ANNUAL REPORT 2012

Best research answers for challenges ahead

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Vall d'Hebron
Institut de Recerca
VHIR

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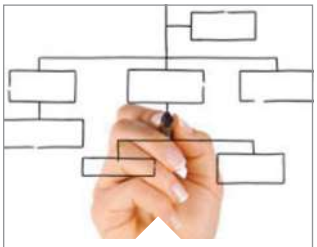

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Answers for challenges ahead

A year in review

JOSÉ JERÓNIMO NAVAS
General Manager of Vall d'Hebron University Hospital

JOAN COMELLA
VHIR's Director

INSTITUTIONAL ADVANCES

JOSÉ J. NAVAS: In 2012 VHIR introduced important changes in all the dimensions of the organization. First, in the governance areas, one of the goals was the introduction of SAB with the presence of national and international leaders in biomedical research. Although the main change in the organization this year was the review of the clinical research.

VHIR is going to be present in the main projects of the hospital. Already present in the project of labs –we have the main public lab of Europe at Vall d'Hebron- because we are now merging the laboratories of primary care of the hospital. The institute of research is also going to be present in the model of clinical genetics and molecular genetics in the program of rare diseases and it's also present in all the strategic areas of the Vall d'Hebron campus.

JOAN COMELLA: The report from SAB was quite good in terms of the competitiveness of the institute and the research teams. They made important recommendations for the close future, such as to trust on young leaders, to make a further effort to merge the translational and clinical research.

One of the main advances in the last year is the regulatory of spaces. We are going to create a very simple system that relates the quantity of space you have with the quantity of money you provide to the institution in terms of overhead.

Another step forward is the regulatory of the scientific career, a document to give the idea to the young scientists that they will be able to develop their whole career at VHIR. Is an strategy related to merits.

These are the highlights of an interview that you can watch at: **annualreport2012.vhir.org**

> J.J.N.: "VHIR introduced important changes in all the dimensions of the organization"

J.J.N.: We have to be competitive in the international arena, that determines the quality of the research we have to produce. In the last three years VHIR developed strategies to accomplish that.

J.C.: We are very proud of the evaluation done at the Spanish level by ISCIII. From 18 institutes, we got a final general ranking between the first and the second. The Catalan authorities also determined that our outputs, compared to other institutions, are really good and that we should receive more funding in the next years.

CLINICAL RESEARCH

J.C.: The new space for clinical research is a kind of presentation visit on what HUVH want to be. This is the final bit of the hospital for being in the first positions of clinical research in Spain and Europe. We are providing help to the clinicians in terms of managerial support to their research. Is also an space to receive ambulatory patients to establish a more direct relationship to include them in clinical trials. Is a giant step to promote clinical research in the campus.

J.J.N.: This hospital is the adequate place to perform translational research. The idea of VHIR of design a new program of clinical research in a structure dedicated exclusively for that is very good. It's going to be the right place to relation clinicians and basic scientists with the industry. We have to facilitate this encounter between

J.C.: "The new space is a giant step to promote clinical research in the campus"

knowledge generators and enterprises. To make possible clinical innovation we need this kind of unit to link the clinical works with the development of drugs in the industry.

J.C.: We are getting multiple relationships with the most important international Pharma companies thanks to the new spaces and to the clear commitment of hospital with the clinical research. We are signing preferential agreements with them. This will bring to HUVH important clinical trials in early developments of new drugs.

RESEARCH DESPITE CRISIS

J.C.: The groups have started to get funding from outside. Particularly UE, private companies, biotech companies, big Pharma companies and for the first time NIH projects. We are in the point of crossing the financing from Spain, which is going doing, with the one coming from outside, which is going up.

J.J.N.: We have to transform our organization to be more competitive from the innovation point of view. VHIR is facing that situation successfully, the budget is decreasing but the income is being maintained, as well as the structure of knowledge generation. We have to be more efficient.

J.C.: We have to look forward in the areas in which we can be competitive. We have many assets that make us very competitive in many areas. We are one of the best hospitals probably in Europe. Innovation, internationalization, cooperation, we must do the things with quality in these issues and then we'll have an opportunity.

J.J.N.: "VHIR is facing that situation successfully, the budget is decreasing but the income is being maintained"

Organization and staff

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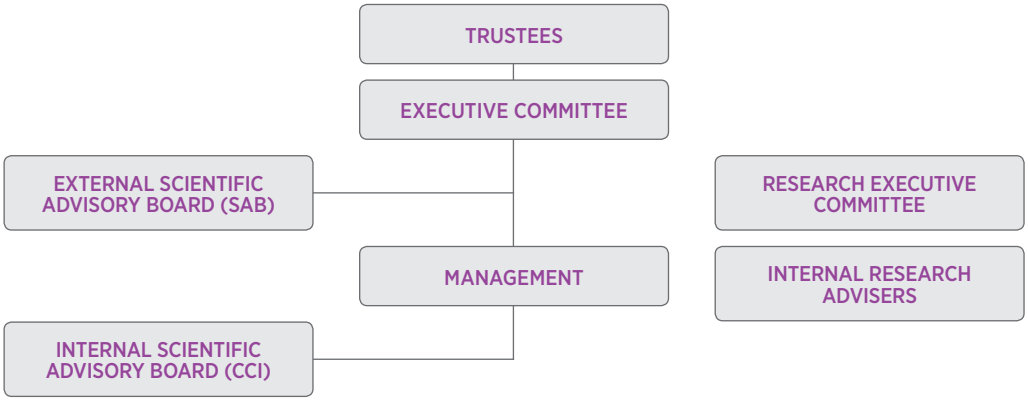
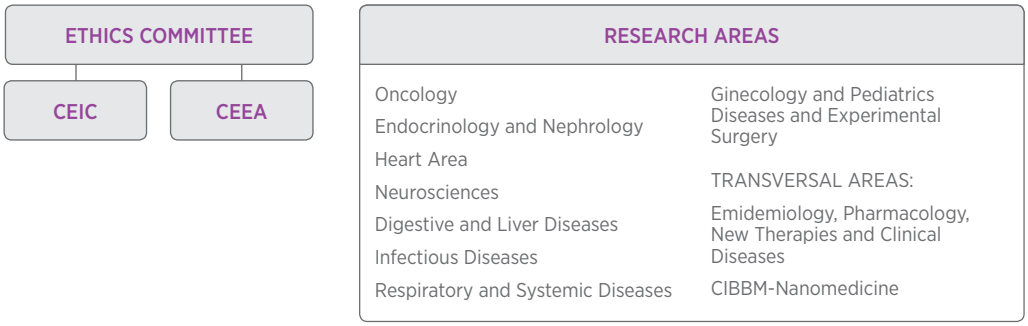
Organizational chart

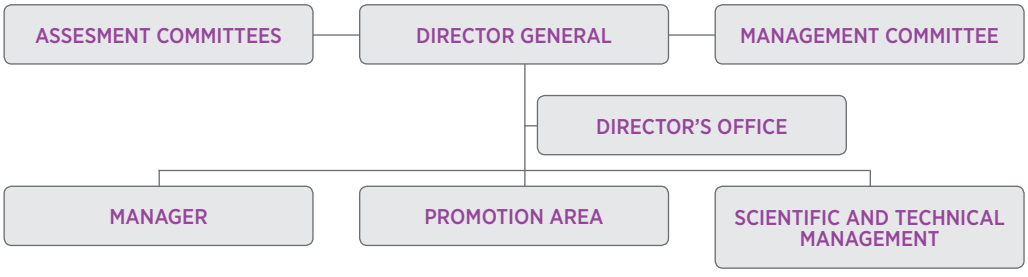
Governing bodies



Research



Administrative structure



Research areas and groups

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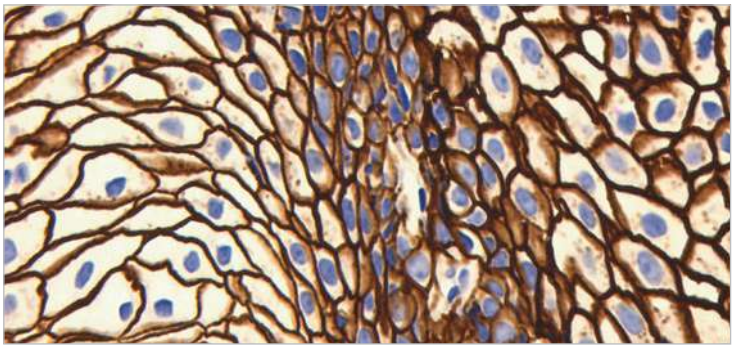
Digestive and Liver Diseases



TOTAL PUBLICATIONS
68

TOTAL IMPACT FACTOR
360.072

AVG. IMPACT FACTOR
5.295

The gastroenterology group investigates the integrated function of the intestinal tract including secretion, motility and absorption in health and disease. The intestinal inflammation has also interactions with some aspects of enteric flora in inflammatory bowel disease. The liver diseases group deals with viral hepatitis and liver cirrhosis and its complications. The digestive transplants group studies mostly liver transplantation and the quality of life after it.

Digestive transplants

Ramon Charco Torra

TOTAL PUBLICATIONS
9

IMPACT FACTOR
32.577

AVG. IMPACT FACTOR
3.620

Clinical studies on immunosuppression in human liver transplantation, experimental research in minimally invasive surgery through orifices Naturals or NOTES, experimental research in hepatic surgery, clinical research in hepatic and bile-pancreatic surgery, clinical research in intestinal transplantation and clinical research in partial hepatic transplantation(Vivo donations and/or split).

MAIN RESEARCH LINES

- Morbidity and quality of life after liver transplantation
- Treatment of hepatocellular carcinoma
- Treatment of liver metastases of colorectal cancer
- Technical advances in hepatobiliopancreatic surgery and transplantats
- Pancreatic function after pancreatectomy
- Advances in staging of pancreatic cancer
- Post-transplant monitoring in paediatric liver transplantation

Liver diseases

Jaume Guardia

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
41	194.064	4.733

Our group is interested in the clinical and basic aspects of liver diseases. We have two main research areas: viral hepatitis (etiology, virology, epidemiology, pathogenesis and therapy) and liver cirrhosis and its complications (portal hypertension, encephalopathy, hepatocellular carcinoma, liver failure), including liver transplantation.

MAIN RESEARCH LINES

- Liver failure and metabolic encephalopaties.
- Liver transplantation and hepatocarcinoma.
- Portal hypertension.
- Hepatitis C, molecular biology, immune response and therapy.
- Hepatitis B, Molecular biology and therapy.

Physiology and Pathophysiology of the Digestive Tract

Fernando Azpiroz Vidaur

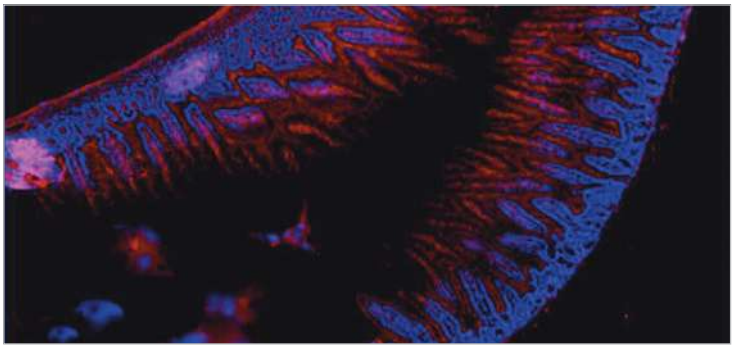
TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
18	133.431	7.413

To investigate the integrated function of the intestinal tract including secretion, motility, absorption and barrier function in health and disease, prioritizing the translation of knowledge to clinical practice. The research on digestive motility interacts with the disorders of visceral sensitivity, brain-gut axis and intestinal allergy. The research on inflammation involves also the pancreas. A transversal research program focuses on the role of gut microbiota on gut function and inflammation.

MAIN RESEARCH LINES

- Hypersensitivity and dysmotility of the gastrointestinal tract
- Inflammatory pathways in the gut and therapeutic targets
- Pathophysiology and treatment of pancreatic disorders
- Neuro-Immuno-Gastroenterology

Endocrinology and Nephrology



TOTAL PUBLICATIONS
54

TOTAL IMPACT FACTOR
211.980

AVG. IMPACT FACTOR
3.926

The diabetes and metabolism group is addressed to the pathophysiology of diabetic retinopathy and obesity to discover new therapeutic targets. The Pediatrics Endocrinology group has the aim to do translational research into pediatric endocrine diseases, human grown disorders of sex development and familiar glucocorticoid deficiency. The nephrology group is focused in the progression of renal insufficiency and ateromatosis in chronic kidney disease.

Diabetes and Metabolism

Rafael Simó

TOTAL PUBLICATIONS
25

IMPACT FACTOR
124.476

AVG. IMPACT FACTOR
4.979

Our group is a node of the network CIBERDEM (CIBER de Diabetes y Enfermedades Metabólicas Asociadas), which is constituted by the top research groups investigating diabetes in Spain. Our combination of basic and clinical research is important not also in obtaining relevant results, but also in facilitating the rapid transference of these results to clinical practice.

At present, Prof. Simó is the coordinator of the EUROCONDOR Consortium in the setting of the 7th framework programme-HEALTH-2011.

MAIN RESEARCH LINES

- Physiopathology of diabetic retinopathy:
- Insulin resistance and obesity:
- Endothelial dysfunction, dyslipideamia and cardiovascular disease in type 2 diabetes.

Nephrology

Daniel Serón Micas

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
20	58.745	2.937

Mainly focused on clinical research and can be divided in two main areas: a.) progression of renal failure and b.) cardiovascular disease associated with renal insufficiency. Special space for clinical trials and observational studies. Two full time nurses monitor clinical trials and participate in clinical observational studies and two pre-doctoral fellows are full time devoted to clinical research during a period of for years thanks to a pre-doctoral FIS and pre-doctoral VHIR grants. There is a close collaboration with the Renal Physiopathology Department sharing one full time lab technician. The department is integrated in the Spanish Research Renal network from ISCIII (REDinREN).

MAIN RESEARCH LINES

- Progression of renal insufficiency
- Atheromatosis in kidney disease

Pediatric endocrinology

Antonio Carrascosa Lezcano

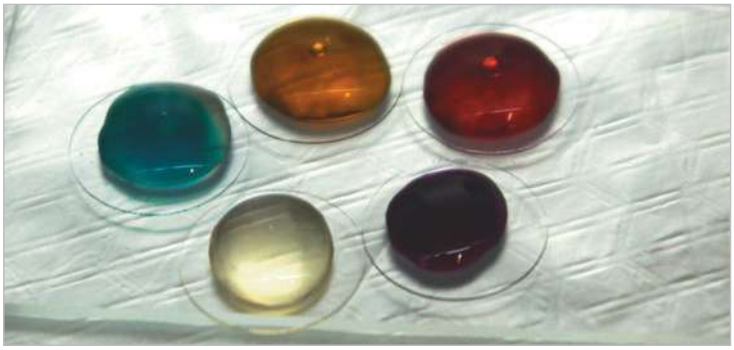
TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
9	28.759	3.195

Translational (clinical, biochemical and molecular) research on paediatric endocrine diseases.

MAIN RESEARCH LINES

- Normal growth and development patterns in children.
- Growth delay in children: phenotype-genotype (GH1, GHRH, GHRHR, GHR, IGF-1, IGF1R, SHOX genes) associations. Anthropometric response to GH therapy according to clinical, biochemical and molecular data.
- Familial isolated glucocorticoid deficiency (FGD) (MC2R, MRAP, StAR, CYP11A1 genes). Functional analysis of novel mutations.
- Disorders of sex development (DSD): clinical and molecular diagnosis (AR, SRD5A2, HSD17B3, CYP17A1, NR5A1, MAMLD1). Phenotype-genotype analyses.
- Childhood obesity: metabolic complications and therapeutic approaches.

Epidemiology, pharmacology, new therapies and clinical research



TOTAL PUBLICATIONS
25

TOTAL IMPACT FACTOR
115.464

AVG. IMPACT FACTOR
4.619

Includes the Clinical Pharmacology group, that works on the effectiveness and the adverse effects of medicines. The epidemiology group studies hospital epidemiology, preventive vaccines, health services and public health. The Cell and gene therapy group aims to understand the immune aspects of hematopoietic gene therapy. Other groups are the molecular diagnosis and therapy group related to the Blood and Tissue Bank, and the group of heath care that generates knowledge in the activity of nurse.

