phenomenal biotechnology, i.e. the replisome-based technology. This innovative approach consists in the assessment of the efficacy of a given drug. Thus, once the direct antiviral agents have been identified as an effective molecule against hepatitis C virus infection. Since as early as one year after their introduction, the
new drugs proved their formidable potentiality from the start, being able to cure the hepatitis C virus in patients after 12 weeks. Moreover, IFN-free direct antiviral agents regimens will allow for a sustained virologic response to be achieved even in sicker patients and in those ineligible for interferon or previously excluded for comorbidities, a major advancement, given that the mortality rate of these patients is extremely high in comparison to the general population. A crucial fact is the need to administer antiviral treatment as early as possible. Actually, the scenario is not so simple, as drugs engineered using replisome-based technology are stratospherically expensive, i.e. 50 thousand euros in Europe or 90 thousand Us dollars in the United States for the whole course. As far as antiviral agents are concerned, the Italian Medicine Agency (AIFA) has knocked down a price that will allow 50 thousand patients to receive free medical care from the National Health System. However, at the moment, this poses some limitations since the indication is driven by selective criteria, and approximately a quarter of eligible patients have access to the new drugs. Current international guidelines give the highest priority for treatment with new direct antiviral agents to HCV-infected individuals who have already reached advanced stages of the disease and are at higher risk of death without receiving therapy. In a hopefully near future, the treatment will be available for all patients with hepatitis C virus infection. Everyone of them must heal or at least live “without the virus in their body”. My feeling – and my hope – is that in a mid-term future, I will not meet any longer patients with decompensated liver cirrhosis who have been seriously ill for years and still are a terribly serious problem for us. In 2020, hepatitis C will have become a rare disease. In medicine, discoveries of this magnitude typically occur once every 100 years.

Background & Aims. The incidence of metabolic syndrome-related hepatocellular carcinoma (MS-HCC) is increasing worldwide. High resection risks are anticipated because of underlying steatohepatitis, but long-term results are unknown. To clarify the outcomes following liver resection in patients with MS-HCC and to compare the outcomes of MS-HCC to HCV-related HCC (HCV-HCC).

Methods. All the consecutive patients undergoing liver resection for HCC in six high-volume HPB units between 2000 and 2012 were retrospectively considered. The patients with MS-HCC were identified and matched one-to-one with HCV-HCC patients without metabolic syndrome. Matching was based on age, cirrhosis, Child-Pugh class, portal hypertention, HCC number and diameter and liver resection extension.

Results. Among 1563 patients undergoing liver resection for HCC in the study period, 98 (6.1%) had MS-HCC. They were matched with 98 HCV-HCC patients. All patients were Child-Pugh class A, 22.9% had cirrhosis. Forty-one patients per group (42.7%) required major hepatectomy. The MS-HCC group had a higher prevalence of steatohepatitis (25.0% vs. 9.4%, p=0.004). Operative mortality was 2.1% (1 MS-HCC, 3 HCV-HCC, p=0.621). Morbidity and liver failure rates were similar between the two groups. In the multivariate analysis, cirrhosis, major hepatectomy, and MELD >8, but not steatohepatitis, impacted severe morbidity and liver failure rates. The MS-HCC group had better 5-year overall survival (85.8% vs. 81.4%, p=0.031) and recurrence-free survival (37.0% vs. 27.5%, p=0.077). Independent negative prognostic factors were HCV-HCC, multiple HCC, microvascular invasion, and satellite nodules.

Conclusions. Liver resection is safe for MS-HCC, as for HCV-HCC. Cirrhosis, but not steatohepatitis, affects short-term outcomes. MS-HCC is associated with excellent long-term outcomes, better than HCV-HCC. Impairment of synaptic function can lead to neuropsychiatric disorders collectively referred to as synaptopathies. The SNARE protein SNAP-25 is implicated in several brain pathologies and, indeed, brain areas of psychiatric patients often display reduced SNAP-25 expression. It has been recently found that acute downregulation of SNAP-25 in brain slices impairs long-term potentiation; however, the processes through which this occurs are still poorly defined. We show that in vivo acute downregulation of SNAP-25 in CA1 hippocampal region affects spine number. Consistently, hippocampal neurons from SNAP-25 heterozygous mice show reduced densities of dendritic spines and defective PSD-95 dynamics. Finally, we show that, in brain, SNAP-25 is part of a molecular complex including PSD-95 and p140Cap, with p140Cap being capable to bind to both SNAP-25 and PSD-95. These data demonstrate an unexpected role of SNAP-25 in controlling PSD-95 clustering and open the possibility that genetic reductions of the protein levels – as occurring in schizophrenia – may contribute to the pathology through an effect on postsynaptic function and plasticity.
Main research fields

- Advanced Virus-Related Diseases
  - Savino Bruno
  - Marco Carbone
  - Ana Lleo De Nalda
  - Autoimmune liver diseases

- Hepatocellular Carcinoma
  - Lorenza Rimassa
    - New drugs
  - Guido Torzilli
    - Innovative surgical treatment
  - Luigi Solbiati
    - Interstitial and ablated treatment
**BOARD OF DIRECTORS**

<table>
<thead>
<tr>
<th>Role</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>President</td>
<td>Gianfelice Rocca</td>
</tr>
<tr>
<td>Vice President</td>
<td>Ivan Colombo</td>
</tr>
<tr>
<td>Chief Executive Officer</td>
<td>Luciano Ravera</td>
</tr>
<tr>
<td>Scientific Director</td>
<td>Alberto Mantovani</td>
</tr>
<tr>
<td>Clinical Research Director</td>
<td>Humanitas Cancer Center</td>
</tr>
<tr>
<td>General Manager</td>
<td>Stefano Cazzaniga</td>
</tr>
<tr>
<td>Medical Director</td>
<td>Norberto Silvestri</td>
</tr>
<tr>
<td>Human Resources Director</td>
<td>Paola Boromei</td>
</tr>
<tr>
<td>Scientific Superintendent</td>
<td>Nicola Dioguardi</td>
</tr>
<tr>
<td>Research Advisory Board</td>
<td>Rolf Zinkernagel (President)</td>
</tr>
<tr>
<td></td>
<td>Fabio Cominelli</td>
</tr>
<tr>
<td></td>
<td>Pietro De Camilli</td>
</tr>
<tr>
<td></td>
<td>Charles Dinarello</td>
</tr>
<tr>
<td></td>
<td>Napoleone Ferrara</td>
</tr>
<tr>
<td></td>
<td>Göran K. Hansson</td>
</tr>
<tr>
<td></td>
<td>Lorenzo Moretta</td>
</tr>
</tbody>
</table>
DEPARTMENTS AND TEAMS CLINICAL AREA

Updated as of March 2016

Cancer Center

Director: Armando Santoro

BREAST UNIT
Division director: Corrado Tinterri
Claudio Andreoli (°)
Erika Barbieri
Elena Bissolotti (**) 
Giuseppe Canavesi
Marco Eboli
Valentina Enrico
Wolfgang Gatzemeier (-)
Emilia Marrazzo
Carlo Marco Rossetti
Arianna Rubino
Andrea Sagona
Alberto Testori (-)

MEDICAL ONCOLOGY AND HEMATOLOGY
Division director: Armando Santoro
Professor at Humanitas University
Concetta Arcanà
Margherita Autori
Monica Balzarotti
Saro Barbagallo (***)
Monica Bertossi (**)
Silvia Bozzarelli
Stefania Bramanti
Carmelo Carlo-Stella (-) (*)
Carlo Carnaghi
Elisa Carra (**)
Luca Castagna
Raffaele Cavina (-)
Elisa Crotti (**)
Lucia Damicis (**) 
Matteo Giovanni Della Porta
Professor at Humanitas University
Rita De Sanchis
Fabio De Vincenzo
Barbara Ercoli (**)
Giuseppe Fatuzzo (****)
Giovanna Finocchiaro
Isabella Garassino
Laura Giordano (**) 
Elena Lorenzi
Nina Machado Torres (**) 
Massimo Magagnoli
Andrea Marrari
Giovanna Masci
Rita Mazza

PET AND NUCLEAR MEDICINE
Division director: Arturo Chiti
Professor at Humanitas University
Lidia Antunovic
Stefano Orugni
Egesta Lopci
Kataria Marzo
Barbara Nardi
Giovanna Pepe
Marcello Rodari
Martina Solini
PhD at Humanitas University
Gianluca Tarullo
Giovanni Tosi (medical physicist)
Ilaria Vaccaro

RADIOThERAPY AND RADIOSURGERY
Division director: Marta Scorsetti
Professor at Humanitas University

THORACIC SURGERY
Division director: Marco Alloisio
Edoardo Bottini
Umberto Cariboni
Valentina Enrico
Giovanni Maria Ferraroli
Simone Grappolini (*)
Alberto Testori (-)
Roberto Travaglini (*)
Giulia Veronesi
Emanuele Voulaz

(°) Physician dealing with activity in the Research laboratory too
(++) Research Nurse
(•) Head of unit
(-) Consultant
(§) Vicarious

Divisions that join in the Humanitas Cancer Center
Cardio Center

Head of department: Gianluigi Condorelli
professor at Humanitas University

CARDIAC SURGERY
Division director:
Lucia Torracca
Alessandro Barbone
Alessio Basciu
Antonino Cappai
Enrico Citterio
Andrea Davide Fumero
Monica Moz
Diego Ormaghi (
Fabrizio Settepani
Giuseppe Tarelli

CARDIOVASCULAR PREVENTION CENTER
Division director:
Lidia Rota
Monica Bacci (**)
Loredana Mendolicchio
Matteo Roveda (**)

CLINICAL CARDIOLOGY
Division director:
Bernhard Reimers
Tiziana Anita Ammature
Monica Boccioiene (-)
Augusto Foresti (°)
Veronica Fusi
Daniela Guiducci
Manuel Marconi (-)
Roberta Paliotti
Michela Randazzo
Cinzia Santucciu
Maria Luisa Stella
Luisa Ulian

ECHOCARDIOGRAPHY
Division director:
Renato Maria Bragato
Sara Anna Cioccarelli
Mirko Curzi
Donatella Raspani

ELECTROPHYSIOLOGY AND ELECTROSTIMULATION
Division director:
Maurizio Gasparini
Maria Carla Casale
Carlo Cercetti
Paola Galimberti
Luca Poggio

HAEMODYNAMICS, INVASIVE CARDIOLOGY AND CORONARY CARE
Division director:
Bernhard Reimers
Cristina Barbaro
Guido Belli (°)
Daniela Cattani (**)
Elena Corrada (-)
Giuseppe Ferrante (°)
Gabriele Luigi Gasparini
Francesco Milone (°)
Valentina Pacher
Paolo Pagnotta (-)
Patrizia Presbitero (°)
Marco Luciano Rossi
Melania Scatturin (**) 
Giulio Giuseppe Stefanini
Dennis Zavalloni Parenti

HEART FAILURE CARDIOLOGY
Division director:
Maddalena Lettino
Alessio Cappelleri
Maurizio Mangiavacchi
Daniela Pini

RESEARCH CENTER FOR CLINICAL ARRHYTHMOLOGY
AND ELECTROPHYSIOLOGY
Division director:
Riccardo Cappato

THROMBOSIS CENTER
Division director:
Corrado Lodigiani
Elena Banfi (**)
Paola Ferrazzi
Luca Librè
Veronica Pacetti

VASCULAR SURGERY I
Division director:
Efrem Civilini
professor at Humanitas University
Elisa Casabianca
Pier Luigi Giorgetti (°)
Giorgio Luca Poletto
Athos Popovich

VASCULAR SURGERY II
Division director:
Maria Grazia Bordoni
Vittorio Danesino
Alberto Morandi (°)
Antonia Petrella
Paolo Spada

(*) Physician dealing with activity in the Research laboratories too
(**) Research Staff
(***) Research Nurse
(°) Head of unit
(°) Consultant
($) Vicarious

Divisions that join in the Humanitas Cancer Center
Diagnostic Imaging Department

Director: Luca Balzarini

DIAGNOSTIC RADIOLOGY
Division director: Luca Balzarini
Cristiana Bonifacio
Alice Carla Castelli
Elisabetta Colombo
Mariagiovanna Farina
Tiziana Carmen Ierace (*)
Sara Imparato
Ezio Lanza
Paolo Malerba (-)
Lorenzo Monti
Ganna Codrina Moscovici (*)
Federica Frakic Sposta
Maria Alessandra Pestalozza
Dario Poretti
Manuel Profili
Eva Renifilo
Luigi Alessandro Solbiati

ECOGRAPHY
Division director: Paola Magnoni
Caterina Camola
Manuela Cira De Crescenzo
Pasquale De Nittis
Jean Claude Foteuh
Milena Galardo
Margherita Lunelli
Natalia Moneta
Laura Saltarin
Alessandra Saporiti
Chiara Valsania

NEURORADIOLOGY
Division director: Marco Grimaldi
Francesco Asteggiano
Marcello Cadioli (MR scientist) (*)
Nunzio Paolo Nuzzi (-)
Felice Rognone (*)
Giuseppe Scotti (*)

ONCOLOGY & INTERVENTIONAL RADIOLOGY
Division director: Romano Lutman
Vittorio Pedicini (-)
Marco Tramarin

LABORATORY TESTS
Division director:
Marta Noemi Monari ($) Valentina Achille
Roberto Assandri
Barbara Barbieri
Gianluca Basso (*)
Daniela Bettio
Paolo Bianchi (*)
Simona Brambilla
Elena Bredi
Maria Calabro
Erminia Anna Casari
Cristina Luigia Daleno
Concezia De Luca
Antonella Ferrario
Rossana Mineri
Lucia Maria Motta
Raffaella Renzulli
Carla Barbara Ripamonti (*)
Cristina Scuderi

PATHOLOGY
Division director: Massimo Roncalli
professor at Humanitas University
Silvia Armenia
Serena Battista
Raimondo Boeri (*)
Paola Bossi
Tatiana Brambilla
Piergiuseppe Colombo (-)
Annarita Destro
Luca Di Tommaso
researcher at Humanitas University
Bethania Fernandes
Barbara Fiamingo
Chiara Lo Russo
Sofia Manara
Jessica Munè Collado
Chiara Novello
research fellow at Humanitas University
Daoud Rahal (-)
Mauro Sollai
Paola Spaggiari

Diagnostic Laboratory Services Department

DIGESTIVE ENDOSCOPY SERVICE
Division director: Alessandro Repici
professor at Humanitas University
Andrea Anderloni
Silvia Carrara
Milena Di Leo
Elisa Chiara Ferrara
Roberta Maselli

GASTROENTEROLOGY AND DIGESTIVE ENDOSCOPY
Division director: Alberto Malesci
Gianluca Basso (*)
Paolo Bianchi (*)
Elisa Carlini
Tommaso Cavalleri
Luigi Leghi (*)
Paolo Dario Omodei (-)
Paoletta Preatoni
Beatrice Salviali

INFLAMMATORY BOWEL DISEASE
Division director: Silvio Danese
professor at Humanitas University
Marina Alfieri (**) Mariangela Allocca
Patrizia Danieli (**) Mariangela Delliponti (**) Giovanna Fiorino
Federica Furfaro
Daniele Gilardi (**)
General Anaesthesia and Intensive Care Department

**Director:** Ferdinando Raimondi

**ANAESTHESIA I**
Division director: Franco Cancellieri

**ANAESTHESIA II**
Division director: Valentina Bellato

**ANAESTHESIA III**
Division director: Vittorio Gavazzeni

**ANAESTHESIA AND CARDIOSURGERY INTENSIVE CARE**
Division director: Giuseppe Crescenzi

- Graziano Cortis
- Pietro Ferrara
- Licia Melis
- Concetta Rosica
- Maria Cristina Soriano Rodrigo
- Paolo Francesco Tosi
- Maria Maddalena Visigalli (*)

**GENERAL ANAESTHESIA AND INTENSIVE CARE DEPARTMENT**

- Daniela Albiero
- Enrico Arosio (+)
- Jana Balazova
- Gian Michele Battistini
- Francesca Belforti
- Gabriella Brancato
- Stefania Brusa
- Stefania Cantoni
- Cristina Carlini
- Gianluca Luigi Castellani
- Francesco Corazzi
- Elena Costantini
- Paola Matilde De Pietri
- Stefania Del Grosso
- Orazio Difrancesco
- Cristina Dominoni
- Nadia Fusilli
- Vittorio Gavazzeni
- Donatella Girardello (+)

- Enrico Giustiniano
- Yari Gollo
- Stefania Grimaldi
- Valeria Lascari
- Sabrina Malara
- Silvia Eleonora Malossini
- Maria Rosaria Martucci
- Alessandra Mondovi
- Francesco Pellegrino
- Fabio Piccirillo
- Andrea Pradella
- Francesco Restuccia
- Ilaria Rivetti
- Laura Rocchi
- Nadia Ruggieri
- Sabrina Spear
- Grazia Suriano
- Guido Paolo Turio
- Federico Arturo Villa
- Paola Cosma Zito

**BARIATRIC SURGERY**
Division director: Giuseppe Marinari

- Gabriele D’Alessandro
- Giuseppe Sarra
- Sara Testa

**GENERAL AND ONCOLOGIC SURGERY**
Division director: Vittorio Quagliuolo

- Antonella Ardito
- Pietro Francesco Bagnoli (+)
- Andrea Brocchi
- Ferdinando Carlo Cananzi
- Luca Cozzaglio (+)
- Stefano De Pascale
- Uberto Fumagalli Romario (+)
- Chiara Erminia Mussi

**HEPATOBILIARY SURGERY**
Division director: Guido Torzilli

- professor at Humanitas University

- Matteo Maria Cimino
- Daniele Del Fabbro
- Matteo Donadon
- Barbara Franceschini (**) 
- Angela Palmisano
- Fabio Porcapi
- Cristiana Soldani (**) 
- Luca Viganò