Cell and gene therapy

Jordi Barquinero Máñez

TOTAL PUBLICATIONS
1

IMPACT FACTOR
2.905

AVG. IMPACT FACTOR
2.905

Our work is aimed at better understanding and trying to overcome some of the barriers that are currently limiting the clinical application of hematopoietic gene therapy, such as the immune response towards the transgene product, and how gene therapy tools can be used to induce immune tolerance, in preclinical models. We are developing a collaborative effort to find a clinically applicable gene therapy for a rare hereditary disease, and we are using the iPSC paradigm to model different aspects of hereditary diseases.

MAIN RESEARCH LINES

- Tolerance induction by hematopoietic gene therapy targeting myeloid cells in a murine model of autoimmunity (EAE).
- Modeling hemophilia and genetic diseases of the hematopoietic system using induced pluripotent stem cells (iPSCs).
- Preclinical studies on gene therapy for Mitochondrial NeuroGastroIntestinal Encephalomyopathy (MNGIE).

Clinical Pharmacology (FICF)

Joan-Ramon Laporte Roselló

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
9	23.334	2.593

The main field is pharmacoepidemiology, with a special focus on the patterns of medicines utilization and effectiveness and adverse effects in usual clinical practice. Is part of the European Network of Centres for Pharmacoepidemiology and Pharmacovigilance research network, which is coordinated by the European Medicines Agency and the PROTECT Group, a public-private consortium funded by the European Commission's IMI Initiative. It is also part of the UAB Park and a WHO Collaborating Centre for Research & Training in Pharmacoepidemiology.

MAIN RESEARCH LINES

- Risk of blood dyscrasias associated with the use of medicines
- Study of drug-induced liver disease
- Acute renal failure and use of medicines
- PROTECT (Pharmacoepidemiological Research on Outcomes of Therapeutics by a European ConsorTium)
- Study of pain and its treatment

Epidemiology and public health

Josep Vaqué Rafart

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
13	81.683	6.283

Expand research on hospital epidemiology, preventive vaccines, health services and public health.

MAIN RESEARCH LINES

- Epidemiology and prevention of transmissible infections
- Preventive vaccines
- Epidemiology and prevention of nosocomial infections

Health care research

Carmen Fuentelsaz-Gallego

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
1	1.118	1.118

The group of health care research develops its research with the aim of generating knowledge in the specific area of activity of nurses, care, in order to translate that results to clinical practice and collaborate with other health professionals to improve care given to patients with quality care based on best results from rigorous research.

MAIN RESEARCH LINES

- Nursing care in pediatrics
- Effectiveness of nursing care
- Nursing care to critically ill patients
- Patient safety and adverse effects
- Management of nursing care

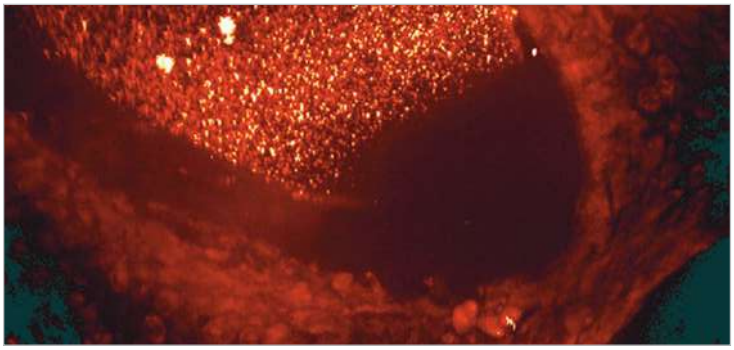
Molecular diagnosis and therapy

Francisco Vidal Pérez

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
1	6.424	6.424

This research team has a dual character since their foundation in 1998: diagnostic support in congenital coagulation disorders as well as other hereditary diseases; research and development of new approaches in the field of medical diagnostics and therapeutics. The research activity of the UDTM is linked to the commitment with the Hemophilia Unit of HUVH in the development of molecular protocols applicable to genetic counselling, and prenatal diagnosis. In-depth studies of the molecular events discovered in some affected individuals and the genotype-phenotype relationship represent the most basic area of the team's goals.

Gynecology and pediatrics diseases, and experimental surgery



TOTAL PUBLICATIONS
59

TOTAL IMPACT FACTOR
243.357

AVG. IMPACT FACTOR
4.125

The Maternal Fetal Medicine and the Bioengineering, orthopedics and surgery in pediatrics groups cover the same field and have recently obtained very good results. This area also includes groups related with surgery as the General Surgery group and the robotic and craniofacial surgery group. There are other important groups as neuro-spinal pathology study and Genetics. Finally, in another field, the remarkable group focused on ophthalmology.

Bioengineering, orthopedics and surgery in pediatrics

César Galo Garcia Fontecha

TOTAL PUBLICATIONS
8

IMPACT FACTOR
14.098

AVG. IMPACT FACTOR
1.762

The group researches in all areas of paediatric surgery and orthopaedics, supported by bioengineering and cell therapy.

MAIN RESEARCH LINES

- Pediatric neuromuscular pathology (modificar el nombre en la web)
- Pediatric skeletal pathology (añadir a la web e incluir "Research on the pathogenesis and treatment of skeletal disorders and diseases. We have developed animal models of bone infections and bone deformities)
- Fetal malformation pathology
- Fetal surgery

General Surgery

Manel Armengol Carrasco

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
19	64.743	3.408

To contribute to advances in the understanding, diagnosis, treatment and prevention of diseases included in this specialty, which help to deliver high quality general surgical care and outcomes. To this aim, interdisciplinary basic (molecular and cellular), translational and clinical research is performed, with particular attention to abdominal wall, colorectal, endocrine and bariatric, and thoracic surgery.

MAIN RESEARCH LINES

- Abdominal Wall. Biomaterials and Bioengineering
- Colorectal Surgery
- Endocrine, bariatric and metabolic surgery
- Thoracic surgery

Genetics

Alberto Plaja Rustein

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
6	28.311	4.718

Combines genetic diagnosis and research. Pioneer in Spain (the laboratory was founded in 1967), has a strong clinical and laboratory structure devoted to genetic rare diseases. We are the first group in the use of the technique of array CGH as a diagnostic first line, and a reference center in several diseases such as fetal alcohol, velocardiofacial syndrome / DiGeorge and several genetic rare diseases.

MAIN RESEARCH LINES

- Segmental duplications, genomic rearrangements and their phenotypic consequences using molecular cytogenetic techniques (array CGH, MLPA, FISH, molecular cytogenetics)
- Genetic basis of mental retardation, malformations and autism spectrum disorders (ASD).
- Fetal Alcohol Syndrome.
- Role of genomic rearrangements in congenital heart disease.
- Role of genomic rearrangements in short stature.

Maternal Fetal Medicine

Elena Carreras i Moratonas

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
14	73.386	5.242

This is one of the greatest maternal units in Catalonia and Spain. It's a reference center recognized by the European Council and the Obstetrics and Ginecology Collegue (EBCOG), together with the European Associatioin of Perinatal Medicine (EAPM), as an education center, with 20 resident doctors.

MAIN RESEARCH LINES

- Preterm birth: prevention
- Preeclampsia and intrauterine growth restriction: prevention
- Congenital heart disease: etiology, diagnosis and prognosis
- Recurrent miscarriage: etiology, diagnosis and prognosis
- Fetal Mielomeningocele : prenatal repair

Neuro-spinal pathology study

Ferran Pellisé Urquiza

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
6	48.261	8.043

The Spine Research Unit is a multidisciplinary team. The main objectives of the group are to develop clinical research on evaluation and treatment of the different spinal pathologies. These include clinical outcomes and radiological evaluation of spinal deformities, vertebral fractures, tumours, and myelopathy as well as new strategies to improve bone fusion techniques.

MAIN RESEARCH LINES

- Adolescent Idiopathic Scoliosis
- Adult spinal deformity
- Vertebral fractures
- Vertebral tumours
- New therapies to achieve bone fusion: advanced cellular therapy with mesenchymal cells.

New Technologies and Microsurgery in Craniofacial Surgery

Coro Bescós Atin

The purpose of this group is aimed at research and development of new image technologies, virtual planning, navigation and robotics surgery, together with the development of microsurgery as a reconstructive technique in Cranio-Maxillofacial Surgery.

MAIN RESEARCH LINES

- Robotic Surgery in Maxillofacial Surgery
- Image Technology, virtual planning and navigation
- Experimental vascular microsurgery
- Microsurgical Reconstruction in Maxillofacial Surgery
- Maxillofacial Oncology and quality of life

Ophthalmology

José García-Arumí

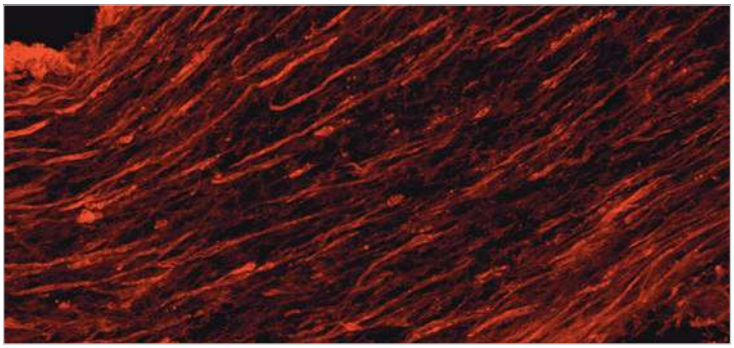
The clinical and basic research activity of the ophthalmology research group is mainly centered on retinal vascular disease, including the physiopathology of diabetic retinopathy; physiopathology and treatment of retinal vein occlusion and new treatments for retinal artery occlusions.

MAIN RESEARCH LINES

- Research group of diabetic retinopathy
- Research group of retinal artery occlusion
- Retinal vascular diseases
- Age related macular degeneration
- Ocular inflammation and uveïtis

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
5	13.189	2.638

Heart area



TOTAL PUBLICATIONS
73

TOTAL IMPACT FACTOR
461.203

AVG. IMPACT FACTOR
6.318

Heart Area fights to minimize the impact of heart diseases based on equilibrated care, research and teaching. This has been an important year regarding funding, publications and translation to the society. Regarding funding, they got one very big project, the Network for Research of Cardiovascular Diseases of the ISCIII, with two programs. They also won 4 new grants and published more than 70 papers with a total IFof over 400 points in different areas.

Cardiocirculatory pathology

David García-Dorado García

TOTAL PUBLICATIONS
69

IMPACT FACTOR
451.67

AVG. IMPACT FACTOR
6.546

To reduce the impact of cardiovascular disease by generating knowledge and translating it to society. Its research composition is highly multidisciplinary, including laboratory researchers, clinician scientists and epidemiologists, in addition to technicians and research nurses, all them working within a translational continuum.

MAIN RESEARCH LINES

- Ischemic heart disease
- Diseases of the aorta and heart valves.
- Non-ischemic myocardial disease, cardiovascular ageing and heart failure, atrial fibrillation.
- Familial and congenital cardiovascular diseases, personalized medicine.
- a) Transversal lines: Imaging and biomarkers, Advanced and hybrid invasive procedures for structural disease and heart rhythm disturbances and Epidemiology of cardiovascular disease, outcome research, effectiveness, quality of life

Reparative Therapy of the Heart

Manuel Galiñanes Hernández

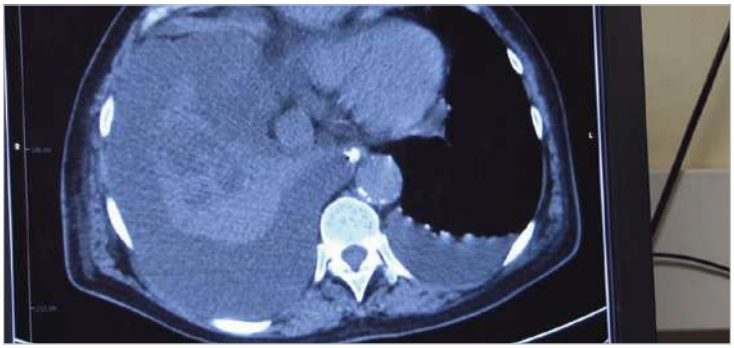
TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
4	9.533	2.383

The Laboratory of Reparative and Therapy of Heart aims to design new therapeutic approaches to reduce myocardial injury induced by ischemia and reperfusion and to repair the damaged myocardium through mechanisms of stem cells homing, proliferation and differentiation.

MAIN RESEARCH LINES

- Characterization of the susceptibility of the human myocardium to ischemic/reperfusion-induced injury and it response to protective interventions.
- The utility of stem cells and growth factors to promote repair of the myocardium.

Infectious Diseases



TOTAL PUBLICATIONS
120

TOTAL IMPACT FACTOR
589.913

AVG. IMPACT FACTOR
4.916

The infectious diseases group try to improve strategies of the clinical problems in clinical practice. CRIPS group focuses on the most prevalent aspects of infections in the ICU, while SODIR group works in the areas of shock, organ dysfunction and resuscitation. Microbiology studies mechanisms of resistance to antimicrobials, pathogenicity, taxonomy and epidemiology, and infectious diseases diagnostics. There is a new group working on Infection in immunocompromised pediatric patients.

Clinical Research/Innovation in Pneumonia & Sepsis (CRIPS)

Jordi Rello Condomines

TOTAL PUBLICATIONS
37

IMPACT FACTOR
203.444

AVG. IMPACT FACTOR
5.498

The aim of this group is to develop translational and clinical research in critical care. This group focuses on the most prevalent aspects of infections in the ICU (Ventilator-associated pneumonia, Severe Community-acquired pneumonia -and HCAP-, and opportunistic respiratory infections in severe immunocompromised patients), which represent the Research Lines of CIBERES, where Jordi Rello is head of cooperative research on Hospital-acquired pneumonia

MAIN RESEARCH LINES

- Severe Acute Respiratory Infection (SARI)
- Lung transplantation at ICU
- Acute respiratory failure and mechanical ventilation
- Translational and transference technology
- Safety, quality of life and nursing critical care

Infection in immunocompromised pediatric patients

Concepción Figueras Nadal

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
14	36.247	2.589

Pediatricians from the Pediatric Infectious Diseases and Immunodeficiences Unit created in 1996 and consolidated in 2005 like a consulting unit in nosocomial and opportunistic infections in immunocompromised pediatric patients. Actually is pioneering in this field and its Master in Pediatric Infectious Diseases is the first in Europe in this discipline. Its research is principally focused on severe bacterial, fungal and viral infections in immunocompromised pediatric patients.

MAIN RESEARCH LINES

- Functional assays in patients with Combined Immunodeficiencies.
- Safety, efficacy and tolerability of anti-infective drugs and IVIG and SCIG therapy.
- Occult HBV and seronegative HCV Infection in immunocompromised patients
- Vertical transmission of HIV, Chagas disease and HTLV.
- Invasive fungal infection

Infectious Diseases

Albert Pahissa Berga

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
41	163.283	3.983

To try to give answers or try to improve strategies of the clinical problems observed in clinical practice, therefore, we work in clinical research.

MAIN RESEARCH LINES

- HIV infection, especially antiretroviral medication, pharmacokinetic interactions and opportunistic infections
- The infectious pathology observed in the cancer population, especially bacterial and fungal infection.
- The transplant-associated infectious pathology, both solid organ and hematopoietic stem cells, with special emphasis on viral and fungal infection
- The nosocomial infection, especially bacterial infection.
- Research problems associated with international health, particularly tuberculosis and Chagas disease.

Microbiology

Guillem Prats Pastor

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
21	81.746	3.893

Our group focuses on the study of the microbiology aspects involved in the infectious diseases. We have special interest in studying the mechanisms involved in antimicrobial resistance and the epidemiology of the resistant strains, the pathogenicity mechanisms of microorganisms causing infectious diseases and in the design and evaluation of new molecular infectious disease diagnostic systems. Our group belongs to the Spanish Network for Research in Infectious Pathology (REIPI) and possesses the Consolidated Research Group category in Catalonia.

MAIN RESEARCH LINES

- Mechanisms of Antimicrobial Resistance
- Epidemiology
- Pathogenicity
- Molecular Diagnostics

Shock, Organ Dysfunction & Resuscitation (SODIR)

Joaquim Serra Vich

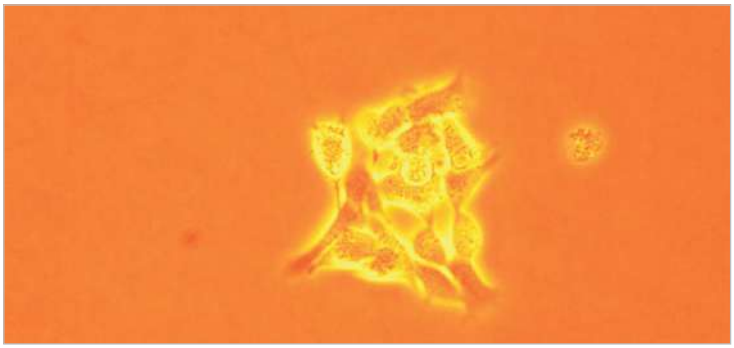
TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
7	105.193	15.028

The objective of the group is the integrated and innovative research in the areas of shock, organ dysfunction, resuscitation and the critical ill patient monitoring. In these areas, the group have a particular interest in the application of artificial intelligence for to obtain innovatives solutions to critical ill patients.

MAIN RESEARCH LINES

- Cardiopulmonary resuscitation
- Sepsis, severe sepsis and septic shock
- Monitoring the critically ill
- Informatics Infrastructure for syndromic surveillance, decision support systems and clinical research.

CIBBIM - Nanomedicine



TOTAL PUBLICATIONS
28

TOTAL IMPACT FACTOR
141.014

AVG. IMPACT FACTOR
5.036

Study the use of nanotechnology in biomedical applications mainly with two purposes: first, to improve therapeutic strategies and second, to improve the diagnostics. They work in three different areas: to obtain new biomarkers and therapeutic targets; to obtain and generate new diagnosis systems, most of the based on the same biomarkers or targeting systems obtained in the first area; and a the third one devoted to the validation of those systems in preclinical models.

CIBBIM – Nanomedicine Basic research in aging

Jaume Alijotas Reig

TOTAL PUBLICATIONS
4

IMPACT FACTOR
11.815

AVG. IMPACT FACTOR
2.954

Our goal is the study of the molecular and immunological alterations associated to the aging process. In particular, the association and correlation of cellular aging and endothelial cell senescence with epigenetic and telomeric alterations, taking the inmunological alterations as the basis of cellular inmunosenescence. Identification of such alterations might provide us with new candidates for therapeutic intervention.Click here for more information

MAIN RESEARCH LINES

- Immunological alterations as basis of inmunosenescencein pathological aging.
- Endothelial senescence and their pleiotropic effects onto inflamatory processes, inmunological response and angiogenesis.

CIBBIM - Nanomedicine Drug Delivery and Targeting

Simó Schwartz Navarro

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
7	55.319	7.903

The group on Drug Delivery and Targeting seeks two main goals; on the one hand, the identification of new disease biomarkers and therapeutic targets, with special focus on cancer molecular pathways; and on the other hand, the development of new delivery strategies in applied nanomedicine, with a particular interest into new delivery and targeting approaches for clinical applications.

MAIN RESEARCH LINES

- Identification of new disease biomarkers and therapeutic targets
- Applied Nanomedicine: new drug delivery and targeting strategies for biomedical applications

CIBBIM - Nanomedicine Immunobiology

Juan Sayos Ortega

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
4	19.329	4.832

MAIN RESEARCH LINES

- Molecular and functional characterization of the family of immunoreceptors CD300
- The role of the CD300 family of inmunoreceptors in the function of microglial cells.
- The involment of CD300 immunoreceptors in the pathogenesis of demyelinating processes

CIBBIM - Nanomedicine Kidney physiopathology

Anna Meseguer Navarro

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
3	9.993	3.331

To investigate the role of androgens in kidney pathophysiology, by identifying androgen-regulated genes whose expression is restricted to the proximal tubule cells of the kidney.

MAIN RESEARCH LINES

- Role of Hepatitis A viral receptor / kidney injury molecule-1 in the development and progression of clear-cell renal carcinoma, as well as, in the renal tubule injury/regeneration processes.
- Identification of androgen-regulated kidney-specific genes and their role in the pathogenesis of renal, cardiovascular disease and metabolic disorders.
- Pathologic mechanisms leading to chronic allograft disease and its potential mediators. Detection of early markers of the chronic kidney disease of the graft.
- Focal segmental glomerulosclerosis
- Mechanisms of chronic renal disease progression and cardiovascular risk in young patients with chronic kidney disease
- Rare inherited renal diseases

CIBBIM - Nanomedicine lysosomal storage diseases and cell pathophysiology

Mª Carmen Domínguez Luengo

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
6	19.77	3.295

Study of the involvement of oxidative stress and cellular stress response in the pathophysiology and evolution of diabetes mellitus, gestational diabetes, multiple sclerosis, pre-eclampsia and ischaemic stroke, as well as the molecular mechanisms of cell toxicity of glycolipid storage.

MAIN RESEARCH LINES

- Study of critical cellular mechanisms in the pathogenesis of lysosomal storage diseases.
- In vitro study of pathogenic mechanisms of endothelial and neuronal damage in cerebral ischaemia: relationship with in vivo oxidative processes in acute stroke patients.
- Diagnostic and disease progression biomarkers in lysosomal storage diseases, ischaemic stroke and multiple sclerosis.
- Study of new therapeutic options in some lysosomal storage diseases: substrate reduction therapy, enzyme replacement therapy and chaperone enzyme activation.
- Role of angiogenic factors in fetal heart development: congenital heart disease and fetal programming.

CIBBIM - Nanomedicine
Molecular Oncology

Diego Arango Corro

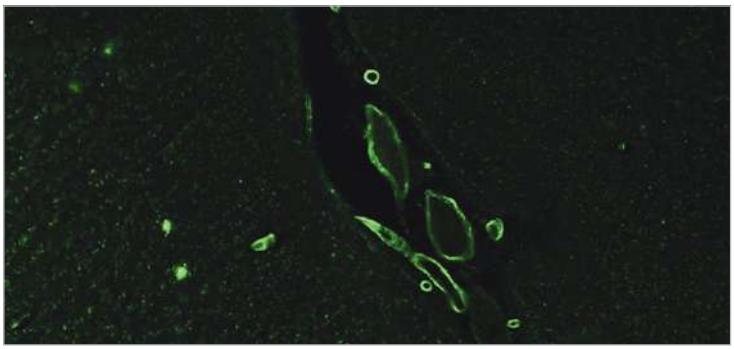
TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
4	24.788	6.197

The main interest of our Laboratory is the study of molecular events underlying the oncogenic process, especially in colorectal cancer. In 2008 colorrectal cancer was the tumor type with highest incidence in the European Union (333,000 new cases). Gaining a deeper understanding of the molecular mechanisms responsible for the tumorigenic process is essential to improve the diagnosis and treatment of these patients.

MAIN RESEARCH LINES

- Identification of new markers of prognosis and response to treatment for colorectal cancer patients.
- Role of eph signaling in cancer
- Identification of new genetic and epigenetic causes predicposing to colorectal cancer
- Role of small GTPAses in colorectal cancer
- Study of the loss of differentiation in epithelial intestinal cells during early tumorigenesis.

Neurosciences



TOTAL PUBLICATIONS
173

TOTAL IMPACT FACTOR
1,086.495

AVG. IMPACT FACTOR
6.28

The Neuroscience area is becoming one of the largest clusters of research labs working on neurological diseases across Europe. They are 15 groups working all together, with more than 100 hundred fully dedicated researchers, very close to the top clinicians of the hospital. They are fully dedicated to the neurological patients from the beginning of the experiments to the end. In 2012 generated an impact factor of more than one thousand points thanks to good science and hard work.

Alzheimer

Mercè Boada Rovira

TOTAL PUBLICATIONS
6

IMPACT FACTOR
26.702

AVG. IMPACT FACTOR
4.45

To correlate the specific biomarkers in CSF in the extracerebral compartment with neuroimaging biomarkers. Determine, in a molecular level, a risk profile associated to other biomarkers to complete the basic range that gathers different Alzheimer's clinic phenotypes and therapeutic strategies on specific targets. Design and experimental development of new pharmacologic treatments in Alzheimer's disease. Research in genetics to identify new genes associated with Alzheimer's disease. Research in neuroinflammation related to genetics associated with Alzheimer's disease and other neurodegenerative diseases. BANG: Research project in neuroimaging and other biomarkers of neurodegenerative diseases, mainly Alzheimer's disease.

Cell signaling and apoptosis

Joan Xavier Comella Carnicé

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
4	18.39	4.598

Study of proteins with capability of antagonizing death receptor-mediated cell death, mainly that promoted by TNFR1 and Fas signaling, and their relationship with survival, differentiation, and different signaling pathways. Contribute to understand the physiopathology of neurodegenerative illnesses, such as Alzheimer or Parkinson.

MAIN RESEARCH LINES

- Characterization of Lifeguard, an antagonist of Fas receptor highly expressed in nervous system, as an antiapoptotic protein.
- Relevance and function of the short form and the long form in the nervous system
- Role of TNF in cell survival and differentiation, in opposition to its role in apoptosis.
- Functions of death receptor antagonists in the development of neuroblastoma.
- Generation and characterization of transgenic animals overexpressing death receptor antagonists in the nervous system.

Clinical neuroimmunology

Xavier Montalban Gairín

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
35	321.001	9.171

The main objectives of the Clinical Neuroimmunology group through research are to improve the quality of life of multiple sclerosis (MS) patients and attain a greater understanding of the pathogenic mechanisms, aiming to develop new and more effective therapeutic means.

MAIN RESEARCH LINES

- Therapeutic Research in multiple sclerosis
- Susceptibility, diagnostic and prognostic markers in MS
- Study of the response to DMD treatments in MS patients
- Clinico-radiological investigation of PPMS (Primary Progressive MS)
- Research for therapeutic targets and/or therapeutic approaches

Headache & Neurological Pain

Patricia Pozo Rosich

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
5	67.649	13.53

Our research group has the focus on studying the pathophysiology of migraine and other primary headaches using preclinical, trajnslational and clinical research.

MAIN RESEARCH LINES

- Genetics of migraine and other primary headaches
- Neurophysiological research of migraine and other primary headaches
- Neuroimaging research of migraine and other primary headaches

Magnetic resonance and neuroradiology

Alex Rovira Cañellas

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
6	25.62	4.27

The multidisciplinary nature of our group (neuroradiologists, physicist, biochemist, engineer, and MR technologists) allows us to apply MR techniques to obtain qualitative and quantitative information to study the pathophysiologic mechanisms implicated in pathologies such as multiple sclerosis, hepatic encephalopathy, and stroke. Furthermore, we can act as a platform to design research projects and perform the MR acquisition, processing and analysis.

MAIN RESEARCH LINES

- Application of MR imaging and spectroscopy techniques to the study of multiple sclerosis
- Application of MR imaging and spectroscopy techniques to the study of hepatic encephalopathy
- Functional MR imaging: protocol development and image analysis
- Quantitative analysis of MR images: image analysis and software development

Neurodegenerative diseases

Miquel Vila Bover

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
10	66.495	6.65

The research conducted in our group is geared toward elucidating the molecular mechanisms of neuron cell death occurring in Parkinson's disease (PD), a common neurodegenerative disorder, in order to develop new therapeutic strategies aimed at blocking neuronal dysfunction/degeneration in this disabling, currently incurable disease.

MAIN RESEARCH LINES

- Mitochondrial dysfunction in Parkinson's disease
- Targeting programmed cell death in Parkinson's disease
- Formation and role of intracytoplasmic neuronal inclusions in Parkinson's Disease
- Role of mutated proteins associated to familial forms of Parkinson's disease
- Autophagy alterations in Parkinson's and Huntington's disease

Neuromuscular and mitochondrial pathology

Ramón Martí Seves

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
9	59.072	6.564

Study of pathogenic mechanisms of mitochondrial DNA mutations associated with diverse neuromuscular syndromes. Understanding the pathogenic mechanisms involved in mutations of structural genes of mtDNA, as well as the adaptative mechanisms of the cell in the mtDNA depletion syndrome. Genetic and molecular study of diverse neurological syndromes and glycogenosis type V.

MAIN RESEARCH LINES

- Study of pathogenic mechanisms of mutations in mitochondrial DNA structural genes
- Genetic and biochemical study of mitochondrial DNA depletion syndromes.
- Study of possible therapeutic approaches for mitochondrial DNA depletion syndromes.
- Characterization of genotype-phenotype association in McArdle's disease
- Therapy approaches in McArdle's disease

Neurotraumatology and neurosurgery research group (UNINN)

Joan Sahuquillo Barris

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
9	37.63	4.181

The UNINN, established in late 1990 and fully integrated into the European research community, has been accreditated as a Consolidated Research Group since 2005. Our research projects, traditionally clinically oriented, have incorporated basic research while maintaining a patient-centered approach. One of the main objectives of the UNINN is to increase the amount of translational research to improve prognosis and quality of life in patients.

MAIN RESEARCH LINES

- **Consolidated:** Neurotraumatology, Hydrocephalus and alterations in the dynamics of cerebrospinal fluid (CSF), Malignant Middle Cerebral Artery Infarction (MMCAI)
- **Emerging:** Congenital malformations of the craniovertebral junction, Neuro-oncology

Neurovascular diseases

Joan Montaner Villalonga

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
39	282.984	7.256

Neurovascular Research Lab was created in 2001 focused in stroke research from a basic and translational point of view and it covers all the stages of the disease. prevention, treatment, reparation.

Dr. Joan Montaner directed the creation of the laboratory and nowadays is composed by a young and highly motivated group of researchers: neurologists, biologists, technicians, veterinarians, graduates in statistics, psychologists and nurses.

MAIN RESEARCH LINES

- Biomarkers
- Prevention
- Neurorepair
- Acute treatment
- Amyloid

Pediatric neurology

Alfons Macaya Ruíz

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
13	106.043	8.157

The Pediatric Neurology Research group is mainly involved in the study of genetic diseases of the developing nervous system. The main emphasis is on paroxysmal neurological disorders and neuromuscular disorders. A common theme across the different projects, besides the identification of the molecular basis of several of these rare disorders, is the investigation of molecules involved in their pathophysiological mechanisms and the effective translation of these findings into the fields of molecular diagnosis, genetic counselling and newly developed gene or drug therapies.

MAIN RESEARCH LINES

- Pediatric NeurogeneticsAlfons Macaya Ruiz
- Pediatric Neuromuscular Disorders. Francina Munell Casadesús

Peripheral Nervous System

Josep Gamez Carbonell

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
10	33.113	3.311

20 years history of providing clinical care and research in amyotrophic lateral sclerosis (ALS) and other motor neuron diseases (hereditary spastic paraplegias, postpolio syndrome, Hirayama's disease, spinal muscular atrophies), myasthenia gravis, genetically determined myopathies, and peripheral neuropathies.

Our research aims to ascertain the specific genes involved in ALS, and the contribution of DNA rearrangements in causing the disease. As a result, our main research lines are Molecular Mechanisms of ALS, and Genetic Mutations in Familial ALS, including predisposing or modifying gene factors.

Psychiatry, mental health and addictions

Miquel Casas Brugué

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
34	88.589	2.605

Consolidating Clinical Research Programs already started, emphasizing interaction of various diseases and research of genetic-based common etiopathogenic mechanisms.

MAIN RESEARCH LINES

- Disorder and Attention Deficit Hyperactivity Disorder in adults (ADHD)
- Dual Pathology and Addictions
- Transcultural Psychiatry
- Psychiatric Genetics
- Pathological impulsiveness, school and academic failure and driving with risk

Translational Bioinformatics in Neuroscience

Fco. Xavier De la Cruz Montserrat

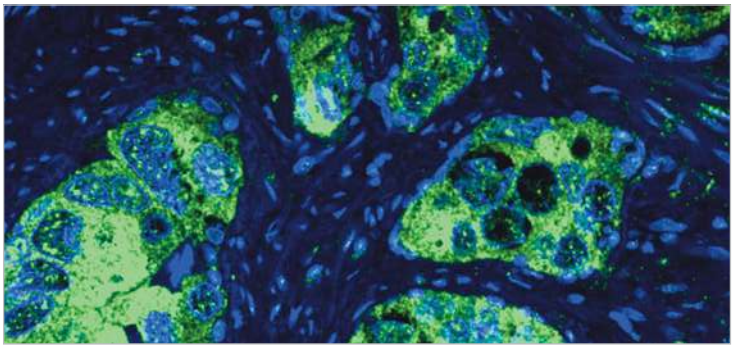
TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
2	9.988	4.994

Since we joined the VHIR in spring 2012, the aim of our group has been to develop bioinformatics tools for the analysis and interpretation of high-throughput data within a biomedical/clinical setting. We have a keen interest on attaining a general understanding of the molecular basis of Mendelian disease, but we are also glad to collaborate with groups working on specific diseases.

MAIN RESEARCH LINES

- Prediction of pathological mutations.
- The impact of alternative splicing in disease.
- Biomarker development.