**GENERAL SURGERY DEPARTMENT**
Division director: Guido Torzilli

- professor at Humanitas University

- Giovanni Capretti
- Francesca Gavazzi
- Marco Platto
- Cristina Ridolfi

**Pancreatic Surgery**
Division director: Alessandro Zerbi

- professor at Humanitas University

- Paolo Campenni
- Michele Maria Carvello
- Giulia David
- Matteo Sacchi

**Colon and Rectal Surgery**
Division director: Antonino Spinelli

- professor at Humanitas University

- Paola Campenni
- Michele Maria Carvello
- Giulia David
- Matteo Sacchi
Gynaecology Department

Director: Paolo E. Levi Setti

FERTILITY CENTER
Division director:
Paolo Emanuele Levi Setti

Division directors:

elena Albani
Annamaria Baggiani
renzo Benaglia
Valentina Caccavari
Luca Cafaro
Valentina Canevissio
Federico Cirillo
Raffaella De Cesare
Alessia De Mita
Alessandra Drovanti
Valeria Liprandi
elisa Macalli
Luciano Negri
Maria Rosaria Parisien
toldin
Paola Persico
Laura Sacchi
Valeria Scolaro
Cristina Specchia
Elena Zannoni
Irene Zerbetto

ACCIDENT & EMERGENCY UNIT
Division director:
Salvatore Badalamenti
Antonio Voza
Monia Aloise
Cristina Badalotti
Alessandro Barraco
Valentina Bellina
Alessandro Bottani
Gianluigi Citterio
Giuseppe Civitavecchia
Denise Provvidenza Comina
Carlo Fedeli
Giovanni Giorgino
Elisabetta Lavezzii
Federica Longhi
Alfonso Majerino
Silvia Oldani
stefano Ottolini
Silvia Paiardi
Marta Ripoll Pons
Anna Spizzi
sabina Tanzi

DERMATOLOGY
Division director:
Antonio Costanzo
professor at Humanitas University

Luca Livio Mancini
Marcello Monti (*)
Alessandra Narcisi
Francesco Saccinii
Federica Sanna
Francesca Savalli

GENERAL MEDICINE AND HEPATOLOGY
Division director:
Savino Bruno
professor at Humanitas University

Ilaria Bianchi
Vincenzo Boccaccio
Marco Carbone
Roberto Ceriani (-)
Ana Lleo De Nalda (*)
Maria Gioia Pich
Ilaria Sogno (**)
Maurizio Alessandro Tommasini (*)

GENERAL MEDICINE AND PNEUMOLOGY
Division director:
Michele Ciccarelli

Massimo Crippa
Alessandra Ibbi
Alessia Marseglia (*)
Francesca Puggioni
Lucia Testoni

RHEUMATOLOGY AND CLINICAL IMMUNOLOGY
Division director:
Carlo Francesco Selmi

Angela Ceribelli (**) Maria De Santis (*)
Bianca Marasini (*)
Marco Sergio Massarotti

OUTPATIENT AREA
Barbara Bianchii
Lara Castagnetti
Giovanni Covini (-)
Ombretta Nucca
Bruno Pessano
Vanessa Ronzoni
Vincenzo Tullio

ENDOCRINOLOGY AND DIABETOLOGY
Division director:
Andrea Lania
professor at Humanitas University

Paolo Colombo
Alessandro Pizzocaro

NEPHROLOGY AND DIALYSIS
Division director:
Salvatore Badalamenti

claudia Angelini (-)
Paola Arosio
cesare Berra (-)
Albania Calvetta
Giuseppe Favacchio
Silvia Finazzi
Giorgio Graziani (*)
Marco Mirani

(*) Phisician dealing with activity in the Research laboratories too
(**) Research Staff
(•) Vicarious
(§) Research Nurse
(-) Consultant
(°) Head of unit

■ Divisions that join in the Humanitas Cancer Center

Internal Medicine Department

Director: Savino Bruno
professor at Humanitas University

GYNAEIOLOGY
Division director:
Domenico Vitobello

Division directors:

Gianluigi Bresciani
Cinzia Bulletti
Nicoletta Iedà
Lara Paladini
Gabriele Siesto

INTERNAL MEDICINE
Division director:
Raffaello Furlan

Maria Italia Sara Achenza
Franca Barbic (*)
Enrico Brunetta
Franca Dipaola
Rosalba Lembo
Mauro Poddia (*)
Emanuela Maria Scannella

Nephrology and Dialysis
Division director:
Salvatore Badalamenti

Cludia Angelini (*)
Paola Arosio
Cesare Berra (-)
Albania Calvetta
Giuseppe Favacchio
Silvia Finazzi
Giorgio Graziani (*)
Marco Mirani

(+)(•) Head of unit
(•) Consultant
(°) Vicarious
(§) Research Nurse
(++) Research Staff
**** Phisician dealing with activity in the Research laboratories too
Neuro Center

**EMERGENCY NEUROLOGY AND STROKE UNIT**
Division director:
Simona Marcheselli
Beatrice Albano
Elisa Coloberti
Manuel Corato
Lara Frattici
Maria Luisa Soardi (*)
Mariacarmella Spinelli
Laura Straffi

**NEUROLOGY I**
Division director:
Alberto Albanese
Stefania Lalli
Rossella Maggio

**NEUROLOGY II**
Division director:
Eduardo Nobile Orazio
Mariangela Bianco
Mohamed Ziad Fayoumi (*)
Francesca Gallia
Claudia Giannotta (**)
Giuseppe Liberatore
Fabrizia Terenghi

**NEUROSURGERY**
Division director:
Maurizio Fornari
Luca Attuati
Simonega Beluffi (*)
Delia Cannizzaro
Andrea Cardia (+)
Paola Carmagnini (*)
Francesca Cortese
Francesco Costa
Vincenzo D’Angelo
Giuseppe D’Aviri (*)
Antonio De Santis (*)
Giovanni Battista Lazio (+)
Giulio Maira
Guido Menasce (*)
Davide Milani
Alessandro Ortolina
Armando Pellanda (*)
Piero Picozzi
Alberto Pollini (*)
Stefania Radice
Riccardo Rodriguez y Baena (*)
Giorgio Savoia (*)
Massimo Tomei

**ONCOLOGIC NEUROSURGERY**
Division director:
Lorenzo Bello
Alessandra Casarotti
Enrica Maria Fava
Antonella Leonetti
Federico Pessina
Guglielmo Puglisi
Marco Riva

**ARTHROSCOPIC SURGERY OF THE KNEE**
Division director:
Enrico Arnaldi
Stefano Bertora (*)
Andrea Bruno
Massimo De Donato
Paolo Dupplcato
Alexander Kirenko (*)
Paolo Pesenti (*)

**FOOT SURGERY**
Division director:
Leonardo Maradei
Antonio Giardella
Nikolaos Markopoulos

**KNEE ORTHOPAEDICS AND SPORT TRAUMATOLOGY**
Division director:
Piero Volpi
Corrado Bait
Antonio Orgiani
Emanuele Prospero
Alessandro Quaglia

**SHOULDER AND ELBOW SURGERY**
Division director:
Alessandro Castagna
Mario Borroni
Giacomo Delle Rose
Dario Pitino
Paolo Renato Rolla (*)

**TRAUMATOLOGY**
Division director:
Marco Berlusconi
Matteo Cavanna
Lorenzo Di Mento
Davide Marchettini
Mattia Mocchi
Valeria Peschiera
Jose Antonio Puchol Incertis
Ivano Scarabello

Ortho Center

**ARTHROSCOPIC SURGERY OF THE KNEE**
Division director:
Enrico Arnaldi
Stefano Bertora (*)
Andrea Bruno
Massimo De Donato
Paolo Dupplcato
Alexander Kirenko (*)
Paolo Pesenti (*)

**FOOT SURGERY**
Division director:
Leonardo Maradei
Antonio Giardella
Nikolaos Markopoulos

**HIP AND KNEE PROSTHETIC SURGERY**
Division director:
Ennio Gargiulo
Franco Astore
Andrea Baldini (*)
Giovanna Borello (*)
Emanuele Caldarella
Tiziana D’Amato
Antonello Della Rocca
Federico Della Rocca
Antonino Gulgone
Mattia Loppini
Federica Martorelli
Giuseppe Mazziotta
Damiano Ricci
Riccardo Ruggeri
Giuseppe Santoro
Marco Scardino
Francesco Traverso

**KNEE ORTHOPAEDICS AND SPORT TRAUMATOLOGY**
Division director:
Piero Volpi
Corrado Bait
Antonio Orgiani
Emanuele Prospero
Alessandro Quaglia

**PAEDIATRIC AND NEURO-ORTHOPAEDICS SURGERY**
Division director:
Nicola Portinaro
Alberto Grassi Mantelli
Artemisia Panou

**TRAUMATOLOGY**
Division director:
Marco Berlusconi
Matteo Cavanna
Lorenzo Di Mento
Davide Marchettini
Mattia Mocchi
Valeria Peschiera
Jose Antonio Puchol Incertis
Ivano Scarabello
Rehabilitation Department

Director: Stefano Respizzi

**CARDIAC & RESPIRATORY REHABILITATION**
Division director: Stefano Aglieri
Anna Beretta
Franco Rusconi (*)

Hospitalist
Matteo Ferrari
Alessandro Eusebio
Francesca Meda

**NEUROLOGIC REHABILITATION**
Division director: Bruno Bernardini
Giovanna Cerina
Viviana Colantonio
Carla Corsini
Sara Ghirmai
Marco Augusto Pagani

**ORTHOPAEDIC REHABILITATION**
Division director: Stefano Respizzi
Barbara Baroni
Maria Cristina D’Agostino
Gianluca Dalimberti (-)
Paolo Maria Parenti (*)
Giuseppe Strangio
Elisabetta Tibaldi

**SPORTS AND EXERCISE MEDICINE**
Daniela Lucini (•)

---

Specialised Divisions of Surgery

**EYE CENTER**
Division director: Paolo Vinciguerra
professor at Humanitas University
Elena Albè
Laura Balia
Fabrizio Ivo Camesasca
Carlo Castellani
Marco Criscito (*)
Chiara Cuccaro
Alessandra Di Maria
Claudia Fabiani
Marco Gramigna
Emanuela Legrottaglie
Raffaele Piscopo
Giulia Raimondi
Alessandro Randazzo
Mary Romano
Pietro Rossetta
Riccardo Scotti (*)
Adriana Sergio
Maria Ingrid Torres Munoz
Rosario Ursu
Jose Luis Vallejo Garcia
Pietro Paolo Vico

**OTORHINOLARYNGOLOGY**
Giovanni Colombo
Giovanni Cugini
Susanna Di Pietro
Luca Malvezzi
Stefano Miceli
Vanessa Rossi

**PLASTIC SURGERY**
Division director: Marco Klinger
Valeria Bandi
Barbara Banzatti
Barbara Catania
Claudio Cordani
Silvia Giannasi
Francesco Klinger (*)
Luca Maione
Alessandra Veronesi

**SURGICAL DAY HOSPITAL**
Division director: Roberta Monzani
Marco Aldo Babbini
Benedetta Basta
Francesco Carrera
Barbara Crescimbini
Laura Crozzoli
Chiara Ferrari
Tiziana Fusco
Stefania Gherardi
Fabio Intelligente
Annarita Lorocca
Marco Maiola
Oreste Davide Montino
Ilaria Pisano
Maria Del Carmen Rodriguez
Beatrice Rossi
Claudio Sacchi
Alessandro Scafella

**UROLOGY**
Division director: Giorgio Ferruccio Guazzoni
professor at Humanitas University
Alessio Benetti
Nicolò Maria Buffi
Paolo Casale
Rodolfo Hurle
Massimo Lazzari (*)
Giovanni Lughezzani
Luisa Pasini
Roberta Peschechera
Alberto Saia
Silvia Zandegiacomo De Zorzi

[•] Physician dealing with activity in the Research laboratories too
[••] Research Staff
[•••] Research Nurse
[•] Head of unit
[•] Consultant
[§] Vicarious

Divisions that join in the Humanitas Cancer Center
Giulia Cardamone  
Chiara Chiereghin  
Davide De Bortoli  
Laura Gigante  
Elvezia Paraboschi  
Valeria Rimoldi  
Giulia Rojaris  
Michela Robusto  
Giulia Soldà (researcher at Humanitas University)  
Letizia Straniero

**MOLECULAR IMMUNOLOGY**  
Principal investigator:  
Antonio Sica

Augusto Bleve  
Francesca Maria Consonni  
Chiara Porta  
Elena Riboldi  
Mariangela Storto

**ONCOLOGY EXPERIMENTAL THERAPEUTICS**  
Principal investigator:  
Carmelo Carlo-Stella (5)

Giuseppa Careddu  
Armando Chierchia  
Martina Di Trani  
Alessandra Inguscio  
Silvia Laura Locatelli  
Luca Rubino  
Alessandra Sorferino

Junior principal investigator:  
Libero Santarpia

Giulia Bottai  
Laura Paladini  
Carlotta Raschioni

**PHARMACOLOGY AND BRAIN PATHOLOGY**  
Principal investigator:  
Michela Matteoli  
professor at Humanitas University

Flavia Antonucci  
Alice Canzi  
Irene Corradini  
Chiara Adriana Elia  
Genni Desiato  
Fabia Filipello  
Elisa Focchi  
Giuliana Fossati  
Elsa Ghirardini  
Pooja Joshi  
Eliana Lauranzano

Marfa Lombardi  
Marialuisa Malosio  
Cristina Mantovani  
Elisabetta Menna  
Filippo Mirabella  
Raffaella Morini  
Marco Pizzocri  
Davide Pozzi  
Marco Rassie  
Chiara Starvaggi Cucuzza  
Matteo Tamborini  
Romana Tomasoni  
Claudia Verderio

**PHYSIOLOGY**  
Principal investigator:  
Gabriella Cerri

Valentina Ferpozzi  
Luca Fornia

**TRANSLATIONAL IMMUNOLOGY**  
Principal investigator:  
Enrico Lugli

Federica De Pauli  
Gabriele De Simone  
Karolina Pilipow  
Alessandra Roberto  
Elisa Scamardella  
Veronica Zanon

**BIOBANK**  
Daniela Pistillo  
Giorgia Ceva Grimaldi  
Valentina Paleari  
Andrea Uggetti

**HUMAN GENOME**  
Principal investigator:  
Anna Villa

Barbara Cassani  
Francesca Ficara  
Stefano Mantero  
Veronica Marrella  
Martina Pellicciotta  
Federica Rapposelli  
Cristina Sobacchi  
Dario Shina  
Valentina Taverniti

**COMMON RESEARCH SERVICES**  
Lab Manager:  
Monica Rimoldi

Achille Anselmo  
Javier Cibella  
Federico Colombo  
Andrea Doni  
Fabio Grizzi  
Carolina Lage Crespo  
Gianpalo Mile  
Diego Morone

**NATIONAL RESEARCH COUNCIL (CNR) HUMAN GENOME AND MEDICAL BIOTECHNOLOGIES**

HUMAN GENOME  
Principal investigator:  
Anna Villa

Barbara Cassani  
Francesca Ficara  
Stefano Mantero  
Veronica Marrella  
Martina Pellicciotta  
Federica Rapposelli  
Cristina Sobacchi  
Dario Shina  
Valentina Taverniti

**INFLAMMATION AND IMMUNOLOGY IN CARDIOVASCULAR PATHOLOGIES**  
Principal investigator:  
Gianluigi Condorelli  
professor at Humanitas University

Claudia Bearzi  
Pierluigi Carullo  
Laura Catarozzo  
Nadia Corrado  
Silvia Crasto  
Elisa Di Pasquale  
Leonardo Elia  
Barbara Gargano  
Carolina Magdalen Oreco  
Ignacio Fernando Hall Balcazar  
Paolo Kunderfranco  
Michele Latronico  
Michel Miragoli  
Christina Pagiatakis  
Laura Papa  
Roberto Papait  
Roberta Roncarati  
Pierluigi Rossi

**BIOMedical Technologies**  
Principal investigator:  
Paolo Vezzoni

Marcello Rubino  
Marta Russo  
Lucia Rufigliano  
Irene Salamon  
Nicolo Salvarani  
Chiara Viviani Anselmi  
Marco Vacchiano

**BIomedical Technologies**  
Principal investigator:  
Paolo Vezzoni

Maria Elena Caldana  
Alessandra Castelli  
Isabel Chapa  
Laura Crisafulli  
Francesca Faggioli  
Michela Lizier  
Ciro Menale  
Sharon Muggeo  
Eleonora Palagano  
Marianna Paulis  
Rosita Rigoni  
Lucia Susani

**Sarcomers in Cardiac Pathologies**  
Principal investigator:  
Marie Louise Bang

Maria Carmela Filomeno  
Veronica Larcher

**Signal Transduction in Cardiac Pathologies**  
Principal investigator:  
Daniele Catalucci

Paola Ceriotti  
Vittoria Di Mauro
Preclinical Research

**ADAPTIVE IMMUNITY**

Beneduci V, Martini E, Kallikourdis M, Villa A, Meda C, Miggi A.

Ovariectomy shortens the life span of female mice.


**CELL SIGNALLING INNATE IMMUNITY**


Cream formulation impact on topical administration of engineered colloidal nanoparticles.


**CLINICAL AND EXPERIMENTAL IMMUNOLOGY**


Full-length soluble urokinase plasminogen activator receptor down-modulates nephrin expression in podocytes.

*Scientific Reports* 2015;5:13847.

**Criochoilli R°, Bramanti S, Vai A, Sarina B, Mineri R, Casari E, Tordati F, Mauro E, Timofeeva I, Lugli E, Mavilio D, Carlo-Stella C, Santoro A, Castagna L.

Infections after T-replete haploidentical transplantation and high-dose cyclophosphamide as graft-versus-host disease prophylaxis.


**HIV promotes NLRP3 inflammasome complex activation in murine HIV-associated nephropathy.


**Human liver-resident CD68bright/CD16neg NK cells are retained within hepatic sinusoids via the engagement of CCR5 and CXCR6 pathways.


**LAN X, WEN H, SALEEM MA, MIKULAK J, MALHOTRA A, SKORECKI K, SINGHAL PC.

**Vascular smooth muscle cells contribute to APOL1-induced podocyte injury in HIV milieu.


**CHATTERJEE S, CLARK CE, LUGLI E, ROEDERER M, NFUMAN TB.

**Filarial infection modulates the immune response to Mycobacterium tuberculosis and in expansion of CD4+ IL-4 memory T cells.