Oncology



TOTAL PUBLICATIONS
212

TOTAL IMPACT FACTOR
1,473.429

AVG. IMPACT FACTOR
6.95

The Oncology research area have several groups or laboratories addressing the principal unsolved issues in cancer. With more than 4.000 new patients yearly that are being visited at the Medical Oncology department, it makes the basis for doing an important clinical and translational research. More than one third of the patients are actually included in Phase 1 clinical trials. In the area there are groups from VHIR and groups from VHIO.

VHIR RESEARCH GROUPS

Animal model and cancer

Juan Angel Recio Conde

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
1	2.373	2.373

Our main interest is to investigate the genetic and molecular mechanisms underlying tumor development and progression. More precisely, our research is directed to understand melanoma. Melanoma represents the most deadly form of skin cancer. If it is not recognized and treated early, the cancer can advance and spread to other parts of the body, where it becomes hard to treat and can be fatal.

MAIN RESEARCH LINES

- Role of LKB1 in tumor biology: LKB1 role in UVB-induced DNA damage response.
- Novel therapeutic strategies for melanoma treatment.
- Role of arginine methylation in signal transduction and it implications in cancer.

Experimental hematology

Francesc Bosch Albareda

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
22	113.844	5.175

Research at the Experimental Hematology group focuses on the study of the pathogenic mechanisms and progression of lymphoid neoplasms, as well as studying ex-vivo effects and ways of action of new experimental therapeutic regimens in experimental models that mimic the proliferative microenvironment. Moreover, we are specialized in the study of immunologic modulation and response to new treatments in myelodysplastic syndromes.

MAIN RESEARCH LINES

- Progression factors and mechanisms in Chronic Lymphocytic Leukemia.
- Pathogenesis mechanisms in Chronic Lymphocytic Leukemia (CLL).
- Ex-vivo assessment of new therapeutic proposals in lymphoproliferative syndromes.
- Immunologic modulation and response to new treatments in myelodysplastic syndromes.

Molecular pathology

Santiago Ramon y Cajal Agüeras

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
47	224.335	4.773

The main focus relates to models of cellular stress in order to identify mechanisms by which tumor cells are more resistant to factors such as hypoxia, lack of nutrients or genomic damage.

MAIN RESEARCH LINES

Clinical Research:

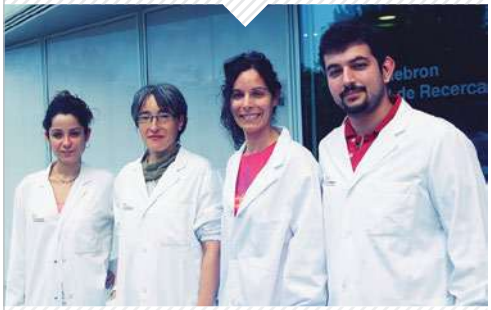
- Characterize potential tumor markers that have a role as prognostic factors in cancer.
- Study the cell signaling pathway and the role of the 4E-BP1 and eIFs factors in cancer.
- Study of senescence genes and their biochemical pathways in human tumors.

Basic research:

- Study of the factors which control cap dependent and independent translation in tumors.
- Studying the mechanisms controlling senescence at the cellular level.
- Study the role of gap junctions in tumour biology and malignant progression.

Oncology and molecular pathology

Matilde Lleonart Pajarin



The main line of work of Dr. Lleonart, is related to senescence (both replicative and oncogene-induced or stress). In our laboratory we have performed various genetic screenings based on the detection of new genes/siRNAs/microRNAs involved in cell proliferation which in addition to having a role in cancer. So we have used a variety of cellular models of murine and human primary cells or immortalized cells but capable of entering into senescence.

Research Unit in Biomedicine and Translational Oncology

Jaume Reventos Puigjaner

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
32	238.514	7.454

Molecular and translational research of several cancers including those of the prostate, the endometrium, the ovary, and the pancreas. To identify and characterize new molecules which might play relevant roles in the neoplastic cell transformation, and/or growth, progression or dissemination of those tumours. Based on unresolved clinical needs. Using experimental models, develop new research strategies that could lead to preclinical validation. Studying several molecules of extracellular matrix and their roles in tissue injury and reparation as well as their interactions with biomaterials. To identify new and valuable molecules and biomarkers to improve diagnosis, prognosis and therapy.

MAIN RESEARCH LINES

- Laboratory of Translational Urological Research
- Laboratory of Gynaecological Oncology
- Laboratory of Cell Signalling and Cancer Progression
- Laboratory of Stem Cells and Cancer

Translational Research in Child Cancer

Josep Sánchez de Toledo Codin

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
3	24.184	8.061

Malignant neoplasms in children and adolescents are rare diseases with different prognoses and biologic behaviour. The prognosis of childhood cancer has improved considerably in recent decades and survival is approximately 70% in western countries. But a considerable number of these patients still relapse and eventually die due to progressive or refractory neoplasms. Paediatric oncologists need new approaches to improve the efficacy of anticancer therapies. Molecular diagnosis, detection of microdisseminated disease and the search for new therapeutic strategies would help to improve the results of the current treatments of paediatric cancer.

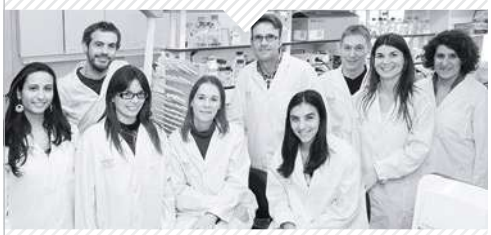
MAIN RESEARCH LINES

- Molecular diagnosis
- Minimal disseminated disease in solid tumours (MDD)
- Minimal residual disease in acute leukemia (MRD)
- Fanconi's Anaemia
- Therapeutic targets

VHIO RESEARCH GROUPS

Growth Factors Group

Joaquín Arribas



TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
2	13.738	6.87

We have identified a novel fragment of HER2 frequently expressed in this type of cancer that encompasses the extracellular and transmembrane domains of HER2 but lacks most of its cytoplasmic domain and it is inactive. However, the expression of this fragment does not affect treatment with Herceptin, a therapeutic monoclonal antibody currently used to treat HER2-positive breast cancers. We have shown the prometastatic effect of the secretome of HER2-induced senescent cells.

MAIN RESEARCH LINES

- Functional characterization of HER2 fragments and their impact on breast cancer progression and treatment.
- Characterization of the proteolytic remodeling of the cell surface during breast cancer progression.
- Analysis of the role of HER2-induced senescence on breast cancer metastasis.

Experimental Therapeutics

José Baselga

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
31	557.488	17.98

During 2012 our research has focused on understanding the mechanisms of resistance to targeted therapy in breast cancer, with special emphasis on the blockade of the HER2/PI3K/Akt/mTOR pathway. Our major aim has been to provide hypothesis-based strategies to combine targeted therapy and, in so doing, improve outcomes for patients.

MAIN RESEARCH LINES

- Unveiling novel mechanisms of resistance against HER2- and PI3K-targeted therapies.
- Studying early molecular responses following PI3K inhibition to rationally design novel combination therapy in breast cancer.
- Developing predictive and pharmacodynamic bio-markers of PI3K-pathway inhibitors.
- Establishing a novel patient tumor-derived breast cancer preclinical model to explore hypothesis-based combinatorial therapies.

Mouse Models of Cancer Therapies Group

Laura Soucek

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
2	16.468	8.23

The main focus of the lab is the pleiotropic and ubiquitous Myc oncoprotein, whose deregulation is implicated in almost all human cancer types. Over the past few years, we have shown that Myc inhibition can have dramatic therapeutic impact in cancer. Our lab is currently interested in developing the best Myc inhibitor for clinical use as well as in Myc's role in coordinating the cross-talk between tumor and microenvironment, which could present some non redundant and tractable targets for cancer therapy.

MAIN RESEARCH LINES

- Validation of Myc inhibition as therapeutic strategy in various mouse models of cancer.
- Development of pre-clinical models of pancreatic, brain, breast and lung cancer therapy.
- Defining the role of Myc inflammatory effectors in tumorigenesis and tumor maintenance.

Tumor Biomarkers Group

Josep Villanueva

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
1	4.878	4.88

To characterize the mechanisms used by tumor cells to communicate amongst themselves as well as with their microenvironment during tumorigenesis, and exploit this for biomarker discovery. The methodological focus of our group is based on the quantitative profiling of the cancer secretome. The cancer secretome contains secreted proteins that tumor cells use as molecular SMS and have a high probability of being present in biological fluids.

MAIN RESEARCH LINES

- Characterize the mechanisms used by tumor cells to communicate with their microenvironment during tumorigenesis, and use this data for biomarker discovery.
- Discover secreted signaling pathway-based tumor biomarkers and therapeutic targets using quantitative proteomics.
- Establish secreted response/resistance biomarkers to targeted drug therapy measurable through non-invasive methods.

Gene Expression and Cancer

Joan Seoane

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
3	50.299	16.77

Our group focuses on the study of glioma, the most frequent of all brain tumors, and we aspire to translate our discoveries to a clinical ambit identifying molecular markers of diagnosis and prognosis, markers of response to therapies, and unveil new therapeutic targets against this deadly disease. We have a special interest in understanding the intra-tumoral heterogeneity including cancer stem cells. Moreover, we expect to extrapolate our discoveries to other tumor types.

MAIN RESEARCH LINES

- Identify novel biomarkers to develop personalized medicine based on the characteristics of each tumor.
- Understand the molecular mechanisms involved in brain cancer.
- Understand the molecular mechanisms involved in cancer stem cells.
- Develop specific treatments for each of the different cellular entities present within a tumor.

Stem Cells & Cancer Group

Héctor G. Palmer

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
1	22.462	22.46

Focused on studying the molecular mechanisms responsible for creating and sustaining the intra-tumoral cell diversity innate of growing carcinomas and metastasis. To evaluate the clinical relevance of such heterogeneity we use patient-derived cells to recreate in vivo models of colorectal cancer in mice. We are also testing the efficacy of new drugs directed to target specific oncogenic pathways like the Wnt/beta-catenin signaling crucial for cancer cells stemness.

We are translating all our findings to the clinical practice for the direct benefit of cancer patients. We are revealing new prognostic or predictive biomarkers and identifying novel molecular target for therapeutic intervention.

Breast Cancer & Melanoma Group

Javier Cortés

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
27	292.863	10.85

Our Breast Cancer Program is one of the most active in Spain and one of the most renowned across Europe. We are not only committed to participating in clinical and preclinical studies, but we also lead several -- reflected by our representation of Steering Committees for some, and appointed international leaders for others.

Our main areas of interest continue to focus on the development of new treatments and the search for mechanisms of resistance to current ones. In clinical research, our key areas of activity include: HER-positive breast tumors, the optimization of chemotherapy-based strategies, the application of new biological agents to reverse mechanisms of resistance to classical drugs (not only to anti-HER2 therapy and chemotherapy, but also endocrine therapy), and exploring the possibility of using drugs that have been tested in very early studies and that have shown sufficient activity.

Early Clinical Grug Development Group

Jordi Rodón

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
13	76.944	5.92

Our main interest surrounds proof-of-concept and proof-of-mechanism trials with targeted therapies, especially targeted therapies aimed at cell signaling and cancer stem cells. These include first-in-human studies of targeted therapies, rational combinations of targeted therapies, biomarker-driven trials and trials in molecularly selected populations.

We link clinical research at the Research Unit for Molecular Therapy of Cancer (UITM) - "la Caixa", with the different areas of research carried out by VHIO's research groups: linking molecular biology and the best tumor models with pharmacology and innovative clinical research. We are therefore dedicated to involving VHIO scientists in the trials (biomarker development, profound understanding of the mechanism of action, research in mechanisms of resistance) for selected projects.

Gastrointestinal & Endocrine Tumors Group

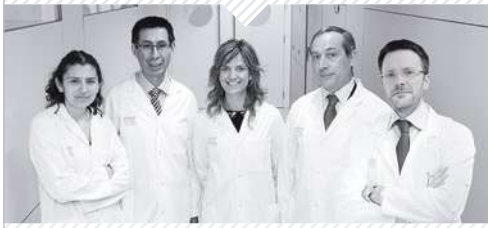
Josep Tabernero

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
33	331.419	10.04

In 2012, we have led or actively participated in numerous cooperative and singular research projects related to Gastrointestinal Malignancies. Besides our increasing participation in international collaborations and alliances including the WIN (Worldwide Innovative Networking in personalized cancer medicine) Consortium and other initiatives funded by the European Commission´s 7th Framework Program (EurocanPlatform, COLTHERES, etc.), for which we have performed multiple preclinical and clinical tasks, we have also reinforced the multidisciplinary aspects of our research. During the course of the year, we have worked on developing techniques aimed at detecting cancer mutations at extremely low levels of circulating tumor DNA.

Genitourinary, CNS Tumors, Sarcoma & Cancer of Unknown Primary Site Group

Joan Carles



TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
9	88.794	9.87

Clinical and translational research with broad experience and grounded expertise in treating tumors since we are involved in the treatment of different neoplasms.

MAIN RESEARCH LINES

- Design and development of clinical trials for all the malignancies covered by our group. Provide our patients the newest/best treatment for their respective malignancies.
- Conduct clinical trials at different stages of the disease with emphasis on a histology-tailored design.
- Develop new tools such as liquid biopsy for our patients for tailored treatment in CRPC.
- Expand our translational research platform for glioblastoma in collaboration with VHIO´s Gene Expression and Cancer Group
- Creation of a translational platform for sarcomas and basic research in partnership with IDIBELL and CIC.

Head and Neck & Gynecological Tumors Group

Josep Maria del Campo

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
3	3.981	1.33

Our group focuses on standard patient care as well as clinical research. Development and research into new anticancer drugs represent a major area of our activity. We have also actively participated in the development of new Spanish guidelines in ovarian, endometrial and cervical cancer. We are involved in developing new strategies and approaches as well as designing optimal trials for research.

With regards to our clinical activity, we play a key role as members of various multidisciplinary committees in collaboration with other professionals and specialties (surgeons, radiotherapists, radiologists andpathologists). Such connectivity and cross-talk leads to establishing new, improved treatment protocols and clinical guidelines within our Hospital.

High Risk and Cancer Prevention

Judith Balmaña

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
8	37.115	4.64

MAIN RESEARCH LINES

- Clinical development of specific therapeutic strategies for tumors associated with hereditary genetic alterations.
- Identification of genetic mechanisms of resistance to targeted therapies in BRCA-associated breast cancer.
- Early detection of prostate cancer in *BRCA* mutation carriers.
- Development of a clinical and molecular database for adult survivors of Fanconi Anemia and evaluation of their cancer risk.
- Identification of new genes involved in hereditary cancer through application of next generation sequencing.
- Validation of prediction models in Lynch Syndrome.

Oncogenetics Group

Orland Díez

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
8	44.176	5.52

Our group focuses on two main areas: genetic predisposition to hereditary breast/ovarian cancer, and genetic predisposition to radiotherapy induced toxicity. The first research line aims to identify and characterize genetic variants and mutations in known breast/ovarian cancer predisposing genes, and search for other new high/moderate/low penetrance genes that may potentially predispose to hereditary cancer. We investigate candidate genes and are also developing projects based on next generation sequencing technologies.

Regarding genetic predisposition to radiotherapy-induced toxicity, we are investigating potential genetic and cellular markers for radiotherapy toxicity (allelic variants, cell apoptosis, and transcriptional profiles).

Radiation Oncology Group

Jordi Giralt

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
2	19.663	9.83

Our group is integrated within the Radiation Oncology Department of the HUVH and is actively involved in the multidisciplinary treatment of patients with malignant tumors. We are also actively involved as principal investigators or research collaborators in a number important clinical trials, translational research projects, as well as technology development programs.

MAIN RESEARCH LINES

- Technology development. Acquisition of new equipment to implement clinically the most modern treatment techniques such as rotational radiotherapy - with intensity modulated arc therapy (IMAT), adaptive radiotherapy and image-guided radiotherapy.
- Translational research. Application of biological knowledge of both cancer and healthy tissue in order to individualize treatment to the characteristics of each patient and each tumor.

Thoracic Tumors Group

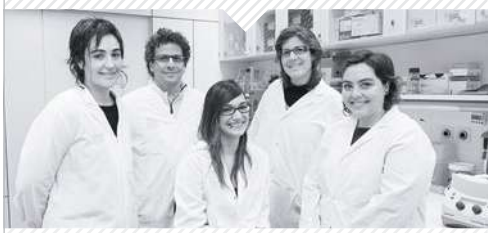
Enriqueta Felip

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
13	69.564	5.35

The main activity of the Thoracic Tumors Group is to deal with different aspects of lung cancer, one of the most frequent tumors diagnosed to-date. Our group concentrates on a number of areas: lung cancer prevention, early detection, more accurate techniques in diagnosis and staging, and a program for the rapid diagnosis of lung cancer. We are also involved in/contribute to our early drug development program and also deal with other less common thoracic malignancies such as small-cell lung cancer, mesotheliomas, thymomas, and neuroendocrine tumors.

Cancer Genomics Group

Ana Vivancos



TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
5	53.359	10.67

VHIO´s Cancer Genomics Groups serves as a Core Technology Lab as part of its Translational Research Program. Our activities bridge the preclinical and clinical fields of cancer research.

We provide services to preclinical and clinical researchers as well as develop our own research projects in technology development and translational research. The lab is equipped with a genotyping platform (MassARRAY, Sequenom) and two NextGen sequencers (MiSeq and HiSeq2000, Illumina).

MAIN RESEARCH LINES

- Provide cutting-edge applications in cancer genomics through the use of new technologies and protocol development.
- Develop and implement improved strategies for routine patient prescreening.

Molecular Oncology Group

Paolo Nuciforo

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
3	12.373	4.12

To apply state-of-the-art tissue-based technologies to basic, translational, and clinical research with a clear focus on developing and validating novel tumor biomarkers for personalized therapies.

Represents a critical element at the core of all activities. It actively participates in all research projects involving the use of human tissues collected from patients including tissue banking and development of primary xenograft models.

MAIN RESEARCH LINES

- Discovery and validation of novel biomarkers using tissue-based technologies.
- Translate basic research findings into clinical application.
- Apply molecular pathology strategies to clinical oncology.
- Serve as a core facility for VHIO research programs.
- Act as a central and local laboratory in clinical trials.

Proteomics Group

Francesc Canals

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
4	18.736	4.68

To provide services to other research groups in proteomic methodologies. Our laboratory is a member of the ISCIII network of proteomic facilities, ProteoRed. In parallel, the laboratory develops its research focusing on the application of proteomic techniques to the identification and characterization of substrates of metalloproteases of the ADAM and ADAMTS families, involved in tumor progression. We also pursue proteomic techniques for screening and validation of biomarkers for cancer diagnostic, treatment personalization and monitoring.

MAIN RESEARCH LINES

- Provide services in proteomic techniques to other research groups as a core facility.
- Explore the role of ADAM and ADAMTS metalloproteases in cancer through proteomic analysis.
- Proteomic screening for new biomarkers to assist cancer therapeutics.

Translational Genomics Group

Aleix Prat

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
12	159.232	13.27

Throughout 2012, we set up VHIO's Translational Genomics Group and implemented the technology, equipment, and the various protocols to facilitate production of gene expression data in a timely and efficient manner. Our group has already created the first breast cancer gene expression-based dataset from ~300 breast samples, which will allow the correct identification and characterization of future samples. We have started analyzing samples and provide scientific advice to several collaborators at VHIO and abroad.

MAIN RESEARCH LINES

- Use genomic data to guide clinical trial design and biomarker development in order to identify more optimal treatment regimens for cancer patients.
- Use gene expression data to better characterize different cancer types.
- Help implement gene expression-based test in the clinical setting.

Respiratory and systemics diseases

TOTAL PUBLICATIONS
101

TOTAL IMPACT FACTOR
368.142

AVG. IMPACT FACTOR
3.645

Systemic diseases are illnesses of unknown aetiology which present an autoantibody-mediated pathogenicity with a heterogeneous clinical behaviour. The pneumology group is dedicated to inflammation and repair, respiratory failure, and tissue hypoxia. Immunology group is interested in the Immune tolerance and autoimmune diseases and Primary Immunodeficiencies. In this area are also studied the ear, nose and throat disorders as well as the chronic fatigue syndrome.

Chronic Fatigue

José Alegre-Martín

TOTAL PUBLICATIONS
2

IMPACT FACTOR
3.702

AVG. IMPACT FACTOR
1.851

Our main research interest is the search for clinical and laboratory biomarkers and treatments through the development of own design clinical trials and participation in commercial clinical trials to improve the prognosis and quality of life in CFS patients.

MAIN RESEARCH LINES

- Population-based registry and Spanish DNA Biobank in the clinical validation of genetic susceptibility factors and potential therapeutics targets in CFS patients.
- Cellular bioenergetics metabolism, mitochondrial impairment, immuno-inflammatory pathways and cell-mediated immune biomarkers in CFS.
- Emergent pattern of neuropsychological impairment and neurocognitive functioning in CFS patients.
- Neuroimaging approaches: Brain sPET and fMRI scanning quantification in CFS.
- Predictors and course of chronic fatigue in breast cancer survivors and in Parkinson´s disease.

Ear, Nose and Throat disorders

Juan Lorente Guerrero

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
1	10.603	10.603

Defining similarities and differences between human patients and animals regarding this disease in order to use, if that were the case, brachiocephalic dogs as animal model in treatment options of human disease. - Validating diagnostic accuracy of sentinel ganglion in pharyngeal-laryngeal carcinoma T1-2 N0 as stadiage tool, through a lympho-gammagraphy with SPECT-TC the day before the operation and the surgical localization of sentinel ganglion through a probe during the surgery.- Determining the prevalence of gastroesophageal reflux in patients diagnosed with conventional sleep obstructive apnea syndrome, and evaluating effectiveness of symptom quest in gastroesophageal reflux diagnosis in these patients.

Immunology

Ricardo Pujol Borrell

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
3	19.239	6.413

The immunology group has two main research lines: 1) Tolerance and 2) Primary immunodeficiencies.

The objectives of the first line is to understand how the failure of tolerance leads to organ specific autoimmune diseases. At present the group has a project on the role of regulation of central tolerance to TSHR in Graves' disease (GD, autoimmune thyrotoxicosis).

The objective of the second line is to improve the diagnostic tools for primary immunodeficiencies by deploying combinations molecular and functional approaches. Another aim is to identify the molecular basis of cases of less severe combined immunodeficiencies not yet characterised.

The group also works in connection with other research groups and the industry in identifying better biomarkers to assess the activity and therapeutic response to autoimmune diseases.

Pneumology

Ferran Morell Brotad

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
34	112.923	3.321

The clinical and basic research activity of the group is mainly focused on areas of inflammation and repair, respiratory failure and tissue hypoxia, and there is complementarity and interrelatedness of these areas for the study of diseases such as asthma, COPD, pulmonary fibrosis, infections, transplant, pulmonary hypertension and sleep-disordered breathing.

MAIN RESEARCH LINES

- Work-related diseases, asthma, fibrosis and interstitial lung diseases.
- Cystic fibrosis and primary immunodeficiencies.
- COPD and pleural diseases.
- Lung transplantation and pulmonary hypertension.
- Sleep disorders.
- Paediatric respiratory diseases.

Systemic diseases

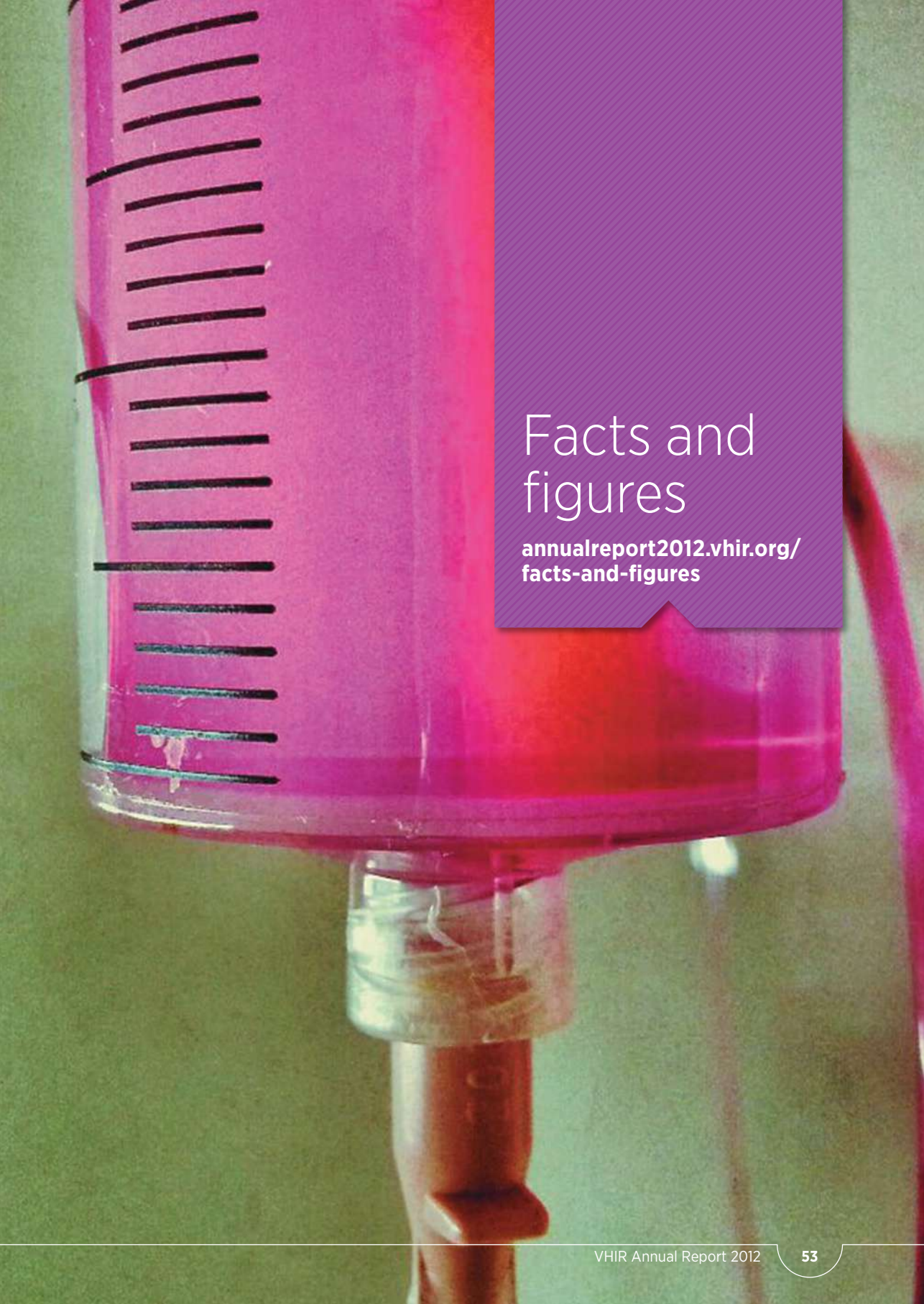
Miguel Vilardell Tarres

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
61	221.675	3.634

Our research is focused on the study of systemic autoimmune diseases. By using different approaches, we try to find out the etiopathogenesis of these illnesses. Furthermore, we aim at finding new biomarkers to better diagnose our patients. Finally, we also carry out clinical studies to seek for the evolution and the clinical response after using different treatments.

MAIN RESEARCH LINES

- DNA methylation study in Systemic Lupus Erythematosus (SLE) patients
- Urinary biomarkers detection in lupus nephritis.
- Urological markers study in anaphylaxis.
- Cancer and myositis. Relevance of the anti-p155 antibodies and importance of thee screening for cancer by Positron Emission Tomography and Computed Tomography (PET/CT).
- Genetic basis of scleroderma.



Facts and figures

annualreport2012.vhir.org/facts-and-figures

Publications

TOTAL PUBLICATIONS

727

TOTAL IMPACT FACTOR

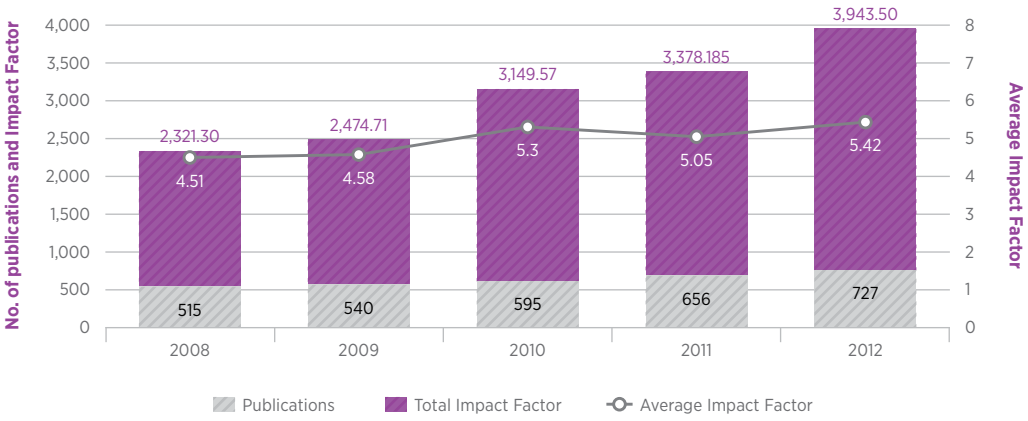
3,943.50

AVERAGE IMPACT FACTOR

5.424

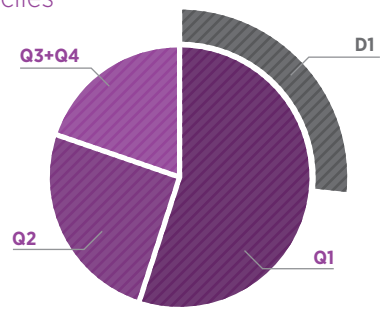
	Total IF	No. of publications	Avg. IF/pub
Papers in international journals	3.264,90	535	6,102
Papers in national journals	75,059	56	1,34
Editorials in international journals	258,02	36	7,167
Editorials in national journals	28,843	19	1,518
Reviews in international journals	295,476	64	4,617
Reviews in national journals	21,209	17	1,248
Total	**3.943,50**	**727**	**5,424**

Evolution in the last five years

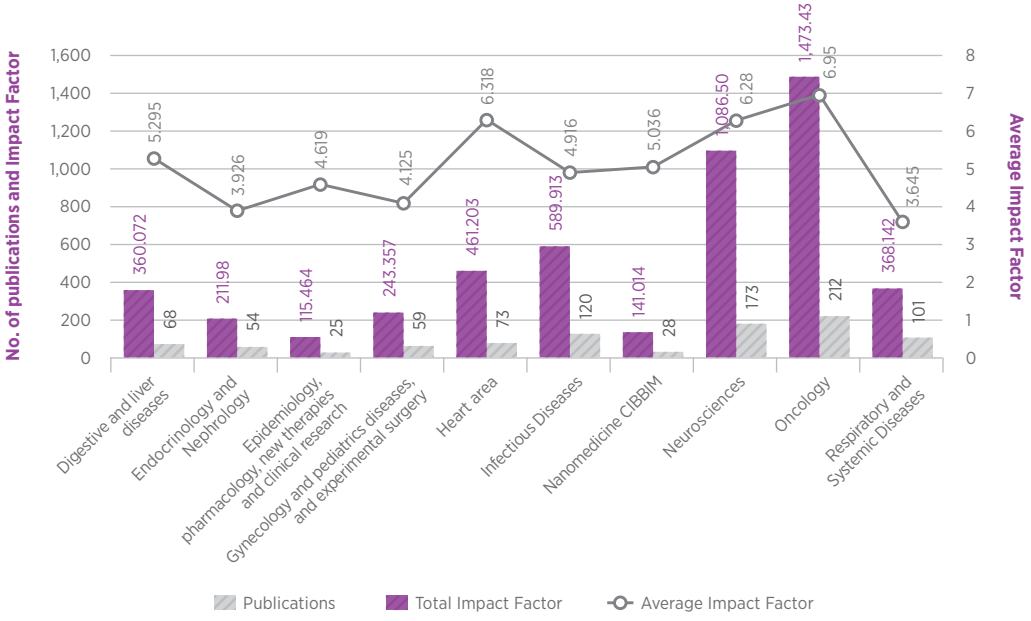


Distribution of publications per quartiles and firts deciles

	Total IF	No. of pub.	%
Q1	3.253,2	400	55,02%
D1	**2.348,2**	**194**	**26,68%**
Q2	486,949	185	25,44%
Q3+4	203,29	142	19,53%
Total	**3.943,50**	**727**	**100%**

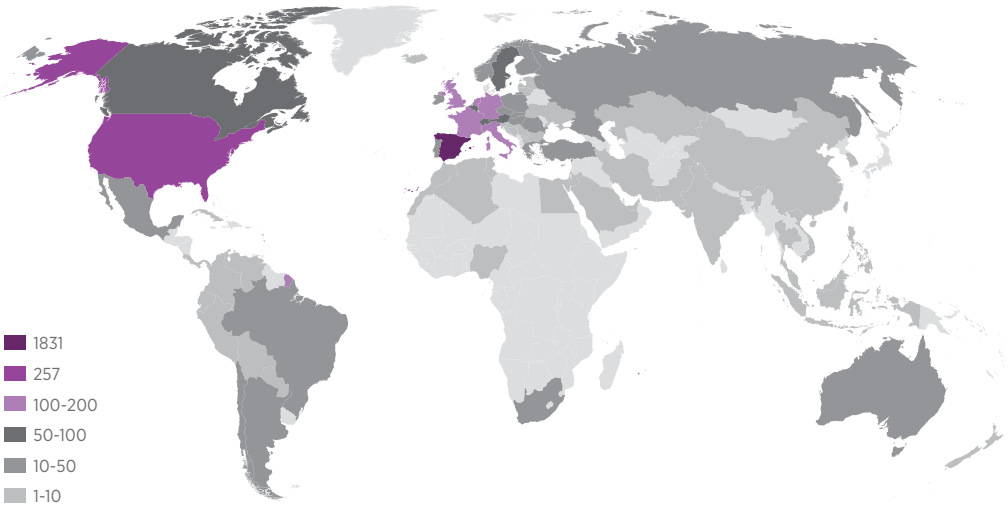


Impact factor and number of publications per research areas*



*Publications participated by two or more research areas are analyzed independently, counting the publication and its impact factor in each of the participant areas.