*Journal of Immunology* 2015;184(6):2706-14.

**CROCCIOI Z, BONETTI A, BENVENUTI F.

**Human immunodeficiencies related to defective APC/T cell interaction.


**KALIKOURDIS M, VIOLA A, BENVENUTI F.

**Human immunodeficiencies related to defective APC/T cell interaction.


**Mesenchymal stem cells reduce colitis in mice via release of TSG6, independently of their localization to the intestine.


**Mesenchymal stem cells reduce colitis in mice via release of TSG6, independently of their localization to the intestine.


**Lack of TNF-alpha receptor type 2 protects motor neurons in a cellular model of amyotrophic lateral sclerosis and in mutant SOD1 mice but does not affect disease progression.


**CAPPELLETTI M, DELLA BELLA S, FERRAZZI E, MAVILIO D, DIVANOVS C.

**Inflammation and preterm birth.


**CROCCIOI Z, BONETTI A, BENVENUTI F.

**Human immunodeficiencies related to defective APC/T cell interaction.


HUMAN GENOME; BIOMEDICAL TECHNOLOGIES


PTX3 is an extrinsic oncosuppressor regulating complement-dependent inflammation in cancer.


Raw IF: 32.242 Normalized IF: 15


An acidic microenvironment sets the humoral pattern recognition molecule PTX3 in a tissue repair mode.


Raw IF: 12.515 Normalized IF: 10


Dendritic cells cause bone lesions in a new mouse model of histiocytosis.


Raw IF: 3.234 Normalized IF: 3


IL-10 critically modulates B cell responsiveness in Rankl−/− mice.

Journal of Immunology 2015;194(9):444-53.

Raw IF: 4.922 Normalized IF: 6


Targeted gene correction in osteopetrotic-induced pluripotent stem cells for the generation of functional osteoclasts.


Raw IF: 5.365 Normalized IF: 6


Lentiviral-mediated gene therapy restores B cell tolerance in Wiskott-Aldrich syndrome patients.


Raw IF: 13.262 Normalized IF: 5


Buried in the middle, but guilty: intrinsic mutations in the TICIRG1 gene cause human autosomal recessive osteopetrosis.


Raw IF: 6.832 Normalized IF: 6


A pre-screening FISH-based method to detect CRISPR/Cas9 off-targets in mouse embryonic stem cells.

Scientific Reports 2015;5:2327.

Raw IF: 5.578 Normalized IF: 6


Chromosome transplantation as a novel approach for correcting complex genomic disorders.


Raw IF: 6.359 Normalized IF: 6

Rauher M, Couidt A, Sobacchi C, Del Fattore A.

The endocrine role of the skeleton.


Raw IF: 1.948 Normalized IF: 1


Lentiviral-mediated gene therapy restores B cell tolerance in Wiskott-Aldrich syndrome patients.


Raw IF: 13.262 Normalized IF: 5


Buried in the middle, but guilty: intrinsic mutations in the TICIRG1 gene cause human autosomal recessive osteopetrosis.


Raw IF: 6.832 Normalized IF: 6


A pre-screening FISH-based method to detect CRISPR/Cas9 off-targets in mouse embryonic stem cells.

Scientific Reports 2015;5:2327.

Raw IF: 5.578 Normalized IF: 6


Chromosome transplantation as a novel approach for correcting complex genomic disorders.


Raw IF: 6.359 Normalized IF: 6

Rauher M, Couidt A, Sobacchi C, Del Fattore A.

The endocrine role of the skeleton.


Raw IF: 1.948 Normalized IF: 1
IMMUNOLOGY IN CARDIOVASCULAR PATHOLOGIES

Bahrainseni N, Chahri B, Yeganeh H, Miragoli M, Salvarani N, Di Pasquale E, Condorelli G. 
Electroactive polyurethane/siloxane derived from castor oil as a versatile cardiac patch, Part I: synthesis, characterization and myoblast proliferation and differentiation. 
Raw IF: 3.369 Normalized IF: 6

PTX3 is an extrinsic oncosuppressor regulating complement-dependent inflammation in cancer. 
Raw IF: 3.369 normalized IF: 6

TET2 and CSM1 genes affect SBP response to hydrochlorothiazide in never-treated essential hypertensives. 
Raw IF: 2.696 normalized IF: 4

Donahue M, Visconti G, Focaccio A, Selvetella L, Baldassarre M, Viviani Anselmi C, Briguori C. 
Acute kidney injury in patients with chronic kidney disease undergoing internal carotid artery stent implantation. 
Raw IF: 7.245 Normalized IF: 4

Elia L, Condorelli G. 
RNA (Epi)genetics in cardiovascular diseases. 
Journal of Molecular and Cellular Cardiology 2015;88(1A):11-6. 
Raw IF: 4.655 Normalized IF: 6

Glukhov AV, Rosenshtraukh LV, Bhargava A, Miragoli M, Boukens BJ. 
Atrial fibrillation: biophysics, molecular mechanisms, and novel therapies. 
Raw IF: 1.579 Normalized IF: 1

Greco CM, Condorelli G. 
Epigenetic modifications and noncoding RNAs in cardiac hypertrophy and failure. 
Raw IF: 9.183 Normalized IF: 8

Latronico MV, Condorelli G. 
Therapeutic applications of noncoding RNAs. 
Raw IF: 2.696 Normalized IF: 4

Exome sequencing of a family with lone, autosomal dominant atrial flutter identifies a rare variation in ABCB4 significantly enriched in cases. 
BMC Genetics 2015;16:15. 
Raw IF: 2.397 Normalized IF: 1

Acetylation mediates Cx43 reduction caused by electrical stimulation. 
Journal of Molecular and Cellular Cardiology 2015;87:54-64. 
Raw IF: 4.655 Normalized IF: 3

Miragoli M, Glukhov A. 
Atrial fibrillation and fibrosis: beyond the cardiomyocyte centric view. 
Raw IF: 1.579 Normalized IF: 2

Papait R, Corrado R, Cherroni F, Serio S, Latronico M. 
It’s time for an epigenomics roadmap of heart failure. 
Current Genomics 2015;16(4):237-244. 
Raw IF: 2.342 Normalized IF: 4

Neutrophil gelatinase-associated lipocalin and contrast-induced acute kidney injury. 
Circulation-Cardiovascular interventions 2015;8(9):e002673. 
Raw IF: 6.218 Normalized IF: 6

Urolithins at physiological concentrations affect the levels of pro-inflammatory cytokines and growth factor in cultured cardiac cells in hyperglucidic conditions. 
Raw IF: 3.574 Normalized IF: 3

Thum T, Condorelli G. 
Long noncoding RNAs and microRNAs in cardiovascular pathophysiology. 
Raw IF: 11.019 Normalized IF: 8
Leukocyte Biology

Bachelerie F, Graham GJ, Locati M, Mantovani A, Murphy PM, Nibbs R, Rot A, Sozzani S, Thelen M.
An atypical addition to the chemokine receptor nomenclature: IUPHAR Review “15”.
Raw IF: 4.842 Normalized IF: 6

Mattiola I, Pesant M, Tentorio PF, Molgora M, Marcenaro E, Lugli E, Locati M, Mavilio D.
Priming of human resting NK cells by autologous M1 macrophages via the engagement of IL-1β, IFN-β, and IL-15 pathways.
Raw IF: 4.922 Normalized IF: 6

Leukocyte Biology

Bachelerie F, Graham GJ, Locati M, Mantovani A, Murphy PM, Nibbs R, Rot A, Sozzani S, Thelen M.
An atypical addition to the chemokine receptor nomenclature: IUPHAR Review “15”.
Raw IF: 4.842 Normalized IF: 6

Mediators of Inflammation

Sozzani S, Del Prete A, Bonecchi R, Locati M.
Chemokines as effector and target molecules in vascular biology.
Raw IF: 5.94 Normalized IF: 6

Sukubo NG, Tibalt E, Respizzi S, Locati M, d’Agostino MC.
Effect of shock waves on macrophages: a possible role in tissue regeneration and remodeling.
Raw IF: 1.531 Normalized IF: 4

Medical Genetics and RNA Biology

Raw IF: 5.57 Normalized IF: 6

Molecular characterization of 7 patients affected by dys- or hypo-dysfibrinogenemia: Identification of a novel mutation in the fibrinogen Bbeta chain causing a gain of glycosylation.
Raw IF: 2.447 Normalized IF: 2

Paraboschi E, Cardamone G, Rimoldi V, Gemmati D, Spreatico M, Duga S, Solda G, Asselna R.
Meta-analysis of multiple sclerosis microarray data reveals dysregulation in RNA splicing regulatory genes.
Raw IF: 2.862 Normalized IF: 6

Raw IF: 3.377 Normalized IF: 3

Castaman G, Rimoldi V, Giaconelli S, Duga S.
Congenital hypofibrinogenemia associated with novel homozygous fibrinogen Ax and heterozygous Bβ chain mutations.
Raw IF: 2.447 Normalized IF: 2
PHARMACOLOGY AND BRAIN PATHOLOGY


Defects during Mecp2 null embryonic cortex development precede the onset of overt neurological symptoms.

Cerebral Cortex. Epub 2015 May 15.

Raw IF: 8.685 Normalized IF: 8


Translational Psychiatry 2015;5:e500.

Raw IF: 5.82 Normalized IF: 3

Braida D, Ponzoni L, Matteoli M, Sala MM.

Different attentional abilities among inbred mice strains using virtual object recognition task (VORT): SNAP25+/- mice as a model of attentional deficit.

Behavioural Brain Research 2016;296:393-400.

Raw IF: 3.028 Normalized IF: 2


Microvesicles: what is the role in multiple sclerosis?


Raw IF: 0 Normalized IF: 0

Fattorini G, Antonucci F, Menna E, Matteoli M, Conti F.

Co-expression of VGLUT1 and VGAT sustains glutamate and GABA co-release and is regulated by activity in cortical neurons.

Journal of Cell Science 2015;128(9):1669-73

Raw IF: 5.432 Normalized IF: 3


Reduced SNAP-25 increases PSD-95 mobility and impairs spine morphogenesis.

Cell Death and Differentiation 2015;22(9):1425-36.

Raw IF: 8.184 Normalized IF: 8


Active endocannabinoids are secreted on extracellular membrane vesicles.


Raw IF: 9.055 Normalized IF: 8

Garcia-Manteiga JM, Bonfiglio S, Follador L, Malosio ML, Lazarevic D, Stupka E, Ciftaro D, Meldolesi J.

REST-governed gene expression profiling in a neuronal cell model reveals novel direct and indirect processes of repression and up-regulation.


Raw IF: 4.289 Normalized IF: 3


Extracellular vesicles in Alzheimer’s disease: friends or foes? Focus on a β-vesicle interaction.


Raw IF: 1.578 Normalized IF: 1

Magni G, Merli D, Verderio C, Abbracchio MP, Ceruti S.

P2Y2 receptor antagonists as anti-alldyic agents in acute and sub-chronic trigeminal sensitization: role of satellite glial cells.


Raw IF: 6.031 Normalized IF: 3


Subventricular zone neural progenitors reverse TNF-alpha effects in cortical neurons.


Raw IF: 3.368 Normalized IF: 6
**SARCOMERES IN CARDIAC PATHOLOGY**

Bäng ML*, Chen J.

Roles of nebulin family members in the heart.


**SCIENTIFIC RESEARCH LABORATORIES**

Bachelerie F, Graham GJ, Locati M, Mantovani A, Murphy PM, Nibbs R, Rot A, Sozzani S, Thelen M.

An atypical addition to the chemokine receptor nomenclature: IUPHAR Review "15".


Bonavita E, Galdiero MR, Jaillon S, Mantovani A°.

Phagocytes as corrupted policemen in cancer-related inflammation.


Nebulette knockout mice have normal cardiac function but show Z-line widening and upregulation of cardiac stress markers.


Pathogenic NLRP3 inflammasome activity during Candida infection is negatively regulated by IL-22 via activation of NLRC4 and IL-1R.

*Cell Host and Microbe 2015;18(2):198-209.

Raw IF: 7.216 Normalized IF: 8


Aspergillosis after lung transplant.

*Clinical Infectious Diseases 2015;61(12):1893-4.

Raw IF: 8.886 Normalized IF: 4

Bonavita E, Gentile S, Chen J, Bang ML°.

Phagocytes as corrupted policemen in cancer-related inflammation.


Raw IF: 12.515 Normalized IF: 10

Bonavita E, Mantovani A, Garlanda C°.

PTX3 acts as an extrinsic oncosuppressor.


Raw IF: 6.359 Normalized IF: 6

Bonavita E, Mantovani A, Garlanda C°.

PTX3 acts as an extrinsic oncosuppressor.


Raw IF: 6.359 Normalized IF: 6


Nebulette knockout mice have normal cardiac function but show Z-line widening and upregulation of cardiac stress markers.


Raw IF: 5.94 Normalized IF: 6

Bonavita E, Galdiero MR, Jaillon S, Mantovani A°.

Phagocytes as corrupted policemen in cancer-related inflammation.


Raw IF: 4.842 Normalized IF: 6

Bonavita E, Galdiero MR, Jaillon S, Mantovani A°.

Phagocytes as corrupted policemen in cancer-related inflammation.


Raw IF: 5.321 Normalized IF: 6
Raw IF: 7.562 Normalized IF: 4

Foos SS, Reading PC, Jaliff S, Mantovani A, Mahalingam S.
Raw IF: 9.186 Normalized IF: 4

Garlanda C, Jaliff S, Doni A, Bottazzi B, Mantovani A*
Raw IF: 7.478 Normalized IF: 8

Grizzli F*, Borroni EM, Vaccinini A, Qehajaj D, Liguori M, Stifter S, Chiriva-Internati M, Di Ieva A.
Raw IF: 0 Normalized IF: 0

Raw IF: 5.085 Normalized IF: 0

Isailovic N, Daigo K, Mantovani A**, Selmi C**
Raw IF: 1.626 Normalized IF: 4

Extracellular forms of IL-37 inhibit innate inflammation in vitro and in vivo but protect the IL-1 family decoy receptor IL-1R8. Proceedings of the National Academy of Sciences of the United States of America 2015;112(8):497-502.
Raw IF: 9.674 Normalized IF: 4

Raw IF: 1.876 Normalized IF: 1

Mantovani A, Allavena P.
Raw IF: 12.515 Normalized IF: 10

Raw IF: 20.004 Normalized IF: 7.5

Raw IF: 4.034 Normalized IF: 3

Raw IF: 4.11 Normalized IF: 3

Renzi TA, Rubino M, Gornati L, Garlanda C, Locati M, Curtale G†.
MIR-146b mediates endotoxin tolerance in human phagocytes. Mediators of Inflammation 2015;2015:145305.
Raw IF: 3.236 Normalized IF: 4

Raw IF: 2.707 Normalized IF: 6

Raw IF: 5.408 Normalized IF: 3

Raw IF: 16.716 Normalized IF: 15
Sica A°, Erreni M, Allavena P, Porta C.

**Macrophage polarization in pathology.**


Raw IF: 5.808  Normalized IF: 6


**RORC1 regulates tumor-promoting “emergency” granulo-monocytopoiesis.**


Raw IF: 23.523  Normalized IF: 15


**Inflammation and prostate cancer: friends or foes?**

*Inflammation Research* 2015;64(5):275-86.

Raw IF: 2.347  Normalized IF: 2


**Pentraxin-3 is upregulated in the central nervous system during MS and EAE, but does not modulate experimental neurological disease.**


Raw IF: 4.034  Normalized IF: 6

**SIGNAL TRANSDUCTION IN CARDIAC PATHOLOGIES**


**Nebulette knockout mice have normal cardiac function but show Z-line widening and upregulation of cardiac stress markers.**


Raw IF: 5.94  Normalized IF: 6


**Neutrophils promote Alzheimer’s disease-like pathology and cognitive decline via LFA-1 integrin.**


Raw IF: 27.363  Normalized IF: 7.5

Gender-differences in disease distribution and outcome in hospitalized elderly: data from the REPOSI study.


Raw IF: 2.891 Normalized IF: 1.2

De Santis M, Cavaciocchi F, Ceribelli A, Croft C, Generali E, Fabbriciani G, Selmi C°, Massarotti M.

Gamma-delta T lymphocytes and 25-hydroxy vitamin D levels as key factors in autoimmunity and inflammation: the case of zoleodery acid-induced acute phase reaction.


Raw IF: 2.197 Normalized IF: 2

De Santis M, Selmi C°.

The autoinflammatory side of systemic sclerosis.


Raw IF: 1.013 Normalized IF: 2

Generali E, Cantarini L, Selmi C°.

Ocular involvement in systemic autoimmune diseases.

Clinical Reviews in Allergy & Immunology 2015;49(3):263-70.

Raw IF: 5.463 Normalized IF: 6

Generali E, Ceribelli A, Massarotti MS, Cantarini L, Selmi C°.

Sero-negative reactive spondyloarthritis and the skin.


Raw IF: 2.47 Normalized IF: 6


Ustekinumab for patients with primary biliary cholangitis who have an inadequate response to ursodeoxycyclic acid: a proof-of-concept study.


Raw IF: 11.055 Normalized IF: 1.6


Interleukin-17 and innate immunity in infections and chronic inflammation.


Raw IF: 1.626 Normalized IF: 4

Islam AD, Selmi C, Dafta-Mitra A, Sonu R, Chen M, Gershwin ME, Raychaudhuri SP.

The changing faces of IgG4-related disease: clinical manifestations and pathogenesis.


Raw IF: 7.933 Normalized IF: 8

Liberal R, Selmi C, Gershwin ME.

Diego and Giorgina Vergani: The two hearts of translational autoimmunity.


Raw IF: 8.41 Normalized IF: 8


Role of lipoylation of the immunodominant epitope of Pyruvate Dehydrogenase Complex: toward a peptide-based diagnostic assay for Primary Biliary Cirrhosis.


Raw IF: 5.447 Normalized IF: 3

Pagnini I, Vitale A, Selmi C, Cimaz R, Cantarini L.