No. of docs in collaboration with national/international researchers



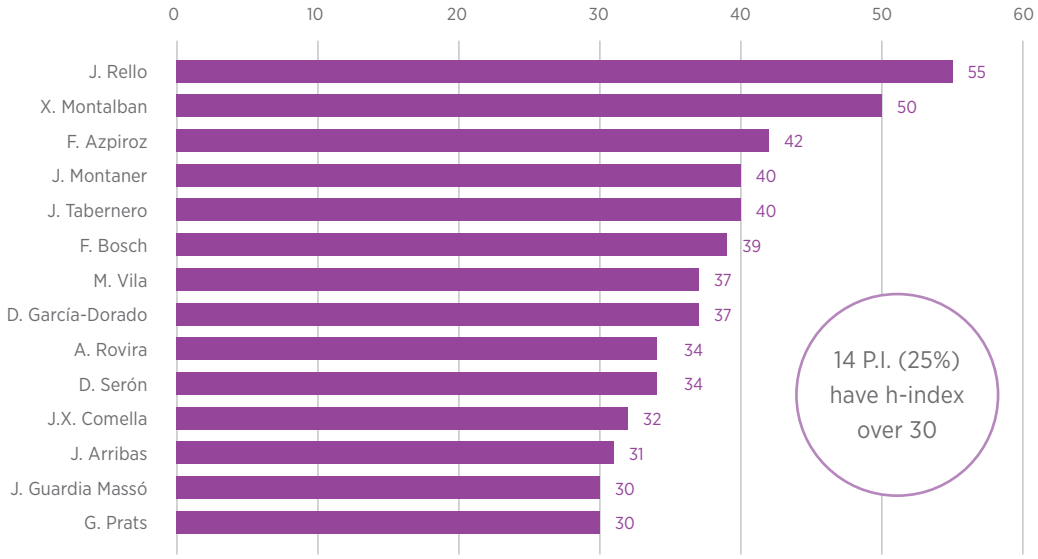
Publications Journals with highest impact

No. of publications	Journal	Impact Factor
6	NEJM - New England Journal of Medicine	53.298
7	Lancet	38.278
1	Nature	36.28
2	Natura Genetics	35.532
1	Nature Reviews Immunology	33.287
1	JAMA- Journal of the American Medical Association	30.026
6	Lancet Neurology	23.462
3	Lancet Oncology	22.589
3	Nature Medicine	22.462
11	Journal Clinical Oncology	18.372
4	Circulation	14.739
2	JACC - Journal of the American College of Cardiology	14.156
1	Molecular Psychiatry	13.668
1	Genome Research	13.608
1	Journal of Clinical Investigation	13.069
1	Nature Reviews Clinical Oncology	11.963
1	Gastroenterology	11.675
4	Hepatology	11.665
1	Annals of Neurology	11.089
1	American Journal of Respiratory and Critical Care Medicine	11.08
1	Journal of Allergy and Clinical Immunology	11.003
1	American Journal of Human Genetics	10.603
1	Cancer and Metastasis Reviews	10.573
3	European Heart Journal	10.478
1	EMBO Molecular Medicine	10.333
2	Gut	10.111
2	Blood	9.898

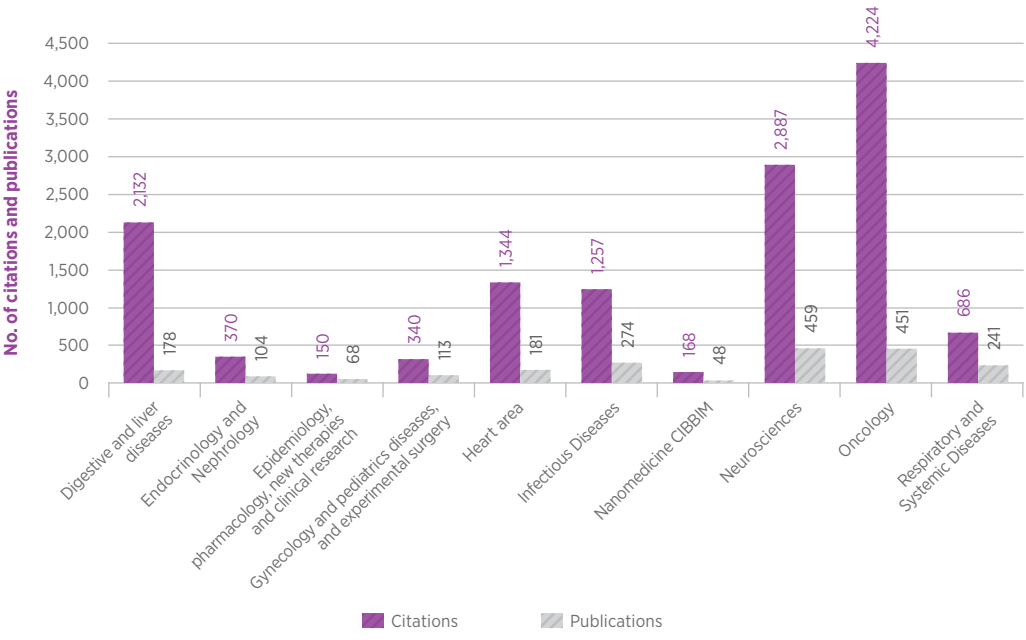
Publications in internationals and nationals journals

	Total IF	No. of publications	Avg. IF/pub
International journals	3,658.112	613	5.968
National journals	114.635	84	1.365
Total	**3,943.50**	**727**	**5.424**

Scientific excellence | h-index of P.I. at VHIR



Number of Citations and Publications in the period 2010-2012



Research projects and networks

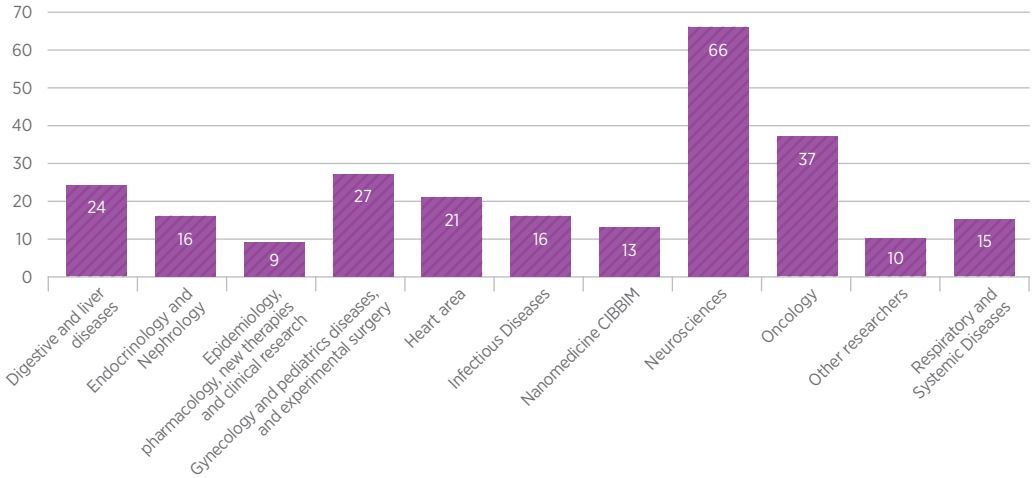
List of active research projects

TOTAL

254

Sponsors	Projects
Fondo de Investigación Sanitaria (FIS), Instituto de Salud Carlos III	111
European Commission	24
Ministerio de Ciencia e Innovación	23
Fundació La Marató de TV3	5
Fundación de la Investigación Médica – Mutua Madrileña Automovilista	6
Fundación para la Investigación y la Prevención del Sida en España (FIPSE)	3
Centro para el Desarrollo Tenológico Industrial (CDTI)	5
Ministerio de Sanidad y Política Social	28
Asociación Española contra el Cáncer	4
Fundación Caja Navarra	5
Fundación Alicia Koplowitz	3
Sociedad Española de Cardiología	5
CAIBER	2
AGAUR	2
OTHERS	28

Active research projects according to research area



Researchers news contracts

TOTAL

50

Senior Researchers	**7**
Miguel Servet Programme	2
Intensification Programme contracts – Instituto de Salud Carlos III	4
Research Retainment Programme – Instituto de Salud Carlos III	1
Postdoc Researchers	**11**
Rio Hortega Programme	4
Beatriu de Pinós Programme	1
Sara Borrell Programme	2
Post-MIR VHIR-La Caixa Programme	1
Contracts stemming from Research Projects	3
Predoc Researchers	**25**
Instituto de Salud Carlos III	5
Fundació VHIR	5
Agència de Gestió d'Ajuts Universitaris i de Recerca (AGAUR)	4
Ministerio de Educación, Cultura y Deporte	1
Fundació VHIR – Fundació Josep Palau Francàs	1
Contracts stemming from Research Projects	9
Support Staff	**7**
Instituto de Salud Carlos III	2
Contracts stemming from Research Projects	5

List of CIBER (Online Biomedical Research Center) projects with VHIR involvement

File	Title	Project Manager
CB06/01/0012	CIBER: Bioenginyeria, biomaterials i nanomedicina	Simó Schwartz Navarro
CB06/06/0030	CIBER: Malalties respiratòries	Ferran Morell Brotad
CB06/04/0021	CIBER: Malalties hepàtiques i digestives	Fernando Azpiroz Vidaur
CB06/04/0025	CIBER: Malalties hepàtiques i digestives	Rafael Esteban Mur
CB06/04/0028	CIBER: Malalties hepàtiques i digestives	Juan Ignacio Esteban Mur
CB06/04/0062	CIBER: Malalties hepàtiques i digestives	Francisco Guarner Aguilar
CB06/04/0007	CIBER: Malalties hepàtiques i digestives	Juan Córdoba Cardona
CB06/05/0017	CIBER: Malalties neurodegeneratives	Miquel Vila Bover
CB06/07/0015	CIBER: Malalties rares	Antonio Luis Andreu Périz
CB06/07/0063	CIBER: Malalties rares	Antonio Carrascosa Lezcano
CB06/02/0009	CIBER: Epidemiologia i salut pública	Gaietà Permanyer Miralda
CB06/07/0027	CIBER: Malalties rares	Mari Carmen Domínguez Luengo
CB07/08/0024	CIBER: Diabetis i malalties metabòliques	Rafael Simó Canonge

List of ISCIII Thematic Network Centers that the VHIR is involved in

File	Title	Project Manager
RD12/0036/0057	Red Temática de Investigación Cooperativa en Cáncer (RTICC)	Ramon y Cajal Agüeras, Santiago
RD12/0021/0013	Red de investigación Renal	Serón Micas, Daniel
RD12/0014/0005	INVICTUS	Montaner Villalonga, Joan
RD12/0015/0003	Red Española de Investigación en Patología Infecciosa	Almirante Gragera, Benito
RD12/0017/0003	Red de SIDA-RIS	Ribera Pascuet, Esteve
RD12/0018/0020	Red de Investigación Cooperativa en Enfermedades Tropicales RICET	Molina Romero, Israel
RD12/0032/0017	Red Española de Esclerosis Múltiple	Montalban Gairín, Xavier
RD12/0034/0015	Prevención, deteción precoz y tratamiento de la patologia ocular prevalente, degenerativa y crónica.	García Arumí, José
RD12/0036/0035	Red Temática de Investigación Cooperativa en Cáncer - RTICC	Reventos Puigjaner, Jaume
RD12/0036/0016	Red Temática de Investigación Cooperativa en Cáncer - RTICC	Sánchez de Toledo Codin, Josep
RD12/0042/0021	Red Cardiovascular	García-Dorado García, David
RD12/0026/0016	Red de Salud Materno Infantil y del Desarrollo	Cabero Roura, Lluís
RD09/0077/00090	Red de Innovación en Tecnologías Médicas y Sanitarias	Comella Carnicé, Joan X.
RD09/0076/00066	Red Temàtica de Investigación Cooperativa de Biobancos	Ramón y Cajal Agüeras, Santiago

List of VHIR research groups recognized by the "Generalitat de Catalunya"

File	Project Manager	Title
Oncology and genetics		
2009 SGR 604	Matilde Lleonart Pajarín	Oncologia i patologia molecular
2009 SGR 756	Santiago Ramón y Cajal Agüeras	Patologia molecular
2009 SGR 487	Jaume Reventós Puigjaner	Oncologia traslacional
Endocrinology, growth, metabolism and diabetes		
2009 SGR 31	Antonio Carrascosa Lezcano	Fisiopatologia del creixement
2009 SGR 739	Rafael Simó Canonge	Grup de recerca en Diabetis i Metabolisme
Cardiovascular diseases, hemostasis and hypertension		
2009 SGR 802	David García-Dorado	Patologia cardiocirculatòria
Neurosciences, mental health and senescence		
2009 SGR 1520	Antonio Luis Andreu Périz	Patologia neuromuscular i mitocondrial
2009 SGR 346	Joan Xavier Comella Carnicé	Senyalització cel·lular i apoptosi
2009 SGR 78	Alfons Macaya Ruíz	Grup de recerca en neurologia infantil de l'HUVH
2009 SGR 793	Xavier Montalban Gairín	Unitat de Neuroimmunologia Clínica (UNic)
2009 SGR 432	Joan Montaner Villalonga	Grup de recerca en malalties neurovasculars
2009 SGR 495	Joan Sahuquillo Barris	Unitat d'Investigació de Neurotraumatologia i Neurocirurgia (UNINN)

2009 SGR 664	Miquel Vila Bover	Grup de recerca en malalties neurodegeneratives
Digestive physiopathology and hepatology		
2009 SGR 219	Fernando Azpiroz Vidaur	Unitat de recerca del sistema digestiu
2009 SGR 383	Joan Genescà Ferrer	Unitat de recerca en malalties hepatobiliars
2009 SGR 256	Francesc Xavier Molero Richard	Grup de recerca en patologia pancreàtica exocrina
Infectious diseases and AIDS		
2009 SGR 86	Albert Pahissa Berga	Malalties infeccioses
Immunology: respiratory, systemic and genetic disorders		
2009 SGR 257	Ferran Morell Brotad	Unitat de recerca en pneumologia
2009 SGR 296	Guillem Prats Pastor	Grup d'investigació en Microbiologia de l'Hospital Vall d'Hebron
2009 SGR 661	Miquel Vilardell Tarrés	Autoimmunitat i malaltia trombòtica
Pathology, cellular and gene therapy		
2009 SGR 157	Diego Arango Corro	Grup d'oncologia molecular
2009 SGR 75	Anna Meseguer Navarro	Patologia cel·lular
2009 SGR 758	Simó Schwartz Navarro	Direccionament i alliberament farmacològic
2009 SGR 493	Joan Sayós Ortega	Immunobiologia
R+D, new technologies and experimental surgery		
2009 SGR 384	José García Arumí	Grup de recerca en oftalmologia Vall d'Hebron
2009 SGR 130	César Galo García Fontecha	Ortopèdia pediàtrica
Other		
2009 SGR 537	Lluís Cabero Roura	Grup de recerca en medicina materna i fetal
2009 SGR 412	Joan-Ramon Laporte Roselló	Fundació Institut Català de Farmacologia