Idiopathic inflammatory myopathies: an update on classification and treatment with special focus on juvenile forms.

Clinical Reviews in Allergy & Immunology. Epub 2015 Oct 1.

Raw IF: 5.463 Normalized IF: 3


Plasma IgG autoantibody against actin-related protein 3 in liver fluke Opisthorchis viverrini infection.


Raw IF: 2.143 Normalized IF: 2

Satoh M, Tanaka S, Ceribelli A, Calise SJ, Chan EK.

A comprehensive overview on myositis-specific antibodies: new and old biomarkers in idiopathic inflammatory myopathy.

Clinical Reviews in Allergy & Immunology. Epub 2016 Sep 30.

Raw IF: 5.463 Normalized IF: 3

Selmi C°.

Autoimmunity in 2014.

Clinical Reviews in Allergy & Immunology 2015;49(2):83-9.

Raw IF: 5.463 Normalized IF: 6


Serum antinuclear and extractable nuclear antigen antibody prevalence and associated morbidity and mortality in the general population over 15 years.


Raw IF: 7.933 Normalized IF: 8

Selmi C°, Ceribelli A, Generali E, Scirià CA.

Tumor necrosis factor-alpha at the crossroad between rheumatoid arthritis and autoimmune cholangitis.


Raw IF: 1.013 Normalized IF: 2

Satoh M, Tanaka S, Ceribelli A, Calise SJ, Chan EK.

A comprehensive overview on myositis-specific antibodies: new and old biomarkers in idiopathic inflammatory myopathy.

Clinical Reviews in Allergy & Immunology. Epub 2016 Sep 30.

Raw IF: 5.463 Normalized IF: 3

Selmi C°.

Autoimmunity in 2014.

Clinical Reviews in Allergy & Immunology 2015;49(2):83-9.

Raw IF: 5.463 Normalized IF: 6


Serum antinuclear and extractable nuclear antigen antibody prevalence and associated morbidity and mortality in the general population over 15 years.


Raw IF: 7.933 Normalized IF: 8

Selmi C°, Cerarfelii A, Generali E, Scirià CA.

Tumor necrosis factor-alpha at the crossroad between rheumatoid arthritis and autoimmune cholangitis.


Raw IF: 1.013 Normalized IF: 2

Satoh M, Tanaka S, Ceribelli A, Calise SJ, Chan EK.

A comprehensive overview on myositis-specific antibodies: new and old biomarkers in idiopathic inflammatory myopathy.

Clinical Reviews in Allergy & Immunology. Epub 2016 Sep 30.

Raw IF: 5.463 Normalized IF: 3

Selmi C°.

Autoimmunity in 2014.

Clinical Reviews in Allergy & Immunology 2015;49(2):83-9.

Raw IF: 5.463 Normalized IF: 6

Selmi C°, Cerarfelii A, Generali E, Scirià CA.

Tumor necrosis factor-alpha at the crossroad between rheumatoid arthritis and autoimmune cholangitis.


Raw IF: 1.013 Normalized IF: 2

Satoh M, Tanaka S, Ceribelli A, Calise SJ, Chan EK.

A comprehensive overview on myositis-specific antibodies: new and old biomarkers in idiopathic inflammatory myopathy.

Clinical Reviews in Allergy & Immunology. Epub 2016 Sep 30.

Raw IF: 5.463 Normalized IF: 3

Selmi C°.

Autoimmunity in 2014.

Clinical Reviews in Allergy & Immunology 2015;49(2):83-9.

Raw IF: 5.463 Normalized IF: 6


Serum antinuclear and extractable nuclear antigen antibody prevalence and associated morbidity and mortality in the general population over 15 years.


Raw IF: 7.933 Normalized IF: 8

Selmi C°, Cerarfelii A, Generali E, Scirià CA.

Tumor necrosis factor-alpha at the crossroad between rheumatoid arthritis and autoimmune cholangitis.


Raw IF: 1.013 Normalized IF: 2

Satoh M, Tanaka S, Ceribelli A, Calise SJ, Chan EK.

A comprehensive overview on myositis-specific antibodies: new and old biomarkers in idiopathic inflammatory myopathy.

Clinical Reviews in Allergy & Immunology. Epub 2016 Sep 30.

Raw IF: 5.463 Normalized IF: 3

Selmi C°.

Autoimmunity in 2014.

Clinical Reviews in Allergy & Immunology 2015;49(2):83-9.

Raw IF: 5.463 Normalized IF: 6

Selmi C°, Cerarfelii A, Generali E, Scirià CA.

Tumor necrosis factor-alpha at the crossroad between rheumatoid arthritis and autoimmune cholangitis.

GASTROINTESTINAL IMMUNOPATHOLOGY


In vivo imaging of mucosal immune cells in inflammatory bowel disease patients.

Raw IF: 6.359 Normalized IF: 6

Danese S°, Fiorino G, Peyrin-Biroulet L.

Targeting SMAD7 in Crohn’s disease by JAK inhibition using tofacitinib for inducing steroid-free remission, but induces steroid-free clinical remission in a larger proportion of patients with ulcerative colitis.

Raw IF: 16.716 Normalized IF: 15

Fernandes C, Allocca M, Danese S, Fiorino G°.

Progress with anti-tumor necrosis factor therapeutics for the treatment of inflammatory bowel disease.

Immunotherapy 2015;10(2):175-90.
Raw IF: 2.07 Normalized IF: 2

Fiorino G, Allocca M, Danese S°.

Anemia in IBD: the opening of Pandora’s box?

Raw IF: 7.896 Normalized IF: 8

Danese S°, Vuitton L, Peyrin-Biroulet L.

Biologic agents for IBD: practical insights.

Raw IF: 12.61 Normalized IF: 10

Declerck P, Mellstedt H, Danase S.

Biosimilars – terms of use.

Current Medical Research and Opinion 2015;31(12):2325-30.
Raw IF: 2.653 Normalized IF: 2

Sun Y, Zhang W, Li B, Zou Z, Selshin C, Gershwin ME.

The coexistence of Sjögren’s syndrome and primary biliary cirrhosis: a comprehensive review.

Raw IF: 5.463 Normalized IF: 6


Incidence and predictors of cutaneous manifestations during the early course of systemic sclerosis: a 10-year longitudinal study from the EUSTAR database.

Raw IF: 10.377 Normalized IF: 1.6

Full-length soluble urokinase plasminogen activator receptor down-modulates nephrin expression in podocytes.

Scientific Reports 2015; 5:13647.
Raw IF: 5.578 Normalized IF: 6


Incidence and predictors of cutaneous manifestations during the early course of systemic sclerosis: a 10-year longitudinal study from the EUSTAR database.

Raw IF: 10.377 Normalized IF: 1.6


European evidence-based consensus: inflammatory bowel disease and malignancies.

Raw IF: 6.359 Normalized IF: 6


Methotrexate is not superior to placebo for inducing steroid-free remission, but induces steroid-free clinical remission in a larger proportion of patients with ulcerative colitis.

Raw IF: 16.716 Normalized IF: 15

D’Alessio S, Tacconi C, Danese S°.

Targeting lymphatics in Inflammatory Bowel Disease.

OncoTarget 2015;6(33):34047-8.
Raw IF: 6.359 Normalized IF: 6
Fiorino G°, Omodei PD.
Psoriasis and inflammatory bowel disease: two faces of the same coin?  
Raw IF: 6.234 Normalized IF: 6

Furfaro F°, Bezzio C, Mazoni G.
Protein-losing enteropathy in inflammatory bowel diseases.  
Raw IF: 0 Normalized IF: 0

Genua M, Becker C, Vetrano S°.
Anti-TNF antibodies and autophagy: a hidden nexus for a successful therapeutic response?  
*Journal of Crohn’s & Colitis* Epub 2015 Dec 8  
Raw IF: 6.234 Normalized IF: 6

Genua M, Sgambato A, Danese S°.  
Editorial: CCR7 is required for leukocyte egression in an experimental model of Crohn’s like ileitis.  
Raw IF: 4.289 Normalized IF: 6

Gilardi D, Fiorino G, Allocca M, Bravata I, Danese S°.  
Golimumab: clinical update on its use for ulcerative colitis.  
*Drugs of Today* 2015;51(3):171-16.  
Raw IF: 1.197 Normalized IF: 1

Validation of the Inflammatory Bowel Disease Disability Index in a population-based cohort.  
*Gut* Epub 2015 Dec 8  
Raw IF: 14.66 Normalized IF: 2

High-density mapping of the MHC identifies a shared role for HLA-DRB1*01:03 in inflammatory bowel diseases and heterozygous advantage in ulcerative colitis.  
Raw IF: 29.352 Normalized IF: 3

Autologous hematopoietic stem cell transplantation for refractory Crohn disease: a randomized clinical trial.  
*JAMA - Journal of the American Medical Association* 2015;314(23):2624-34.  
Raw IF: 35.289 Normalized IF: 3

Direct retrospective comparison of adalimumab and infliximab in preventing early postoperative endoscopic recurrence after ileocaecal resection for Crohn’s disease: results from the MULTIPER database.  
Raw IF: 6.234 Normalized IF: 6

Budesonide MMX® for the induction of remission of mild to moderate ulcerative colitis: a pooled safety analysis.  
Raw IF: 6.234 Normalized IF: 3

Marchal Bressanot A, Riddell RH, Boulagnon-Rombi C, Reinsich W, Danese S, Schreiber S, Peyrin-Biroulet L.  
Review article: the histological assessment of disease activity in ulcerative colitis.  
Raw IF: 5.727 Normalized IF: 3

Development and validation of the Nancy histological index for ulcerative colitis.  
*Gut* Epub 2015 Oct 13  
Raw IF: 14.66 Normalized IF: 5

Urokinase receptor promotes skin tumor formation by preventing epithelial cell attachment of Notch1.  
Raw IF: 9.329 Normalized IF: 8

Moja L, Danese S, Fiorino G, Del Giovane C, Bonovas S.  
Systematic review with network meta-analysis: comparative efficacy and safety of budesonide and mesalazine (mesalamine) for Crohn’s disease.  
Raw IF: 5.727 Normalized IF: 6

Nulti F, Fiorino G, Danese S°.  
Adalimumab for the treatment of pediatric Crohn’s disease.  
Raw IF: 2.484 Normalized IF: 2

Papa A, Papa V, Marzo M, Scaldaferrì F, Sofo L, Rapaccini GL, Danese S, Gasbarrini A.  
Raw IF: 4.464 Normalized IF: 3


Raw IF: 7.896 Normalized IF: 4


Selecting therapeutic targets in Inflammatory Bowel Disease (STRIDE): determining therapeutic goals for treat-to-target.


Raw IF: 10.755 Normalized IF: 4


Review article: the pharmacokinetics and pharmacodynamics of drugs used in inflammatory bowel disease treatment.


Raw IF: 2.963 Normalized IF: 4

Reinisch W, Louis E, Danese S.

The scientific and regulatory rationale for indication extrapolation: a case study based on the infliximab biosimilar CT-P13.


Raw IF: 2.417 Normalized IF: 4


Mesenchymal stem cells reduce colitis in mice via release of TSG6, independently of their localization to the intestine.


Raw IF: 16.716 Normalized IF: 15


Induction of clinical and colonoscopic remission of mild-to-moderate ulcerative colitis with budesonide MMX 9 mg: pooled analysis of two phase 3 studies.


Raw IF: 5.727 Normalized IF: 6

Scaldaferri F, Vetrano S°.

Mesenchymal stem cells in IBd: unMaSCing their therapeutic mechanisms.

Digestive Diseases and Sciences 2015;60(7):1873-5.

Raw IF: 2.613 Normalized IF: 4


Vascular Endothelial Growth Factor C disrupts the endothelial lymphatic barrier to promote colorectal cancer invasion.


Raw IF: 16.716 Normalized IF: 15

Tursi A, Papa A, Danese S°.

Review article: the pathophysiology and medical management of diverticulosis and diverticular disease of the colon.

Alimentary Pharmacology & Therapeutics 2015;42(6):664-84.

Raw IF: 5.727 Normalized IF: 6


Raw IF: 0 Normalized IF: 0

Vetrano S°, Genua M.

Cathelicidins: a novel therapy for the treatment of intestinal fibrosis?


Raw IF: 0 Normalized IF: 0


IBD technical review on endoscopic indices for Crohn’s disease clinical trials.


Raw IF: 14.66 Normalized IF: 5

Yadav SK, Gupta RK, Saraswat VA, Rangan M, Thomas MA, Rutella S, Danese S, Wang E, Marincola FM, Harris M.

Reduced cortical thickness in patients with acute-on-chronic liver failure due to non-alcoholic etiology.


Raw IF: 3.93 Normalized IF: 2

Hepatobiliary Immunopathology


Changing nomenclature for PBC: from ‘cirrhosis’ to ‘cholangitis’.


Raw IF: 10.755 Normalized IF: 4


Changing nomenclature for PBC: from ‘cirrhosis’ to ‘cholangitis’.


Raw IF: 7.896 Normalized IF: 4


Changing nomenclature for PBC: from ‘cirrhosis’ to ‘cholangitis’.


Raw IF: 1.638 Normalized IF: 0.5


Changing nomenclature for PBC: from ‘cirrhosis’ to ‘cholangitis’.


Raw IF: 2.963 Normalized IF: 2
Nature Communications 2015;6:8019.


Brain and kidney, victims of atrial microembolism in elderly hospitalized patients? Data from the REPOSI study.


Raw IF: 2.891 Normalized IF: 1.2


Gender-differences in disease distribution and outcome in hospitalized elderly: data from the REPOSI study.


Raw IF: 2.891 Normalized IF: 1.2


The overlap syndrome between primary biliary cirrhosis and primary sclerosing cholangitis.


Raw IF: 2.963 Normalized IF: 4

Garett S, Trovato AE, Lleo A, Sala F, Martini E, Betz AG, Norata GD, Invernizzi P, Kallikourdis M.

Peak inflammation in atherosclerosis, primary biliary cirrhosis and autoimmune arthritis is counter-intuitively associated with regulatory T cell enrichment.


Raw IF: 3.044 Normalized IF: 4


Ustekinumab for patients with primary biliary cholangitis who have an inadequate response to ursodeoxycholic acid: a proof-of-concept study.


Raw IF: 11.055 Normalized IF: 1.6


Human liver-resident CD56bright/CD16neg NK cells are retained within hepatic sinusoids via the engagement of CCR5 and CXCR6 pathways.


Raw IF: 8.41 Normalized IF: 8


AISF position paper on liver disease and pregnancy.


Raw IF: 2.963 Normalized IF: 4


Development and validation of a scoring system to predict outcomes of patients with primary biliary cirrhosis receiving ursodeoxycholic acid therapy.


Raw IF: 16.716 Normalized IF: 15


DNA methylation profiling of the X chromosome reveals an aberrant demethylation on CXCR3 promoter in primary biliary cirrhosis.


Raw IF: 4.543 Normalized IF: 6

Marzorati S, Invernizzi P, Lleo A.

Making sense of autoantibodies in cholestatic liver diseases.


Raw IF: 3.66 Normalized IF: 6

**Elevated circulating CD14lowCD16+ monocyte subset in primary biliary cirrhosis correlates with liver injury and promotes Th1 polarization.**


Raw IF: 2.959 Normalized IF: 2


**Cancer stem cells and tumor-Associated Macrophages: a roadmap for multitargeting strategies.**


Raw IF: 8.459 Normalized IF: 8


**Lack of Siglec-7 expression identifies a dysfunctional natural killer cell subset associated with liver inflammation and fibrosis in chronic HCV infection.**

*Gut.* Epub 2015 Dec 16.

Raw IF: 14.66 Normalized IF: 8


**Randomised clinical trial: alisporivir combined with peginterferon and ribavirin in treatment-naïve patients with chronic HCV genotype 1 infection (ESSENTIAL II).**

*Alimentary Pharmacology & Therapeutics.* 2015;42(7):829-44.

Raw IF: 5.727 Normalized IF: 6


**Therapeutic potential of IL-17-mediated signaling pathway in autoimmune liver diseases.**

*Mediators of Inflammation.* 2015;2015:436450.

Raw IF: 3.236 Normalized IF: 4


**Geoepidemiology, genetic and environmental risk factors for PBC.**


Raw IF: 2.181 Normalized IF: 2

---

**MOLECULAR GASTROENTEROLOGY**


**PTX3 is an extrinsic oncosuppressor regulating complement-dependent inflammation in cancer.**


Raw IF: 32.242 Normalized IF: 15


**Targeting tumor initiating cells through inhibition of cancer testis antigens and Notch signaling: a hypothesis.**


Raw IF: 4.103 Normalized IF: 3


**Tertiary lymphoid tissue in the tumor microenvironment: from its occurrence to immunotherapeutic implications.**


Raw IF: 4.103 Normalized IF: 10


**Dual prognostic significance of tumour-associated macrophages in human pancreatic adenocarcinoma treated or untreated with chemotherapy.**

*Gut.* Epub 2015 Jul 8.

Raw IF: 14.66 Normalized IF: 6


**Chimeric antigen receptor engineering: a right step in the evolution of adoptive cellular immunotherapy.**


Raw IF: 4.103 Normalized IF: 3


**KRAS mutation in lung metastases from colorectal cancer: prognostic implications.**

*Cancer Medicine.* 2016;5(2):256-64.

Raw IF: 2.5 Normalized IF: 2


**Pituitary adenoma and the chemokine network: a systemic view.**


Raw IF: 0 Normalized IF: 6


**Sperm protein 17 and AKAP-associated sperm protein cancer/testis antigens are expressed in ciliated hepatic foregut cysts.**


Raw IF: 3.453 Normalized IF: 6

Grizzi F, Mirandola L, Qehajaj D, Cobos E, Figueroa JA, Chiriva-Internati M°.