Clinical trials

Clinical trials submitted to CREC in the 2012

TOTAL

276

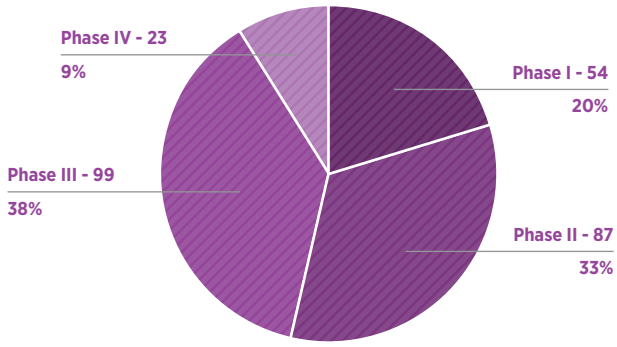
APPROVED **263**

DENIED **1**

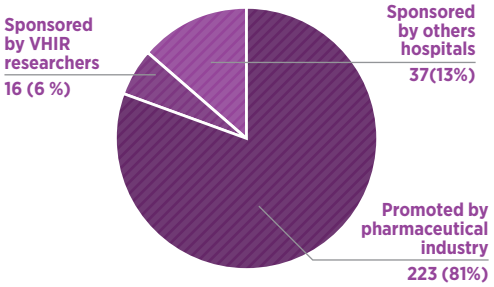
CANCELLED **11**

POSTPONED **1**

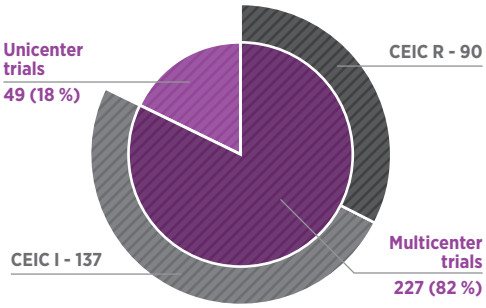
Clinical trials approved by CREC, classified according to the trial phase



Clinical trials classified according promoter



Clinical Trial according participants



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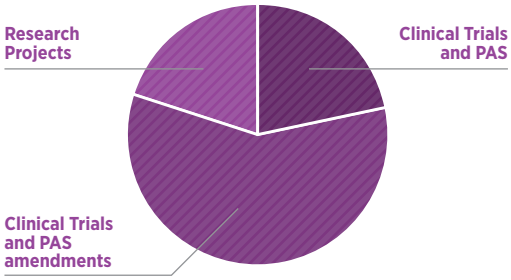
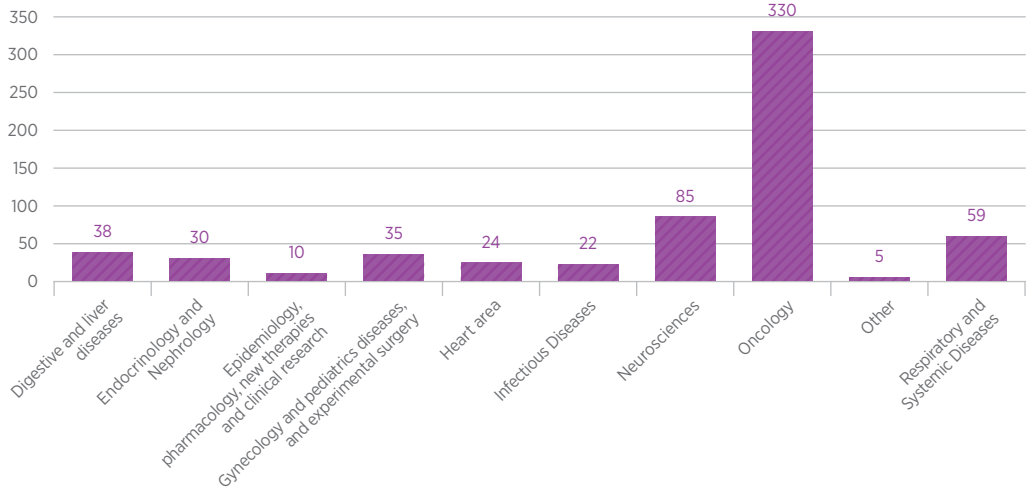
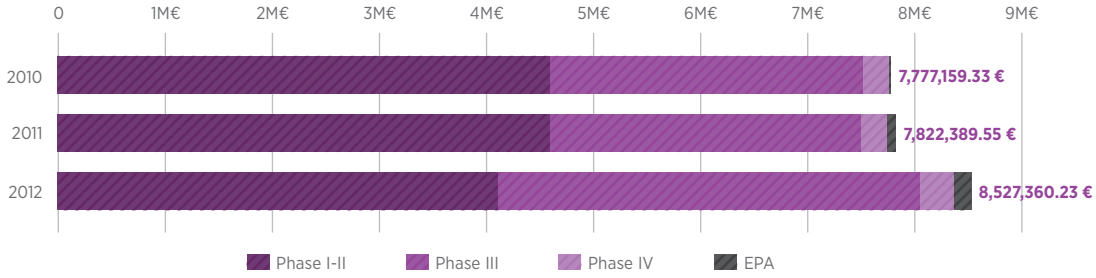


	%	No.
Clinical Trials and PAS	22%	360
Clinical Trials and PAS amendments	58%	953
Research Projects	20%	328
Total	**100%**	**1641**

Clinical trials by areas



Funding evolution, including overheads



Events and seminars

TOTAL
218

EXTRAORDINARY CONFERENCES
6

COURSES
50

SEMINARS
162

EXTRAORDINARY CONFERENCES	
Sciences Workshops	4
6th Scientific Session VHIR	1
XVI Conferència Anual HUVH	1
COURSES	
Other courses VHIR	20
UEB	4
Estabulari	1
Biobanc	1
UAT	4
Ocuppational Risk prevention	20
SEMINARS	
VHIR	33
VHIR briefing	16
Cardiology	23
Gastroenterology	28
Neurocience	13
Neurosurgery	14
Oncology	2
Seminaris de Biomedicina i Innovació	3
Nano Seminars CIBBIM-Nanomedicina	1
Hematology	23
Psyquiatry	1
Sessions d'actualització en Radioteràpia i Radiofísica clínica	5

* Watch the most important seminars at :
http://annualreport2012.vhir.org/facts-and-figures/events-and-seminars

Thesis

DOCTORAL THESIS READ
55

UAB
50

UB
5

* The full list can be found at:
http://annualreport2012.vhir.org/facts-and-figures/thesis/

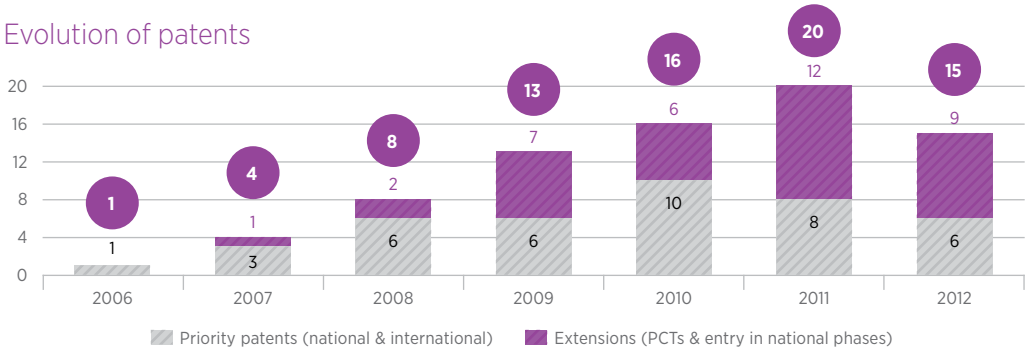
Innovation

INVENTIONS
48

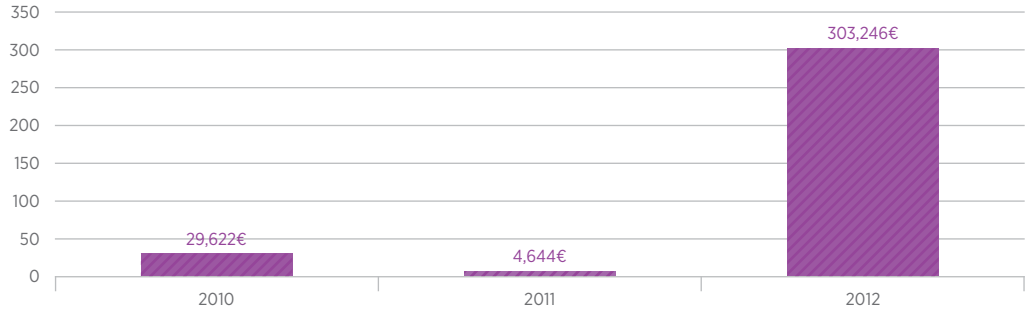
PATENTS
6

COOPERATIVE PROJECTS
51

Evolution of patents



Evolution of revenues from explotation

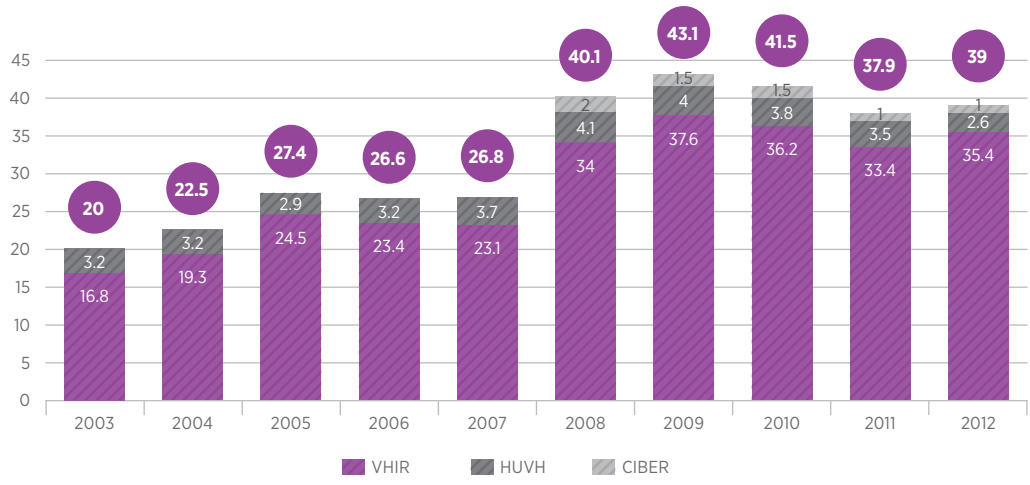


Economic summary

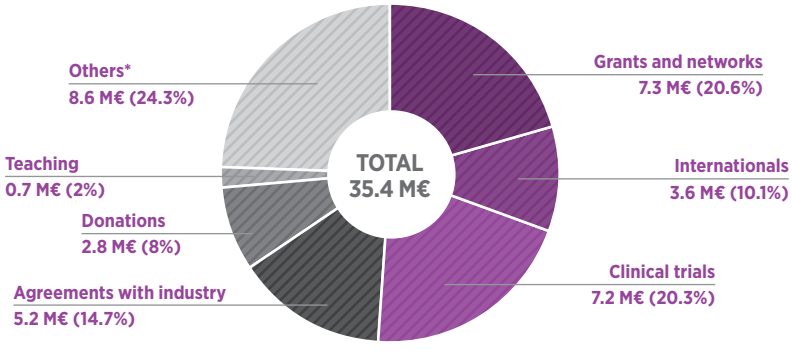
VHIR financing in milions of euros

TOTAL	VHIR	HUVH	CIBER
39 M€	35.4	2.6	1

VHIR financing during the period 2003 to 2012 in millions of Euros

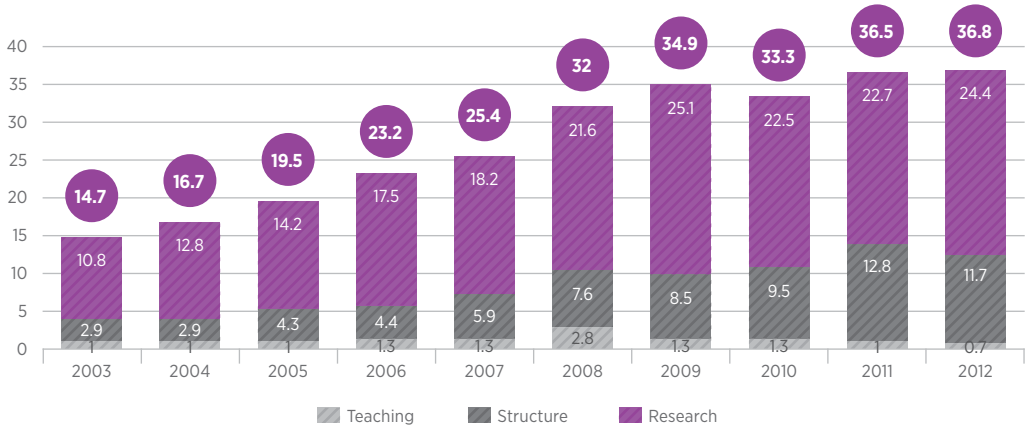


2012 VHIR's income breakdown



*Overheads, financial incoming, Contract with Government of Catalonia, Others incoming

Total cost in milion of euros

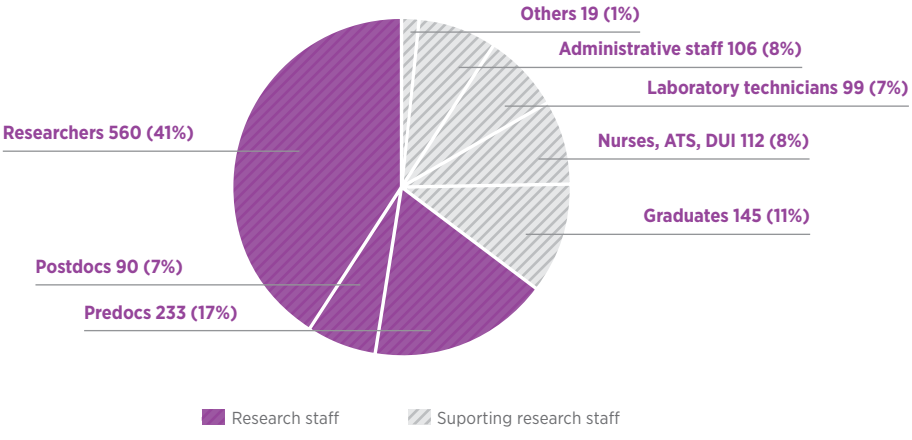


Researchers and technicians

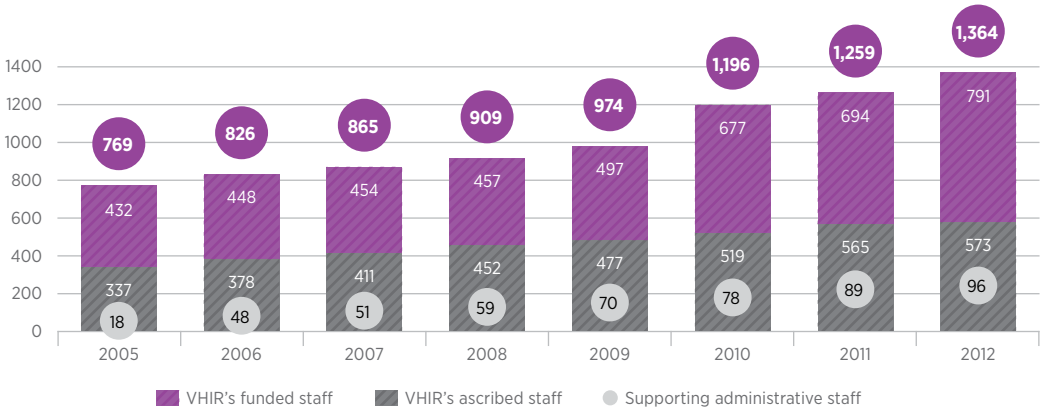
TOTAL STAFF
1,364

RESEARCH STAFF
883 (64.7%)