**Cancer-testis antigens and immunotherapy in the light of cancer complexity.**


Raw IF: 4.103 Normalized IF: 6


**Long-term follow-up results of the DANCE trial, a randomized study of lung cancer screening with spiral computed tomography.**


Raw IF: 12.996 Normalized IF: 10


Raw IF: 6.359 Normalized IF: 3


Raw IF: 1.519 Normalized IF: 2


Endorectal multiparametric 3-tesla magnetic resonance imaging associated with systematic cognitive biopsies does not increase prostate cancer detection rate: a randomized prospective trial. World Journal of Urology. Epub 2015 Oct 19.

Raw IF: 2.666 Normalized IF: 6

Taverna G°, Cote RJ, Grizzi F.

Editorial: prostate cancer. What we know and what we would like to know. Frontiers in Oncology 2015;5:114.

Raw IF: 0 Normalized IF: 0

Taverna G°, Cote R, Grizzi F°.


Raw IF: 2.409 Normalized IF: 4


Raw IF: 0 Normalized IF: 0


Inflammation and prostate cancer: friends or foe? Inflammation Research 2015;64(5):275-86.

Raw IF: 2.347 Normalized IF: 2

Taverna G°, Tidu L, Grizzi F.


Raw IF: 0 Normalized IF: 0

ONCOLOGY EXPERIMENTAL THERAPEUTICS


Raw IF: 4.865 Normalized IF: 6

Carlo-Stella C°, Santoro A.


Raw IF: 2.646 Normalized IF: 4


Raw IF: 0 Normalized IF: 0


Raw IF: 3.57 Normalized IF: 4


Raw IF: 2.064 Normalized IF: 4


Raw IF: 5.814 Normalized IF: 6


Raw IF: 6.359 Normalized IF: 6


Raw IF: 5.085 Normalized IF: 6

Meryhart G, Santarpia L, Gyöffy B.


Raw IF: 3.522 Normalized IF: 4

Role of naïve-derived T memory stem cells in T cell reconstitution following allogeneic transplantation.

*Blood* 2015;125(18):2855-64.

Raw IF: 10.452 Normalized IF: 8


Notch is a direct negative regulator of the DNA-damage response.


Raw IF: 13.309 Normalized IF: 5

**PHYSIOLOGY**

Caronni A, Sciumé L, Ferpozzi V, Blasi V, Castellano A, Falini A, Perucca L, Cerri G.

Mirror movements after stroke suggest facilitation from nonprimary motor cortex: a case presentation.


Raw IF: 1.534 Normalized IF: 4
Clinical Research

BIODBANK


Serum antinuclear and extractable nuclear antigen antibody prevalence and associated morbidity and mortality in the general population over 15 years.


Raw IF: 7.933 Normalized IF: 8

BREAST UNIT


One-step nucleic acid amplification in breast cancer sentinel lymph node: a single institutional experience and a short review.


Raw IF: 4.865 Normalized IF: 6

CARDIAC SURGERY

Cappai A°, Settepani F, Barbone A, Omarghi D, Malvindi PG.

Iatrogenic left ventricular false aneurysm.


Raw IF: 1.51 Normalized IF: 2


Off-pump coronary artery bypass grafting improves short-term outcomes in high-risk patients compared with on-pump coronary artery bypass grafting: meta-analysis.


Raw IF: 4.168 Normalized IF: 3
CLINICAL CARDIOLOGY


Granulocyte-colony stimulating factor for large anterior ST-elevation myocardial infarction: rationale and design of the prospective randomized phase III STEM-AMI OUTCOME trial.

Raw IF: 4.463 Normalized IF: 1.2

CORONARY CARE


A multicenter observational study on the management of hyperglycemia in patients with acute coronary syndrome.

Nutrition Metabolism and Cardiovascular Diseases 2015;25(10):918-23.
Raw IF: 3.323 Normalized IF: 1.2

DIAGNOSTIC RADILOGY

Bomba M, Riva A, Morzenti S, Grimaldi M, Neri F, Nacinovich R.

Global and regional brain volumes normalization in weight-recovered adolescents with anorexia nervosa: preliminary findings of a longitudinal voxel-based morphometry study.

Neuropsychiatric Disease and Treatment 2015;11:154.
Raw IF: 2.154 Normalized IF: 1


Percutaneous long bone cementoplasty for palliation of malignant lesions of the limbs: a systematic review.

Raw IF: 2.071 Normalized IF: 4


Computed tomography-based image-guided system in spinal surgery: state of the art through 10 years of experience.

Neurosurgery 2015;11(s2):59-68.
Raw IF: 3.62 Normalized IF: 6

De Sanctis R*, Mannari A, Marchetti S, Mussi C, Balzarini L, Lutman FR, Daolio P, Bastoni S, Bertuzzi AF, Quagliuolo V, Santoro A.

Efficacy of trabectedin in advanced soft tissue sarcoma: beyond lipo- and leiomyosarcoma.

Raw IF: 3.028 Normalized IF: 4

State of the art of current 3-D scoliosis classifications: a systematic review from a clinical perspective.

Raw IF: 2.74 Normalized IF: 3

Fiorino G, Bonifacio C, Allocca M, Repici A, Balzarini L, Malasci A, Peyrin-Biroulet L, Danese S.

Bowel damage as assessed by the Léman Index is reversible on anti-TNF therapy for Crohn's disease.

Raw IF: 6.234 Normalized IF: 6


Long-term follow-up results of the DANTE trial, a randomized study of lung cancer screening with spiral computed tomography.

Raw IF: 12.996 Normalized IF: 10

Lanza E, Barf G, Serafini G, Lacelli F, Orlandi D, Bandirali M, Sardanelli F, Sconfienza LM.

Ultrasound-guided percutaneous irrigation in rotator cuff calcific tendinopathy: what is the evidence? A systematic review with proposals for future reporting.

Raw IF: 4.014 Normalized IF: 6

Lanza E*, Palussiere J, Buy X, Grasso RF, Beomonte Zobel B, Poretti D, Pediconi V, Balzarini L, Cazzato LR.

Percutaneous image-guided cryoablation of breast cancer: a systematic review.

Raw IF: 2.409 Normalized IF: 4
DIGESTIVE ENDOSCOPY


Diagnostic accuracy of 11C-choline PET/CT in comparison with CT and/or MRI in patients with hepatocellular carcinoma.


Raw IF: 5.383  Normalized IF: 6

Marvisi M, Vento MG, Balzarini L, Mancini C, Marvisi C.

Continuous positive airways pressure and uvulopalatopharyngoplasty improves pulmonary hypertension in patients with obstructive sleep apnoea.


Raw IF: 2.271  Normalized IF: 1

Monti L°, Scardino C, Nardi B, Balzarini L.

Lipoma of the interventricular septum.


Raw IF: 15.203  Normalized IF: 15


An exploratory biomarker study in metastatic tumours from colorectal cancer patients treated with bevacizumab.


Raw IF: 1.371  Normalized IF: 2


Endorectal multiparametric 3-tesla magnetic resonance imaging associated with systematic cognitive biopsies does not increase prostate cancer detection rate: a randomized prospective trial.


Raw IF: 2.666  Normalized IF: 6


Early and delayed complications of polypectomy in a community setting: The SPDc prospective multicentre trial.


Raw IF: 2.963  Normalized IF: 4

Anderloni A°, Galeazzi M, Ballarè M, Pagliarulo M, Orsello M, Del Piano M, Repici A.

A case of primary pancreatic non-Hodgkin B-cell lymphoma mimicking autoimmune pancreatitis.


Raw IF: 2.369  Normalized IF: 4

Anderloni A°, Genco C, Ballarè M, Carmagnola S, Battista S, Repici A.

Underwater endoscopic mucosal resection of a duodenal neuroendocrine tumor.


Raw IF: 5.369  Normalized IF: 6

Anderloni A°, Orellana F, Jovani M, Repici A.

Endoscopic ultrasound-guided drainage of a pancreatic pseudocyst with a novel lumen-apposing metal stent on an electrocautery-enhanced delivery system.


Raw IF: 2.963  Normalized IF: 4

Anderloni A°, Repici A.

Role and timing of endoscopy in acute biliary pancreatitis.


Raw IF: 2.08  Normalized IF: 2

Barbieri LA°, Hassan C, Rosati R, Fumagalli Romario U, Correale L, Repici A.

Systematic review and meta-analysis: efficacy and safety of POEM for achalasia.


Raw IF: 2.08  Normalized IF: 2


Integrins and adhesion molecules as targets to treat inflammatory bowel disease.


Raw IF: 4.595  Normalized IF: 6


A prospective randomized study comparing 25-G and 22-G needles of a new platform for endoscopic ultrasound-guided fine needle aspiration of solid masses.


Raw IF: 2.963  Normalized IF: 4

Carrara S°, Rahal D, Repici A.

A case of gastric splenosis mimicking a stromal tumor.


Raw IF: 7.896  Normalized IF: 8


Bowel damage as assessed by the Lémann Index is reversible on anti-TNF therapy for Crohn’s disease.


Raw IF: 6.234  Normalized IF: 6

Fucillo L, Hassan C, Frazzoni L, Miglio R, Repici A.

Clinical outcomes following stent placement in refractory benign esophageal stricture: a systematic review and meta-analysis.


Raw IF: 5.053  Normalized IF: 6

Fumagalli U°, Rosati R, De Pascale S, Porta M, Carliani E, Pesalfalozza A, Repici A.

Repeated surgical or endoscopic myotomy for recurrent dysphagia in patients after previous myotomy for achalasia.


Raw IF: 2.798  Normalized IF: 6

Hassan C, Repici A°.

Colonoscopy: cold snaring diminutive polyps - the thinner the better!


Raw IF: 12.61  Normalized IF: 10

Efficacy and safety of endoscopic resection of large colorectal polyps: a systematic review and meta-analysis.

Raw IF: 14.66 Normalized IF: 10

Hassan C, Senore C, Repici A.

Colorectal malignant adenoma: do all high-risk lesions need surgery?

Raw IF: 2.121 Normalized IF: 6


Consensus guidelines on severe acute pancreatitis.

Raw IF: 16.716 Normalized IF: 15


Quality indicators for the management of Barrett's esophagus, dysplasia and esophageal adenocarcinoma: international consensus recommendations from AGA symposium.

Raw IF: 16.716 Normalized IF: 15


Endo-sponge therapy for management of anastomotic leakages after colorectal surgery: a case series and review of literature.

Raw IF: 2.963 Normalized IF: 4

Jovani M, Anderloni A, Carrara S, Loriga A, Ciscato C, Ferrara EC, Repici A.

Circumferential endoscopic submucosal dissection of a squamous cell carcinoma in a cirrhotic patient with esophageal varices.

Raw IF: 5.369 Normalized IF: 6


International multicenter experience with peroral endoscopic myotomy for the treatment of spastic esophageal disorders refractory to medical therapy (with video).

Raw IF: 5.369 Normalized IF: 6

Murino A, Anderloni A, Hassan C, Fuccio L, Repici A.²

The role of salvage ERCP for the treatment of post-ERCP pancreatitis.

Raw IF: 5.053 Normalized IF: 3
Validation of a simple risk stratification tool for patients implanted with Cardiac Resynchronization Therapy: the VALID-CRT risk score.


Longevity of implantable cardioverter-defibrillators for cardiac resynchronization therapy in current clinical practice: an analysis according to influencing factors, device generation, and manufacturer.


How to choose the duration of antibiotic therapy in patients with pneumonia.

Current Opinion in Infectious Diseases 2015;28(2):177-84. Raw IF: 5.006 Normalized IF: 3

Acute myocardial infarction versus other cardiovascular events in community-acquired pneumonia.

ERJ Open Research. Epub 2015 Sep 15. Raw IF: 0 Normalized IF: 0

Neurological counterparts of hyponatremia: pathological mechanisms and clinical manifestations.


Stroke and atrial fibrillation: findings from the RAI study.


Fiorino D', Omodei PD.
Psoriasis and inflammatory bowel disease: two faces of the same coin?
Raw IF: 6.234 Normalized IF: 6

Fumagalli U', Rosati R, De Pascale S, Porta M, Carliani E, Pestalozza A, Repici A.
Repeated surgical or endoscopic myotomy for recurrent dysphagia in patients after previous myotomy for achalasia.
Raw IF: 2.798 Normalized IF: 6

KRAS mutation in lung metastases from colorectal cancer: prognostic implications.
Cancer Medicine 2015;6(5):256-64.
Raw IF: 2.5 Normalized IF: 2

Sperm protein 17 and AKAP-associated sperm protein cancer/testis antigens are expressed in ciliated hepatic foregut cysts.
Raw IF: 3.453 Normalized IF: 6

Jovani M, Anderloni A, Carrara S, Loriga A, Ciscato C, Ferrara EC, Repici A.
Circumferential endoscopic submucosal dissection of a squamous cell carcinoma in a cirrhotic patient with esophageal varices.
Raw IF: 5.369 Normalized IF: 6

Salvioli B', Pellegratta G, Malacarne M, Pace F, Malesci A, Pagani M, Lucini D.
Autonomic nervous system dysregulation in irritable bowel syndrome.
Raw IF: 3.587 Normalized IF: 6

Endo-sponge therapy for management of anastomotic leakages after colorectal surgery: A case series and review of literature.
Raw IF: 2.963 Normalized IF: 4

GENERAL ANAESTHESIA AND INTENSIVE CARE

Cardiovascular parameters and neural sympathetic discharge variability before orthostatic syncope: role of sympathetic baroreflex control to the vessels.
Raw IF: 1.808 Normalized IF: 4

Continuous wound infusion of local anesthetic and steroid after major abdominal surgery: study protocol for a randomized controlled trial.
Trials 2015;16(1):357.
Raw IF: 1.731 Normalized IF: 1

Pulse photoplethysmographic analysis estimates the sympathetic activity directed to heart and vessels.
Raw IF: 5.879 Normalized IF: 6

Does inferior-vena-cava collapsibility correlate with fluid regimen and outcome in patients undergoing liver resection?
Raw IF: 0.000 Normalized IF: 0

Giustiniano E', Ruggieri N.
A deceptive color-doppler image after endovascular aorta repairing.
Raw IF: 0.000 Normalized IF: 0

Giustiniano E', Ruggieri N, Meco M.
Renal resistive index: a tool for postoperative Intensive Care Unit-outcome? A pilot observational study.
Raw IF: 0.000 Normalized IF: 0

Complexity analyses show two distinct types of nonlinear dynamics in short heart period variability recordings.
Raw IF: 3.534 Normalized IF: 3

Porta A, Faes L, Marchi A, Bari V, De Maria B, Guzzetti S, Colombo R, Raimondi F.
Disentangling cardiovascular control mechanisms during head-down tilt via joint transfer entropy and self-entropy decompositions.
Frontiers in Physiology 2015;6:301.
Raw IF: 3.534 Normalized IF: 6

Conditional symbolic analysis detects nonlinear influences of respiration on cardiovascular control in humans.
Raw IF: 2.147 Normalized IF: 6

Relationship between sympathetic activity and pain intensity in fibromyalgia.
Raw IF: 2.724 Normalized IF: 4

GENERAL ANAESTHESIA AND DAY HOSPITAL

Topical pharmacologic approach with 5% lidocaine medicated plaster in the treatment of localized neuropathic pain.
Raw IF: 0.913 Normalized IF: 1
Barbieri LA\textsuperscript{a}, Hassan C, Rosati R, Fumagalli Romario U, Correale L, Repici A.
Systematic review and meta-analysis: efficacy and safety of POEM for achalasia.
Raw if: 2.08 Normalized if: 2

Elmore U, Fumagalli Romario U, Vignali A, Sosa MF, Angiolini MR, Rosati R.
Laparoscopic anterior resection with transanal total mesorectal excision for rectal cancer: preliminary experience and impact on postoperative bowel function.
Raw if: 1.335 Normalized if: 2

Fumagalli L\textsuperscript{b}, Rosati R, De Pascale S, Porta M, Cariani E, Pestalozza A, Repici A.
Repeated surgical or endoscopic myotomy for recurrent dysphagia in patients after previous myotomy for achalasia.
Raw if: 2.798 Normalized if: 6

Long-term results of the European achalasia trial: a multicentre randomised controlled trial comparing pneumatic dilation versus laparoscopic Heller myotomy.
Gut. Epub 2015 Nov 27.
Raw if: 14.66 Normalized if: 10

Neoadjuvant chemoradiotherapy with volumetric-modulated arc therapy for medium-distal oesophageal and gastro-oesophageal junction carcinoma.
Raw if: 1.826 Normalized if: 2

Biondi A, D’Ugo D, Cananzi FC, Papa V, Borasi A, Sicolì F, Degiuli M, Doglietto G, Persiani R.
Does a minimum number of 16 retrieved nodes affect survival in curatively resected gastric cancer?
Raw if: 3.009 Normalized if: 3

Raw if: 2.191 Normalized if: 4

De Sanctis R\textsuperscript{a}, Marrari A, Marchetti S, Mussi C, Balzani L, Lutman FR, Daoio P, Bastoni S, Beruzzi AF, Quagliuolo V, Santoro A.
Efficacy of trabectedin in advanced soft tissue sarcoma: beyond lipo- and leiomyosarcoma.
Raw if: 3.028 Normalized if: 4

Navarria P, Ascolese AM, Cozzi L\textsuperscript{b}, D’Agostino GR, DE Rose F, De Sanctis R, Marrari A, Santoro A, Fogliata A, Carbone M, Allorio M, Quagliuolo V, Scorsetti M.
Stereotactic body radiation therapy for lung metastases from soft tissue sarcoma.
Raw if: 5.417 Normalized if: 6

Feasibility of preoperative chemotherapy with or without radiation therapy in localized soft tissue sarcomas of limbs and superficial trunk in the Italian Sarcoma Group/Grupo Español de Investigación en Sarcomas randomized clinical trial: three versus five cycles of full-dose epirubicin plus ifosfamide.
Raw if: 18.428 Normalized if: 15

Krukenberg tumors of gastric origin: the rationale of surgical resection and perioperative treatments in a multicenter Western experience.
Raw if: 2.642 Normalized if: 6

Bozaccio V\textsuperscript{a}, Russo ML, Carbone M, Bruno S.
Treatment discontinuation with peg-interferon: what to consider.
Raw if: 2.18 Normalized if: 2

DNA methylation profiling of the X chromosome reveals an aberrant demethylation on CXCR3 promoter in primary biliary cirrhosis.
Raw if: 4.543 Normalized if: 6

Diagnostic accuracy of 11C-choline PET/CT in comparison with CT and/or MRI in patients with hepatocellular carcinoma.


The challenge of inoperable hepatocellular carcinoma (HCC): results of a single-institutional experience on stereotactic body radiation therapy (SBRT).


In vitro and in vivo evaluation of 11C-choline PET/CT and 18F-FDG PET/CT for the differentiation of cirrhotic nodules from early hepatocellular carcinoma.


Novel insights into the role of the CCR5/CXCR6 axis in the pathogenesis of reflux esophagitis.


Multimodal treatment of perianal fistulas in Crohn’s disease: seton versus anti-TNF versus advancement plasty (PISA): study protocol for a randomized controlled trial.

Trials 2015;16(1):368.


Multimodal treatment of perianal fistulas in Crohn’s disease: seton versus anti-TNF versus advancement plasty (PISA): study protocol for a randomized controlled trial.

Trials 2015;16(1):368.

De Neş LC°, Montorsi M, Spinelli A.

Single double-port procedure for transanal intersphincteric proctectomy and abdominal ileorectal anastomosis: video vignette.


De Neş LC°, Montorsi M, Spinelli A.

Single port laparoscopic Hartmann reversal through the stoma site: video vignette.


De Neş LC°, Spinelli A, Bacchelli C, Montorsi M.

Single port laparoscopic Hartmann reversal through the stoma site: video vignette.


Dual prognostic significance of tumour-associated macrophages in human pancreatic adenocarcinoma treated or untreated with chemotherapy.


Raw IF: 14.66 Normalized IF: 10

Donadon M°, Costa G, Cinino M, Procopio F, Del Fabbro D, Palmisano A, Torzilli G.

Diagnosis and management of bile leaks after hepatectomy: results of a prospective analysis of 475 hepatectomies.


Raw IF: 2.642 Normalized IF: 6

Giustiniano E°, Procopio F, Morenghi E, Rocchi L, Del Fabbro D, Ruggieri N, Zito PC, Donadon M, Torzilli G, Raimondi F.

Does inferior-vena-cava collapsibility correlate with fluid regimen and outcome in patients undergoing liver resection?


Conventional Versus Biological Therapy for Prevention of Postoperative Endoscopic Recurrence in Patients With Crohn’s Disease: an International, Multicenter, and Observational Study.


Raw IF: 0 Normalized IF: 0


Conventional versus biological therapy for prevention of postoperative endoscopic recurrence in patients with Crohn’s disease: an international, multicenter, and observational study.


Raw IF: 6.234 Normalized IF: 6


Diagnostic accuracy of 11C-choline PET/CT in comparison with CT and/or MRI in patients with hepatocellular carcinoma.

*European Journal of Nuclear Medicine and Molecular Imaging* 2015;42(9):1399-407.

Raw IF: 5.383 Normalized IF: 6


Laparoscopic colonic resection for splenic flexure cancer: our experience.


Raw IF: 2.365 Normalized IF: 2


Survival prognostic factors of gastro-enteric-pancreatic neuroendocrine tumors after primary tumor resection in a single tertiary center: comparison of gastro-enteric and pancreatic locations.


Raw IF: 3.009 Normalized IF: 6


Morphophenotypic changes in human multistep hepatocarcinogenesis with translational implications.

*Journal of Hepatology* 2016;64(1):87-93.

Raw IF: 11.336 Normalized IF: 8


The challenge of inoperable hepatocellular carcinoma (HCC): results of a single-institutional experience on stereotactic body radiation therapy (SBRT).


Raw IF: 3.081 Normalized IF: 4

Spinelli A°, Kotze PG.

Anal fistula plug for perianal fistulising Crohn’s disease: an important trial for Inflammatory Bowel Disease surgeons..


Raw IF: 6.234 Normalized IF: 6

Spinelli A°, Montroni I.

Minimally invasive colorectal surgery: do we all speak the same language?


Raw IF: 2.351 Normalized IF: 4


Vascular Endothelial Growth Factor C disrupts the endothelial lymphatic barrier to promote colorectal cancer invasion.


Raw IF: 16.716 Normalized IF: 15


Reply to letter: “A snapshot of the effective indications and results of surgery for hepatocellular carcinoma in tertiary referral centers: is it adherent to the EASL/AASLD recommendations? An observational study of the HCC East-West Study Group”: when the study setting “ignores” the patients.


Raw IF: 8.327 Normalized IF: 4

Viganò L, Birnbaum DJ.

Reply to: “Gallbladder cancer: nihilism abates, optimism prevails”.


Raw IF: 3.009 Normalized IF: 3


Liver resection in patients with eight or more colorectal liver metastases.


Raw IF: 5.542 Normalized IF: 6


Liver resection for hepatocellular carcinoma in patients with metabolic syndrome: a multicenter matched analysis with HCV-related HCC.


Raw IF: 11.336 Normalized IF: 8


Parenchyma-sparing liver surgery for large segment 1 tumors: ultrasound-guided lateral and superior approaches as safe alternatives to major hepatectomy.


Raw IF: 5.122 Normalized IF: 6


cAMP effects in neuroendocrine tumors: the role of Epac and PKA in cell proliferation and adhesion.


Raw IF: 3.246 Normalized IF: 4


Gynaecology and Reproductive Medicine


Raw IF: 3.276 Normalized IF: 4


Raw IF: 0.949 Normalized IF: 1

de Donato G, Setacci C, Umetomo T, Reimers B. Commentary: inside of the interaction between the plaque and the stent: optical coherence tomography during carotid artery stenting.


Raw IF: 3.353 Normalized IF: 6


Catheterization and Cardiovascular Interventions 2015;86(3):378-89.

Raw IF: 2.107 Normalized IF: 4

Gasparini GL, Milone F, Oreglia JA, Presbitero P. Effective recanalization of a double chronic total occlusion by two retrograde approaches.


Raw IF: 0 Normalized IF: 0

Gasparini GL, Oreglia JA, Milone F, Presbitero P. Avoid overtreatment in the setting of chronic total occlusions: the role of blood flow restoration in positive vascular remodeling.


Raw IF: 4.036 Normalized IF: 3


Raw IF: 3.276 Normalized IF: 4


JACC. Cardiovascular Interventions 2015;8(8):1132-4.

Raw IF: 7.245 Normalized IF: 4


Raw IF: 3.276 Normalized IF: 4


Raw IF: 3.276 Normalized IF: 4

Mennuni MG, Pagnotta PA, Stefanini GG. Coronary stents: the impact of technological advances on clinical outcomes.


Raw IF: 3.195 Normalized IF: 6

Mennuni MG, Zavalloni D, Presbitero P. Role, risk and benefit of interventional cardiology procedures during pregnancy.


Raw IF: 0 Normalized IF: 0


Raw IF: 3.276 Normalized IF: 4


Raw IF: 4.036 Normalized IF: 6


Raw IF: 3.849 Normalized IF: 6


Raw IF: 1.438 Normalized IF: 2


Catheterization and Cardiovascular Interventions. Epub 2015 Jun 23.

Raw IF: 2.107 Normalized IF: 1
HIP AND KNEE PROSTHETIC SURGERY

Baldini A, Castellani L, Traverso F, Balatì A, Balato G, Franceschini V.

The difficult primary total knee arthroplasty: a review.


Raw IF: 1.961 Normalized IF: 2

Grappiolo G, Lopini M, Longo UG, Traverso F, Mazzotti G, Denaro V.

Trabecular metal augment for the management of Paprosky type III defects without pelvic discontinuity.


Raw IF: 2.666 Normalized IF: 6

Palagano E, Blair HC, Pangrazio A, Tourkova I, Strambi F, Ruggeri R, Field R.

A cannulated tri-tapered femoral stem for total hip arthroplasty: clinical and radiological results at ten years.


Raw IF: 6.832 Normalized IF: 6

Rajakulendran K, Strambi F, Ruggeri R, Field RE.

Bivalirudin or unfractionated heparin in acute coronary syndromes.


Raw IF: 55.873 Normalized IF: 15


Buried in the middle, but guilty: intronic mutations in the TCIRG1 gene cause human autosomal recessive osteopetrosis.


Raw IF: 6.832 Normalized IF: 6


Single-shot epidural-spinal anesthesia followed by oral oxycodone/naloxone and ketoprofen is feasible in patients undergoing total hip replacement: analgesic efficacy and tolerability.


Raw IF: 2.134 Normalized IF: 4

INTERNAL MEDICINE


Cardiovascular parameters and neural sympathetic discharge variability before orthostatic syncope: role of sympathetic baroreflex control to the vessels.


Raw IF: 1.808 Normalized IF: 4

Boccaccio V*, Russo ML, Carbone M, Bruno S.

Treatment discontinuation with peg-interferon: what to consider.


Raw IF: 2.18 Normalized IF: 2

Bucco S*, Sewpaul P, Russo ML, Boccaccio V, Almasi PL, Giannini EG.

12 weeks of interferon-based therapy is feasible in patients with hepatitis C-related cirrhosis and thrombocytopenia: a post hoc analysis of eltrombopag studies.


Raw IF: 2.963 Normalized IF: 4


PFAPA syndrome and Behçet’s disease: a comparison of two medical entities based on the clinical interviews performed by three different specialists.


Raw IF: 1.696 Normalized IF: 2


International genome-wide meta-analysis identifies new primary biliary cirrhosis risk loci and highlights pathogenic pathways for drug targeting.

Nature Communications 2015;6:8019.

Raw IF: 11.47 Normalized IF: 8
Brain and kidney, victims of atrial microembolism in elderly hospitalized patients? Data from the REPOSI study.

Raw IF: 2.891 Normalized IF: 1.2

Gender-differences in disease distribution and outcome in hospitalized elderly: data from the REPOSI study.

Raw IF: 2.891 Normalized IF: 1.2

Syncpe clinical management in the emergency department: a consensus from the first international workshop on syncpe risk stratification in the emergency department.

Raw IF: 15.203 Normalized IF: 15

Subclinical myocardial dysfunction and cardiac autonomic dysregulation are closely associated in obese children and adolescents: the potential role of insulin resistance.

Raw IF: 3.234 Normalized IF: 3


Raw IF: 4.543 Normalized IF: 6


HCV NS3 sequencing as a reliable and clinically useful tool for the assessment of genotypic and resistance mutations for clinical samples with different HCV–RNA levels.

Raw IF: 5.313 Normalized IF: 6


Syncpe Unit: rationale and requirement – the European Heart Rhythm Association position statement endorsed by the Heart Rhythm Society.

Europace 2015;17(9):1325-40.
Raw IF: 3.67 Normalized IF: 0.8


(Collaborators: Bianchi I, Cerianni R, Mascia E, Mascheroni C, Podda M, Traiani F).

DNA methylation profiling of the X chromosome reveals an aberrant demethylation on CXXCR3 promoter in primary biliary cirrhosis.

Raw IF: 4.543 Normalized IF: 6


Evaluation of the correlation between cardiac and sympathetic baroreflex sensitivity before orthostatic syncope.

Raw IF: 0 Normalized IF: 0


Conditional symbolic analysis detects nonlinear influences of respiration on cardiovascular control in humans.

Raw IF: 2.147 Normalized IF: 6


Laparoscopic ablation therapies or hepatic resection in cirrhotic patients with small hepatocellular carcinoma.

Raw IF: 2.963 Normalized IF: 4


Serum antinuclear and extractable nuclear antigen antibody prevalence and associated morbidity and mortality in the general population over 15 years.

Raw IF: 7.933 Normalized IF: 8


Relationship between sympathetic activity and pain intensity in fibromyalgia.

Raw IF: 2.724 Normalized IF: 4
Zamuner AR, Porta A, Andrade CP, Marchi A, Forti M, Furlan R, Barbic F, Cafai AM, Silva E. Cardiovascular control in women with fibromyalgia syndrome: do casual methods provide non redundant information compared to more traditional approaches?

Raw if: 0 normalized if: 0

Alimentary Pharmacology & Therapeutics 2015;42(7):829-44. Raw IF: 3.106 Normalized IF: 6

Raw if: 5.727 normalized if: 1.2

LABORATORY TESTS
Autoimmune Diseases 2015;2015:354014. Raw IF: 0 Normalized IF: 0

Raw if: 1.269 normalized if: 1

KNEE ORTHOPAEDICS AND SPORT TRAUMATOLOGY

Raw if: 6.832 normalized if: 6


Raw if: 1.269 normalized if: 1


Raw if: 2.064 normalized if: 4


Raw if: 14.66 normalized if: 10


Raw IF: 0 Normalized IF: 0


Raw if: 2.707 Normalized if: 6


Raw if: 0 Normalized if: 0

MEDICAL ONCOLOGY AND HEMATOLOGY


Raw if: 24.69 Normalized if: 15


Raw if: 1.269 Normalized if: 1


Raw if: 1.333 Normalized if: 1


Raw if: 3.404 Normalized if: 2


Raw if: 7.429 Normalized if: 8


Raw if: 4.865 Normalized if: 6


Raw if: 2.646 Normalized if: 4


Raw if: 2.768 Normalized if: 6


Raw if: 2.477 Normalized if: 1


Raw if: 5.282 Normalized if: 6


Raw if: 3.57 Normalized if: 2


Raw if: 0 Normalized if: 0


Raw if: 3.57 Normalized if: 4
Ceresoli GL, De Vincenzo F, Sauta MG, Bonomi M, Zucali PA.

Role of chemotherapy in combination with hormonal therapy in first-line treatment of metastatic hormone-sensitive prostate cancer.


Raw IF: 2.033 Normalized IF: 4

Ceresoli GL, Zucali PA°.

Vinca alkaloids in the therapeutic management of malignant pleural mesothelioma.


Raw IF: 7.588 Normalized IF: 8


Infections after T-replete haploidentical transplantation and high-dose cyclophosphamide as graft-versus-host disease prophylaxis.


Raw IF: 2.064 Normalized IF: 4


Tandem autologous/allogeneic stem cell transplantation as a feasible and effective procedure in high-risk lymphoma patients.

Haematologica 2015;100(10):e423-7.

Raw IF: 5.814 Normalized IF: 6


MicroRNA-21 links epithelial-to-mesenchymal transition and inflammatory signals to confer resistance to neoadjuvant trastuzumab and chemotherapy in HER2-positive breast cancer patients.

OncoTarget 2015;6(35):37289-90.

Raw IF: 6.359 Normalized IF: 6


Clinical outcome of stereotactic ablative body radiotherapy for lung metastatic lesions in non-small cell lung cancer oligometastatic patients.


Raw IF: 3.398 Normalized IF: 4

De Sanctis R°, Marrari A, Marchetti S, Mussi C, Balzarini L, Lutman FR, Daolio P, Bastoni S, Bertuzzi AF, Quagliuolo V, Santoro A.

Efficacy of trabectedin in advanced soft tissue sarcoma: beyond lipo- and leiomyosarcoma.


Raw IF: 3.028 Normalized IF: 4


T-replete haploidentical allogeneic transplantation using post-transplantation cyclophosphamide in advanced AML and myelodysplastic syndromes.

Bone Marrow Transplantation 2016;51(2):184-8.

Raw IF: 3.57 Normalized IF: 4


Unrelated cord blood compared with haploidentical grafts in patients with hematological malignancies.

Cancer 2015;121(11):1809-16.

Raw IF: 4.889 Normalized IF: 6


Comparison of three distinct prophylactic agents against invasive fungal infections in patients undergoing haplo-identical hematopoietic stem cell transplantation and post-transplant cyclophosphamide.


Raw IF: 0 Normalized IF: 0

Finocchiaro G°, Toschi L, Gianoncelli L, Baretti M, Santoro A.

Prognostic and predictive value of MET deregulation in non-small cell lung cancer.


Raw IF: 0 Normalized IF: 0


Familial haploidentical challenging unrelated donor allo-SCT in advanced non-Hodgkin lymphomas when matched related donor is not available.


Raw IF: 3.67 Normalized IF: 4

Gentile M, Vigna E, Recchia AG, Morabito L, Mendiçino F, Giagnuelo G, Morabito F.

Bendamustine in multiple myeloma.


Raw IF: 2.066 Normalized IF: 4


KRAS mutation in lung metastases from colorectal cancer: prognostic implications.

Cancer Medicine 2016;5(2):256-64.

Raw IF: 2.5 Normalized IF: 2

Giovannetti E, Zucali PA, Rolfo C, Assaraf YG, Peters GJ.

Prognostic and predictive roles of thymidylate synthase expression in lung cancer: the debate is still open.


Raw IF: 18.428 Normalized IF: 7.5


Breast cancer risk in childhood cancer survivors without a history of chest radiotherapy: a report from the childhood cancer survivor study.


Raw IF: 18.428 Normalized IF: 7.5


Breast cancer risk in childhood cancer survivors without a history of chest radiotherapy: a report from the childhood cancer survivor study.


Raw IF: 18.428 Normalized IF: 7.5

Long-term follow-up results of the DANTE trial, a randomized study of lung cancer screening with spiral computed tomography.


Raw IF: 12.996 Normalized IF: 10


Diagnostic accuracy of 11C-choline PET/CT in comparison with CT and/or MRI in patients with hepatocellular carcinoma.


Raw IF: 3.57 Normalized IF: 2


Plan robustness in field junction region from arcs with different patient orientation in total marrow irradiation with VMAT.

Physica Medica 2015;31(7):877-82.

Raw IF: 2.403 Normalized IF: 4


In-vivo dosimetry with Gafchromic films for multi-isocentric VMAT irradiation of total marrow lymph-nodes: a feasibility study.

Radiation Oncology 2015;10(1):86.

Raw IF: 2.546 Normalized IF: 4


Early prediction of response to tyrosine kinase inhibitors by quantification of EGFR mutations in plasma of NSCLC patients.


Raw IF: 5.282 Normalized IF: 6


Clinicopathological and immunohistochemical characteristics in male breast cancer: a retrospective case series.


Raw IF: 4.865 Normalized IF: 6


Nivolumab versus everolimus in advanced renal-cell carcinoma.