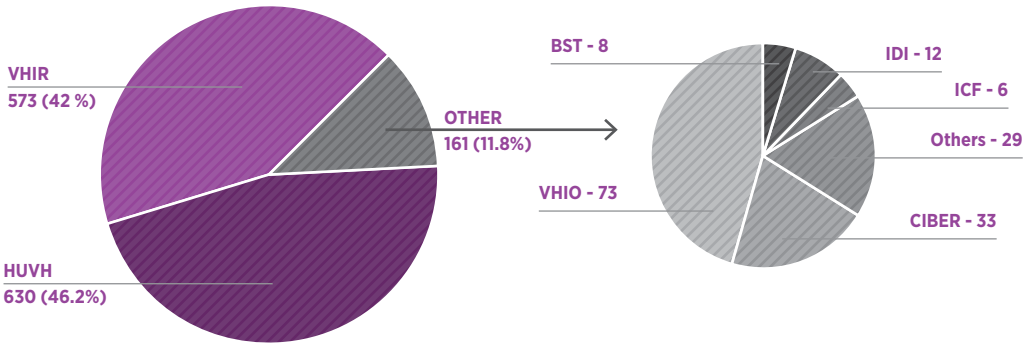
SUPORTING RESEARCH STAFF
481 (35.3%)



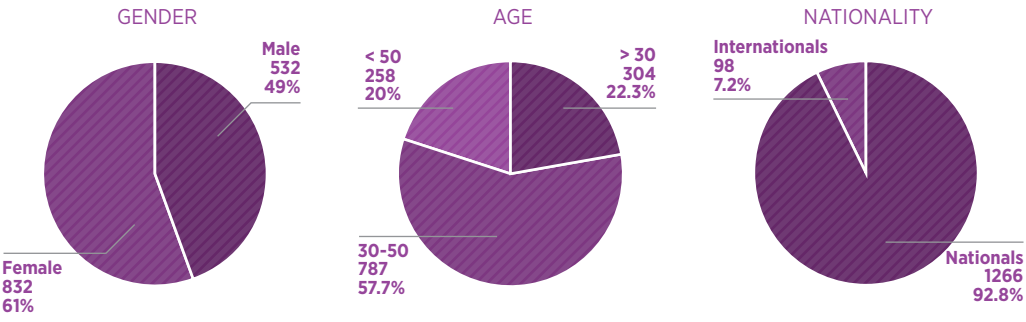
Evolution of the staff



Contracting entities

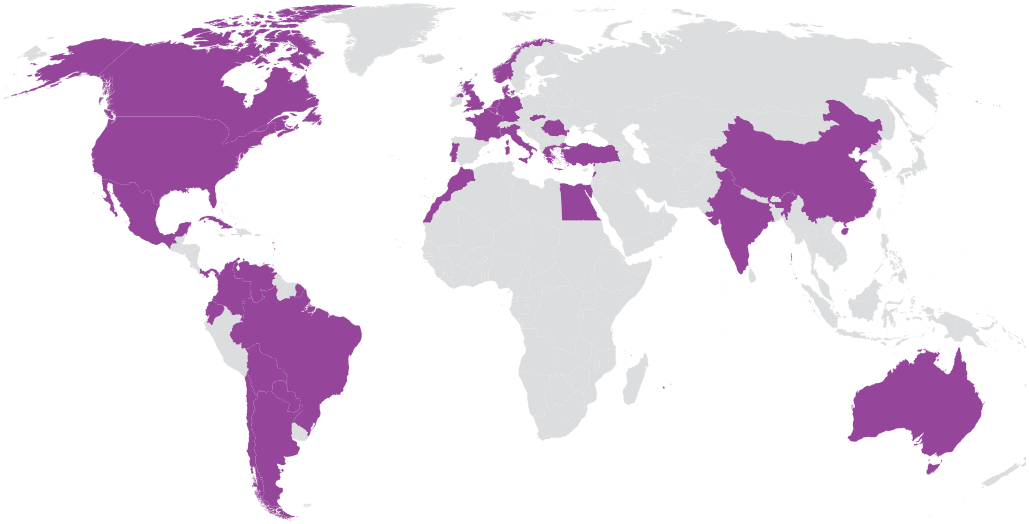


Staff by gender, age and nationality



Internationalization

Argentina
Australia
Belgium
Bolivia
Brazil
Canada
Chile
China
Colombia
Cuba
Denmark
Ecuador
Egypt
France
Germany
Greece
India
Italy
Lebanon
Mexico
Morocco
Netherlands
Norway
Panama
Paraguay
Portugal
Romania
Slovakia
Turkey
UK.
USA
Venezuela

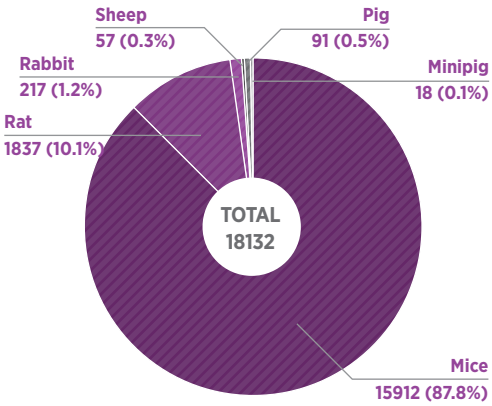


Researcher male
Training stage male
Support male
Researcher female
Training stage female
Support female

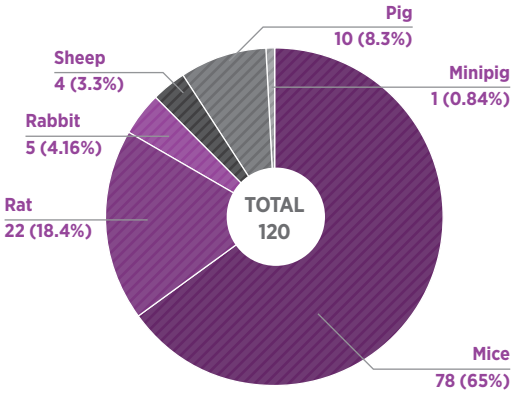
Scientific and Technical support

ANIMAL FACILITIES

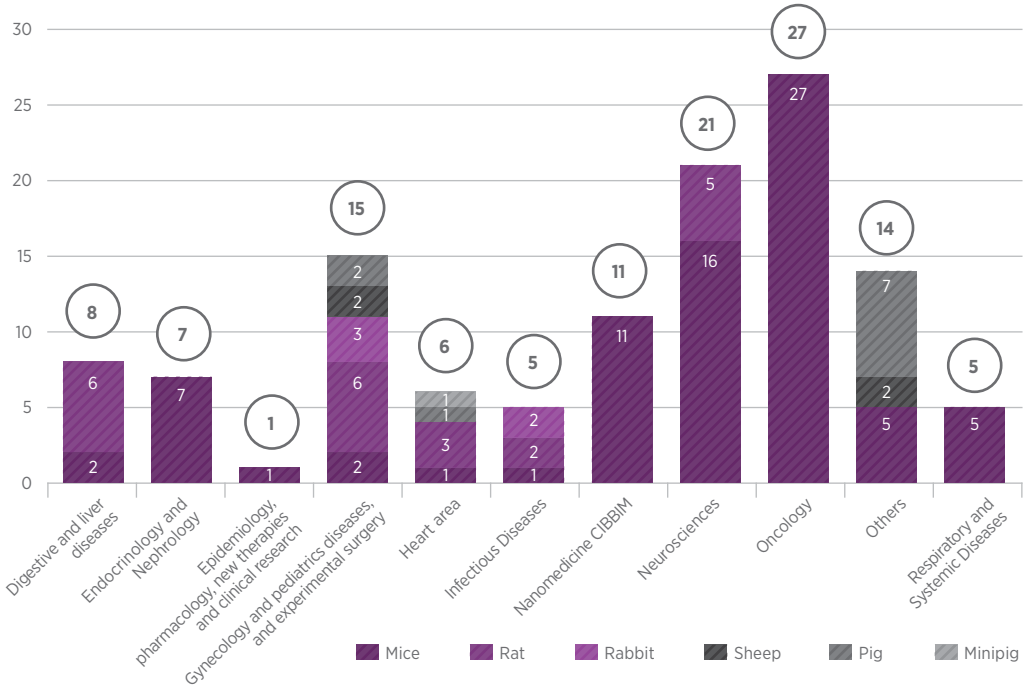
Animals used in research



Active projects/procedures per species

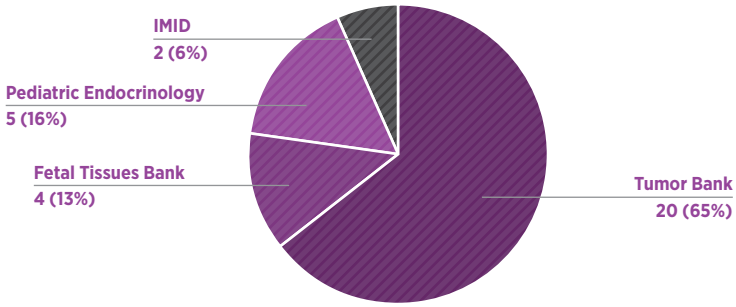


Active projects/procedures per area and species



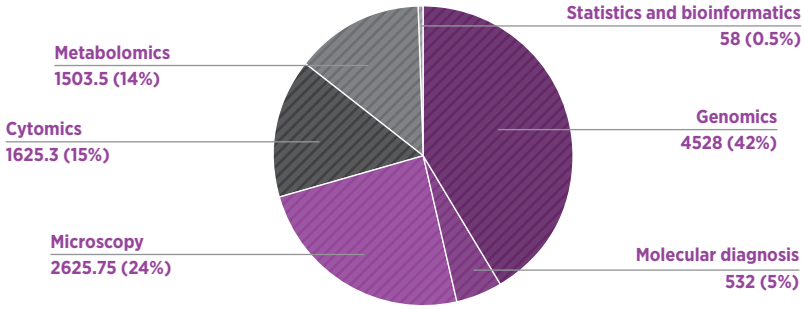
BIOBANK

No. of publications which have used biobank collections samples



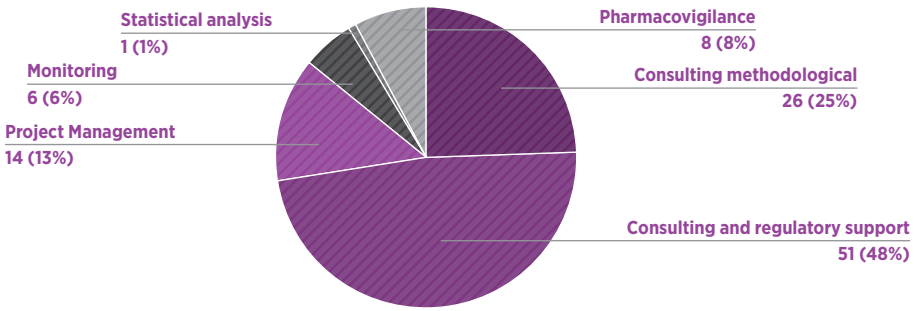
UAT

Services performed



USIC

Services performed by the USIC 2012



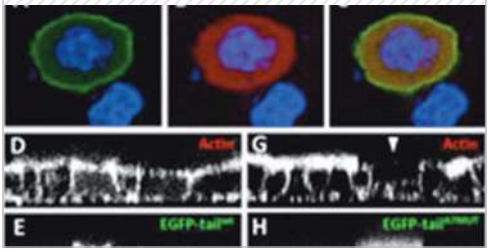
VHIR Highlights

annualreport2012.vhir.org/highlights

Scientific highlights

VHIR'S RESEARCH IDENTIFIES A NEW SUPPRESSING GENE OF COLORECTAL TUMORS

16/01/2012

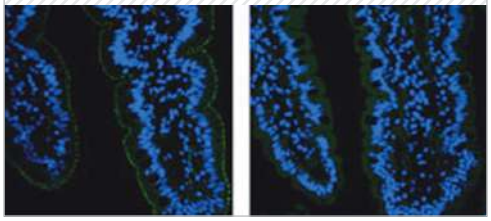


NEW REVOLUTIONARY STROKE TREATMENT - EU GIVES GO AHEAD FOR LARGEST TRIAL OF COOLING

19/03/2012

VHIR'S RESEARCHERS DESCRIBE FOR THE FIRST TIME BIOLOGICAL ALTERATIONS IN IRRITABLE BOWEL SYNDROME

19/04/2012



IDENTIFIED FOR THE FIRST TIME FOUR GENES THAT PREDISPOSE TO SUFFER MIGRAINE WITHOUT AURA

08/06/2012

VALL D'HEBRON LEADS AN INTERNATIONAL PROJECT TO IMPROVE THE TREATMENT OF CHAGAS'S DISEASE

18/07/2012

VHIR LEADS A PROJECT THAT SEARCHS BIOMARKERS TO DETECT PREMATURELY OVARIAN CANCER

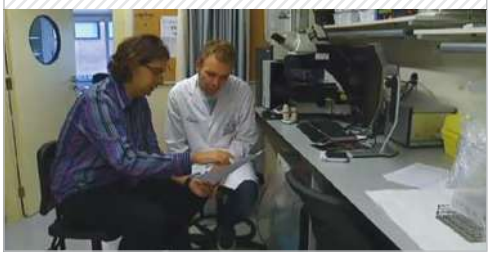
26/07/2012

EXERCISE, ALCOHOL OR ANTIINFLAMMATORY ARE DETERMINANT TO ACTIVATE SOME FOOD ALLERGIES

06/09/2012

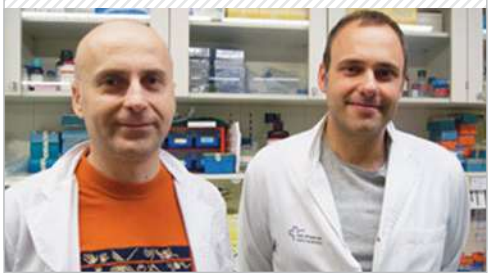
VHIR'S STUDY PROVES THE GENETIC DIFFERENCES BETWEEN THREE SUBTYPES OF ISCHEMIC STROKE

22/10/2012



VHIR PARTICIPATES IN THE FIRST SPANISH REGISTRY OF PATIENTS WITH MCARDLE'S RARE DISEASE

13/08/2012



IDENTIFIED TWO THERAPEUTIC TARGETS TO BLOCK METASTASIS IN RHABDOMYOSARCOMA

10/12/2012

Institutional highlights

VHIR AND CRG COLLABORATE IN BASIC AND CLINICAL RESEARCH PROJECTS

18/01/2012

VALL D'HEBRON AND CEDARS-SINAI COLLABORATE IN TECHNOLOGY TRANSFER AND RESEARCH INNOVATION

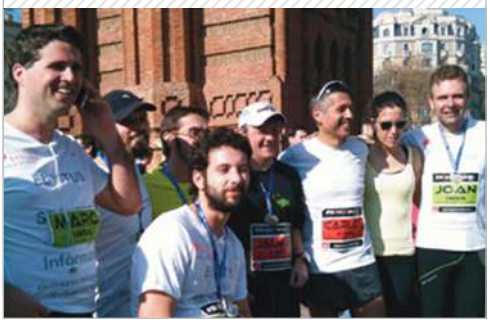
22/03/2012

VHIR AND IBEC COLLABORATE IN RESEARCH AND INNOVATION PROJECTS

22/05/2012

RUNNING FOR STROKE

25/01/2012



CARMEN VELA CLOSES VHIR'S CONFERENCE 'WOMEN AND SCIENCE'

28/03/2012

DR. MERCÈ BOADA WINS JOSEP TRUETA AWARD

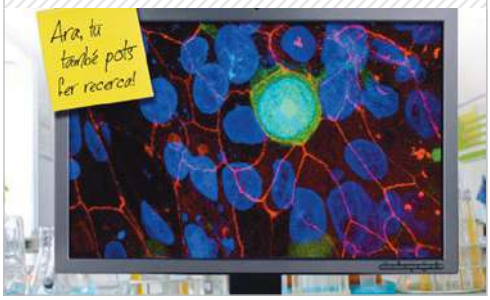
05/10/2012

4 'BEST IDEAS' OF DIARIO MÉDICO FOR VALL D'HEBRON

20/11/2012

VHIR PRESENTS THE SITE 'FAIGRECERCA.ORG' TO PROMOTE MICRODONATIONS

20/12/2012



DR. GARCIA-DORADO WINS THE ICS RESEARCH CAREER AWARD 2012

08/11/2012

MORE THAN 400 PEOPLE ATTEND VHIR ANNUAL CONFERENCE BY DR. DRAZEN

30/11/2012

Vall d'Hebron
Institut de Recerca
VHIR

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08035 Barcelona
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Vall d'Hebron Hospital

Generalitat de Catalunya

Institut Català de la Salut

UAB Universitat Autònoma de Barcelona

Institució CERCA Centres de Recerca de Catalunya

ISC Instituto de Salud Carlos III