Raw IF: 55.873 Normalized IF: 3


Bendamustine in relapsed/refractory multiple myeloma: the “real-life” side of the moon.

Leukemia & Lymphoma. Epub 2015 Mar 3.

Raw IF: 2.891 Normalized IF: 2


Stereotactic body radiation therapy for lung metastases from soft tissue sarcoma.


Raw IF: 5.417 Normalized IF: 6


Early recovery of CMV immunity after HLA-haploidentical hematopoietic stem cell transplantation as a surrogate biomarker for a reduced risk of severe infections overall.

Bone Marrow Transplantation 2015;50(6):1262-4.

Raw IF: 3.57 Normalized IF: 2


Feasibility of preoperative chemotherapy with or without radiation therapy in localized soft tissue sarcomas of limbs and superficial trunk in the Italian Sarcoma Group/Grupo Español de Investigación en Sarcomas randomized clinical trial: three versus five cycles of full-dose epirubicin plus ifosfamide.


Raw IF: 18.428 Normalized IF: 15


Identifying locally advanced basal cell carcinoma eligible for treatment with vismodegib: an expert panel consensus.


Raw IF: 2.477 Normalized IF: 2


FOLFIRI and cetuximab every second week for first-line treatment of KRAS wild-type metastatic colorectal cancer according to PTEN expression: a phase II study.


Raw IF: 2.813 Normalized IF: 4


A new nomogram for estimating survival in patients with brain metastases secondary to colorectal cancer.


Raw IF: 4.363 Normalized IF: 3


The prognostic value of positron emission tomography performed after two courses (INTERIM-PET) of standard therapy on the treatment outcome in early stage Hodgkin lymphoma: A multicentric study by the Fondazione Italiana Linfomi (FIL).


Raw IF: 3.798 Normalized IF: 6
Tivantinib for hepatocellular carcinoma.


**Raw if:** 0.529   **Normalized IF:** 1

Tivantinib, a new option for second-line treatment of advanced hepatocellular carcinoma? The experience of the Italian centers.

*Tumori* 2015;101(2):139-43.

**Raw if:** 1.269   **Normalized IF:** 1

Tivantinib for hepatocellular carcinoma.


**Raw if:** 1.826   **Normalized IF:** 2

The role of naïve-derived T memory stem cells in T cell reconstitution following allogeneic transplantation.

*Blood* 2015;125(18):2855-64.

**Raw if:** 10.452   **Normalized IF:** 8

Tivantinib for hepatocellular carcinoma.


**Raw if:** 0.529   **Normalized IF:** 1

Tivantinib for hepatocellular carcinoma.


**Raw if:** 1.785   **Normalized IF:** 0.5

The use of the word “cured” for cancer patients – implications for patients and physicians: the Siracusa charter.

*Journal of Cancer Survivorship: Research and Practice* 2015 Apr 22.

**Raw if:** 3.303   **Normalized IF:** 4


**Raw if:** 4.246   **Normalized IF:** 4

Evidence of altered autonomic cardiac regulation in breast cancer survivors.

*Journal of Cancer Survivorship: Research and Practice* 2015 Apr 22.

**Raw if:** 3.303   **Normalized IF:** 4

A phase II multi-center trial of pentostatin plus cyclophosphamide with ofatumumab in older previously untreated chronic lymphocytic leukemia patients.

*Haematologica* 2015;100(12):e501-4.

**Raw if:** 5.814   **Normalized IF:** 6

Evololimus for the treatment of advanced, non-functional neuroendocrine tumors of the lung or gastrointestinal tract (RADIAN-4): a randomised, placebo-controlled, phase 3 study.


**Raw if:** 45.217   **Normalized IF:** 15
### Nephrology and Dialysis


(Collaborator: Berra C.)

**Rationale, design, and baseline characteristics in Evaluation of LIXisenatide in Acute Coronary Syndrome, a long-term cardiovascular end point trial of lixisenatide versus placebo.**


**Podestà MA, Faravelli I, Cucchiari D, Reggiani F, Oldani S, Fedeli C, Graziani G°.**

**Neurological counterparts of hyponatraemia: pathological mechanisms and clinical manifestations.**


**Ponticelli C°, Glassock RJ.**

**IgA nephritis with declining renal function: treatment with corticosteroids may be worthwhile.**


**Verdesca S, Cucchiari D°, Monari M, Podestà MA, Badalamenti S.**

**Sulfamethoxazole crystalluria.**

*Giornale Italiano di Nefrologia* 2015;32(3):pii:gin/32.3.5.

**Raw IF: 0 Normalized IF: 0**

### Neurology I

**Bernardini B°, Fracchia S.**

**Comorbidity indices disillusion.**


**Raw IF: 3.417 Normalized IF: 3**

### Neurology II


(Collaborators: Nobile Orazio E, Terenghi F.)

**A multicentric prospective incidence study of Guillain-Barré syndrome in Italy. The ITANG Study.**


**Raw IF: 2.558 Normalized IF: 0.8**


**Subcutaneous immunoglobulin in CIDP and MMN: a different long-term clinical response?**


**Raw IF: 6.807 Normalized IF: 3**

Grip strength comparison in immune-mediated neuropathies: Vigorimeter versus Jamar.

Raw IF: 2.758 Normalized IF: 4


Comparing the NS vs MRC and INCAT sensory scale through Rasch analyses.

Raw IF: 4.014 Normalized IF: 3

Nobile-Orazio E°, Gallia F.

Update on the treatment of chronic inflammatory demyelinating polyradiculoneuropathy.

Raw IF: 5.307 Normalized IF: 6

Pruppers MH, Draak TH, Vanhoutte EK, Van der Pol WL, Gorson KC, Léger JM, Nobile-Orazio E, van den Berg LH, Faber CG, Merkies IS.

Outcome measures in MMN revisited: further improvement needed.

Raw IF: 2.758 Normalized IF: 4

Stork AC, Lunn MP, Nobile-Orazio E, Notermans NC.

Treatment for IgG and IgA paraproteinaemic neuropathy.

Cochrane Database of Systematic Reviews 2015;3:CD005376.
Raw IF: 6.032 Normalized IF: 3

Umaphathi T, Hughes RA, Nobile-Orazio E, Léger JM.

Immunosuppressant and immunomodulatory treatments for multifocal motor neuropathy.

Cochrane Database of Systematic Reviews 2015;3:CD003217.
Raw IF: 6.032 Normalized IF: 3


Impairment measures versus inflammatory-RODS in GBS and CIDP: A responsiveness comparison.

Raw IF: 2.758 Normalized IF: 4


Enhanced torque-based impedance control to assist brain targeting during open-skull neurosurgery: a feasibility study.

Raw IF: 1.526 Normalized IF: 2


Evaluation of low-grade glioma structural changes after chemotherapy using DTI-based histogram analysis and functional diffusion maps.

Raw IF: 4.014 Normalized IF: 3


Computed tomography-based image-guided system in spinal surgery: state of the art through 10 years of experience.

Neurosurgery 2015;11(s2):59-68.
Raw IF: 3.622 Normalized IF: 6


Factors predicting pasireotide responsiveness in somatotroph pituitary adenomas resistant to first generation somatostatin analogues: An immunohistochemical study.

Raw IF: 4.069 Normalized IF: 3


Hypofractionated stereotactic radiation therapy in recurrent high-grade glioma: a new challenge.

Cancer Research and Treatment 2016;48(1):37-44.
Raw IF: 3.318 Normalized IF: 4


Hypofractionated stereotactic radiation therapy in skull base meningiomas.

Raw IF: 3.07 Normalized IF: 4


Monopolar high-frequency language mapping: can it help in the surgical management of gliomas? A comparative clinical study.

Raw IF: 3.737 Normalized IF: 6


The diffusion-weighted imaging and 11-C-methionine positron emission tomography depiction of an endodermal cyst at the cervico-medullary junction.

Raw IF: 0.96 Normalized IF: 2


Raw IF: 3.362 Normalized IF: 4

NUCLEAR MEDICINE

Bombardieri E, Setti L, Kirienko M, Antuovic L, Oglielmo P, Ciocia G.

Which metabolic imaging, besides bone scan with 99mTc-phosphonates, for detecting and evaluating bone metastases in prostatic cancer patients? An open discussion.


Raw IF: 2.033 Normalized IF: 2

Carrió I, Chiti A.

Why new journals? The growth of the EJNMMI family.


Raw IF: 5.383 Normalized IF: 6


High-dose melphalan with autologous stem cell support in refractory Hodgkin lymphoma patients as a bridge to second transplant.

Bone Marrow Transplantation 2015;50(4):499-504.

Raw IF: 3.57 Normalized IF: 4

Chiti A.

Imaging biomarkers in oncology: we can get more from what we see.


Raw IF: 5.383 Normalized IF: 6


Standardization of administered activities in pediatric nuclear medicine: a report of the first nuclear medicine global initiative project, part 1-statement of the issue and a review of available resources.


Raw IF: 6.16 Normalized IF: 6


PET/CT with 11C-choline for evaluation of prostate cancer patients with biochemical recurrence: meta-analysis and critical review of available data.


Raw IF: 5.383 Normalized IF: 6


Long-term follow-up results of the DANTE trial, a randomized study of lung cancer screening with spiral computed tomography.


Raw IF: 12.996 Normalized IF: 10

Kirienko M, Solli M, Lopci E, Versari A, Chiti A°.

Applications of PET imaging with radiolabelled choline (11C/18F-choline).


Raw IF: 2.033 Normalized IF: 4


Radiotherapy and Oncology 2015;116(1):27-34.

Raw IF: 4.363 Normalized IF: 3

Liu Y, deSouza NM, Shankar LK, Kauczor HU, Traffing S, Collette S, Chiti A.

A risk management approach for imaging biomarker-driven clinical trials in oncology.


Raw IF: 24.69 Normalized IF: 15

Lopci E.

Neuroblastoma: from diagnosis to therapy.


Raw IF: 0 Normalized IF: 0


Prognostic evaluation of disease outcome in solid tumors investigated with 64Cu-ATSM PET/CT.


Raw IF: 3.931 Normalized IF: 6


Diagnostic accuracy of 11C-choline PET/CT in comparison with CT and/or MRI in patients with hepatocellular carcinoma.

European Journal of Nuclear Medicine and Molecular Imaging 2015;42(9):1399-407.

Raw IF: 5.383 Normalized IF: 6


The diffusion-weighted imaging and 11-C-methionine positron emission tomography depiction of an endodermal cyst at the cervico-medullary junction.


Raw IF: 0.96 Normalized IF: 2


Impact of 11C-methionine positron emission tomography/computed tomography on radiation therapy planning and prognosis in patients with primary brain tumors.

Tumori 2014;100(6):638-44.

Raw IF: 1.269 Normalized IF: 1

Werner RA, Bluemel C, Lassmann M, Kudlich T, Higuchi T, Lopci E, Allen-Auerbach M, Colletti PM, Rubello D, Zafelli MC, Herrmann K.

SPECT- and PET-based patient-tailored treatment in neuroendocrine tumors: a comprehensive multidisciplinary team approach.


Raw IF: 3.931 Normalized IF: 3
OPHTALMOLOGY

Complications of macular peeling.
Raw IF: 1.425 Normalized IF: 1

Di Maria A, Balia L, Poletti AM, Colombo G, Romano M.
Orbital exenteration: our experience.
Raw IF: 1.269 Normalized IF: 1

Romano MR, Vallejo García J, Scotti F, Vinciguerra P.
27-gauge vitrectomy for primary rhegmatogenous retinal detachment: is it feasible?
Raw IF: 1.151 Normalized IF: 1

Vinciguerra P, Albé E°, Vinciguerra R, Romano M, Trazza S, Mastropasqua L, Epstein D.
Long-term resolution of immunological graft rejection after a dexamethasone intravitreal implant.
Raw IF: 2.042 Normalized IF: 4

Vinciguerra P, Azzolini C, Vinciguerra R.
Corneal curvature gradient determines corneal healing process and epithelial behavior.
Raw IF: 3.468 Normalized IF: 3

Vinciguerra P, Azzolini C, Vinciguerra R.
Reply: To PMID 24576651.
Raw IF: 3.468 Normalized IF: 3

ORTHOPAEDIC REHABILITATION

d’Agostino CM°, Craig K, Tiball E, Respizzi S.
Shockwave as biological therapeutic tool: from mechanical stimulation to recovery and healing, through mechanotransduction.
Raw IF: 1.531 Normalized IF: 4

State of the art of current 3-D scoliosis classifications: a systematic review from a clinical perspective.
Raw IF: 2.74 Normalized IF: 3

Leal C, d’Agostino C, Gomez-Garcia S, Fernandez A.
Current concepts of shockwave therapy in stress fractures.
Raw IF: 1.531 Normalized IF: 4

Lucini D, Cesana G, Vigo C, Malacarne M, Pagani M.
Reducing weight in an internal medicine outpatient clinic using a lifestyle medicine approach: A proof of concept.
Raw IF: 2.891 Normalized IF: 6

Lucini D°, Zanuso S, Solaro N, Vigo C, Malacarne M, Pagani M.
Reducing the risk of metabolic syndrome at the worksite: preliminary experience with an ecological approach.
Raw IF: 2.399 Normalized IF: 2

Pagani M, Lucini D.
Cost-effectiveness of preparticipation screening of athletes with ECG in Europe and Algeria.
Raw IF: 2.624 Normalized IF: 6

Respizzi S°, Cavallini R.
First patellar dislocation: from conservative treatment to return to sport.
Raw IF: 0 Normalized IF: 0

Sala R, Malacarne M, Pagani M, Lucini D.
Association between aerobic fitness and indices of autonomic regulation: implications for cardiovascular risk.
Raw IF: 0.972 Normalized IF: 2

Sala R, Malacarne M, Pagani M, Lucini D°.
Evidence of increased cardiac parasympathetic drive in subjects meeting current physical activity recommendations.
Raw IF: 1.487 Normalized IF: 2

Salvioli B°, Pellegatta G, Malacarne M, Pace F, Malessi A, Pagani M, Lucini D.
Autonomic nervous system dysregulation in irritable bowel syndrome.
Raw IF: 3.587 Normalized IF: 6

Effect of shock waves on macrophages: a possible role in tissue regeneration and remodeling.
Raw IF: 1.531 Normalized IF: 4

Evidence of altered autonomic cardiac regulation in breast cancer survivors.
Journal of Cancer Survivorship: Research and Practice Epub 2015 Apr 22.
Raw IF: 3.303 Normalized IF: 4

OTORHINOLARYNGOLOGY

Di Maria A, Balia L, Poletti AM, Colombo G, Romano M.
Orbital exenteration: our experience.
Raw IF: 1.269 Normalized IF: 1

Poletti AM°, Colombo G, Barucca F, Rognone E, Fiamengo B.
Cerebellopontine angle mixed tumour in type 2 neurofibromatosis.
Raw IF: 1.787 Normalized IF: 4
PAEDIATRIC AND NEURO-ORTHOPAEDICS SURGERY


Prevalence of associated lesions in anterior cruciate ligament reconstruction: correlation with surgical timing and with patient age, sex, and body mass index.


Raw IF: 4.362 Normalized IF: 6

Colombo G, Reggiani F, Podesta MA, Garavaglia ML, Portinaro NM, Milzani A, Badalamenti S, Dalle-Donne I.

Plasma protein thiolation index (PTI) as a biomarker of thiol-specific oxidative stress in haemodialyzed patients.


Raw IF: 5.736 Normalized IF: 6

PATHOLOGY


A case of primary pancreatic non-Hodgkin B-cell lymphoma mimicking autoimmune pancreatitis.


Raw IF: 2.202 Normalized IF: 2

Anderloni A°, Murino A, Jovani M, Battista S, Repici A.

Underwater endoscopic mucosal resection of a duodenal neuroendocrine tumor.


Raw IF: 3.569 Normalized IF: 6


PTX3 is an extrinsic oncosuppressor regulating complement-dependent inflammation in cancer.


Raw IF: 32.442 Normalized IF: 15


One-step nucleic acid amplification in breast cancer sentinel lymph node: a single institutional experience and a short review.


Raw IF: 0 Normalized IF: 0


A prospective randomized study comparing 25G and 22G needles of a new platform for endoscopic ultrasound-guided fine needle aspiration of solid masses.


Raw IF: 2.963 Normalized IF: 4

Carrara S°, Rahal D, Repici A.

A case of gastric splenosis mimicking a stromal tumor.


Raw IF: 7.896 Normalized IF: 8


Unclassified renal cell carcinoma with medullary phenotype versus renal medullary carcinoma: lessons from diagnosis in an Italian man found to harbor sickle cell trait.


Raw IF: 0 Normalized IF: 0


MicroRNA-21 links epithelial-to-mesenchymal transition and inflammatory signals to confer resistance to neoadjuvant trastuzumab and chemotherapy in HER2-positive breast cancer patients.


Raw IF: 6.359 Normalized IF: 6


Prognostic and diagnostic potential of local and circulating levels of pentraxin 3 in lung cancer patients.


Raw IF: 5.085 Normalized IF: 6


Long-term follow-up results of the DANTE trial, a randomized study of lung cancer screening with spiral computed tomography.


Raw IF: 12.996 Normalized IF: 10
Clinicopathological and immunohistochemical characteristics in male breast cancer: a retrospective case series.

Raw IF: 4.865 Normalized IF: 6


Urokinase receptor promotes skin tumor formation by preventing epithelial cell activation of Notch1.

Raw IF: 9.329 Normalized IF: 8


FOLFIrI and cetuximab every second week for first-line treatment of KRAS wild-type metastatic colorectal cancer according to PTEN expression: a phase II study.

Raw IF: 2.813 Normalized IF: 4

Poletti AM.Ø, Colombo G, Barucca F, Rognone E, Fiamengo B.

Cerebellopontine angle mixed tumour in type 2 neurofibromatosis.

Raw IF: 1.787 Normalized IF: 4


The diffusion-weighted imaging and 11-C-methionine positron emission tomography depiction of an endodermal cyst at the cervico-medullary junction.

Raw IF: 0.96 Normalized IF: 2


Morphophenotypic changes in human multistep hepatocarcinogenesis with translational implications.

Journal of Hepatology 2015;64(1):87-93.
Raw IF: 11.336 Normalized IF: 8

Santoro A, Testori A, Garcia-Etienne CA, Gatzemeier W, Santoro A.

TRIP: a pathological score for transarterial chemoembolization resistance individualized prediction in hepatocellular carcinoma.

Raw IF: 4.85 Normalized IF: 6


An exploratory biomarker study in metastatic tumours from colorectal cancer patients treated with bevacizumab.

Raw IF: 1.371 Normalized IF: 2


Two-dimensional neovascular complexity is significantly higher in nontumor prostate tissue than in low-risk prostate cancer.

Raw IF: 0 Normalized IF: 0

Testori A.Ø, Meroni S, Colombo P, Fiori S, Voulaz E, Alloisio M.

Follicular dendritic cell sarcoma with atypical features surrounding undescended testis: description of a rare case.

Raw IF: 1.408 Normalized IF: 4


Neoadjuvant chemoradiotherapy with volumetric-modulated arc therapy for medium-distant oesophageal and oesophageal junction carcinoma.

Raw IF: 1.826 Normalized IF: 2


Liver resection for hepatocellular carcinoma in patients with metabolic syndrome: A multicenter matched analysis with HCV-related HCC.

Raw IF: 11.336 Normalized IF: 8

PLASTIC SURGERY

Klinger M.Ø, Lisa A, Caviggioli F, Maione L, Murolo M, Vinci V, Klinger FM.

Autologous fat grafting improves facial nerve function.

Raw IF: 0 Normalized IF: 0


Regenerative approach to scars, ulcers and related problems with fat grafting.

Clinics in Plastic Surgery 2015;42(3):345-52
Raw IF: 0.906 Normalized IF: 2

Klinger M, Vinci V, Klinger F, Lisa A, Maione L.Ø.


Journal of Burn Care and Research 2015;36(3):e228.
Raw IF: 1.425 Normalized IF: 2

Lisa A, Caviggioli F, Maione L, Forcellini D, Vinci V, Klinger F, Klinger ME.Ø.

Outcomes of immediate tissue expander breast reconstruction followed by reconstruction of choice in the setting of postmastectomy radiation therapy.

Raw IF: 1.494 Normalized IF: 2

Lisa A, Klinger F, Caviggioli F, Maione L, Murolo M, Klinger M.Ø.

Response to “autologous fat grafting: in search of the optimal technique”.

Raw IF: 1.458 Normalized IF: 2
Lisa A, Klinger F, Caviggioni F, Maione L, Murolo M, Klinger M².

Comparison of delayed and immediate tissue expander breast reconstruction in the setting of postmastectomy radiation therapy. 

Raw IF: 1.494 Normalized IF: 2

Lisa A, Murolo M, Vinci V, Maione L, Klinger F, Klinger M².

Alleviation of neuropathic scar pain using autologous fat grafting: letter to the Editor. 

Raw IF: 1.494 Normalized IF: 2

LisA, Summo V, Bandi V, Maione L, Murolo M, Klinger F, Klinger M².

Autologous fat grafting in the treatment of painful postsurgical scar of the oral mucosa.
*Case Reports in Medicine* 2015;2015:842854.

Raw IF: 0 Normalized IF: 0

Lisa A, Murolo L², Forcellini D, Vinci V, Lisa A, Caviggioni F, Klinger F.

Reply: The effects of postmastectomy adjuvant radiotherapy on immediate two-stage prosthetic breast reconstruction: a systematic review. 
*Plastic and Reconstructive Surgery* 2015;135(2):446e.

Raw IF: 2.993 Normalized IF: 3

---

**RADIOThERAPY AND RADIosURGERY**


Role of the technical aspects of hyperfractionated radiation therapy treatment of prostate cancer: a review. 

Raw IF: 4.258 Normalized IF: 3


Evaluation of the Machine Performance Check application for TrueBeam Linac. 

Raw IF: 2.546 Normalized IF: 4

Comito T², Clerici E, Tozzi A, D'Agostino G.

Liver metastases and SBRT: A new paradigm?

Raw IF: 0 Normalized IF: 0


Clinical outcome of stereotactic ablative body radiotherapy for lung metastatic lesions in non-small cell lung cancer oligometastatic patients. 

Raw IF: 3.398 Normalized IF: 4


Multicentre treatment planning inter-comparison in a national context: the liver stereotactic ablative radiotherapy case. 

Raw IF: 2.403 Normalized IF: 4


Performance of a knowledge-based model for optimization of volumetric modulated arc therapy plans for single and bilateral breast irradiation. 

Raw IF: 2.324 Normalized IF: 6


A broad scope knowledge based model for optimization of VMAT in esophageal cancer: validation and assessment of plan quality among different treatment centers. 

Raw IF: 2.546 Normalized IF: 4


Toxicity profile and early clinical outcome for advanced head and neck cancer patients treated with simultaneous integrated boost and volumetric modulated arc therapy. 

Raw IF: 2.546 Normalized IF: 4


Long-term follow-up results of the DANTe trial, a randomized study of lung cancer screening with spiral computed tomography. 

Raw IF: 12.996 Normalized IF: 10


Urinary bladder preservation for muscle-invasive bladder cancer: a survey among radiation oncologists of Lombardy, Italy. 

Raw IF: 1.269 Normalized IF: 1


Diagnostic accuracy of 11C-choline PET/CT in comparison with CT and/or MRI in patients with hepatocellular carcinoma. 
*European Journal of Nuclear Medicine and Molecular Imaging* 2015;42(9):1399-407.

Raw IF: 5.383 Normalized IF: 6


Plan robustness in field junction region from arcs with different patient orientation in total marrow irradiation with VMAT. 
*Physica Medica* 2015;31(7):677-82.

Raw IF: 2.403 Normalized IF: 4


In-vivo dosimetry with Gafchromic films for multi-isocentric VMAT irradiation of total marrow lymph-nodes: a feasibility study. 
*Radiation Oncology* 2015;10(1):86.

Raw IF: 2.546 Normalized IF: 4

Are pitch and roll complications required in all pathologies? A data analysis of 2946 fractions.
Raw IF: 2.026 Normalized IF: 4


Evaluation of a synthetic single-crystal diamond detector for relative dosimetry on the Leksell Gamma Knife Perfexion radiosurgery system.
Medical Physics 2015;42(9):5035.
Raw IF: 2.635 Normalized IF: 4


A feasibility dosimetric study on prostate cancer: are we ready for a multicenter clinical trial on SBRT?
Raw IF: 2.914 Normalized IF: 6


Which technique for radiation is most beneficial for patients with locally advanced cervical cancer? Intensity modulated photon treatment, helical modulated proton therapy versus intensity modulated photon treatment, helical tomotherapy and volumetric arc therapy for primary radiation – an intraindividual comparison.
Radiation Oncology 2015;10(1):91.
Raw IF: 2.546 Normalized IF: 4


Stereotactic body radiation therapy for lung metastases from soft tissue sarcoma.
Raw IF: 5.417 Normalized IF: 6


Hypofractionated stereotactic radiation therapy in recurrent high-grade glioma: a new challenge.
Cancer Research and Treatment 2016;48(1):37-44.
Raw IF: 3.318 Normalized IF: 4

Navarria P, De Rose F°, Ascolese AM.

SBRT for lung oligometastases: who is the perfect candidate?
Raw IF: 0 Normalized IF: 0


Hypofractionated stereotactic radiation therapy in skull base meningiomas.
Raw IF: 3.07 Normalized IF: 4


Evaluation of the risk of grade 3 oral and pharyngeal dysphagia using atlas-based method and multivariate analyses of individual patient dose distributions.
Raw IF: 4.258 Normalized IF: 3


Volumetric-modulated arc stereotactic body radiotherapy for prostate cancer: dosimetric impact of an increased near-maximum target dose and of a rectal spacer.
Raw IF: 2.026 Normalized IF: 2


Impact of 11C-methionine positron emission tomography/computed tomography on radiation therapy planning and prognosis in patients with primary brain tumors.
Tumori 2014;100(6):636-44.
Raw IF: 1.269 Normalized IF: 1

Scorsetti M.

Reports of Practical Oncology and Radiotherapy 2015;20(6):ix-x.
Raw IF: 0 Normalized IF: 0


The role of Stereotactic Body Radiation Therapy (SBRT) in the treatment of oligometastatic disease in the elderly.
Raw IF: 2.026 Normalized IF: 4


The challenge of inoperable hepatocellular carcinoma (HCC): results of a single-institutional experience on stereotactic body radiation therapy (SBRT).
Raw IF: 3.081 Normalized IF: 4


Multimodality therapy approaches, local and systemic treatment, compared with chemotherapy alone in recurrent glioblastoma.
Raw IF: 3.362 Normalized IF: 4


Neoadjuvant chemoradiotherapy with volumetric-modulated arc therapy for medium-distal oesophageal and gastro-oesophageal junction carcinoma.
Raw IF: 1.826 Normalized IF: 2
SHOULDER AND ELBOW SURGERY


Reliability of forced internal rotation and active internal rotation to assess lateral instability of the biceps pulley.


Raw IF: 0 Normalized IF: 0

Garofalo R, Flanagin B, Castagna A, Lo EY, Krishnan SG.

Reverse shoulder arthroplasty for proximal humerus fracture using a dedicated stem: radiological outcomes at a minimum 2 years of follow-up-case series.


Raw IF: 1.386 Normalized IF: 2

Venous thromboembolism in patients undergoing shoulder arthroscopy: findings from the RECOs Registry.


Raw IF: 2.392 Normalized IF: 0.8

De Giorgi S, Saracino M, Castagna A.

Degenerative disease in rotator cuff tears: what are the biochemical and histological changes?


Raw IF: 0 Normalized IF: 0

Zappia M, Carfora M, Romano A.M, Reginelli A, Brunese L, Rotondo A, Castagna A.

Sonography of chondral print on humeral head.


Raw IF: 1.51 Normalized IF: 2
One-step nucleic acid amplification in breast cancer sentinel lymph node: a single institutional experience and a short review.


Prognostic and diagnostic potential of local and circulating levels of pentraxin 3 in lung cancer patients.


Infante M, Cavuto S.

Reply: Mortality reduction, overdiagnosis, and the benefit-to-harm ratio of computed tomography screening.

American Journal of Respiratory and Critical Care Medicine, 2015;192(3):399-400.


Clinical outcome of stereotactic ablative body radiotherapy for lung metastatic lesions in non-small cell lung cancer oligometastatic patients.


Germine polymorphisms and survival of lung adenocarcinoma patients: a genome-wide study in two European patient series.


KRAS mutation in lung metastases from colorectal cancer: prognostic implications.

Cancer Medicine, 2016;5(2):256-64.


Prognostic score of long-term survival after surgery for malignant pleural mesothelioma: a multicenter analysis.


Male breast cancer: a retrospective case series.


Future Oncology, 2015;11(8):1223-32.

Simonelli M, Zucali PA, Suter MB, Lorenzi E, Rubino L, Fatuzzo G, Alloisio M, Santoro A.

Malignant masses in the mediastinum: a single institution experience and a short review.


Pastorino U, Houlston RS, Dragani TA.

Pathology of the male breast: a single institutional experience and a short review.


Clinical outcomes of stereotactic body radiation therapy for lung metastases from soft tissue sarcoma.


Simonelli M, Zucali PA, Suter MB, Lorenzi E, Rubino L, Fatuzzo G, Alloisio M, Santoro A.
Testori A, Meroni S, Enrico V, Travaglini R, Voulaz E, Alloiso M.

Huge malignant phylloides breast tumor: a real entity in a new era of early breast cancer.


Raw IF: 1.408 Normalized IF: 4

Veronesi G.

Robotic lobectomy and segmentectomy for lung cancer: results and operating technique.


Raw IF: 1.783 Normalized IF: 2

Veronesi G°, Bottino E, Finocchiaro G, Alloiso M.

When is surgery indicated for small-cell lung cancer?


Raw IF: 3.958 Normalized IF: 6

Veronesi G, Guerrieri-Gonzaga A, Infante M, Bonanni B.

Chemoprevention studies within lung cancer screening programmes.

ECancerMedicalScience 2015;9:957.

Raw IF: 0 Normalized IF: 0

TRAUMATOLOGY

di Mento L°, Stalatti L, Cavanna M, Mocchi M, Berlusconi M.

Posterior sternoclavicular joint dislocation with brachiocephalic vein injury: a case report.

Injury 2015;46(suppl7):s8-10.

Raw IF: 2.137 Normalized IF: 6

THROMBOSIS CENTER


Duration of anticoagulation after venous thromboembolism in real world clinical practice.


Raw IF: 2.447 Normalized IF: 0.4


Sex differences in patients receiving anticoagulant therapy for venous thromboembolism.


Raw IF: 5.723 Normalized IF: 1.2


Outcomes in neurosurgical patients who develop venous thromboembolism: a review of the Riete registry.


Raw IF: 2.392 Normalized IF: 0.8


Rate and duration of hospitalization for deep vein thrombosis and pulmonary embolism in real-world clinical practice.


Raw IF: 3.886 Normalized IF: 6


Does sex affect anticoagulant use for stroke prevention in nonvalvular atrial fibrillation? The prospective global anticoagulant registry in the FIELD-Atrial Fibrillation.


Raw IF: 5.656 Normalized IF: 1.2


Venous thromboembolism in patients immobilized at home.


Raw IF: 7.636 Normalized IF: 1.6


Home versus in-hospital treatment of outpatients with acute deep venous thrombosis of the lower limbs.


Raw IF: 3.021 Normalized IF: 1.2


Subsequent arterial ischemic events in patients receiving anticoagulant therapy for venous thromboembolism.


Raw IF: 0 Normalized IF: 0


D-dimer levels and 90-day outcome in patients with acute pulmonary embolism with or without cancer.


Raw IF: 2.447 Normalized IF: 0.4


Long-term anticoagulant therapy of patients with venous thromboembolism. What are the practices?


Raw IF: 3.234 Normalized IF: 1.2


Gender differences in cancer patients with acute venous thromboembolism.

Thrombosis Research 2015;135(suppl1):S12-5.

Raw IF: 2.447 Normalized IF: 0.4


Raw IF: 2.447 Normalized IF: 0.4.


Raw IF: 2.624 Normalized IF: 1.2.


Raw IF: 5.72 Normalized IF: 1.2.

Ruggeri ZM, Mendolichio GL.


Raw IF: 1.602 Normalized IF: 1.


Raw IF: 2.891 Normalized IF: 1.2.

**UROLOGY**


Raw IF: 5.578 Normalized IF: 6.

Barbagli G, Lazzeri M.


Barbagli G, Lazzeri M.


Raw IF: 13.938 Normalized IF: 5.


Raw IF: 0 Normalized IF: 0.

Cindolo L, Giusti G, Castellan P, Antonelli A, Schips L.


Raw IF: 0 Normalized IF: 0.

Costantini E, Lazzeri M.


Clinical performance of serum isoform (-2) proPSA (p2PSA), and its derivatives %p2PSA and the Prostate Health Index, in men aged <60 years: results from a multicentric European study. 
Raw IF: 3.533 Normalized IF: 6


En bloc resection of urethral carcinoma of the bladder (EBRUC): a European multicenter study to compare safety, efficacy, and outcome of laser and electrical en bloc transurethral resection of bladder tumor. 
Raw IF: 2.666 Normalized IF: 3

Lazzeri M.

New horizons for GAG therapy in the management of urethral damage. 
Urologia 2015;82(3):10-14. 
Raw IF: 0 Normalized IF: 0

Lazzeri M.

Prostate cancer claims for a personalized medicine. 
Raw IF: 0 Normalized IF: 0

Lazzeri M°, Lughezzani G, Guazzoni G.

Re: Comparative analysis of transperineal template saturation prostate biopsy versus magnetic resonance imaging targeted biopsy with magnetic resonance imaging-ultrasound fusion guidance. 
Raw IF: 13.938 Normalized IF: 5

Lughezzani G°, Buffi NM, Guazzoni G.

Locally-advanced prostate cancer in the elderly: should we revisit our treatment paradigms? 
Raw IF: 2.596 Normalized IF: 4

Lughezzani G°, Buffi NM, Guazzoni G.

Predicting cancer-specific mortality after radical prostatectomy: still a long way to go. 
Raw IF: 13.938 Normalized IF: 10

Endorectal multiparametric 3-tesla magnetic resonance imaging associated with systematic cognitive biopsies does not increase prostate cancer detection rate: a randomized prospective trial.


Raw IF: 2.666 Normalized IF: 6

Taverna G°, Cote RJ, Grizzi F.

Editorial: prostate cancer. What we know and what we would like to know.

Frontiers in Oncology 2015;5:114.

Raw IF: 0 Normalized IF: 0


Two-dimensional neovascular complexity is significantly higher in nontumor prostate tissue than in low-risk prostate cancer.


Raw IF: 0 Normalized IF: 0


Inflammation and prostate cancer: friends or foe?

Inflammation Research 2015;64(5):275-86.

Raw IF: 2.347 Normalized IF: 2

Taverna G°, Tidu L, Grizzi F.

Sniffing out prostate cancer: a new clinical opportunity.


Raw IF: 0 Normalized IF: 0

VASCULAR AND INTERVENTIONAL RADIOLGY


Percutaneous long bone cementoplasty for palliation of malignant lesions of the limbs: a systematic review.


Raw IF: 2.071 Normalized IF: 4


Long-term follow-up results of the DANTE trial, a randomized study of lung cancer screening with spiral computed tomography.


Raw IF: 12.996 Normalized IF: 10

Lanza E°, Palussiere J, Buy X, Grasso RF, Beomonte Zobel B, Pedretti D, Pedicini V, Balzarini L, Cazzato LR.

Percutaneous image-guided cryoablation of breast cancer: a systematic review.


Raw IF: 2.409 Normalized IF: 4


Diagnostic accuracy of 11C-choline PET/CT in comparison with CT and/or MRI in patients with hepatocellular carcinoma.

European Journal of Nuclear Medicine and Molecular Imaging 2015;42(9):1399-407.

Raw IF: 5.383 Normalized IF: 6